

NavisCore Enterprise MIB Definitions

Ascend Communications

November 1998

Ascend-MIB DEFINITIONS ::= BEGIN

IMPORTS

enterprises, IPAddress, Counter,
Gauge, TimeTicks

FROM RFC1155-SMI

DisplayString, ifInErrors

FROM RFC1213-MIB

OBJECT-TYPE

FROM RFC-1212

TRAP-TYPE

FROM RFC-1215;

-- This MIB module uses the extended OBJECT-TYPE macro as
defined in RFC 1212

-- Title

cascade OBJECT IDENTIFIER ::= { enterprises 277 }

cascfr OBJECT IDENTIFIER ::= { cascade 1 }

}

cascsmds OBJECT IDENTIFIER ::= { cascade 2 }

namebinding OBJECT IDENTIFIER ::= { cascade 3 }

isdnaddr OBJECT IDENTIFIER ::= { cascade 4 }

cascsvc OBJECT IDENTIFIER ::= { cascade 5 }

software OBJECT IDENTIFIER ::= { cascade 6 }

mpt OBJECT IDENTIFIER ::= { cascade 7 }

}

protconnect OBJECT IDENTIFIER ::= { cascade 8 }

provserver OBJECT IDENTIFIER ::= { cascade 9 }

cascview OBJECT IDENTIFIER ::= { cascade 10 }

casccnm OBJECT IDENTIFIER ::= { cascade 11 }

cascdvc OBJECT IDENTIFIER ::= { cascade 14 }

}

cascaedpm OBJECT IDENTIFIER ::= { cascade 15 }

cascatm OBJECT IDENTIFIER ::= { cascade 16 }

acctserver OBJECT IDENTIFIER ::= { cascade 17 }

cascsna OBJECT IDENTIFIER ::= { cascade 18 }

}

ipswitch OBJECT IDENTIFIER ::= { cascade 19 }

cascfltsrv OBJECT IDENTIFIER ::= { cascade 20 }

vnn OBJECT IDENTIFIER ::= { cascade 21 }

}

statserver OBJECT IDENTIFIER ::= { cascade 22 }

support OBJECT IDENTIFIER ::= { cascade 23 }

}

cascaal1 OBJECT IDENTIFIER ::= { cascade 24 }

advapps OBJECT IDENTIFIER ::= { cascade 25 }

}

-- The ranges of ifIndex

Index ::= INTEGER-- 1..ifNumber

net OBJECT IDENTIFIER ::= { cascfr 1 }

ase OBJECT IDENTIFIER ::= { cascfr 2 }

node OBJECT IDENTIFIER ::= { cascfr 3 }

pport OBJECT IDENTIFIER ::= { cascfr 4 }

lport OBJECT IDENTIFIER ::= { cascfr 5 }

ckt OBJECT IDENTIFIER ::= { cascfr 6 }

card OBJECT IDENTIFIER ::= { cascfr 7 }

cascds1 OBJECT IDENTIFIER ::= { cascfr 8 }

chan OBJECT IDENTIFIER ::= { cascfr 9 }

fracct OBJECT IDENTIFIER ::= { cascfr 10 }

}

smdsaddr OBJECT IDENTIFIER ::= { cascsmds 1 }

svcaddress OBJECT IDENTIFIER ::= { cascsvc 1 }

svcmgt OBJECT IDENTIFIER ::= { cascsvc 2 }

}

svccug OBJECT IDENTIFIER ::= { cascsvc 3 }

}

bicimgt OBJECT IDENTIFIER ::= { cascsvc 4 }

}

dvccktgrp OBJECT IDENTIFIER ::= { cascdvc 1 }

dvcprotocustom OBJECT IDENTIFIER ::= { cascdvc 2 }

ds1pm OBJECT IDENTIFIER ::= { cascaedpm 1 }

1 }

ds3SuppMIB OBJECT IDENTIFIER ::= { cascaedpm 2 }

sonetpm OBJECT IDENTIFIER ::= { cascaedpm 3 }

3 }

atmacct OBJECT IDENTIFIER ::= { cascacatm 1 }

atmckt OBJECT IDENTIFIER ::= { cascacatm 2 }

snatl OBJECT IDENTIFIER ::= { cascsna 1 }

}

snasdlc OBJECT IDENTIFIER ::= { cascsna 2 }

}

snallc OBJECT IDENTIFIER ::= { cascsna 3 }

}

-- The Network Group

--

```
-- The variables that are relevant to a Cascade network
--

netMask OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The IP subnet mask for the
        network. The default is
        255.255.0.0 (class B) which allows
        400 nodes."
        ::= { net 1 }

netNumber OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The IP network number for the
        network."
        ::= { net 2 }

netDlciAddrSig OBJECT-TYPE
    SYNTAX      INTEGER {
                    globalAddr (1),
                    localAddr (2)
                }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This variable states the DLCI
        addressing significance."
        ::= { net 3 }

netMaxSegsize OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This variable states the maximum
        segment size for the network."
        ::= { net 4 }

netSmdsAreaMaskStart OBJECT-TYPE
```

```
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
        "This variable states the
        starting digit number for defining
        the start of the Area Mask for
        SMDS Addresses."
        ::= { net 9 }

netSmdsAreaMaskDigits OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This variable states the number
        of digits used for defining
        the Area Mask for SMDS
        Addresses."
        ::= { net 10 }

netCaCType OBJECT-TYPE
    SYNTAX      INTEGER {
                    cacCASCADE
                    (1),
                    cacCUSTOMIZED
                    (2),
                    cacCUSTOMIZED_NRT
                    (3)
                }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        " The CAC (Connection Admission Control)
        algorithm can be set to any of
        3 algorithms:
            1. The Cascade default algorithm.
            2. The custom CAC algorithm where the
               bandwidth of both VBRrt and VBRnrt
               circuits is customized.
            3. The custom_nrt CAC algorithm where
               only the bandwidth of the
               VBRnrt circuits is customized; the
               cascade default algorithm is
```

applied for the bandwidth
computation of the VBRrt circuits."
::= { net 11 }

netCaCCLRobjectiveQoS2 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The Cell loss ratio objective for
QoSclass2 (VBRrt) used by the Cascade
default CAC."
::= { net 12 }

netCaCCLRobjectiveQoS3 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The Cell loss ratio objective for
QoSclass3 (VBRnrt) used by the Cascade
default CAC."
::= { net 13 }

netCaCPortScaleFactorDS3 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"DS3 port Scale factor used by the
customized CAC. The actual
scale factor used is this value
divided by 100 to account
for lack of float definitions in
MIBs"
::= { net 14 }

netCaCPortScaleFactorOC3 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"OC3 port Scale factor used by the
customized CAC. The actual

scale factor used is this value
divided by 100 to account
for lack of float definitions in
MIBs"
::= { net 15 }

netCaCScrCustomTable OBJECT-TYPE
SYNTAX SEQUENCE OF NetCaCScrCustomEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
"A table of SCR upper limits, corresponding
scale factors and
maximum supported MBS's used by the Customized
CAC."
::= { net 16 }

netCaCScrCustomEntry OBJECT-TYPE
SYNTAX NetCaCScrCustomEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
" The CaC SCR customization table entry "
INDEX { netCaCScrUpperLimit }
::= { netCaCScrCustomTable 1 }

NetCaCScrCustomEntry ::=

SEQUENCE {
 netCaCScrUpperLimit INTEGER,
 netCaCScrScaleFactor INTEGER,
 netCaCEntryStatus INTEGER,
 netCaCMaxMBS INTEGER
}

netCaCScrUpperLimit OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
" SCR upper limit value. "
::= { netCaCScrCustomEntry 1 }

netCaCScrScaleFactor OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write

```

STATUS mandatory
DESCRIPTION
    "The SCR Scale factor used by the
customized CAC. The actual
    scale factor used is formed by dividing
over 100 to account
    for lack of float definitions in MIBs"
 ::= { netCaCScrCustomEntry 2 }

netCaCEntryStatus OBJECT-TYPE
    SYNTAX INTEGER {
        configured (1),      -- this entry has
been configured by NMS
        invalid (2)         -- this entry shall
be deleted
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The status of this entry."
 ::= { netCaCScrCustomEntry 3 }

netCaCMaxMBS OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        " The Maximum MBS supported under the
customized CAC. A maximum
        MBS value is configured for each range
of SCR values. When
        a VC is being set-up, this value is
compared to the VC's MBS.
        If the VC's MBS is higher, the circuit
is rejected."
 ::= { netCaCScrCustomEntry 4 }

netResetCaCTable OBJECT-TYPE
    SYNTAX INTEGER {
        reset-cac-tbl (1)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION

```

```

        "Setting to 1 causes a reset of the
customized cac Table in the PRAM
."
 ::= { net 17 }

netSmdsTrafficMode OBJECT-TYPE
    SYNTAX INTEGER {
        bellcore (1),
        cascade (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This variable indicates the ga
mode for SMDS traffic."
 ::= { net 18 }

netSmdsTrafficPriority OBJECT-TYPE
    SYNTAX INTEGER {
        high (1),
        medium (2),
        low (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This variable indicates the
priority of SMDS traffic."
 ::= { net 19 }

netSmdsTrafficColor OBJECT-TYPE
    SYNTAX INTEGER {
        green (1),
        amber (2),
        red (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This variable indicates the
color for SMDS traffic."
 ::= { net 20 }

netCaCPortScaleFactorE3 OBJECT-TYPE

```

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"E3 port Scale factor used by the
customized CAC. The actual
scale factor used is this value
divided by 100 to account
for lack of float definitions in
MIBs"

::= { net 21 }

netRipStatus OBJECT-TYPE

SYNTAX INTEGER {
off (0),
on (1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The configured state of RIP.
The default state is off."

::= { net 22 }

netRipSendHostRoutes OBJECT-TYPE

SYNTAX INTEGER {
off (0),
on (1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The configured state of

SendHostRoutes.

The default state is off."

::= { net 23 }

netCaCPortScaleFactorOC12 OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"OC12 port Scale factor used by the
customized CAC. The actual

scale factor used is this value divided
by 100 to account
for lack of float definitions in MIBs"
::= { net 24 }

netCaCPortScaleFactorT1 OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"T1 port Scale factor used by the
customized CAC. The actual
scale factor used is this value divided
by 100 to account
for lack of float definitions in MIBs"
::= { net 25 }

netSmdsGaAreaMaskStart OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This variable defines the
starting digit number of the SMDS
Group Address where the Ga Area
Mask begins."

::= { net 26 }

netSmdsGaAreaMaskDigits OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This variable states the number
of digits used in SMDS Group
Address Area Mask."

::= { net 27 }

netCaCCDVobjectiveQoS1 OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

```

        "The Cell delay variation objective (in
microseconds) for
        QoSclass1 (CBR) used by the Cascade
default CAC."
        ::= { net 28}

netCaCCDVobjectiveQoS2 OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "The Cell delay variation objective (in
microseconds) for
        QoSclass2 (VBRrt) used by the Cascade
default CAC."
        ::= { net 29}

netCaCCDVCellFractionQoS1 OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "The fraction of QoSclass1 (CBR) cells
that can exceed the
        CDV objective used by the Cascade
default CAC. A value of
        x indicates that only 1E-x of the Cells
can exceed the
        specified CDV objective"
        ::= { net 30}

netCaCCDVCellFractionQoS2 OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "The fraction of QoSclass2 (VBRrt) cells
that can exceed the
        CDV objective used by the Cascade
default CAC. A value of
        x indicates that only 1E-x of the Cells
can exceed the
        specified CDV objective"
        ::= { net 31}

```

```

netOspfLsaRefreshTime OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Time interval at which to refresh QoS
metrics
        in the Cascade network. Expressed
in seconds.
        Should be greater than or equal to
300, and less
        than 1800, or else will be
ignored. Set to 0 by
        default."
        ::= { net 32}

--
--      OSPF Autonomous System External Device and
Host Table - For NMS paths
--      (Currently an External Device is always
accessible via Ethernet,
--      whereas a Host is always accessible via
SLIP.)
--

aseTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF AseEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "A list of ASE entries."
        ::= { ase 1 }

aseEntry OBJECT-TYPE
    SYNTAX  AseEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "An ASE entry contains an external
NMS path accessible from
        the node."
    INDEX   { aseAddr }
    ::= { aseTable 1 }

```

```

AseEntry ::=
    SEQUENCE {
        aseAddr
            IpAddress,
        aseMask
            IpAddress,
        aseDefaultGwAddr
            IpAddress,
        aseMetricType
            INTEGER,
        aseAdminStatus
            INTEGER,
        aseIfIndex
            Index,
        aseDlci
            INTEGER
    }

aseAddr OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "IP Address for an external NMS."
    ::= { aseEntry 1 }

aseMask OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "IP Address mask for an external
NMS. The default value
                is 255.255.255.255."
    ::= { aseEntry 2 }

aseDefaultGwAddr OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Default Gateway IP Address for
reaching the external
                NMS. This field is not applicable
to NMSs which are

```

```

                reachable via SLIP or on the same
Ethernet."
    ::= { aseEntry 3 }

aseMetricType OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Type of metric (1 or 2) for each
external NMS.
                The default is 1. (This field is
not applicable to SLIP-
                based hosts.)"
    ::= { aseEntry 4 }

aseAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
                invalid (0),
                valid (1)
            }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The desired state of the entry."
    ::= { aseEntry 5 }

aseIfIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The interface value of the
corresponding MIB-II ifEntry."
    ::= { aseEntry 6 }

aseDlci OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The management dlci through which
the NMS communicates
                to the switch."

```



```

        ::= { aseEntry 7 }

--      The Node Group
--
--      The variables that configure a node
--

nodeIpAddr OBJECT-TYPE
    SYNTAX      IPAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The inband IP address of the node
in the Cascade internal
        trunk IP network."
    ::= { node 1 }

nodeLanIpAddr OBJECT-TYPE
    SYNTAX      IPAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The inband (Ethernet) IP address
of the node for a NMS
        to access the node and the
internal trunk IP network."
    ::= { node 2 }

nodeNMSTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF NodeNMSEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of NMS entries."
    ::= { node 3 }

nodeNMSEntry OBJECT-TYPE
    SYNTAX      NodeNMSEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A NMS entry contains an IP
address of a NMS which has
        extended privileges."
    INDEX      { nodeNMSIndex }

```

```

        ::= { nodeNMSTable 1 }

NodeNMSEntry ::=
    SEQUENCE {
        nodeNMSIndex
            Index,
        nodeNMSIpAddr
            IPAddress,
        nodeNMSflags
            INTEGER,
        nodeNMSTrapMaskMIBII
            OCTET STRING,
        nodeNMSTrapMaskSeverity
            OCTET STRING,
        nodeNMSTrapMaskEnterprise
            OCTET STRING,
        nodeNMSTrapSequence
            Counter
    }

nodeNMSIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The IP address entry of a primary
Network Management Station."
    ::= { nodeNMSEntry 1 }

nodeNMSIpAddr OBJECT-TYPE
    SYNTAX      IPAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The IP address of the primary
Network Management Station.
        It is to this address that Traps
and TFTP requests
        will be directed."
    ::= { nodeNMSEntry 2 }

nodeNMSflags OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write

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        STATUS mandatory
        DESCRIPTION
            "Community member flag, 0x1 =
read/write, 0x2 = trap enable"
            ::= { nodeNMSEntry 3 }

nodeNMSTrapMaskMIBII OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Trap Masks for MIB II defined
traps"
        ::= { nodeNMSEntry 4 }

nodeNMSTrapMaskSeverity OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Trap Masks for trap severity
levels"
        ::= { nodeNMSEntry 5 }

nodeNMSTrapMaskEnterprise OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Trap Masks for Cascade enterprise
traps"
        ::= { nodeNMSEntry 6 }

nodeNMSTrapSequence OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Trap Sequence number for
retransmission"
        ::= { nodeNMSEntry 7 }

nodeState OBJECT-TYPE
    SYNTAX INTEGER {
        down (1),

```

```

        initializing (2),
        active (3),
        marginal (4),
        testing (5)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The state of the switch. The
switch needs to await the
state to be set to active before
being fully operational
after cold boot, when the NMS is
reachable."
        ::= { node 4 }

nodePollStatus OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The consolidated node status in
response to keep-alive polls.
It is an octet string of a
proprietary format"
        ::= { node 5 }

nodeModel OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The part number of the node."
        ::= { node 6 }

nodeSerial OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The serial number (i.e., Ethernet
Addr) of the switch."
        ::= { node 7 }

nodeSwRev OBJECT-TYPE

```

SYNTAX	DisplayString
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The software revision number (major.minor)." ::= { node 8 }

nodeHwRev OBJECT-TYPE

SYNTAX	DisplayString
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The hardware revision number (major.minor)." ::= { node 9 }

nodeEpromRev OBJECT-TYPE

SYNTAX	DisplayString
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The EPROM firmware revision number (major.minor)." ::= { node 10 }

nodeCpuUtil OBJECT-TYPE

SYNTAX	Gauge
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The CPU utilization percentage for packet processing." ::= { node 11 }

nodePsAStatus OBJECT-TYPE

SYNTAX	INTEGER { up (1), down (2), marginal (4) }
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	

	"The status of the power supply #1. For a detailed explanation for the power supply being either in the down or marginal state, refer to the nodePsADiagCode object." ::= { node 12 }
--	---

nodePsBStatus OBJECT-TYPE

SYNTAX	INTEGER { up (1), down (2), marginal (4) }
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The status of the power supply #2. For a detailed explanation for the power supply being either in the down or marginal state, refer to the nodePsBDiagCode object." ::= { node 13 }

nodeFanTable OBJECT-TYPE

SYNTAX	SEQUENCE OF NodeFanEntry
ACCESS	not-accessible
STATUS	mandatory
DESCRIPTION	"A list of fan entries." ::= { node 14 }

nodeFanEntry OBJECT-TYPE

SYNTAX	NodeFanEntry
ACCESS	not-accessible
STATUS	mandatory
DESCRIPTION	"A Fan entry contains the status of a fan." INDEX { nodeFanIndex } ::= { nodeFanTable 1 }

NodeFanEntry ::=

SEQUENCE {

```

        nodeFanIndex
            INTEGER,
        nodeFanStatus
            INTEGER,
        nodeFanSpeed
            Gauge
    }

nodeFanIndex OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "A unique value for each fan."
    ::= { nodeFanEntry 1 }

nodeFanStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        up (1),
        down (2),
        marginal (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The status of the fan."
    ::= { nodeFanEntry 2 }

nodeFanSpeed OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The speed in Revolutions Per.
Minute (RPM) of the fan."
    ::= { nodeFanEntry 3 }

nodeMemoryUtil OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The percentage of system memory
utilization on this intelligent card."
    ::= { node 15 }

```

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nodeMemoryUsage OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The system memory utilization, in
terms of free bytes, for
this intelligent card."
    ::= { node 16 }

nodeMaxFramesize OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The maximum frame size supported
by the node.
The default is 4096."
    ::= { node 17 }

nodeQOSPollTimer OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The timer (seconds) for
generating QOS polling packets."
    ::= { node 18 }

nodeActivePvcs OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of currently active
PVCs on the node."
    ::= { node 19 }

nodeInactivePvcs OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

nodeInActivePvcs OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of currently inactive
PVCs on the node."
::= { node 20 }

nodePendingPvcs OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of currently call
pending PVCs on the node."
::= { node 21 }

nodeInOctets OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The total number of octets
received on the node, including
framing bytes."
::= { node 22 }

nodeInPkts OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The total number of packets
received on the node."
::= { node 23 }

nodeOutOctets OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The total number of octets
transmitted out of the node,
including framing bytes."
::= { node 24 }

nodeOutPkts OBJECT-TYPE
SYNTAX Counter
ACCESS read-only

nodeOutPkts OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The total number of packets
requested to be transmitted out
of the node, including those that
were discarded or not sent."
::= { node 25 }

nodeSwFilename OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Name of the file to be
downloaded."
::= { node 26 }

nodeRebootAfterLoad OBJECT-TYPE
SYNTAX INTEGER {
no-reboot (0),
reboot (1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Instructs the device to either
automatically reboot after
the successful scheduled download
or not."
::= { node 27 }

nodeSwToLoad OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Instructs the device to initiate
a software download
(via tftp) request to the master
management station after
the specified time ticks have
elapsed."
::= { node 28 }

nodeSwLoadState OBJECT-TYPE

```

SYNTAX      INTEGER {
                inactive (1),
                pending (2),
                active (3),
                failed (4),
                success (5)
            }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The state of the software
download request. A download
which is in either the PENDING,
ACTIVE or FAILED state
can be terminated by setting this
object to INACTIVE."
            ::= { node 29 }

nodePrFilename OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Name of the PRAM image file to be
downloaded."
            ::= { node 30 }

nodePrToLoad OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Instructs the device to initiate
a PRAM image file download
(via tftp) request to the master
management station after
the specified time ticks have
elapsed."
            ::= { node 31 }

nodePrLoadState OBJECT-TYPE
    SYNTAX      INTEGER {
                inactive (1),
                pending (2),
                active (3),

```

```

                failed (4)
            }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The state of the PRAM download
request. A download
which is in either the PENDING,
ACTIVE or FAILED state
can be terminated by setting this
object to INACTIVE."
            ::= { node 32 }

nodeToWarmboot OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Instructs the switch to initiate
a system warm boot after
the specified time ticks have
elapsed. A value of 0 indicates
cancellation of the previously
scheduled re-boot request."
            ::= { node 33 }

nodeToColdboot OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Instructs the switch to initiate
a system cold boot after
the specified time ticks have
elapsed. A value of 0 indicates
cancellation of the previously
scheduled re-boot request."
            ::= { node 34 }

nodeToRedundant OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

"If redundancy is configured,
 instructs the node acting as Backup
 to disable the Active node and
 take over as the Active node.
 The disabling is initiated after
 the specified time ticks have
 elapsed. A value of 0 indicates
 cancellation of the previously
 scheduled request."
 ::= { node 35 }

nodeInitiateBulkStats OBJECT-TYPE
 SYNTAX IpAddress
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Initiates a Bulk Statistics poll
 and via TFTP, transfer the data
 to the specified IP address."
 ::= { node 36 }

nodeDiagNonFatalSource OBJECT-TYPE
 SYNTAX INTEGER {
 power-on-diagnostics (1),
 background-diagnostics (2),
 fault (3),
 frame-heap (4),
 redundancy (5),
 system-level (6),
 card-level (7),
 i960-data-structures (8),
 general (9),
 data-alignment (10),
 device-driver-level (11)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Source who reported last non-
 fatal error."
 ::= { node 37 }

nodeDiagNonFatalTime OBJECT-TYPE
 SYNTAX TimeTicks
 ACCESS read-only

STATUS mandatory
 DESCRIPTION
 "Time the last non-fatal error was
 reported."
 ::= { node 38 }

nodeDiagNonFatalErrMajor OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Major error code of last non-
 fatal error."
 ::= { node 39 }

nodeDiagNonFatalErrMinor OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Minor error code of last non-
 fatal error."
 ::= { node 40 }

nodeDiagNonFatalStr OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Ascii string describing last non-
 fatal error."
 ::= { node 41 }

nodeDiagFatalSource OBJECT-TYPE
 SYNTAX INTEGER {
 power-on-diagnostics (1),
 background-diagnostics (2),
 fault (3),
 frame-heap (4),
 redundancy (5),
 system-level (6),
 card-level (7),
 i960-data-structures (8),
 general (9),
 data-alignment (10),

```

        device-driver-level (11)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Source who reported last fatal
error."
    ::= { node 42 }

nodeDiagFatalTime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Time the last fatal error was
reported."
    ::= { node 43 }

nodeDiagFatalErrMajor OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Major error code of last fatal
error."
    ::= { node 44 }

nodeDiagFatalErrMinor OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Minor error code of last fatal
error."
    ::= { node 45 }

nodeDiagFatalStr OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Ascii string describing last
fatal error."
    ::= { node 46 }

```

```

nodeDiagFatalReboots OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of times the switch has
re-booted since last
fatal error was reported."
    ::= { node 47 }

nodeDiagFatalAddress OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Address switch was executing when
it encountered fatal error."
    ::= { node 48 }

nodeDiagBackgroundPasses OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of passes made by the
background diagnostics."
    ::= { node 49 }

nodeDiagBackgroundFailures OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of failures discovered by
background diagnostics."
    ::= { node 50 }

nodeDiagBackgroundSuccesses OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of successful passes by
background diagnostics."
    ::= { node 51 }

```


nodeDiagLEDReset OBJECT-TYPE

SYNTAX INTEGER {
state-unchanged (0),
state-to-active (1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Change the node state from
marginal to active. Change the
LED from yellow to green."
::= { node 52 }

nodeDiagPowerExtensive OBJECT-TYPE

SYNTAX INTEGER {
fast-tests (0),
extensive-tests (1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Should power on diagnostics do
slower, extensive testing,
or fast testing?"
::= { node 53 }

nodePortPoll OBJECT-TYPE

SYNTAX OCTET STRING
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The consolidated port status in
response to keep-alive polls."
::= { node 54 }

nodeMaxTelnetConsole OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The number of concurrent telnet
consoles allowed. The default
is 2. The maximum is 5. Set it 0
to disable telnet access."

::= { node 55 }

nodeConsoleTimeout OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Idle-logout timer in minutes. The
default is 5 minutes, and the
maximum can be set is 60 minutes.
To disable idle-logout, set
this to 0."
::= { node 56 }

nodeConsoleTable OBJECT-TYPE

SYNTAX SEQUENCE OF NodeConsoleEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
"A list of active consoles on the
node, logged in through telnet
or serial port."
::= { node 57 }

nodeConsoleEntry OBJECT-TYPE

SYNTAX NodeConsoleEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
"Information of a console."
INDEX { nodeConsoleIndex }
::= { nodeConsoleTable 1 }

NodeConsoleEntry ::=

SEQUENCE {
nodeConsoleIndex
INTEGER,
nodeUserName
DisplayString,
nodeUserFrom
IpAddress,
nodeConsoleAccessMode
INTEGER,
nodeConsoleUptime
TimeTicks

```

    }

nodeConsoleIndex OBJECT-TYPE
    SYNTAX      INTEGER (1..6)
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "A positive integer to identify a
console"
    ::= { nodeConsoleEntry 1 }

nodeUserName OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The login user name up to 31
characters. There is no
validation of the name, i.e., any
string is acceptable."
    ::= { nodeConsoleEntry 2 }

nodeUserFrom OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The IP address from which the
user logged in. 0.0.0.0 if the
user logged in through serial
port."
    ::= { nodeConsoleEntry 3 }

nodeConsoleAccessMode OBJECT-TYPE
    SYNTAX      INTEGER {
        readOnly (1),
        readWrite (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The access mode of the console.
By default, a user is in READ ONLY
mode."
    ::= { nodeConsoleEntry 4 }

```

```

nodeConsoleUptime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "How long the console has been
active."
    ::= { nodeConsoleEntry 5 }

nodePsADiagCode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The failure code of the power
supply #1. A non-zero value
indicates one or more failures.
Refer to the hardware
manual for a description of the
failure code."
    ::= { node 58 }

nodePsBDiagCode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The failure code of the power
supply #2. A non-zero value
indicates one or more failures.
Refer to the hardware
manual for a description of the
failure code."
    ::= { node 59 }

nodeFrameMemoryUtil OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The percentage of frame memory
utilization on this intelligent card."
    ::= { node 60 }

```

nodeFrameMemoryUsage OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The frame memory utilization, in terms of free bytes, for this intelligent card."
 ::= { node 61 }

nodeCapability OBJECT-TYPE
 SYNTAX INTEGER {
 frame-relay (1),
 smds (2)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The capability of this node."
 ::= { node 62 }

nodeSvcLastCallFailure OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "A textual string describing the last call failure."
 ::= { node 63 }

nodeRerouteDelay OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The number of seconds delay between each reroute batch event."
 ::= { node 64 }

nodeRerouteCount OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"The number of virtual circuits to request a reroute for during a single reroute batch event."
 ::= { node 65 }

nodeFileTransferRequest OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to initiate file transfers to and from the switch. A management station can initiate a file transfer by setting this object of text string in the following format:

operation filename time-to-wait target-host protocol

where
 operation- [get |
 put] (from switch's perspective),
 filename - name.ext
 where
 name - full
 path excluding file extension
 ext - file
 extension formatted as follows
 time-to-wait -a number in
 seconds
 target-host- the IP
 address of target host
 protocol - [tftp |
 ftp]

File extensions may take the following form:
 Cxx or cxx -
 Configuration image for card xx
 Dxx or dxx - Memory
 dump for card xx
 Mxx or mxx - Memory
 log record for card xx

Syyyy or syyyy- SVC
 identification stats for port yyyy
 Fyyyy or fyyyy- SVC
 failure log for port yyyy
 Iyyyy or iyyyy- ILMI
 dynamic addresses for port yyyy
 Tyyyy or tyyyy - List
 of circuits on trunk port yyyy

Binary file formats are available
 upon request.

Multiple transfers can be
 specified by repeating above with
 ';' between each transfer
 specifier.

Examples:

o put configuration.10 5
 152.148.10.100 tftp
 will start a transfer of
 configuration information
 from card 10 to host
 152.148.10.100 in 5 seconds.

To cancel the transfer request, set
 this object to a null string.

""
 ::= { node 66 }

nodeFileTransferStatus OBJECT-TYPE
 SYNTAX INTEGER {
 complete (1),-- transfer
 complete or no outstanding
 transfer request
 --
 active (2), -- transfer is in
 progress
 failed (3), -- transfer failed
 - generic error
 invalid (4),-- invalid request
 filename (5),-- file name
 error or file non-existent

timeout (6),-- transfer timed
 out
 canceled (7),-- transfer is
 cancelled
 file-not-available (8) --
 requested file is not available

}
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The status of the file transfer."
 ::= { node 67 }

nodeTime OBJECT-TYPE
 SYNTAX TimeTicks
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The current wall-clock time that
 is set on the switch in
 Universal Coordinated Time (UCT).
 The value is the number
 of seconds since 00:00:00 UCT
 January 1, 1970."
 ::= { node 68 }

nodeBillingAPAddress OBJECT-TYPE
 SYNTAX IPAddress
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The IP Address of the Adjunct
 Billing Processor that is
 servicing this switch."
 ::= {node 69 }

nodeBillingAPUsername OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The Username of the account on
 the Adjunct Billing Processor
 to which usage data will be
 transferred via FTP."

```

        ::= { node 70 }

nodeBillingAPPassword OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The Password corresponding to the
account identified by
        nodeBillingAPUsername.A NULL
string is returned when read."
    ::= { node 71 }

nodeBillingSwAPCommsFailures OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of times that
communication from the switch to the
        Adjunct Billing Processor has
failed during the current
        aggregation period. A failure
signifies failure of a file
        transfer operation to the Adjunct
Processor."
    ::= { node 72 }

nodeBillingTable OBJECT-TYPE
    SYNTAX SEQUENCE OF NodeBillingEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A table of Billing System
managable objects, indexed by
        service."
    ::= { node 73 }

nodeBillingEntry OBJECT-TYPE
    SYNTAX NodeBillingEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A nodeBillingEntry contains a set
of statistics that

```

```

        summarize the Billing System
performance for a particular
        service.
"
    INDEX { nodeBillingService }
    ::= {nodeBillingTable 1 }

NodeBillingEntry ::=
    SEQUENCE {
        nodeBillingService
            INTEGER,
        nodeBilling
            INTEGER,
        nodeBillingAggrPeriod
            TimeTicks,
        nodeBillingCurAggrPeriodStart
            TimeTicks,
        nodeBillingCurAggrPeriodEnd
            TimeTicks,
        nodeBillingCollection
            TimeTicks,
        nodeBillingDailyProcessing
            INTEGER,
        nodeBillingDPTIME
            TimeTicks,
        nodeBillingUsageRecOvflWarnings
            Counter,
        nodeBillingTotalUsageRecOvflWarnings
            Counter,
        nodeBillingBillableUsageEvents
            Counter,
        nodeBillingNonBillableUsageEvents
            Counter,
        nodeBillingUsageRecCreated
            Counter,
        nodeBillingTotalUsageRecCreated
            Counter,
        nodeBillingUsageRecCrFailures
            Counter,
        nodeBillingTotalUsageRecCrFailures
            Counter,
        nodeBillingUsageRecSent
            Counter,
        nodeBillingTotalUsageRecSent

```

```

        Counter,
nodeBillingUsageDataStoreFull
        Counter,
nodeBillingTotalUsageDataStoreFull
        Counter,
nodeBillingAdminAction
        INTEGER
    }

nodeBillingService OBJECT-TYPE
    SYNTAX INTEGER {
        smds (1),
        atm (2)
    }

    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
    "
    The service being reported. This is the index
into the
    table. Possible rows in the table are:
        smds = SMDS billing for the B-STDx
9000
        atm = ATM cell service for the
Cascade 500
    "
    ::= {nodeBillingEntry 1 }

nodeBilling OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2),
        pvcenabled (3),
        svcenabled (4)
    }

    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
    "This object defines the capability to enable
or disable
    usage-based billing at the switch level.

    For SMDS billing, the possible values are
enabled and
    disabled.

```

For PVC and SVC billing, the possible values are

- disabled - Usage measurement is disabled
- enabled - Usage measurement is enabled for PVCs and SVCs
- pvcenabled - Usage measurement is enabled only for PVCs
- svcenabled - Usage measurement is enabled for SVCs only

When the value of this object is a value other than 'disabled', the value of a logical port's billing capability objects will take precedence.

When the value of nodeBilling is 'disabled', it overrides all logical ports' billing capability objects and billing is disabled across the entire switch.

The default value of this object is 'disabled'.

```

    ::= {nodeBillingEntry 2 }

```

nodeBillingAggrPeriod OBJECT-TYPE

```

    SYNTAX TimeTicks
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
    "Defines the length of the Billing
Aggregation Period in
    seconds. The Billing Aggregation
Period is the time period
    over which accounting
measurements are performed on a
    particular service and indicates
how often the accounting
    data is transferred to the
Adjunct Processing (Accounting Server).

```

measurement period for recording L3 PDUs.

For ATM, this object defines the recording interval over which PVC usage measurements are taken (as defined by Bellcore GR-1110-CORE).

The default value is 15 minutes. The minimum value is 10 minutes."

```

    ::= {nodeBillingEntry 3 }

nodeBillingCurAggrPeriodStart OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The start-time of the current
        aggregation period, given by
        the number of seconds since
        00:00:00 UCT January 1, 1970."
    ::= {nodeBillingEntry 4 }

nodeBillingCurAggrPeriodEnd OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The end-time of the current
        aggregation period, given by
        the number of seconds since
        00:00:00 UCT January 1, 1970."
    ::= {nodeBillingEntry 5 }

nodeBillingCollection OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Defines how often usage data is recorded in
        non-volatile store. The value of this object will be
        different for each
  
```

service supported.

For the B-STDX 9000 SMDS system, this object defines how often the Data Aggregation Process on the CP polls the IOPs for usage data. The default value is 30 seconds. The range is unbounded but practical use will dictate a range from 30 seconds to 1 minute.

For the Cascade 500 ATM billing system, this object defines the rate at which the switch snapshots the state of all PVCs and SVCs to stable storage. The default value is 5 minutes; supported values are in increments of 5 minutes.

```

    "
    ::= {nodeBillingEntry 6 }

nodeBillingDailyProcessing OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Defines whether the Billing
        System is to perform a set of
        carrier-specific actions at the
        time given by
        nodeBillingDPTIME. This object
        can be used to schedule the
        generation of statistics on a 24-
        hour basis, for example."
    ::= {nodeBillingEntry 7 }

nodeBillingDPTIME OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-write
    STATUS mandatory
  
```

DESCRIPTION
 "Defines the time (given by the number of seconds since 00:00:00 UCT) that the Billing System is to perform a set of carrier-specific actions. This object can be used to schedule the generation of statistics on a 24-hour basis, for example."
 ::= {nodeBillingEntry 8 }

nodeBillingUsageRecOvflWarnings OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "
 Count of the number of usage record counter-value overflow conditions that have occurred during the current aggregation period. An overflow condition exists when an attempt was made to update a usage record counter, but such an update would have overflowed the counter. In this case, the usage record is closed and a new one is opened, if there is sufficient space in the service's aggregated usage data store."
 ::= {nodeBillingEntry 9 }

nodeBillingTotalUsageRecOvflWarnings OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "
 Count of the number of usage record overflow conditions that have occurred during the current day."
 "

::= {nodeBillingEntry 10}

nodeBillingBillableUsageEvents OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "
 Count of the number of data units (e.g, SMDS L3 PDUs) processed for billing treatment."
 ::= {nodeBillingEntry 11 }

nodeBillingNonBillableUsageEvents OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "
 Count of the number of data units (e.g, SMDS L3 PDUs) not considered for billing treatment."
 ::= {nodeBillingEntry 12 }

nodeBillingUsageRecCreated OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "
 Count of the number of usage records created during the current aggregation period."
 ::= {nodeBillingEntry 13 }

nodeBillingTotalUsageRecCreated OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "


```

Count of the total number of usage
records created during
the current day.
"
::= {nodeBillingEntry 14 }

nodeBillingUsageRecCrFailures OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "
        Total number of usage records that
could not be created during
the current aggregation period.
This counter is normally
incremented when the usage data
file is at capacity and no
additional usage records can be
added.
"
::= {nodeBillingEntry 15 }

nodeBillingTotalUsageRecCrFailures OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "
        Total number of usage records that
could not be created during
the current day.
"
::= {nodeBillingEntry 16 }

nodeBillingUsageRecSent OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "
        Total number of usage records that
have been transferred to
the Adjunct Billing Processor
during the current aggregation

```

```

period.
"
::= {nodeBillingEntry 17 }

nodeBillingTotalUsageRecSent OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "
        Total number of usage records that
have been transferred to
the Adjunct Billing Processor
during the current day.
"
::= {nodeBillingEntry 18 }

nodeBillingUsageDataStoreFull OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "
        The number of times the aggregated
usage data store became
full during the current
aggregation period.
"
::= {nodeBillingEntry 19 }

nodeBillingTotalUsageDataStoreFull OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total number of times the
aggregated usage data store became
full during the current day.
"
::= {nodeBillingEntry 20 }

nodeBillingAdminAction OBJECT-TYPE
    SYNTAX INTEGER {
        invalid (1),
        forceUpload (2)
    }

```

```

    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object defines a set of
administrative actions that
        can be performed by the Billing
System.

        forceUpload - Forces the current
aggregation period to end
        and the service's aggregated usage
data file to be uploaded
        to the Adjunct Processor. A new
aggregation period is
        then started. This action can be
requested when billing is
        enabled or disabled for the
service.

        This object always returns
invalid(1) when read.
        "
        ::= {nodeBillingEntry 21 }

nodeRerouteAlg OBJECT-TYPE
    SYNTAX INTEGER {
        negpos (0),
        negneg (1),
        pospos (2),
        disable (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of seconds delay
between each reroute batch event."
        ::= { node 74 }

nodeADTable OBJECT-TYPE
    SYNTAX SEQUENCE OF NodeADEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION

```

```

        "A list of Authentication Domain
entries."
        ::= { node 75 }

nodeADEntry OBJECT-TYPE
    SYNTAX NodeADEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "An Authentication Domain entry
contains information about
        authentication servers used by
this node."
    INDEX { nodeADIndex }
    ::= { nodeADTable 1 }

NodeADEntry ::=
    SEQUENCE {
        nodeADIndex
            Index,
        nodeADType
            INTEGER,
        nodeADAdminStatus
            INTEGER,
        nodeADSecrets
            OCTET STRING,
        nodeADSvr1Addr
            IpAddress,
        nodeADSvr1Retrys
            INTEGER,
        nodeADSvr1Timeout
            INTEGER,
        nodeADSvr2Addr
            IpAddress,
        nodeADSvr2Retrys
            INTEGER,
        nodeADSvr2Timeout
            INTEGER,
        nodeADSvr3Addr
            IpAddress,
        nodeADSvr3Retrys
            INTEGER,
        nodeADSvr3Timeout
            INTEGER
    }
}

```

nodeADIndex	OBJECT-TYPE		ACCESS	read-write
	SYNTAX	Index	STATUS	mandatory
	ACCESS	read-write	DESCRIPTION	
	STATUS	mandatory		"The IP address of the primary
	DESCRIPTION	"The Domain ID which maps to a		Authentication Server."
		Domain name."		::= { nodeADEntry 5 }
	::= { nodeADEntry 1 }			
nodeADType	OBJECT-TYPE		nodeADSvr1Retrys	OBJECT-TYPE
	SYNTAX	INTEGER {		SYNTAX
		radius (1)		INTEGER
		}		ACCESS
	ACCESS	read-write		read-write
	STATUS	mandatory		STATUS
	DESCRIPTION	"The Authentication Domain type."		mandatory
		::= { nodeADEntry 2 }		DESCRIPTION
				"The # of times to retry sending
				an authentication request
				to the primary server in the case
				of no-response."
				::= { nodeADEntry 6 }
nodeADAdminStatus	OBJECT-TYPE		nodeADSvr1Timeout	OBJECT-TYPE
	SYNTAX	INTEGER {		SYNTAX
		invalid (0),		INTEGER
		up (1),		ACCESS
		down (2),		read-write
		deleted (3)		STATUS
		}		mandatory
	ACCESS	read-write		DESCRIPTION
	STATUS	mandatory		"The # of seconds to wait between
	DESCRIPTION	"The current state of this entry."		authentication request
		::= { nodeADEntry 3 }		retries for the primary server."
				::= { nodeADEntry 7 }
nodeADSecrets	OBJECT-TYPE		nodeADSvr2Addr	OBJECT-TYPE
	SYNTAX	OCTET STRING		SYNTAX
	ACCESS	read-write		IpAddress
	STATUS	mandatory		ACCESS
	DESCRIPTION	"Secrets (encryption keys) used by		read-write
		the switch and		STATUS
		authentication server."		mandatory
		::= { nodeADEntry 4 }		DESCRIPTION
				"The IP address of the secondary
				Authentication Server."
				::= { nodeADEntry 8 }
nodeADSvr1Addr	OBJECT-TYPE		nodeADSvr2Retrys	OBJECT-TYPE
	SYNTAX	IpAddress		SYNTAX
				INTEGER
				ACCESS
				read-write
				STATUS
				mandatory
				DESCRIPTION
				"The # of times to retry sending
				an authentication request

```

to the secondary server in the
case of no-response."
    ::= { nodeADEntry 9 }

nodeADSvr2Timeout OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The # of seconds to wait between
authentication request
        retries for the secondary server."
    ::= { nodeADEntry 10 }

nodeADSvr3Addr OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The IP address of the tertiary
Authentication Server."
    ::= { nodeADEntry 11 }

nodeADSvr3Retrys OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The # of times to retry sending
an authentication request
to the tertiary server in the case
of no-response."
    ::= { nodeADEntry 12 }

nodeADSvr3Timeout OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The # of seconds to wait between
authentication request
        retries for the tertiary server."
    ::= { nodeADEntry 13 }

nodeOamAlarmDisabled OBJECT-TYPE

```

```

SYNTAX INTEGER {
    enabled(1),
    disabled(2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "If disabled then don't generate
oam alarms for circuits that are
down on this switch."
    ::= { node 76 }

nodeRefclocksrcTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF NodeRefclocksrcEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of generators (sources) for the
system reference
        clock on the node. This reference
clock is used by the clock
        generation unit (CGU) to create
the system clock. To this
        reference clock the constant bit
rate ATM interface cards
        (CE and structured CBR cards) are
synchronized."
    ::= { node 77 }

-- The table of reference clock sources

nodeRefclocksrcEntry OBJECT-TYPE
    SYNTAX      NodeRefclocksrcEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "Information of a single system
reference clock source."
    INDEX      { nodeRefclocksrcIndex }
    ::= { nodeRefclocksrcTable 1 }

NodeRefclocksrcEntry ::=
    SEQUENCE {
        nodeRefclocksrcIndex
        INTEGER,

```

```

        nodeRefclocksrcPriority
            INTEGER,
        nodeRefclocksrcType
            INTEGER,
        nodeRefclocksrcSlotId
            INTEGER,
        nodeRefclocksrcPportId
            INTEGER
    }

nodeRefclocksrcIndex OBJECT-TYPE
    SYNTAX      INTEGER (1..20)
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "A positive integer to identify an
        entry in the nodeRefclocksrcTable."
        ::= { nodeRefclocksrcEntry 1 }

nodeRefclocksrcPriority OBJECT-TYPE
    SYNTAX      INTEGER (0..20)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The priority of the system reference
        clock source.

        A source with a
        nodeRefclocksrcPriority=n means that this source is
        used before a source with a higher
        value of nodeRefclocksrcPriority
        as long as this source is
        available.

        The system chooses one of the
        sources with the same lowest
        available value of
        nodeRefclocksrcPriority.

        Assigning a priority of 0 removes
        an entry from nodeRefclocksrcTable."
        ::= { nodeRefclocksrcEntry 2 }

nodeRefclocksrcType OBJECT-TYPE
    SYNTAX      INTEGER {
        external (1), --
        external clock source

```

```

        pport (2)  --
        recovered from line interface
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The type of the reference clock
        source. It is either an
        external clock source connected
        to a ATM-IWU or DS3 card,
        or the reference clock is
        recovered from the line interface."
        ::= { nodeRefclocksrcEntry 3 }

nodeRefclocksrcSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The card number of the reference
        clock source.

        In case of an external clock
        interface this is the number of
        the card as defined in
        cardLogicalSlotId.

        In case of a clock recovered from
        the line interface it is
        the number of the corresponding
        card as defined in
        cardLogicalSlotId."
        ::= { nodeRefclocksrcEntry 4 }

nodeRefclocksrcPportId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The interface number of the
        reference clock source.

        In case of an external clock
        interface this is meaningless.

        In case of a clock recovered from
        the line interface it is
        the number of the corresponding
        pport as defined in pportId."

```

```

        ::= { nodeRefclocksrcEntry 5 }

nodeRefclockActiveSrc OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The entry number of the active
        reference clock source in
        nodeRefclocksrcTable. If zero, the
        CGU is in free-running mode or
        holdover mode using the last PLL
        parameters."
        ::= { node 78 }

nodeRefclockActiveCGUSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The physical slot id of the
        current master CGU board."
        ::= { node 79 }

nodeRefclockActiveCGUMode OBJECT-TYPE
    SYNTAX      INTEGER {
        free-running (1),
        sync-to-reference-clock (2),
        holdover (3),
        extended-holdover (4)
        }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The clock mode of the current
        master CGU board."
        ::= { node 80 }

nodeInitiateImageBackup OBJECT-TYPE
    SYNTAX      INTEGER {
        proceed (1) -- proceed with the
        backup
        }
    ACCESS      read-write
    STATUS      mandatory

```

```

        DESCRIPTION
            "When set, copy all of the runtime
            application images
            and configuration images to there
            corresponding backup
            locations on the hard disk."
            ::= { node 81 }

nodeImageBackupState OBJECT-TYPE
    SYNTAX      INTEGER {
        proceeding (1), -- Proceeding with
        the backup
        done (2) -- Done
        with backup operation
        }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Provides the current state of the
        images backup
        operation."
        ::= { node 82 }

nodeInitiateImageRestore OBJECT-TYPE
    SYNTAX      INTEGER {
        proceed (1) -- Proceed with the
        restore
        }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "When set, copy all of the runtime
        application images
        and configuration images from
        their BACKUP locations on
        the hard disk to there
        corresponding ACTIVE locations on
        the hard disk. Once completed,
        reboot the entire node."
        ::= { node 83 }

nodeApplicationTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF NodeApplicationEntry
    ACCESS      not-accessible
    STATUS      mandatory

```

DESCRIPTION	"A list of Application Image
Descriptions."	
::= { node 84 }	
nodeApplicationEntry	OBJECT-TYPE
SYNTAX	NodeApplicationEntry
ACCESS	not-accessible
STATUS	mandatory
DESCRIPTION	"An Application Entry contains a
description of the	application image, the version of
the PRIMARY copy and	the version of the SECONDARY
copy."	
INDEX	{ nodeApplicationIndex }
::= { nodeApplicationTable 1 }	
NodeApplicationEntry ::=	
SEQUENCE {	
nodeApplicationIndex	
Index,	
nodeApplicationDescription	
DisplayString,	
nodePrimaryVersion	
DisplayString,	
nodeSecondaryVersion	
DisplayString	
}	
nodeApplicationIndex	OBJECT-TYPE
SYNTAX	Index
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The numeric index of application
images.	
	1 - SP Runtime
Application	2 - IOM Type A Runtime
Application	3 - IOM Type B Runtime
Application	

	4 - IOM Type C Runtime
Application	
	5 - IOM Type D Runtime
Application"	
::= { nodeApplicationEntry 1 }	
nodeApplicationDescription	OBJECT-TYPE
SYNTAX	DisplayString
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The description of this
Application Image."	
::= { nodeApplicationEntry 2 }	
nodePrimaryVersion	OBJECT-TYPE
SYNTAX	DisplayString
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The version of the PRIMARY
Application Image."	
::= { nodeApplicationEntry 3 }	
nodeSecondaryVersion	OBJECT-TYPE
SYNTAX	DisplayString
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The version of the SECONDARY
Application Image."	
::= { nodeApplicationEntry 4 }	
nodePrimarySyncRefAdminState	OBJECT-TYPE
SYNTAX	INTEGER {
externala (1),-- T1/E1 Rate	
External Clock 1	externalb (2),-- T1/E1 Rate
External Clock 2	portrefa (3),-- IOM Port Reference
Clock 1	portrefb (4),-- IOM Port Reference
Clock 2	internal (5)-- Internal Free
Running Clock	

```

    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The requested primary clock
synchronization reference
    source. Default is Internal."
    ::= { node 85 }

nodePrimarySyncRefOperationalStateOBJECT-TYPE
    SYNTAX      INTEGER {
External Clock 1      externala (1),-- T1/E1 Rate
External Clock 2      externalb (2),-- T1/E1 Rate
Clock 1              portrefa (3),-- IOM Port Reference
Clock 2              portrefb (4),-- IOM Port Reference
Running Clock        internal (5),-- Internal Free
(GARNET ONLY!!!)    holdover (6)  -- Holdover Clock
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The actual primary clock
synchronization reference
is being used as
    source. In Garnet, refers to what
    the PLL Clock Input."
    ::= { node 86 }

nodeSecondarySyncRefAdminStateOBJECT-TYPE
    SYNTAX      INTEGER {
External Clock 1      externala (1),-- T1/E1 Rate
External Clock 2      externalb (2),-- T1/E1 Rate
Clock 1              portrefa (3),-- IOM Port Reference
Clock 2              portrefb (4),-- IOM Port Reference

```

```

Running Clock        internal (5)-- Internal Free
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The requested secondary clock
synchronization reference
    source. Default is Internal."
    ::= { node 87 }

nodeSecondarySyncRefOperationalStateOBJECT-TYPE
    SYNTAX      INTEGER {
External Clock 1      externala (1),-- T1/E1 Rate
External Clock 2      externalb (2),-- T1/E1 Rate
Clock 1              portrefa (3),-- IOM Port Reference
Clock 2              portrefb (4),-- IOM Port Reference
Running Clock        internal (5)-- Internal Free
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The actual secondary clock
synchronization reference
    source."
    ::= { node 88 }

nodePrimaryPLLOperationalStateOBJECT-TYPE
    SYNTAX      INTEGER {
and active as timing reference  active (1),          -- In-lock
but in-lock                    inactive-in-lock (2),-- Not active
Unusable state                 unusable (3)          --
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```


synchronization PLL. The 'unusable' state indicates that at the instant the PLL state was sampled, the PLL output was not usable as a system timing reference (e.g. the PLL is configured to use an external reference and that reference is physically disconnected)."

```
 ::= { node 89 }
```

nodeSecondaryPLLOperationalStateOBJECT-TYPE

```
SYNTAX      INTEGER {
    active (1),          -- In-lock
    inactive-in-lock (2), -- Not
    unusable (3)         --
}
```

ACCESS read-only
STATUS mandatory
DESCRIPTION

"The current state of the secondary synchronization PLL. The 'unusable' state indicates that at the instant the PLL state was sampled, the PLL output was not usable as a system timing reference (e.g. the PLL is configured to use an external reference and that reference is physically disconnected)."

```
 ::= { node 90 }
```

nodeExternalClockAOperationalStateOBJECT-TYPE

```
SYNTAX      INTEGER {
    active (1),          -- Valid
    ais (2),             --
    los (3),             --
    Detected AIS condition
    Detected Loss Of Signal
```

```
    lof (4),             --
    Detected Loss of Frame
    lock-error (5)       --
    Detected Lock or Tune error
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The current state of the External
Clock #1 reference."
 ::= { node 91 }
```

nodeExternalClockBOperationalStateOBJECT-TYPE

```
SYNTAX      INTEGER {
    active (1),          -- Valid
    ais (2),             --
    Detected AIS condition
    los (3),             --
    Detected Loss Of Signal
    lof (4),             --
    Detected Loss Of Frame
    lock-error (5)       --
    Detected Lock or Tune error
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The current state of the External
Clock #2 reference."
 ::= { node 92 }
```

nodePortClockAOperationalStateOBJECT-TYPE

```
SYNTAX      INTEGER {
    active (1),          -- Valid
    down (2),            -- Invalid
    unavailable (3),     -- Unknown
    lock-error (4)       --
    Detected Lock or Tune error
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The current state of the Port
Clock #1 reference."
 ::= { node 93 }
```

nodePortClockB0OperationalStateOBJECT-TYPE

```
SYNTAX      INTEGER {
    active (1),          -- Valid
    down   (2),          -- Invalid
    unavailable (3), -- Unknown
    lock-error (4)      --
```

Detected Lock or Tune error

```
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
```

"The current state of the Port

Clock #2 reference."

```
 ::= { node 94 }
```

nodeExternalTimingSourceOBJECT-TYPE

```
SYNTAX      INTEGER {
    primary (1),  -- external clock
    secondary (2), -- ext. clk. out is
    loopback-ext1 (3), -- ext. clk.
    tx-ais (4)   -- ext. clk. out is
    unreferenced and Transmits AIS
    }
```

```
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
```

"The state of the external timing

output. It may

be derived from the primary

reference or secondary

reference, or it may be a

loopbacked version of the

external clock #1 input for test

purposes. In the

tx-ais configuration the external

clock out transmits

an AIS indication continuously."

```
 ::= { node 95 }
```

nodeSyncAutoRestoreOBJECT-TYPE

```
SYNTAX      INTEGER {
```

```
    enable (1),          -- Allow
    auto-restore
    disable(2)           -- Do not
    allow auto-restore
    }
```

```
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
```

"Revertive state of system timing

clock reference.

When enabled, fallback from

Primary to Secondary will

revert back to Primary upon its

recovery."

```
 ::= { node 96 }
```

nodeExternalClockInterfaceTypeOBJECT-TYPE

```
SYNTAX      INTEGER {
    t1      (1),          -- T1 rate
    W/W terminals
    e1bnc (2)            -- E1 rate
    75 ohm BNC
    }
```

```
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
```

"The interface type of the

External Clock references

and External Clock Output."

```
 ::= { node 97 }
```

nodeTrapMaskMib OBJECT-TYPE

```
SYNTAX OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
```

"The suppression mask for MIB II

traps."

```
 ::= { node 98 }
```

nodeTrapMaskEnterprise OBJECT-TYPE

```
SYNTAX OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
```

```

        "The suppression mask for
enterprise traps."
        ::= { node 99 }

nodeExternalClockOutLBO OBJECT-TYPE
    SYNTAX INTEGER {
        len-zero-133ft (1),  -- length 0-
133ft
        len-133-266ft (2),  -- 133-266ft
        len-266-399ft (3),  -- 266-399ft
        len-399-533ft (4),  -- 399-533ft
        len-533-655ft (5)   -- 533-655ft
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The line-build-out for the T1
External Clock
        Output from the switch. Default
is 0-133ft."
        ::= { node 100 }

nodeActiveTimingRefAdmin OBJECT-TYPE
    SYNTAX INTEGER {
        primary (1),  -- use primary PLL
to drive system timing reference
        secondary (2) -- use secondary
PLL to drive system timing
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This variable controls the
indication sent to
        the IOMs as to which of the two
clock references
        is preferred. Normally, it is
left on the primary
        setting. If the primary fails
then the secondary
        automatically becomes the
preferred source indicated
        to the IOMs. This variable allows
the operator to

```

```

        force the indication to secondary
for test purposes."
        ::= { node 101 }

nodeTimingManualRestore OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "When this variable is written, it
causes the
        system timing hardware to attempt
to revert back
        to the previously-failed-but-
since-recovered
        primary reference."
        ::= { node 102 }

nodeLanIpMask OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The inband (Ethernet) interface
IP mask.
        the default is 255.255.255.0"
        ::= { node 103 }

nodeBulkStatsCollectorAddress OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The IP Address of the Bulk
Statistics Collector to which
        bulk statistics data is
transferred."
        ::= { node 104 }

nodeBulkStatsTransferState OBJECT-TYPE
    SYNTAX INTEGER {
        inactive (1),
        pending (2),
        active (3),
        failed (4)
    }

```

```

    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "This object defines the state of
a Bulk Statistics raw file
transfer process to the Bulk
Statistics Collector identified
by the nodeBulkStatsCollector
object.

```

```

The possible values are:

inactive - No file is currently
being transferred.
pending  - A file is awaiting
transfer.
active   - A file is currently
being transferred.
failed   - The last file transfer
attempt has failed
and is being
retried.

"
 ::= { node 105 }

```

```

nodeAuthState OBJECT-TYPE
    SYNTAX  INTEGER {
        auth-disabled (0),
        auth-enabled (1)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Console Login Authentication for this
node, enabled or
disabled."
 ::= { node 106 }

```

```

nodeAuthDomainID OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Authentication Domain ID for this node."

```

```

 ::= { node 107 }

nodeAuthFailReason OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Reason for console login authentication
failure."
 ::= { node 108 }

```

```

nodeAuthLoginUser OBJECT-TYPE
    SYNTAX  OCTET STRING
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Login user failed to pass console
authentication."
 ::= { node 109 }

```

```

nodeBulkAvgTransportBwUsed OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "This object reports the average
amount of bandwidth (in
bits per second) that has been
used to transport ATM
Bulk Statistics data to the
Adjunct Processor during the
current day."
 ::= { node 110 }

```

```

nodeBulkAvgTransportBwBurst OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "This object reports the average
transport bandwidth burst
rate (in bits per second) obtained
to transport ATM Bulk
Statistics data to the Adjunct
Processor during the current

```

```

        day."
    ::= { node 111 }

nodeBulkMinTransportBwBurst OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object reports the minimum
transport bandwidth burst
rate (in bits per second) obtained
to transport ATM Bulk
Statistics data to the Adjunct
Processor during the current
day."
    ::= { node 112 }

nodeBulkMaxTransportBwBurst OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object reports the maximum
transport bandwidth burst
rate (in bits per second) obtained
to transport ATM Bulk
Statistics data to the Adjunct
Processor during the current
day."
    ::= { node 113 }

nodeBulkSwAPCommsFailures OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of times that
communication from the switch to the
ATM Bulk Statistics Adjunct
Processor has failed during the
current day. A failure signifies
failure of a file transfer
operation to the Adjunct
Processor."
    ::= { node 114 }

```

```

nodePscStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up (1),
        down (2),
        marginal (4)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The status of the power supply
#3. For a detailed explanation
for the power supply being either
in the down or marginal
state, refer to the
nodePscDiagCode object."
    ::= { node 115 }

nodePscDiagCode OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The failure code of the power
supply #3. A non-zero value
indicates one or more failures.
Refer to the hardware
manual for a description of the
failure code."
    ::= { node 116 }

nodeAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        notnplus1 (1),      -- Two Power
        nplus1 (2)          -- Three Power
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "THIS OID IS OBSOLETE. THIS CAN BE REUSED.
The desired setting of the switch type
indicating whether

```

the switch has two power supplies
(NotNplus1) or three
(Nplus1)."
::= { node 117}

nodeOperatingStatus OBJECT-TYPE

SYNTAX INTEGER {
twoPS (1),
threePS (2)
}

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The actual switch type indicating
whether the switch has
two power supplies (TwoPS) or three
(ThreePS)."
::= { node 118}

nodeTrapSeverity OBJECT-TYPE

SYNTAX INTEGER {
critical (1),
major (2),
minor (3),
nonalarm (4)
}

ACCESS read-only

STATUS mandatory

DESCRIPTION

"This is an OID placeholder for Trap

Variables. All

Cascade traps will contain this
binding for the severity
level of the trap."

::= { node 119}

nodeTrapSequenceNumber OBJECT-TYPE

SYNTAX Counter

ACCESS read-only

STATUS mandatory

DESCRIPTION

"This is an OID placeholder for Trap

Variables. All

Cascade traps will contain this
binding for the sequence
number of the trap. This is used
to support more reliable
traps."

::= { node 120}

nodeTrapTxRate OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"Defines the number of traps (per second)
that the switch
is allowed to transmit"

::= { node 121}

nodeTrapMaskSeverity OBJECT-TYPE

SYNTAX OCTET STRING

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The suppression mask for trap
severity levels. See
nodeTrapSeverity."

::= { node 122 }

nodeAlarmRelayStatus OBJECT-TYPE

SYNTAX INTEGER {

activate (1),

deactive (2),

reset (3)

}

ACCESS read-write

STATUS mandatory

DESCRIPTION

"Control of the external CO alarm relays
on the SPA."

::= { node 123}

nodeTrapsDiscardedMajor OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of Major severity traps that
were discarded
due to queue full conditions."
::= { node 124 }

nodeTrapsDiscardedMinor OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of Minor severity traps that
were discarded
due to queue full conditions."
::= { node 125 }

nodeTrapDiscardedNonalarm OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of Nonalarm severity traps
that were discarded
due to queue full conditions."
::= { node 126 }

nodeNtpExternalPoll OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The log base2 polling interval at
which the active CP/SP
shall request a time reference
from each external reference
time server, Range 6-10"
::= { node 127 }

nodeNtpLocalPoll OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The log base2 polling interval at
which the IOP/IOM cards

and redundant CP/SP shall request
a time reference from each
reference time server, Range 6-10"
::= { node 128 }

nodeNtpPreferredServer OBJECT-TYPE

SYNTAX IpAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The IP Address of the preferred reference
time server"
::= { node 129 }

nodeNtpSystemStatus OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The Network Timing Protocol
system summary status word
Leap Year Indicator 0 no
warning 1
last minute has 61 sec 2
last minute has 59 sec 3
alarm condition (clock not
synchronized)"
::= { node 130 }

nodeNtpSystemEventCount OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

"System Event Counter - exceptions
since last read
freezes at 15"
::= { node 131 }

nodeNtpSystemEventCode OBJECT-TYPE

SYNTAX INTEGER

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "System Event Code - Last
Exception Code Reported"
    ::= { node 132 }

nodeNtpRefTimestampISec OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Seconds portion of last Ntp clock
update"
    ::= { node 133 }

nodeNtpRefTimeStampFSec OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Fractions of a second of last Ntp
clock update"
    ::= { node 134 }

nodeNtpOffset OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Deviation of last Ntp clock
update in msec."
    ::= { node 135 }

nodeNtpMaxOffset OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Maximum Deviation between the Ntp
clock msec.
        This value shall be cleared after
it is read."
    ::= { node 136 }

```

```

nodeNtpNumberOfUpdates OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Number of time the local ntp
timer clock has been updated
        by the NTP process since
startup."
    ::= { node 137 }

nodeNtpReferenceID OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This is the IP Address of the
current time server
        being referenced"
    ::= { node 138 }

nodeBulkStatsBaseCollectPeriod OBJECT-TYPE
    SYNTAX      INTEGER (0..60)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Defines the base collection period for
Bulk Statistics
        on the B-STDx 8000/9000 starting with
release 4.2.
        Only the following values are
allowed: 0, 5, 15, 20, 30, 60.
        The default value is 60 minutes.
        A value of 0 will disable Bulk
Statistics."
    ::= { node 139 }

nodeLanIdleTimeout OBJECT-TYPE
    SYNTAX      INTEGER (0..900)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```


seconds, for the Ethernet interface during this period, and will not be Receipt of a valid timeout counter and idle.

"The idle timeout interval, in Ethernet interface. If the receives no valid IP traffic the interface is marked as idle used for outbound traffic. IP frame restarts the idle reactivates the interface, if Setting this value to 0 disables mechanism. The default value is 60 seconds."

```
DEFVAL { 60 }
::= { node 140 }
```

nodeRelayClear OBJECT-TYPE
 SYNTAX INTEGER {
 clear_critical (1),
 clear_major (2),
 clear_minor (3),
 clear_power_major (4),
 clear_power_minor (5)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Clearing of alarm relays on the SPA."
 ::= { node 141 }

nodeSecondaryIpAddr OBJECT-TYPE
 SYNTAX IPAddress
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Alternate address that can be used in place of nodeIPAddr when placing virtual circuits. Used when

gracefully transitioning IP network numbers."
 ::= { node 142 }

nodeNtpReferenceServer1 OBJECT-TYPE
 SYNTAX IPAddress
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The IP Address of the first reference time server"
 ::= { node 143 }

nodeNtpReferenceServer2 OBJECT-TYPE
 SYNTAX IPAddress
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The IP Address of the second reference time server"
 ::= { node 144 }

nodeNtpReferenceServer3 OBJECT-TYPE
 SYNTAX IPAddress
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The IP Address of the third reference time server"
 ::= { node 145 }

nodeStoredImages OBJECT-TYPE
 SYNTAX INTEGER {
 setA (1),
 setB (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Instructs the device to store the images as setA or setB to disk."
 ::= { node 146 }

nodeRunningImages OBJECT-TYPE

```

        SYNTAX INTEGER {
                setA (1),
                setB (2)
        }
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
                "Instructs the device to retrieve
images setA or setB
                from disk and run them."
        ::= { node 147 }

nodeScheduleFastLoad OBJECT-TYPE
        SYNTAX TimeTicks
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
                "To schedule software loading to
happen after the specified time
                elapses. Software loading is the
process for a switch to reload
                and run its software. This is
especially useful for software
                upgrade. A schedule software
loading can be canceled or changed
                as long as the the specified time
has not elapses. Once loading
                is in progress, no further writes
are allowed."
        ::= { node 148 }

nodeFastLoadStatus OBJECT-TYPE
        SYNTAX DisplayString
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
                "The status of software loading. The value is
a display string
                containing a status code followed by a short
descriptive message.

        1 no scheduled software loading
        2 software loading to happen in n seconds
        3 loading boot flashes
        4 loading applications

```

```

        5 loading fast loader
        6 decompressing application
        7 saving state
        8 executing application
        9 recovering from rapid upgrade
        ...
        "
        ::= { node 149 }

nodePwrExternalStatus OBJECT-TYPE
        SYNTAX INTEGER {
                up (1),
                down (2),
                not_present (4)
        }
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
                "Garnet external power supply
status."
        ::= { node 150 }

nodePwrBusAStatus OBJECT-TYPE
        SYNTAX INTEGER {
                up (1),
                down (2),
                not_present (4)
        }
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
                "Garnet 48 volt power bus A
status."
        ::= { node 151 }

nodePwrBusBStatus OBJECT-TYPE
        SYNTAX INTEGER {
                up (1),
                down (2),
                not_present (4)
        }
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION

```

```

        "Garnet 48 volt power bus B
status."
        ::= { node 152 }

nodePwrFanAStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up (1),
        down (2),
        not_present (4)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Garnet 24 volt fan power supply
from Timing Module A."
        ::= { node 153 }

nodePwrFanBStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up (1),
        down (2),
        not_present (4)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Garnet 24 volt fan power supply
from Timing Module B."
        ::= { node 154 }

nodeModuleTransferRequest OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to initiate module
download from NMS to
        the switch. A management station can
initiate a file transfer
        by setting this object to the filename of
module image. "
        ::= { node 155 }

nodeModuleTransferStatus OBJECT-TYPE
    SYNTAX INTEGER {

```

```

        complete (1),      -- transfer
complete or no outstanding      -- transfer

request
        active (2),      -- transfer is in
progress
        failed (3),      -- transfer failed
- generic error
        invalid (4),      -- invalid request
        filename (5),      -- file name error
or file non-existent
        timeout (6),      -- transfer timed
out
        canceled (7),      -- transfer is
cancelled
        file-not-available (8) -- requested
file is not available
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The status of the module transfer."
        ::= { node 156 }

nodeLogSrvDefIpAddress OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Default IP address of the log
collection station."
        ::= { node 157 }

nodeLogDefDstDir OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Default destination directory for
the log files.
        This name must be terminated with
a slash '/'."
        DEFVAL { "/tmp/" }
        ::= { node 158 }

```

```

nodeLogDefFlushTime OBJECT-TYPE
    SYNTAX INTEGER (0..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Default log flush time in
seconds. Zero disables flushing."
    DEFVAL { 60 }
    ::= { node 159 }

nodeLogDefFlushThresh OBJECT-TYPE
    SYNTAX INTEGER (1..262144)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Default buffer threshold which
triggers a log flush."
    DEFVAL { 65536 }
    ::= { node 160 }

nodeLogImpLevel OBJECT-TYPE
    SYNTAX INTEGER {
        disable (1),
        fatal (2),
        critical (3),
        warning (4),
        info_high (5),
        info_med (6),
        info_low (7),
        debug (8)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Importance level common to all
client applications."
    DEFVAL { disable }
    ::= { node 161 }

nodePsDcPowerAStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up (1),
        down (2)
    }
    ACCESS read-only

```

```

    STATUS mandatory
    DESCRIPTION
        "The status of the N+1 DC 48V
power supply A."
    ::= { node 162 }

nodePsDcPowerBStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up (1),
        down (2)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The status of the N+1 DC 48V
power supply B."
    ::= { node 163 }

nodePTSHoldoverState OBJECT-TYPE
    SYNTAX INTEGER {
        disable (2),
        enable (1)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The state of the PTS holdover."
    DEFVAL { enable }
    ::= { node 164 }

nodeOspfArea1BackCompat OBJECT-TYPE
    SYNTAX INTEGER {
        no (1),
        yes (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This variable determines if the router
can talk to
        pre-IP Navigator switches."
    DEFVAL { yes }
    ::= { node 165 }

nodeMptCIR OBJECT-TYPE

```

```

        SYNTAX INTEGER
        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
            "This CIR allocated to the MPT rooted at
this node."
        DEFVAL { 0 }
        ::= { node 166}

nodeSmdsCIR OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This CIR allocated to the SMDS Virtual
Paths originating
                at this node."
    DEFVAL { 0 }
    ::= { node 167}

nodePortRefASrcAdminOBJECT-TYPE
    SYNTAX INTEGER (0..12)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "What slot port reference A comes
from. The value 0 indicates
                no configured port reference A."
    ::= { node 168}

nodePortRefBSrcAdminOBJECT-TYPE
    SYNTAX INTEGER (0..12)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "What slot port reference B comes
from. The value 0 indicates
                no configured port reference B."
    ::= { node 169 }

nodePnniToVnnReachability OBJECT-TYPE
    SYNTAX INTEGER {
        enable (1),
        disable (2)
    }

```

```

        ACCESS read-write
        STATUS mandatory
        DESCRIPTION
            "Indicates whether or not internal
addresses known to PNNI
                should be advertised within the VNN
domain"
        DEFVAL { enable }

        ::= { node 170 }

nodeVnnToPnniReachability OBJECT-TYPE
    SYNTAX INTEGER {
        enable (1),
        disable (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Indicates whether or not internal
addresses known to VNN
                should be advertised within the PNNI
domain"
    DEFVAL { enable }

    ::= { node 171 }

nodePtsPLLOperationalState OBJECT-TYPE
    SYNTAX INTEGER {
        free-run (1),
        primary (2),
        secondary (3),
        holdover (4),
        unusable (5)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The current state of the PLL
synchronization PLL.
                -- Lock to free-
                -- Lock to primary
                -- Lock to
                -- Lock to
                -- Unusable state

```

The 'unusable' state indicates that at the instant the PLL state was sampled, the PLL output was not usable as a system timing reference (e.g. the PLL is configured to use an external reference and that reference is physically disconnected)."

```
 ::= { node 172 }
```

nodePnniAddrBundle OBJECT-TYPE
 SYNTAX INTEGER {
 enable (1),
 disable (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Indicates whether or not addresses should be bundled"
 DEFVAL { enable }
 ::= { node 173 }

nodeMptAdminStatus OBJECT-TYPE
 SYNTAX INTEGER {
 enable (1),
 disable (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "MPT Admin Status."
 DEFVAL { enable }
 ::= { node 174 }

nodeFastLoadStatusCode OBJECT-TYPE
 SYNTAX INTEGER {
 noLoadScheduled (1),
 loadScheduled (2),
 loadingBootFlash (3),
 loadingApplication (4),
 loadingFastLoader (5),
 decompressingApplication (6),

```
    savingState (7),
    executingApplication (8),
    recovery (9)
  }
  ACCESS read-only
  STATUS mandatory
  DESCRIPTION
    "The status of a node rapid upgrade. The
value returned corresponds to the status string
returned by nodeFastLoadStatus."
  ::= { node 175 }
```

nodePnniImportExt OBJECT-TYPE
 SYNTAX INTEGER {
 enable (1),
 disable (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Indicates whether or not PNNI should import VNN external names"
 DEFVAL { disable }
 ::= { node 176 }

-- The Card Group
--
-- The variables that manage intelligent cards (PPs, CPs, SPS, IOPs, IOMs).
-- For redundant pairs of cards, only the active card is managed.
--
-- NOTE: The card group is currently only supported in the B-STDX 9000
-- and Cascade 500 platforms.

```
CardTypes ::= INTEGER {
    invalid (0),
    v35-6 (1), -- 6-port
V.35 i/o card
```

24-channel Fractional T1	ft1-1-24 (2),-- 1-port	ATM	t1-atm (24),-- T1
30-channel Fractional E1	fe1-1-30 (3),-- 1-port	ATM	e1-atm (25),-- E1
universal i/o card	uio-6 (4), -- 6-port	DS3 T3 (topaz)	ads3-t3 (26),-- ATM
Processor	cp1 (5), -- Control	DS3 E3 (topaz)	ads3-e3 (27),-- ATM
V.35 i/o card	uio-8 (6), -- 8-port	port CBR T1 structured card	cbr-ds1-s-4 (28),-- 4-
24-channel Fractional T1	ft1-4-24 (7),-- 4-port	4-port CE T1 card	cbr-ds1-us-4 (29),--
30-channel Fractional E1	fe1-4-30 (8),-- 4-port	port CBR E1 structured card	cbr-e1-s-4 (30),-- 4-
Fractional T3 i/o card	ft3-1 (9), -- 1-port	port CE E1 card	cbr-e1-us-4 (31),-- 4-
Fractional E3 i/o card	fe3-1 (10), -- 1-port	port ATM-IWU STM-1/STS-3c card	atmiwu-1 (32),-- 1-
o card	hssi-2 (11),-- HSSI i/	port Topaz OC3c/STM1 ATM card	toc3-atm-4 (33),-- 4-
port DSX-1 card	dsx1-10 (12),-- 10-	port Topaz STM1 ATM card (OBSOLETE code)	tstm1-atm-4 (34),-- 4-
port X.21/V.24 I/O card, for STDX 3000/6000 only	rs232-18 (13),-- 18-	switching processor (new terminology is "sp-10")	sp-4 (35),-- 4x4
X.21/V.24 I/O card, for STDX 3000/6000 only	rs232-8 (14),-- 8-port	switching processor (new terminology is "sp-20")	sp-8 (36),-- 8x8
port 24-channel Un-Channelized T1	ut1-4-24 (15),-- 4-	port ATM-CS card (siemens)	atmcs-1 (37),-- 1-
port 30-channel Un-Channelized E1	ue1-4-30 (16),-- 4-	port Topaz OC12c/STM4 ATM card	toc12-atm-1 (38),-- 1-
port ATM DS3 UNI I/O card	atmds3-1 (17),-- 1-	port Topaz STM4 ATM card (OBSOLETE code)	tstm4-atm-1 (39),-- 1-
ATM E3 UNI I/O card	atme3-1 (18),-- 1-port	ads1-t1 (40),-- Topaz	
ISDN PRI I/O card	pri-4 (19), -- 4-port	8 port T1 ATM	ads1-e1 (41),-- Topaz
port E1 PRI I/O card	e1-pri-4 (20),-- 4-	8 port E1 ATM	ads1-j2 (42),-- Topaz
port short haul 24-channel Fractional T1 card	sft1-4-24 (21),-- 4-	8 port J2 ATM	e1-12 (43), -- 12-port
port short haul 24-channel Un-Channelized T1 card	sut1-4-24 (22),-- 4-	E1 i/o card	bio1_4_16 (44),--
port short haul PRI I/O card	st1-pri-4 (23),-- 4-	Garnet BI01 4 PHY sub-cards 16 ports	bio1_oc3_4 (45),--
		Garnet BI01 OC3 PHY sub-card 4 ports	

```

        bio1_oc12_1 (46),--
Garnet BIO1 OC12 PHY sub-card 1 port
        bio1_oc12x4 (47),--
Garnet BIO1 OC12x4 PHY sub-card 1 port 4 channels
        bio1_oc48_1 (48),--
Garnet BIO1 OC48 PHY sub-card 1 port
        np1 (49),    -- Garnet
Node Processor card
        sf1 (50),    -- Garnet
Switch Fabric card
        tm1 (51),    -- Garnet
Timing Module card
        tfds3-t3-6   (52),--
6-port Topaz DS3 T3 Ultracore card
        tfds3-e3-6   (53),--
6-port Topaz DS3 E3 Ultracore card
        tfast-ether-4 (54),--
4-port Topaz Fast Ethernet Ultracore card
        fast-ether-2  (55),--
2-port BSTDX Fast Ethernet Ultracore card
        ls-oc3-1     (56),--
1-port BSTDX OC3c/STM-1 Ultracore card
        tcfds3-t3-6   (57),--
6-port Topaz Cell Frame Cell DS3 T3 Ultracore card
        tcfds3-e3-6   (58),--
6-port Topaz Cell Frame Cell DS3 E3 Ultracore card
        toc3-cfc-2    (59),--
2-port Topaz Cell Frame Cell OC3c/STM-1 Ultracore card
        atmcs-e3-1    (60),--
1-port ATM-CS-E3 card (siemens)
                                -- (61) is
reserved
        be1-atm-12   (62),-- 12-
port BSTDX E1 ATM card
        bt1-atm-12   (63),-- 12-
port BSTDX T1 ATM card
        bds3-1-0     (64),-- 1
port BSTDX Channelized 3/1/0
        gfether-4    (65),--
Granite Topaz Fast Ethernet UC card
        gfd3-t3-6    (66),--
Granite Topaz Frame DS3 UC card
        gfd3-e3-6    (67),--
Granite Topaz Frame E3 UC card

```

```

        gchn-ds3-4   (68),--
Granite Topaz Channalized DS3 card
        g-server     (69),--
Granite Topaz Server card
        sp-30        (70),-- 8x8
sp with new PTS
        sp-40        (71),-- 8x8
sp with new PTS and more memory
        bio3         (72),--
Piranha GX550 Frame card
        genet-1      (73),--
Piranha Gigabit Ethernet PHY
        bio1-uplink-1 (74),
-- GARNET UPLINK PHY card for shelf communications
        shelf-uplink-1 (75),
-- 1-port Shelf (fc) UPLINK card
        shelf-ds3-4   (76),
-- 4-port Shelf DS3 transport card
        shelf-red-ds3-4 (77)
-- 4-port Shelf Redundant DS3 transport card
    }
-- TEXTUAL-CONVENTION
-- Status
-- mandatory

CardStatuses ::= INTEGER {
                                invalid (0),
                                up (1),
                                down (2),
                                testing (3),
                                maintenance (6),
                                overtemp (7)
                                }

cardNumber    OBJECT-TYPE
    SYNTAX     INTEGER
    ACCESS     read-only
    STATUS     mandatory
    DESCRIPTION
        "The number of manageable cards
physically present in this node.
        Standby cards are not considered
manageable."
    ::= { card 1}

```


cardTable	OBJECT-TYPE		cardDiagNonFatalErrMinor
	SYNTAX	SEQUENCE OF CardEntry	INTEGER,
	ACCESS	not-accessible	cardDiagNonFatalStr
	STATUS	mandatory	DisplayString,
	DESCRIPTION		cardDiagFatalSource
		"A list of cardEntry's. The number	INTEGER,
of entries is given by the value of		cardNumber"	cardDiagFatalTime
		::= { card 2}	TimeTicks,
CardEntry	::=		cardDiagFatalErrMajor
	SEQUENCE {		INTEGER,
		cardLogicalSlotId	cardDiagFatalErrMinor
		INTEGER,	INTEGER,
		cardPhysicalSlotId	cardDiagFatalStr
		INTEGER,	DisplayString,
		cardAdminType	cardDiagFatalReboots
		CardTypes,	Counter,
		cardOperType	cardDiagFatalAddress
		CardTypes,	INTEGER,
		cardState	cardDiagBackgroundPasses
		INTEGER,	Counter,
		cardAdminStatus	cardDiagBackgroundFailures
		CardStatuses,	Counter,
		cardOperStatus	cardDiagBackgroundSuccesses
		CardStatuses,	Counter,
		cardDiagStatus	cardDiagLEDReset
		INTEGER,	INTEGER,
		cardRedundConfig	cardDiagPowerExtensive
		INTEGER,	INTEGER,
		cardRedundSlotMask	cardCpuUtil
		INTEGER,	Gauge,
		cardRedundActual	cardMemoryUsage
		INTEGER,	Gauge,
		cardRedundState	cardMaxVCs
		INTEGER,	Gauge,
		cardToRedundant	cardInUseVCs
		TimeTicks,	Gauge,
		cardDiagNonFatalSource	cardFreeVCs
		INTEGER,	Gauge,
		cardDiagNonFatalTime	cardInOctets
		TimeTicks,	Counter,
		cardDiagNonFatalErrMajor	cardInPkts
		INTEGER,	Counter,
			cardOutOctets
			Counter,
			cardOutPkts

Counter,
 cardToWarmboot
 TimeTicks,
 cardToColdboot
 TimeTicks,
 cardModel
 DisplayString,
 cardSerial
 DisplayString,
 cardSwRev
 DisplayString,
 cardHwRev
 DisplayString,
 cardEpromRev
 DisplayString,
 cardName
 DisplayString,
 cardCktGroupTrap
 OCTET STRING,
 cardOutBtus
 Counter,
 cardInGoodBtus
 Counter,
 cardInErrorBtus
 Counter,
 cardInNoVcBtus
 Counter,
 cardInLinkDownBtus
 Counter,
 cardInNoBufferBtus
 Counter,
 cardInForwardBitBtus
 Counter,
 cardDiagTestId
 INTEGER,
 cardDiagTestRuns
 INTEGER,
 cardDiagState
 INTEGER,
 cardDiagOptionStr
 OCTET STRING,
 cardDiagPasses
 Counter,
 cardDiagFailures
 Counter,

cardDiagResultString
 DisplayString,
 cardFrameMemoryUtil
 Gauge,
 cardResetPram
 INTEGER,
 cardMemoryUtil
 Gauge,
 cardFrameMemoryUsage
 Gauge,
 cardUpTime
 TimeTicks,
 cardPramChecksum
 INTEGER,
 cardPhysicalIndex
 INTEGER,
 cardExternalClockRate
 INTEGER,
 cardShootState
 INTEGER,
 cardEraseAll
 INTEGER,
 cardAdminCapability
 INTEGER,
 cardOperCapability
 INTEGER,
 cardISDNswtype
 INTEGER,
 cardCpuFgUtil
 Gauge,
 cardTrkProtState
 INTEGER,
 cardISDNSigType
 INTEGER,
 cardISDNChanId
 INTEGER,
 cardTransmitClockConfig
 INTEGER,
 cardTransmitClockSwitchOver
 INTEGER,
 cardTransmitClockStatus
 INTEGER,
 cardSystemPrimaryClockPortConfig
 INTEGER,
 cardSystemPrimaryClockStatus

INTEGER,
cardSystemSecondaryClockPortConfig
INTEGER,
cardSystemSecondaryClockStatus
INTEGER,
cardInCells
Counter,
cardInErrorCells
Counter,
cardInErrorVPIVCI
Counter,
cardOutCells
Counter,
cardOutDiscardCells
Counter,
cardQOSQueueSize
INTEGER,
cardLastErrorPort
INTEGER,
cardLastErrorVPI
INTEGER,
cardLastErrorVCI
INTEGER,
cardSystemPrimaryClockModeConfig
INTEGER,
cardSystemSecondaryClockModeConfig
INTEGER,
cardNFBDEStatus
INTEGER,
cardProductCode
DisplayString,
cardMfgPN
DisplayString,
cardTotalUpTime
TimeTicks,
cardIOAType
INTEGER,
cardIOAHwRev
DisplayString,
cardIOASerial
DisplayString,
cardIOAProductCode
DisplayString,
cardIOAMfgPN
DisplayString,

cardDS0Support
INTEGER,
cardDiagParamId
INTEGER,
cardDiagParamValue
INTEGER,
cardBulkStatsPeakCapability
INTEGER,
cardBulkStatsTotalCapability
INTEGER,
cardBulkStatsPeakEnable
INTEGER,
cardBulkStatsTotalEnable
INTEGER,
cardBulkStatsBaseCollectPeriod
INTEGER,
cardNrtsHwRev
INTEGER,
cardNrtsOutCellBufSize
INTEGER,
cardNrtsOperState
INTEGER,
cardNrtsAdminState
INTEGER,
cardNrtsCcrmProtocolId
INTEGER,
cardNrtsBcmProtocolId
INTEGER,
cardNrtsRmGenInterval
INTEGER,
cardNrtsIdleCktThresh
INTEGER,
cardNrtsVbrNrtManage
INTEGER,
cardNrtsIcrFact
INTEGER,
cardNrtsMcastDiscardThresh
INTEGER,
cardNrtsMcastDiscardCount
Counter,
cardAdminIOAType
INTEGER,
cardNrtsMcastRate
INTEGER,
cardMonStatus

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cardImageSetA
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cardImageSetB
DisplayString,
cardMacAddress
DisplayString,
cardFlashRev
DisplayString,
cardRequiredCapabilityBitmask
INTEGER,
cardOperCapabilityBitmask
INTEGER,
cardDslModule
OCTET STRING,
cardIPTableSize
INTEGER,
cardIPTableState
INTEGER,
cardATMTcaInBufOverflowAlertPeriod
INTEGER,
cardATMTcaInBufOverflowThresh
INTEGER,
cardATMTcaInInvalidVpiVciAlertPeriod
INTEGER,
cardATMTcaInInvalidVpiVciThresh
INTEGER,
cardATMTcaInATMDCFullAlertPeriod
INTEGER,
cardATMTcaInATMDCFullThresh
INTEGER,
cardATMTcaEnable
INTEGER,
cardATMTcaId
INTEGER,
cardATMTcaECidLookupFailureAlertPeriod
INTEGER,
cardATMTcaECidLookupThresh
INTEGER,
cardATMTcaSPPearl0CbrFailureAlertPeriod
INTEGER,
cardATMTcaSPPearl0CbrThresh

INTEGER,
cardATMTcaSPPearl0AbrFailureAlertPeriod
INTEGER,
cardATMTcaSPPearl0AbrThresh
INTEGER,
cardATMTcaSPPearl0Vbr1FailureAlertPeriod
INTEGER,
cardATMTcaSPPearl0Vbr1Thresh
INTEGER,
cardATMTcaSPPearl0Vbr2FailureAlertPeriod
INTEGER,
cardATMTcaSPPearl0Vbr2Thresh
INTEGER,
cardATMTcaSPPearlGCbrFailureAlertPeriod
INTEGER,
cardATMTcaSPPearlGCbrThresh
INTEGER,
cardATMTcaSPPearlGAbrFailureAlertPeriod
INTEGER,
cardATMTcaSPPearlGAbrThresh
INTEGER,
cardATMTcaSPPearlGVbr1FailureAlertPeriod
INTEGER,
cardATMTcaSPPearlGVbr1Thresh
INTEGER,
cardATMTcaSPPearlGVbr2FailureAlertPeriod
INTEGER,
cardATMTcaSPPearlGVbr2Thresh
INTEGER,
cardATMTcaSPEnable
INTEGER,
cardSPEFCIEnable
INTEGER,
cardSPC1pEnable
INTEGER,
spATMTcaId
INTEGER,
cardSubcardToRedundant
CardTypes,
cardMemory5Usage
Gauge,
cardSF10perStatus

CardStatuses,
 cardSF20perStatus
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 cardTM20perStatus
 CardStatuses,
 cardMemStartLog
 INTEGER,
 cardMemLogLevel
 INTEGER,
 cardMemClrLog
 INTEGER,
 cardValidSubcards
 INTEGER,
 cardClp0CbrThreshold
 INTEGER,
 cardClp01CbrThreshold
 INTEGER,
 cardClp0VbrRtThreshold
 INTEGER,
 cardClp01VbrRtThreshold
 INTEGER,
 cardClp0VbrNrtThreshold
 INTEGER,
 cardClp01VbrNrtThreshold
 INTEGER,
 cardClp0UabrThreshold
 INTEGER,
 cardClp01UabrThreshold
 INTEGER,
 cardControlMessagesFromBus
 Counter,
 cardControlMessagesToBus
 Counter,
 cardBTUsFromBus
 Counter,
 cardBTUsToBus
 Counter,
 cardInvalidPvcBTUs
 Counter,
 cardIncompleteFramesFromBus
 Counter,
 cardBTUsBusErrors
 Counter,

cardBTUsNoResource
 Counter,
 cardInvalidPvcBTUsThreshold
 INTEGER,
 cardIncompleteFramesFromBusThreshold
 INTEGER,
 cardBTUsBusErrorThreshold
 INTEGER,
 cardBTUsNoResourceThreshold
 INTEGER,
 cardFrameMemoryThreshold
 INTEGER,
 cardHoldQFrameMemory
 Counter,
 cardTotalAAL5RxErroCount
 Counter,
 cardOperMemSize
 INTEGER,
 cardWarmStartCapability
 INTEGER,
 cardVpShapeEnable
 INTEGER,
 cardRapidUpgradeFailReason
 INTEGER,
 cardSystemPrimaryClockDummyLPortConfig
 INTEGER,
 cardSystemSecondaryClockDummyLPortConfig
 INTEGER,
 cardVbrRtShapingEnable
 INTEGER,
 cardVbrNrtShapingEnable
 INTEGER,
 cardTrafficPrioritizationEnable
 INTEGER,
 cardTrafficPaceEnable
 INTEGER,
 cardTemperature
 INTEGER,
 cardSF1Temperature
 INTEGER,
 cardSF2Temperature
 INTEGER,

```

        cardNrtsSwRev
            INTEGER
    }

cardEntry OBJECT-TYPE
    SYNTAX      CardEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The card entry contains objects
        relevant to managing intelligent
        cards."
    INDEX        { cardLogicalSlotId,
cardRedundState }
    ::= { cardTable 1}

cardLogicalSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The logical slot number of this
        card. This is used as an index for
        the cardTable. In redundant
        configurations, this can be the physical
        slot number of either redundant
        card. In non redundant
        configurations, this is the same
        as cardPhysicalSlotId."
    ::= { cardEntry 1}

cardPhysicalSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The physical slot number of this
        card. This can be different from
        cardLogicalSlotId in redundant
        configurations."
    ::= { cardEntry 2}

cardAdminType OBJECT-TYPE
    SYNTAX      CardTypes
    ACCESS      read-write

```

```

    STATUS      mandatory
    DESCRIPTION
        "The desired card type."
    ::= { cardEntry 3}

cardOperType OBJECT-TYPE
    SYNTAX      CardTypes
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The actual card type."
    ::= { cardEntry 4}

cardState OBJECT-TYPE
    SYNTAX      INTEGER {
        unknown (0),
        present (1),
        loading (2),
        start (3),
        init (4),
        sync (5),
        syncdone (6),
        ready (7),
        active (8),
        stopped (9),
        down (10),
        debug (11),
        offlinediag (12)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The state of this card."
    ::= { cardEntry 5}

cardAdminStatus OBJECT-TYPE
    SYNTAX      CardStatuses
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The desired status of this card."
    ::= { cardEntry 6}

cardOperStatus OBJECT-TYPE
    SYNTAX      CardStatuses

```

ACCESS read-only
STATUS mandatory
DESCRIPTION "The current status of this card."
::= { cardEntry 7}

cardDiagStatus OBJECT-TYPE
SYNTAX INTEGER {
unknown (0),
ok (1),
marginal (2)

ACCESS read-only
STATUS mandatory
DESCRIPTION "The current diagnostics status of
this card, as determined by
background diagnostics."
::= { cardEntry 8}

cardRedundConfig OBJECT-TYPE
SYNTAX INTEGER {
none (0),
configured (1)

ACCESS read-only
STATUS mandatory
DESCRIPTION "Is the card configured for
redundancy?"
::= { cardEntry 9}

cardRedundSlotMask OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "A 32-bit mask indicating the slot
position of this card and its
redundant partner. The low bit is
slot 1 and the high bit is slot
32."
::= { cardEntry 10}

cardRedundActual OBJECT-TYPE

SYNTAX INTEGER {
connected (1),
not-connected (2)
}
ACCESS read-only
STATUS mandatory
DESCRIPTION "Is the card currently connected
to a redundant card?"
::= { cardEntry 11}

cardRedundState OBJECT-TYPE
SYNTAX INTEGER {
active (1),
standby (2)
}
ACCESS read-only
STATUS mandatory
DESCRIPTION "The current redundancy state of
this card. Exception: when
used as an index for the following
objects: cardAdminType,
cardAdminCapability, and
cardAdminStatus, the value 1 indicates
the card of the redundant pair in
the lower-numbered slot, and
the value 2 indicates the card in
the higher-numbered slot."
::= { cardEntry 12}

cardToRedundant OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION "Instructs the standby card to
reset the active card and take over
as new active card. The reset
takes place after specified time ticks
have elapsed. A value of 0
indicates cancellation of the previously
scheduled request."
::= { cardEntry 13}

```

cardDiagNonFatalSource OBJECT-TYPE
    SYNTAX      INTEGER {
        power-on-diagnostics (1),
        background-diagnostics (2),
        fault (3),
        frame-heap (4),
        redundancy (5),
        system-level (6),
        card-level (7),
        i960-data-structures (8),
        general (9),
        data-alignment (10),
        device-driver-level (11)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Source who reported last non-
fatal error."
    ::= { cardEntry 14 }

```

```

cardDiagNonFatalTime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Time the last non-fatal error was
reported."
    ::= { cardEntry 15 }

```

```

cardDiagNonFatalErrMajor OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Major error code of last non-
fatal error."
    ::= { cardEntry 16 }

```

```

cardDiagNonFatalErrMinor OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "Minor error code of last non-
fatal error."
        ::= { cardEntry 17 }

cardDiagNonFatalStr OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Ascii string describing last non-
fatal error."
    ::= { cardEntry 18 }

```

```

cardDiagFatalSource OBJECT-TYPE
    SYNTAX      INTEGER {
        power-on-diagnostics (1),
        background-diagnostics (2),
        fault (3),
        frame-heap (4),
        redundancy (5),
        system-level (6),
        card-level (7),
        i960-data-structures (8),
        general (9),
        data-alignment (10),
        device-driver-level (11)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Source who reported last fatal
error."
    ::= { cardEntry 19 }

```

```

cardDiagFatalTime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Time the last fatal error was
reported."
    ::= { cardEntry 20 }

```

```

cardDiagFatalErrMajor OBJECT-TYPE
    SYNTAX      INTEGER

```



```

ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "Major error code of last fatal
error."
      ::= { cardEntry 21 }

cardDiagFatalErrMinor OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Minor error code of last fatal
error."
      ::= { cardEntry 22 }

cardDiagFatalStr OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Ascii string describing last
fatal error."
      ::= { cardEntry 23 }

cardDiagFatalReboots OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of times the switch has
re-booted since last
fatal error was reported."
      ::= { cardEntry 24 }

cardDiagFatalAddress OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Address switch was executing when
it encountered fatal error."
      ::= { cardEntry 25 }

cardDiagBackgroundPasses OBJECT-TYPE

```

```

SYNTAX      Counter
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "Number of passes made by the
background diagnostics."
      ::= { cardEntry 26 }

cardDiagBackgroundFailures OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of failures discovered by
background diagnostics."
      ::= { cardEntry 27 }

cardDiagBackgroundSuccesses OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of successful passes by
background diagnostics."
      ::= { cardEntry 28 }

cardDiagLEDReset OBJECT-TYPE
    SYNTAX      INTEGER {
state-unchanged (0),
state-to-active (1)
}
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Change the card state from
marginal to active. Change the
LED from yellow to green."
      ::= { cardEntry 29 }

cardDiagPowerExtensive OBJECT-TYPE
    SYNTAX      INTEGER {
fast-tests (0),
extensive-tests (1)
}
    ACCESS      read-write

```

STATUS	mandatory
DESCRIPTION	"Should power on diagnostics do slower, extensive testing, or fast testing?"
	::= { cardEntry 30 }

cardCpuUtil OBJECT-TYPE

SYNTAX	Gauge
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The CPU utilization percentage for packet processing on this intelligent card."
	::= { cardEntry 31 }

cardMemoryUsage OBJECT-TYPE

SYNTAX	Gauge
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The memory utilization, in terms of free bytes, for this intelligent card."
	::= { cardEntry 32 }

cardMaxVCs OBJECT-TYPE

SYNTAX	Gauge
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of available VC entries on this card."
	::= { cardEntry 33 }

cardInUseVCs OBJECT-TYPE

SYNTAX	Gauge
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of currently in use VC entries on this card."
	::= { cardEntry 34 }

cardFreeVCs OBJECT-TYPE

SYNTAX	Gauge
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of currently free VC entries on this card."
	::= { cardEntry 35 }

cardInOctets OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of octets received on this card, including framing bytes."
	::= { cardEntry 36 }

cardInPkts OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of packets received on this card."
	::= { cardEntry 37 }

cardOutOctets OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of octets transmitted out of this card, including framing bytes."
	::= { cardEntry 38 }

cardOutPkts OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of packets requested to be transmitted out

of this card, including those that were discarded or not sent."
 ::= { cardEntry 39 }

cardToWarmboot OBJECT-TYPE
 SYNTAX TimeTicks
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Warm boots the card after the specified time ticks have elapsed. A value of 0 indicates cancellation of the previously scheduled re-boot request."
 ::= { cardEntry 40 }

cardToColdboot OBJECT-TYPE
 SYNTAX TimeTicks
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Cold boots the card after the specified time ticks have elapsed. A value of 0 indicates cancellation of the previously scheduled re-boot request."
 ::= { cardEntry 41 }

cardModel OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The part number of the card."
 ::= { cardEntry 42 }

cardSerial OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The serial number of the card."
 ::= { cardEntry 43 }

cardSwRev OBJECT-TYPE

SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The software rev number (major.minor)."
 ::= { cardEntry 44 }

cardHwRev OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The hardware rev number (major.minor)."
 ::= { cardEntry 45 }

cardEpromRev OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The EPROM firmware rev number (major.minor)."
 ::= { cardEntry 46 }

cardName OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The name of this card"
 ::= { cardEntry 47 }

cardCktGroupTrap OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This is a (4 + n*134) byte octet string where n => 1. The first and second byte is the interface/slot id of the link/IOP going down or link goes up."

circuits go down:

The third byte is the reason why

1 is a user link goes down,
 2 is a trunk link goes down,
 3 is an IOP goes down and
 4 is an user link goes up

The fourth byte is the count of entries in the following circuit bit map array.

Each circuit bit map entry is 134 bytes.

The first 2 bytes is the IOP slot on which dlci's are defined.

The second 2 bytes is the Physical port ID on which dlci's are defined.

The third 2 bytes is the interface id on which dlci's are defined.

The following 128 bytes (1024 bits) is a bit map for dlci's defined on the interface. The left-most bit of the first byte represent dlci 0 and the right-most bit of the 128th byte represent dlci 1023. If a bit is set, it means the corresponding dlci on that interface is up/down."

```
 ::= { cardEntry 48 }
```

cardOutBtus OBJECT-TYPE

SYNTAX Counter

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of bus transfer units sent by this card."

```
 ::= { cardEntry 49 }
```

cardInGoodBtus OBJECT-TYPE

SYNTAX Counter

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of good bus transfer units received by this card."

```
 ::= { cardEntry 50 }
```

cardInErrorBtus OBJECT-TYPE

SYNTAX Counter

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of bus transfer units received with errors."

```
 ::= { cardEntry 51 }
```

cardInNoVcBtus OBJECT-TYPE

SYNTAX Counter

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of bus transfer units discarded because no circuit was found."

```
 ::= { cardEntry 52 }
```

cardInLinkDownBtus OBJECT-TYPE

SYNTAX Counter

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of bus transfer units discarded because the outgoing link was inactive."

```
 ::= { cardEntry 53 }
```

cardInNoBufferBtus OBJECT-TYPE

SYNTAX Counter

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of bus transfer units discarded because no buffer was available."

```
 ::= { cardEntry 54 }
```

cardInForwardBitBtus OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of bus transfer units discarded because the circuit forward bit was off."
	::= { cardEntry 55 }

cardDiagTestId OBJECT-TYPE

SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Identification of the diagnostics tests to be run."
	::= { cardEntry 56 }

cardDiagTestRuns OBJECT-TYPE

SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"The number of passes of the diagnostics tests to be run. The default value is 1."
	::= { cardEntry 57 }

cardDiagState OBJECT-TYPE

SYNTAX	INTEGER { inactive (0), active(1) }
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"The current state of the foreground diagnostics on this card."
	::= { cardEntry 58 }

cardDiagOptionStr OBJECT-TYPE

SYNTAX	OCTET STRING
ACCESS	read-write
STATUS	mandatory

DESCRIPTION	"Optional parameters to the diagnostic."
	::= { cardEntry 59 }

cardDiagPasses OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Number of successful diagnostic passes."
	::= { cardEntry 60 }

cardDiagFailures OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Number of failed diagnostic passes."
	::= { cardEntry 61 }

cardDiagResultString OBJECT-TYPE

SYNTAX	DisplayString
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Description of last diagnostic failure."
	::= { cardEntry 62 }

cardFrameMemoryUtil OBJECT-TYPE

SYNTAX	Gauge
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The percentage of frame memory utilization on this intelligent card."
	::= { cardEntry 63 }

cardResetPram OBJECT-TYPE

SYNTAX	INTEGER { reset-pram (1) }
--------	----------------------------

```

ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "Setting this to 1 causes a reset
of PRAM on the corresponding
    card."
    ::= { cardEntry 64 }

```

```

cardMemoryUtil OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The percentage of system memory
utilization on this intelligent card."
    ::= { cardEntry 65 }

```

```

cardFrameMemoryUsage OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The frame memory utilization, in
terms of free bytes, for
        this intelligent card."
    ::= { cardEntry 66 }

```

```

cardUpTime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The time (in hundredths of a
second) since this card was last
        booted."
    ::= { cardEntry 67 }

```

```

cardPramChecksum OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        " The PRAM checksum for this
card."
    ::= { cardEntry 68 }

```

```

cardPhysicalIndex OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        " The physical slot id of this
card."
    ::= { cardEntry 69 }

```

```

cardExternalClockRate OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The external clock rate for DSX1,
T1 and E1 cards. The
        value is specified in units of
8KHz and can range from 1 to 255."
    ::= { cardEntry 70 }

```

```

cardShootState OBJECT-TYPE
    SYNTAX      INTEGER {
        shoot-disabled (0),
        shoot-enabled  (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Specifies whether the system
monitor on the CP should shoot
        this card if it's unreachable. The
default is enabled. The
        card index used in the binding
refers to a physical card."
    ::= { cardEntry 71 }

```

```

cardEraseAll OBJECT-TYPE
    SYNTAX      INTEGER {
        erase-all (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

"When set to 1, erases program
flash and PRAM on specified card."
::= { cardEntry 72 }

cardAdminCapability OBJECT-TYPE

SYNTAX INTEGER {
iop-frame-relay (1),
iop-multi-service (2),
iop-16meg-service (3),
cp-basic (4),
cp-30 (5),
cp-plus (8),
cp-40 (9),
cp-50 (10),
iom-fcp (11)

}
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The desired capability of the

card"

::= { cardEntry 73 }

cardOperCapability OBJECT-TYPE

SYNTAX INTEGER {
iop-frame-relay (1),
iop-multi-service (2),
iop-16meg-service (3),
cp-basic (4),
cp-30 (5),
cp-plus (8),
cp-40 (9),
cp-50 (10),
iom-fcp (11)

}
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The actual capability of the

card"

::= { cardEntry 74 }

cardISDNswtype OBJECT-TYPE

SYNTAX INTEGER {
att-4ess (1),

att-5ess (2),
dms100 (3)

}

ACCESS read-write
STATUS mandatory

DESCRIPTION

"Specifies the ISDN central office
switch type for the card."

::= { cardEntry 75 }

cardCpuFgUtil OBJECT-TYPE

SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The CPU foreground utilization
percentage for packet
processing on this intelligent
card."

::= { cardEntry 76 }

cardTrkProtState OBJECT-TYPE

SYNTAX INTEGER {
enabled (1),
disabled (2)

}
ACCESS read-write
STATUS mandatory
DESCRIPTION

"Control for issue of Link Trunk
Protocol request frames. If
set to disabled, the issue of
trunk protocol requests is
blocked for all trunks on this
card."

::= { cardEntry 77 }

cardISDNSigType OBJECT-TYPE

SYNTAX INTEGER {
no-nfas (1),
nfas (2)

}
ACCESS read-write
STATUS mandatory
DESCRIPTION

	"Specifies whether the ISDN Signalling type is Associated or Non-Facility Associated Signalling"	
	::= { cardEntry 78 }	
cardISDNChanId	OBJECT-TYPE	
SYNTAX	INTEGER { exclusive (1), preferred (2) }	
ACCESS	read-write	
STATUS	mandatory	
DESCRIPTION	"Specifies whether Channel ID assignment is performed by the central office switch or the 9000 - Exclusive (central office) Preferred (9000)"	
	::= { cardEntry 79 }	
cardTransmitClockConfig	OBJECT-TYPE	
SYNTAX	INTEGER { system-primary-clock (1), system-secondary-clock (2), system-primary-secondary-clock (3), free-running-clock (4), e1-G703sec10-clock (5), e1-network-clock (6) }	
ACCESS	read-write	
STATUS	mandatory	
DESCRIPTION	"The transmit clock source for timing section of the card"	
	::= { cardEntry 80 }	
cardTransmitClockSwitchOver	OBJECT-TYPE	
SYNTAX	INTEGER { enable (1), disable (2) }	
ACCESS	read-write	
STATUS	mandatory	

	DESCRIPTION	
	"Enable/disable automatic transmit clock source switch-over once a failed clock reference has recovered."	
	::= { cardEntry 81 }	
cardTransmitClockStatus	OBJECT-TYPE	
SYNTAX	INTEGER { in-synchronization (1), loss-of-synchronization (2) }	
ACCESS	read-only	
STATUS	mandatory	
DESCRIPTION	"The transmit clock PLL synchronization status of the card"	
	::= { cardEntry 82 }	
cardSystemPrimaryClockPortConfig	OBJECT-TYPE	
SYNTAX	INTEGER	
ACCESS	read-write	
STATUS	mandatory	
DESCRIPTION	"The port number (1-x) on the card that specifies the system primary clock source. A zero specifies no port"	
	::= { cardEntry 83 }	
cardSystemPrimaryClockStatus	OBJECT-TYPE	
SYNTAX	INTEGER { normal (1), failure (2) }	
ACCESS	read-only	
STATUS	mandatory	
DESCRIPTION	"The system primary clock status as detected on the card. On the BIO, this refers to the Timing Module 1 clock status as detected by the BIO."	
	::= { cardEntry 84 }	

cardSystemSecondaryClockPortConfig OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The port number (1 to x) on the
 card that specifies the system
 secondary clock source. A zero
 specifies no port"
 ::= { cardEntry 85 }

cardSystemSecondaryClockStatus OBJECT-TYPE
 SYNTAX INTEGER {
 normal (1),
 failure (2)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The system secondary clock status
 as detected on the card.
 On the BIO, this refers to the
 Timing Module 2 clock
 status as detected by the BIO."
 ::= { cardEntry 86 }

cardInCells OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The total number of cells
 received on this card."
 ::= { cardEntry 87 }

cardInErrorCells OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The total number of cells
 received on this card with HEC error."
 ::= { cardEntry 88 }

cardInErrorVPIVCI OBJECT-TYPE

SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The total number of cells
 received with HEC invalid VPI, VCI."
 ::= { cardEntry 89 }

cardOutCells OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The total number of cells
 transmitted out of this card"
 ::= { cardEntry 90 }

cardOutDiscardCells OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The total number of cells
 discarded due to congestion on
 this card"
 ::= { cardEntry 91 }

cardQOSQueueSize OBJECT-TYPE
 SYNTAX INTEGER {
 cell-8K (1),
 cell-24K (2)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The ATM QOS queue size (per cell)
 of each port on the card"
 ::= { cardEntry 92 }

cardLastErrorPort OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

```

        "The port number (1 to x) of the
last cell with invalid cell
        header on the card"
        ::= { cardEntry 93 }

cardLastErrorVPI OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The VPI of the last cell with
invalid cell header on the card"
        ::= { cardEntry 94 }

cardLastErrorVCI OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The VCI of the last cell with
invalid cell header on the card"
        ::= { cardEntry 95 }

cardSystemPrimaryClockModeConfig OBJECT-TYPE
    SYNTAX      INTEGER {
        line-rate (1),
        plcp-mode (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The system primary clock mode.
PLCP is for DS3 port only"
        ::= { cardEntry 96 }

cardSystemSecondaryClockModeConfig OBJECT-TYPE
    SYNTAX      INTEGER {
        line-rate (1),
        plcp-mode (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The system secondary clock mode.
PLCP is for DS3 port only"

```

```

        ::= { cardEntry 97 }

cardNFBDEStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        cleared (1),
        not-cleared (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Non Fatal Background Diagnostic
Error Status"
        ::= { cardEntry 98 }

cardProductCode OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This card's product code."
        ::= { cardEntry 99 }

cardMfgPN OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This card's manufacturing part
number."
        ::= { cardEntry 100 }

cardTotalUpTime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This card's total accumulated up
time, in hours."
        ::= { cardEntry 101 }

cardIOAType OBJECT-TYPE
    SYNTAX      INTEGER {
        spa (1),
        SPA, redundant
    }

```

toc3-4 (2), -- Topaz OC3/STM1 MM
 4-port SC, non-redundant
 tstm1-4 (3), -- Topaz STM-1 MM 4-
 port SC, non-redundant OBSOLETE, use (2)
 tds3-8 (4), -- Topaz DS3 8-port,
 non-redundant
 te3-8 (5), -- Topaz E3 8-port,
 non-redundant
 toc3-smfir-n-4 (6), -- Topaz OC3/STM1
 SMF, intermediate reach, 4-port SC, non-redundant
 toc3-smfir-r-4 (7), -- Topaz OC3/STM1
 SMF, intermediate reach, 4-port SC, redundant
 toc3-mm-r-4 (8), -- Topaz OC3/STM1 MM,
 4-port SC, redundant
 toc3-smflr-n-4 (9), -- Topaz OC3/STM1
 SMF, long reach, 4-port SC, non-redundant
 toc3-smflr-r-4 (10), -- Topaz OC3/STM1
 SMF, long reach, 4-port SC, redundant
 tstm1-smfir-n-4 (11), -- Topaz STM-1 SMF,
 intermediate reach, 4-port SC, non-redundant OBSOLETE, use
 (6)
 tstm1-smfir-r-4 (12), -- Topaz STM-1 SMF,
 intermediate reach, 4-port SC, redundant OBSOLETE, use (7)
 tstm1-mm-r-4 (13), -- Topaz STM-1 MM, 4-
 port SC, redundant OBSOLETE, use (8)
 tstm1-smflr-n-4 (14), -- Topaz STM-1 SMF,
 long reach, 4-port SC, non-redundant OBSOLETE, use (9)
 tstm1-smflr-r-4 (15), -- Topaz STM-1 SMF,
 long reach, 4-port SC, redundant OBSOLETE, use (10)
 tds3-r-8 (16), -- Topaz DS3 8-port,
 redundant
 te3-r-8 (17), -- Topaz E3 8-port,
 redundant
 hssi-n (18), -- BSTDX HSSI non-
 redundant IOA
 hssi-r (19), -- BSTDX HSSI
 redundant IOA
 toc12-smf-n-1(21), -- Topaz OC12/STM4 SMF
 non-redundant IOA
 tads1-t1-n-8 (22), -- Topaz T1 ATM -
 T1 non-redundant IOA
 tads1-t1-r-8 (23), -- Topaz T1 ATM -
 T1 redundant IOA
 tads1-e1-75-n-8 (24), -- Topaz T1 ATM -
 E1 75 ohm non-redund IOA

tads1-e1-75-r-8 (25), -- Topaz T1 ATM -
 E1 75 ohm redundant IOA
 tads1-e1-120-n-8 (26), -- Topaz T1 ATM -
 E1 120 ohm non-red IOA
 tads1-e1-120-r-8 (27), -- Topaz T1 ATM -
 E1 120 ohm redundant IOA
 tads1-j2-75-n-8 (28), -- Topaz T1 ATM -
 J2 75 ohm non-red IOA
 tads1-j2-75-r-8 (29), -- Topaz T1 ATM -
 J2 75 ohm redundant IOA
 tads1-j2-120-n-8 (30), -- Topaz T1 ATM -
 J2 120 ohm non-red IOA
 tads1-j2-120-r-8 (31), -- Topaz T1 ATM -
 J2 120 ohm redundant IOA
 bcs-ds3-n-1 (35), -- BSTDX DS3 (CS) non
 redundant IOA
 bcs-ds3-r-1 (36), -- BSTDX DS3 (CS)
 redundant IOA
 biwu-oc3-mm-n-1 (37), -- BSTDX OC3 (IWU)
 multimode non redundant IOA
 biwu-oc3-smfir-n-1 (38), -- BSTDX OC3
 (IWU) single mode intermediate reach non-redundant IOA
 toc3-stm1copper-n-4 (39), -- Topaz OC3/
 STM1 Copper, 4-port SC, non-redundant
 toc3-stm1copper-r-4 (40), -- Topaz OC3/
 STM1 Copper, 4-port SC, redundant
 spa-universal (32), -- Topaz Universal
 SPA (E1/T1)
 nplus1-chassis (41), -- N+1 Chassis
 Indicator
 toc12-smflr-n-1(42), -- Topaz OC12/STM4
 SMF long reach non-redundant IOA
 npa-universal (43), -- Garnet Universal NPA
 biwu-oc3-bumm-1 (44), -- BSTDX OC3 (IWU)
 base unit multimode redundant IOA
 biwu-oc3-bumm-smfir-1 (45), -- BSTDX OC3
 (IWU) base unit single mode intermediate reach redundant
 IOA
 biwu-oc3-trm-mm-1 (46), -- BSTDX OC3
 (IWU) tranceiver module multimode redundant IOA
 biwu-oc3-trm-smfir-1 (47), -- BSTDX OC3
 (IWU) tranceiver module single mode intermediate reach
 redundant IOA
 ui0-v35 (48), -- BSTDX UI0-V35 IOA
 ui0-x21 (49), -- BSTDX UI0-X21 IOA

```

        bds1-e1-bnc-n-12 (50),    -- BSTDX 12 port -
E1 75 ohm non-redund IOA
        bds1-e1-bnc-r-12 (51),    -- BSTDX 12 port -
E1 75 ohm redundant IOA
        bds1-e1-db15-n-12 (52),    -- BSTDX 12 port -
E1 120 ohm non-red IOA
        bds1-e1-db15-r-12 (53),    -- BSTDX 12 port -
E1 120 ohm redundant IOA
        bcs-E3-n-1 (54),    -- BSTDX E3 (CS) non
redundant IOA
        bcs-E3-r-1 (55),    -- BSTDX E3 (CS)
redundant IOA
        bcp-1-m (56),    -- BSTDX CP redundant
IOA with MIM
        bcp-1-o (57),    -- BSTDX CP redundant
IOA before MIM
        be1-atm-75-n-12 (58),-- BSTDX E1 ATM 75
ohm non-redundant
        be1-atm-75-r-12 (59),-- BSTDX E1 ATM 75
ohm redundant
        be1-atm-120-n-12 (60),-- BSTDX E1 ATM
120 ohm non-redundant
        be1-atm-120-r-12 (61),-- BSTDX E1 ATM
120 ohm redundant
        bt1-atm-100-n-12 (62),-- BSTDX T1 ATM
100 ohm non-redundant
        bt1-atm-100-r-12 (63),-- BSTDX T1 ATM
100 ohm redundant
        bds1-e1-rj48h-n-12 (64),    -- BSTDX 12 port -
E1 120 ohm RJ48 non-red IOA
        bds1-e1-rj48h-r-12 (65),    -- BSTDX 12 port
- E1 120 ohm RJ48 red IOA
        gx550-backplane (66),    -- Garnet
backplane MIM id
        cbx500-ether-n-4 (67),    -- CBX500 4
port ethernet IOA, non-redund
        cbx500-ds3-n-6 (68),    -- CBX500 6
port DS3 IOA, non-redund
        bstdx9000-ether-n-2 (69),    -- BSTDX9000 2
port ethernet IOA, non-redund
        bio550-oc3-smfir (70),    -- Garnet OC3
SMF IR
        bio550-oc3-smflr (71),    -- Garnet OC3
SMF LR

```

```

        bio550-oc3-mmfmf (72),    -- Garnet OC3
MMF
        bio550-oc12-smfir (73),    -- Garnet OC12
SMF IR
        bio550-oc12-smflr (74),    -- Garnet OC12
SMF LR
        bio550-oc12-mmfmf (75),    -- Garnet OC12
MMF
        bio550-oc48-smfir (76),-- Garnet OC48
SMF IR
        bio550-oc48-smflr (77),    -- Garnet OC48
SMF LR
        bio550-oc48-mmfmf (78),-- Garnet OC48 MMF
shelf-uplink-1 (79),    -- 1-port Shelf
(fc) UPLINK phy
        shelf-ds3 (80)    -- 4-port Shelf
DS3 Transport phy
    }
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "The type of IOA attached to this
card."
    ::= { cardEntry 102 }

cardIOAHwRev OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "The attached IOA's hardware
revision."
    ::= { cardEntry 103 }

cardIOASerial OBJECT-TYPE
    SYNTAX    DisplayString
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "The attached IOA's serial
number."
    ::= { cardEntry 104 }

cardIOAProductCode OBJECT-TYPE
    SYNTAX    DisplayString

```

```

ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "The attached IOA's product code."
::= { cardEntry 105 }

cardIOAMfgPN OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The attached IOA's manufacturing
part number."
    ::= { cardEntry 106 }

cardDS0Support OBJECT-TYPE
    SYNTAX      INTEGER {
        ds0-lpbk-not-supported  (1),
        ds0-lpbk-supported     (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Some B-Stdx T1 boards do not
support lpbk."
    ::= { cardEntry 107 }

cardDiagParamId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Parameter identifier for internal
diagnostics."
    ::= { cardEntry 108 }

cardDiagParamValue OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Value assigned to parameter
specified by cardDiagParamId."

```

```

::= { cardEntry 109 }

cardBulkStatsPeakCapability OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled  (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Configures capability to collect
peak 5-minute statistics.
        Capability change takes effect
upon IOM reboot."
    ::= { cardEntry 110 }

cardBulkStatsTotalCapability OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled  (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Configures capability to collect
total statistics.
        Capability change takes effect
upon IOM reboot."
    ::= { cardEntry 111 }

cardBulkStatsPeakEnable OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled  (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Reflects the operational state of
the peak 5-minute
        statistic collection on an IOM.
For this setting to be
        enabled, the respective
capability must be enabled."
    ::= { cardEntry 112 }

```

cardBulkStatsTotalEnable OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Reflects the operational state of
 the total statistic
 collection on an IOM. For this
 setting to be enabled,
 the respective capability must be
 enabled."
 ::= { cardEntry 113 }

cardBulkStatsBaseCollectPeriod OBJECT-TYPE
 SYNTAX INTEGER (15..1440)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Configures base collection period
 for bulk statistics
 on an IOM in minutes. Only the
 following values are
 allowed: 15, 20, 30, 60, 120,
 180, 240, 360, 720, 1440.
 The default value is 60."
 ::= { cardEntry 114 }

cardNrtsHwRev OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Hardware revision of the NRTS
 processor."
 ::= { cardEntry 115 }

cardNrtsOutCellBufSize OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

"The size of the NRTS output cell
 buffer."
 ::= { cardEntry 116 }

cardNrtsOperState OBJECT-TYPE
 SYNTAX INTEGER {
 absent (1),
 down (2),
 up (3)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The operational status of the
 NRTS processor."
 ::= { cardEntry 117 }

cardNrtsAdminState OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The admin status of the NRTS
 processor."
 ::= { cardEntry 118 }

cardNrtsCcrmProtocolId OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The protocol ID field for the
 CCRM cells. Must be different
 from the BCM protocol ID. Default
 is 6."
 ::= { cardEntry 119 }

cardNrtsBcmProtocolId OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"The protocol ID field for the BCM
cells. Must be different
from the CCRM protocol ID.
Default is 5."
::= { cardEntry 120 }

cardNrtsRmGenInterval OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The RM cell generation interval
in ms. Minimum is 30,
maximum is 250, default is 100."
::= { cardEntry 121 }

cardNrtsIdleCktThresh OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The number of RM cell generation
intervals with no cell
reception upon which the circuit
is declared idle.
Minimum is 1, maximum is 8,
default is 8."
::= { cardEntry 122 }

cardNrtsVbrNrtManage OBJECT-TYPE

SYNTAX INTEGER {
no (1),
yes (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION

"Indicates whether VBR NRT traffic
should be managed by
the NRTS processor."
::= { cardEntry 123 }

cardNrtsIcrFact OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write

STATUS mandatory

DESCRIPTION

"A factor used to calculate the
Initial Cell Rate for a circuit
from its MCR and PCR."
::= { cardEntry 124 }

cardNrtsMcastDiscardThresh OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"A NRTS discard threshold for the
multicast circuits."
::= { cardEntry 125 }

cardNrtsMcastDiscardCount OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"A NRTS discard counter for the
multicast circuits."
::= { cardEntry 126 }

cardAdminIOAType OBJECT-TYPE

SYNTAX INTEGER {
spa (1),

-- Topaz
SPA, redundant toc3-4 (2), -- Topaz OC3/STM1 MM
4-port SC, non-redundant
tstm1-4 (3), -- Topaz STM-1 MM 4-
port SC, non-redundant OBSOLETE, use (2)
tds3-8 (4), -- Topaz DS3 8-port,
non-redundant
te3-8 (5), -- Topaz E3 8-port,
non-redundant
toc3-smfir-n-4 (6), -- Topaz OC3/STM1
SMF, intermediate reach, 4-port SC, non-redundant
toc3-smfir-r-4 (7), -- Topaz OC3/STM1
SMF, intermediate reach, 4-port SC, redundant
toc3-mm-r-4 (8), -- Topaz OC3/STM1 MM,
4-port SC, redundant
toc3-smflr-n-4 (9), -- Topaz OC3/STM1
SMF, long reach, 4-port SC, non-redundant

toc3-smflr-r-4 (10),-- Topaz OC3/STM1
 SMF, long reach, 4-port SC, redundant
 tstm1-smfir-n-4 (11),-- Topaz STM-1 SMF,
 intermediate reach, 4-port SC, non-redundant OBSOLETE, use
 (6)
 tstm1-smfir-r-4 (12),-- Topaz STM-1 SMF,
 intermediate reach, 4-port SC, redundant OBSOLETE, use (7)
 tstm1-mm-r-4 (13),-- Topaz STM-1 MM, 4-
 port SC, redundant OBSOLETE, use (8)
 tstm1-smflr-n-4 (14),-- Topaz STM-1 SMF,
 long reach, 4-port SC, non-redundant OBSOLETE, use (9)
 tstm1-smflr-r-4 (15),-- Topaz STM-1 SMF,
 long reach, 4-port SC, redundant OBSOLETE, use (10)
 tds3-r-8 (16), -- Topaz DS3 8-port,
 redundant
 te3-r-8 (17), -- Topaz E3 8-port,
 redundant
 hssi-n (18), -- BSTDX HSSI non-
 redundant IOA
 hssi-r (19), -- BSTDX HSSI
 redundant IOA
 toc12-smf-n-1(21),-- Topaz OC12/STM4 SMF
 non-redundant IOA
 tads1-t1-n-8 (22), -- Topaz T1 ATM -
 T1 non-redundant IOA
 tads1-t1-r-8 (23), -- Topaz T1 ATM -
 T1 redundant IOA
 tads1-e1-75-n-8 (24), -- Topaz T1 ATM -
 E1 75 ohm non-redund IOA
 tads1-e1-75-r-8 (25), -- Topaz T1 ATM -
 E1 75 ohm redundant IOA
 tads1-e1-120-n-8 (26), -- Topaz T1 ATM -
 E1 120 ohm non-red IOA
 tads1-e1-120-r-8 (27), -- Topaz T1 ATM -
 E1 120 ohm redundant IOA
 tads1-j2-75-n-8 (28), -- Topaz T1 ATM -
 J2 75 ohm non-red IOA
 tads1-j2-75-r-8 (29), -- Topaz T1 ATM -
 J2 75 ohm redundant IOA
 tads1-j2-120-n-8 (30), -- Topaz T1 ATM -
 J2 120 ohm non-red IOA
 tads1-j2-120-r-8 (31), -- Topaz T1 ATM -
 J2 120 ohm redundant IOA
 bCS-DS3-n-1 (35), -- BSTDX DS3 (CS) non
 redundant IOA

bCS-DS3-r-1 (36), -- BSTDX DS3 (CS)
 redundant IOA
 bIWU-OC3-mm-n-1 (37),-- BSTDX OC3 (IWU)
 multimode non redundant IOA
 bIWU-OC3-smfir-n-1 (38),-- BSTDX OC3
 (IWU) single mode intermediate reach non-redundant IOA
 toc3-stm1copper-n-4 (39),-- Topaz OC3/
 STM1 Copper, 4-port SC, non-redundant
 toc3-stm1copper-r-4 (40),-- Topaz OC3/
 STM1 Copper, 4-port SC, redundant
 spa-universal (32),-- Topaz Universal
 SPA (E1/T1)
 nplus1-chassis (41), -- N+1 Chassis
 Indicator
 toc12-smflr-n-1(42),-- Topaz OC12/STM4
 SMF long reach non-redundant IOA
 npa-universal (43),-- Garnet Universal NPA
 bIWU-OC3-bumm-1 (44),-- BSTDX OC3 (IWU)
 base unit multimode redundant IOA
 bIWU-OC3-bumm-smfir-1 (45),-- BSTDX OC3
 (IWU) base unit single mode intermediate reach redundant
 IOA
 bIWU-OC3-trm-mm-1 (46),-- BSTDX OC3
 (IWU) tranceiver module multimode redundant IOA
 bIWU-OC3-trm-smfir-1 (47),-- BSTDX OC3
 (IWU) tranceiver module single mode intermediate reach
 redundant IOA
 uio-v35 (48), -- BSTDX UIO-V35 IOA
 uio-x21 (49), -- BSTDX UIO-X21 IOA
 bds1-e1-bnc-n-12 (50), -- BSTDX 12 port
 - E1 75 ohm non-redund IOA
 bds1-e1-bnc-r-12 (51), -- BSTDX 12 port
 - E1 75 ohm redundant IOA
 bds1-e1-db15-n-12 (52), -- BSTDX 12 port
 - E1 120 ohm non-red IOA
 bds1-e1-db15-r-12 (53), -- BSTDX 12 port
 - E1 120 ohm redundant IOA
 bCS-E3-n-1 (54), -- BSTDX E3 (CS) non
 redundant IOA
 bCS-E3-r-1 (55), -- BSTDX E3 (CS)
 redundant IOA
 bCP-1-m (56), -- BSTDX CP redundant
 IOA with MIM
 bCP-1-o (57), -- BSTDX CP redundant
 IOA before MIM


```

        be1-atm-75-n-12 (58),-- BSTDX E1 ATM 75
ohm non-redundant
        be1-atm-75-r-12 (59),-- BSTDX E1 ATM 75
ohm redundant
        be1-atm-120-n-12 (60),-- BSTDX E1 ATM
120 ohm non-redundant
        be1-atm-120-r-12 (61),-- BSTDX E1 ATM
120 ohm redundant
        bt1-atm-100-n-12 (62),-- BSTDX T1 ATM
100 ohm non-redundant
        bt1-atm-100-r-12 (63),-- BSTDX T1 ATM
100 ohm redundant
        bds1-e1-rj48h-n-12 (64),  -- BSTDX 12 port -
E1 120 ohm RJ48 non-red IOA
        bds1-e1-rj48h-r-12 (65),  -- BSTDX 12 port
- E1 120 ohm RJ48 red IOA
        cbx500-ether-n-4 (67),      -- CBX500 4
port ethernet IOA, non-redund
        cbx500-ds3-n-6 (68),       -- CBX500 6
port DS3 IOA, non-redund
        bstdx9000-ether-n-2 (69),  -- BSTDX9000 2
port ethernet IOA, non-redund
        bio550-oc3-smfir (70),     -- Garnet OC3
SMF IR
        bio550-oc3-smflr (71),     -- Garnet OC3 SMF
LR
        bio550-oc3-mmfm (72),      -- Garnet OC3 MMF
        bio550-oc12-smfir (73),    -- Garnet OC12 SMF
IR
        bio550-oc12-smflr (74),    -- Garnet OC12 SMF
LR
        bio550-oc12-mmfm (75),     -- Garnet OC12
MMF
        bio550-oc48-smfir (76),    -- Garnet OC48
SMF IR
        bio550-oc48-smflr (77),    -- Garnet OC48 SMF
LR
        bio550-oc48-mmfm (78),     -- Garnet OC48 MMF
        shelf-uplink-1 (79),       -- 1-port Shelf
(fc) UPLINK phy
        shelf-ds3 (80)             -- 4-port Shelf
DS3 Transport phy
    }
ACCESS      read-write
STATUS      mandatory

```

```

DESCRIPTION
    "The type of IOA attached to this
card viewed from NMS."
    ::= { cardEntry 127 }

cardNrtsMcastRate OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The NRTS shaping rate for
multicast circuits as a fraction of
the line rate."
    ::= { cardEntry 128 }

cardMonStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        enable (1),          -- enable mon960
        disable(2)          -- disable mon960
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Set MON960 status, default(1) --
enable, 2 -- disable."
    ::= { cardEntry 129 }

cardImageSetA OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The details of Image Set A. The
elements of each
image are space delimited and
include Part Number,
Revision, Size and Description.
The details of each
image are linefeed delimited."
    ::= { cardEntry 130 }

cardImageSetB OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory

```

DESCRIPTION

"The details of Image Set B. The elements of each image are space delimited and include Part Number, Revision, Size and Description. The details of each image are linefeed delimited." ::= { cardEntry 131 }

cardMacAddress OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "ethernet MAC address of the card if there is an ethernet interface. Currently only CP cards may have ethernet. Cards without ethernet return 0 length octet string."
 ::= { cardEntry 132 }

cardFlashRev OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The boot flash rev number."
 ::= { cardEntry 133 }

cardRequiredCapabilityBitmask OBJECT-TYPE
 SYNTAX INTEGER {
 aps-one-plus-one-support (1),
 holdover-support (2), -- This value is deprecated
 vp-shaping (4),
 fe-capability (8)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Bitmask indicating this cards' required capabilities based on

configured features. A bit is set to one if the corresponding capability is required. This variable is a bitmask so only power-of-2 values can be assigned (1,2,4,8,16,etc.) ."
 ::= { cardEntry 134 }

cardOperCapabilityBitmask OBJECT-TYPE
 SYNTAX INTEGER {
 aps-one-plus-one-supported (1),
 holdover-supported (2), -- This value is deprecated
 vp-shaping (4),
 fe-capability (8)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Bitmask indicating this cards' actual capabilities. A bit is set to one if the corresponding capability is supported. This variable is a bitmask so only power-of-2 values can be assigned (1,2,4,8,16,etc.) ."
 ::= { cardEntry 135 }

cardDslModule OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This is for Dynamic Software Loadl
 You can type: ModuleName Version, ModuleName Version, ... to load modules."
 ::= { cardEntry 136 }

cardIPTableSize OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory

DESCRIPTION

"The maximum number of IP routing table entries supported by the card. If set to 0, routing table size is assumed unlimited."

::= { cardEntry 137 }

cardIPTableState OBJECT-TYPE

SYNTAX INTEGER {

normal (1),

marginal (2)

}

ACCESS read-only

STATUS mandatory

DESCRIPTION

"State of the card's IP routing table. If set to marginal, the routing table maximum size has been exceeded. and all routes except management prefixes have been discarded."

::= { cardEntry 138 }

cardATMTcaInBufOverflowAlertPeriod OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The atm tca ingress buffer overflow alert period (in min)."

DEFVAL { 15 }

::= { cardEntry 139 }

cardATMTcaInBufOverflowThresh OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The atm tca ingress buffer overflow threshold."

DEFVAL { 1 }

::= { cardEntry 140 }

cardATMTcaInInvalidVpiVciAlertPeriod OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The atm tca ingress invalid vpi/vci alert period (in min)."

DEFVAL { 15 }

::= { cardEntry 141 }

cardATMTcaInInvalidVpiVciThresh OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The atm tca ingress invalid vpi/vci threshold."

DEFVAL { 1 }

::= { cardEntry 142 }

cardATMTcaInATMDCFullAlertPeriod OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The atm tca ingress ATM DC full alert period (in min)."

DEFVAL { 15 }

::= { cardEntry 143 }

cardATMTcaInATMDCFullThresh OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The atm tca ingress ATM DC full threshold."

DEFVAL { 1 }

::= { cardEntry 144 }

cardATMTcaEnable OBJECT-TYPE

SYNTAX INTEGER {

```

                enable (1),
                disable (2)
            }
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "The atm tca enable/disable."
    ::= { cardEntry 145 }

cardATMTcaId OBJECT-TYPE
    SYNTAX  INTEGER {
        ingressBufferOverfloec (1),
        ingressInvalidVpiVciC (2),
        ingressATMDCFullC (3),
        ingressBufferMsbPaeC (4),
        ingressBufferHalfC (5),
        ingressBufferMsbPafC (6),
        egressCidLookupFailureC (7)
    }
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "This object identifies the the
most recently declared card
    ATM threshold crossing alert"
    ::= { cardEntry 146 }

cardATMTcaECidLookupFailureAlertPeriod OBJECT-TYPE
    SYNTAX  INTEGER
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "The atm tca ingress buffer
overflow alert
    period (in min).\"
    DEFVAL { 15 }
    ::= { cardEntry 147 }

cardATMTcaECidLookupThresh OBJECT-TYPE
    SYNTAX  INTEGER
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "The atm tca ingress buffer
overflow threshold.\"

```

```

    DEFVAL { 1 }
    ::= { cardEntry 148 }

cardATMTcaSPPearlOCbrFailureAlertPeriod OBJECT-TYPE
    SYNTAX  INTEGER
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "The atm tca sp pearl overflow CBR alert
    period (in min).\"
    DEFVAL { 15 }
    ::= { cardEntry 149 }

cardATMTcaSPPearlOCbrThresh OBJECT-TYPE
    SYNTAX  INTEGER
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "The atm tca sp pearl overflow CBR
threshold.\"
    DEFVAL { 1 }
    ::= { cardEntry 150 }

cardATMTcaSPPearlOAbcFailureAlertPeriod OBJECT-TYPE
    SYNTAX  INTEGER
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "The atm tca sp pearl overflow ABR alert
    period (in min).\"
    DEFVAL { 15 }
    ::= { cardEntry 151 }

cardATMTcaSPPearlOAbcThresh OBJECT-TYPE
    SYNTAX  INTEGER
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "The atm tca sp pearl overflow ABR
threshold.\"
    DEFVAL { 1 }
    ::= { cardEntry 152 }

cardATMTcaSPPearlOVbr1FailureAlertPeriod OBJECT-TYPE
    SYNTAX  INTEGER

```

ACCESS read-write	DEFVAL { 15 }
STATUS mandatory	::= { cardEntry 157 }
DESCRIPTION	
"The atm tca sp pearl overflow VBR1 alert period (in min)."	cardATMTcaSPPearlGCbrThresh OBJECT-TYPE
DEFVAL { 15 }	SYNTAX INTEGER
::= { cardEntry 153 }	ACCESS read-write
	STATUS mandatory
	DESCRIPTION
cardATMTcaSPPearlOVbr1Thresh OBJECT-TYPE	"The atm tca sp pearl congestion CBR threshold."
SYNTAX INTEGER	DEFVAL { 1 }
ACCESS read-write	::= { cardEntry 158 }
STATUS mandatory	
DESCRIPTION	
"The atm tca sp pearl overflow VBR1 threshold."	cardATMTcaSPPearlGAbrFailureAlertPeriod OBJECT-TYPE
DEFVAL { 1 }	SYNTAX INTEGER
::= { cardEntry 154 }	ACCESS read-write
	STATUS mandatory
	DESCRIPTION
cardATMTcaSPPearlOVbr2FailureAlertPeriod OBJECT-TYPE	"The atm tca sp pearl congestion ABR alert period (in min)."
SYNTAX INTEGER	DEFVAL { 15 }
ACCESS read-write	::= { cardEntry 159 }
STATUS mandatory	
DESCRIPTION	
"The atm tca sp pearl overflow VBR2 alert period (in min)."	cardATMTcaSPPearlGAbrThresh OBJECT-TYPE
DEFVAL { 15 }	SYNTAX INTEGER
::= { cardEntry 155 }	ACCESS read-write
	STATUS mandatory
	DESCRIPTION
cardATMTcaSPPearlOVbr2Thresh OBJECT-TYPE	"The atm tca sp pearl congestion ABR threshold."
SYNTAX INTEGER	DEFVAL { 1 }
ACCESS read-write	::= { cardEntry 160 }
STATUS mandatory	
DESCRIPTION	
"The atm tca sp pearl overflow VBR2 threshold."	cardATMTcaSPPearlGVbr1FailureAlertPeriod OBJECT-TYPE
DEFVAL { 1 }	SYNTAX INTEGER
::= { cardEntry 156 }	ACCESS read-write
	STATUS mandatory
	DESCRIPTION
cardATMTcaSPPearlGCbrFailureAlertPeriod OBJECT-TYPE	"The atm tca sp pearl congestion VBR1 alert period (in min)."
SYNTAX INTEGER	DEFVAL { 15 }
ACCESS read-write	::= { cardEntry 161 }
STATUS mandatory	
DESCRIPTION	
"The atm tca sp pearl congestion CBR alert period (in min)."	cardATMTcaSPPearlGVbr1Thresh OBJECT-TYPE

```

SYNTAX    INTEGER
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "The atm tca sp pearl congestion VBR1
threshold."
    DEFVAL { 1 }
    ::= { cardEntry 162 }

cardATMTcaSPPearlGVbr2FailureAlertPeriod OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-write
    STATUS    mandatory
    DESCRIPTION
        "The atm tca sp pearl congestion VBR2
alert
        period (in min)."
    DEFVAL { 15 }
    ::= { cardEntry 163 }

cardATMTcaSPPearlGVbr2Thresh OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-write
    STATUS    mandatory
    DESCRIPTION
        "The atm tca sp pearl congestion VBR2
threshold."
    DEFVAL { 1 }
    ::= { cardEntry 164 }

cardATMTcaSPEnable OBJECT-TYPE
    SYNTAX    INTEGER {
        enable (1),
        disable (2)
    }
    ACCESS    read-write
    STATUS    mandatory
    DESCRIPTION
        "The atm tca SP enable/disable."
    ::= { cardEntry 165 }

cardSPEFCIEnable OBJECT-TYPE
    SYNTAX    INTEGER {
        enable (1),
        disable (2)

```

```

    }
    ACCESS    read-write
    STATUS    mandatory
    DESCRIPTION
        "The atm EFCI marking enable/disable."
    ::= { cardEntry 166 }

cardSPCLPEnable OBJECT-TYPE
    SYNTAX    INTEGER {
        enable (1),
        disable (2)
    }
    ACCESS    read-write
    STATUS    mandatory
    DESCRIPTION
        "The atm CLP-1 enable/disable."
    ::= { cardEntry 167 }

spATMTcaId OBJECT-TYPE
    SYNTAX    INTEGER {
        spBufferOverflowC1          (1),
        spBufferOverflowC2          (2),
        spBufferOverflowA1          (3),
        spBufferOverflowA2          (4),
        spBufferOverflowV11         (5),
        spBufferOverflowV12         (6),
        spBufferOverflowV21         (7),
        spBufferOverflowV22         (8),
        spBufferCongestionC1        (9),
        spBufferCongestionC2        (10),
        spBufferCongestionA1        (11),
        spBufferCongestionA2        (12),
        spBufferCongestionV11       (13),
        spBufferCongestionV12       (14),
        spBufferCongestionV21       (15),
        spBufferCongestionV22       (16)
    }
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "This object identifies the the most
recently declared sp
        ATM threshold crossing alert and first
byte is used to indicate

```

```

        the switching port number. i.e.
sp 1 has spBufferOverflowC, then
        the value is 0x1001"
    ::= { cardEntry 168 }

cardSubcardToRedundant OBJECT-TYPE
    SYNTAX      CardTypes
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Commands the card to initiate an
immediate protection
        switch on the identified subcard that it
controls. This
        causes control to be switched from the
active card to the
        standby card."
    ::= { cardEntry 169}

cardMemory5Usage OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The bank5 memory utilization, in terms of
free bytes, for
        CP Oynx card only."
    ::= { cardEntry 170 }

cardSF10perStatus OBJECT-TYPE
    SYNTAX      CardStatuses
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current status of Switch
Fabric 1 (GX550)."
```

```

    ::= { cardEntry 171}
```

```

cardSF20perStatus OBJECT-TYPE
    SYNTAX      CardStatuses
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current status of Switch
Fabric 2 (GX550)."
```

```

    ::= { cardEntry 172}

cardTM10perStatus OBJECT-TYPE
    SYNTAX      CardStatuses
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current status of Timing
Module 1 (GX550)."
```

```

    ::= { cardEntry 173}
```

```

cardTM20perStatus OBJECT-TYPE
    SYNTAX      CardStatuses
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current status of Timing
Module 2 (GX550)."
```

```

    ::= { cardEntry 174}
```

```

cardMemStartLog OBJECT-TYPE
    SYNTAX      INTEGER {
                                disable(0), -- disable
                                enable(1)  -- enable
                        }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Enable/Disable Memory log record, 1 --
enable, 0 -- disable."
    ::= { cardEntry 175}
```

```

cardMemLogLevel OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Set the Memory log level. Default 6 "
```

```

    ::= { cardEntry 176}
```

```

cardMemClrLog OBJECT-TYPE
    SYNTAX      INTEGER {
                                disable(0), -- disable
                                enable(1)  -- clear Memory Log
                        }
    ::= { cardEntry 177}
```

```

ACCESS read-write
STATUS mandatory
DESCRIPTION
    "Enable/Disable Clear Memory log, 1 --
clear, 0 (default) -- not clear."
    ::= { cardEntry 177}

cardValidSubcards OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The number of manageable subcards
physically present in this card."
    ::= { cardEntry 178}

cardClp0CbrThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The CLP 0 threshold for CBR
queues in the card. Once queue
length reaches this threshold, all CLP 1
cells are discarded
until queue length falls below
the threshold. "
    ::= { cardEntry 179 }

cardClp01CbrThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The maximum length of CBR queues
in the card. Once queue
length reaches this threshold,
all cells are discarded
until queue length falls below
this threshold."
    ::= { cardEntry 180 }

cardClp0VbrRtThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write

```

```

STATUS mandatory
DESCRIPTION
    "The CLP 0 threshold for VBR RT
queues in the card. Once queue
length reaches this threshold, all CLP 1
cells are discarded
until queue length falls below
the threshold. "
    ::= { cardEntry 181 }

cardClp01VbrRtThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The maximum length of VBR-RT
queues in the card. Once queue
length reaches this threshold,
all cells are discarded
until queue length falls below
this threshold."
    ::= { cardEntry 182 }

cardClp0VbrNrtThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The CLP 0 threshold for VBR NRT
queues in the card. Once queue
length reaches this threshold, all CLP 1
cells are discarded
until queue length falls below
the threshold. "
    ::= { cardEntry 183 }

cardClp01VbrNrtThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The maximum length of VBR-NRT
queues in the card. Once queue
length reaches this threshold,
all cells are discarded

```



```

        until queue length falls below
this threshold."
        ::= { cardEntry 184 }

cardClp0UAbrThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The CLP 0 threshold for ABR/UBR
queues in the card. Once queue
        length reaches this threshold, all CLP 1
cells are discarded
        until queue length falls below
the threshold. "
        ::= { cardEntry 185 }

cardClp01UAbrThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The maximum length of UBR/ABR
queues in the card. Once queue
        length reaches this threshold,
all cells are discarded
        until queue length falls below
this threshold."
        ::= { cardEntry 186 }

cardControlMessagesFromBus OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of complete control
Messages received over
        the Cell Bus for this card. "
        ::= { cardEntry 187 }

cardControlMessagesToBus OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION

```

```

        "The number of complete control
Messages transmitted by this
        card over the Cell Bus. "
        ::= { cardEntry 188 }

cardBTUsFromBus OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of BTUs received by
this card over the Cell Bus. "
        ::= { cardEntry 189 }

cardBTUsToBus OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of BTUs transmitted by
this card over the Cell
        Bus. "
        ::= { cardEntry 190 }

cardInvalidPvcBTUs OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of BTUs received by
this card over the Cell Bus
        with an invalid PVC identifier. "
        ::= { cardEntry 191 }

cardIncompleteFramesFromBus OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of partial frames
received by this card over the
        Cell Bus which were discarded due
to missing BTUs. "
        ::= { cardEntry 192 }

```

cardBTUsBusErrors OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The number of BTUs received by
 this card over the
 Cell Bus which were discarded due
 to errors. "
 ::= { cardEntry 193 }

cardBTUsNoResource OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The number of BTUs received by
 this card over the
 Cell Bus which were discarded due
 to no free BTUs available
 to replace it. "
 ::= { cardEntry 194 }

cardInvalidPvcBTUsThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Send trap if the number of BTUs
 received by this card over
 the Cell Bus with an invalid PVC
 identifier exceeds this
 in a one minute interval. Zero
 value implies no check. "
 ::= { cardEntry 195 }

cardIncompleteFramesFromBusThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Send trap if the number of
 partial frames received by this
 card over the Cell Bus which were
 discarded due to missing

BTUs exceeds this in a one minute
 interval. Zero value
 implies no check. "
 ::= { cardEntry 196 }

cardBTUsBusErrorThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Send trap if the number of BTUs
 received by this card over
 the Cell Bus which were discarded
 due to errors exceeds
 this in a one minute interval.
 Zero value implies no check. "
 ::= { cardEntry 197 }

cardBTUsNoResourceThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Send trap if the number of BTUs
 received by this card over
 the Cell Bus which were discarded
 due to no free BTUs
 available to replace it exceeds
 this in a one minute
 interval. Zero value implies no
 check. "
 ::= { cardEntry 198 }

cardFrameMemoryThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The percentage of frame memory
 utilization on this card which
 will generate a trap. Zero value
 implies no check. "
 ::= { cardEntry 199 }

cardHoldQFrameMemory OBJECT-TYPE

```

        SYNTAX      Counter
        ACCESS      read-only
        STATUS      mandatory
        DESCRIPTION
            "The frame memory utilization, in
terms of bytes, currently
            on the Hold Queues for this card.
"
        ::= { cardEntry 200 }

```

```

cardTotalAAL5RxErroCount OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of Rx errors
detected by the AAL5 processor
        on this card. "
    ::= { cardEntry 201 }

```

```

cardOperMemSize OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total memory size on this card, in MB
(1024 Kbytes)."
    ::= { cardEntry 202 }

```

```

cardWarmStartCapability OBJECT-TYPE
    SYNTAX      INTEGER {
        none (1),
        full (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The capability of this card to
perform a warm start"
    ::= { cardEntry 203 }

```

```

cardVpShapeEnable OBJECT-TYPE
    SYNTAX      INTEGER {
        no (1),
        yes (2)
    }

```

```

    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Enable VP shaping on card. This is only
valid on T1, E1, DS3, E3,
        OC-3, and OC-12 cards on the CBX-
500."
    ::= { cardEntry 204 }

```

```

cardRapidUpgradeFailReason OBJECT-TYPE
    SYNTAX      INTEGER {
        none (1),
        not-warmstart-capable (2),
        bootflash-update-failed (3),
        application-load-failed (4),
        application-read-failed (5),
        loader-load-failed (6),
        save-state-failed (7),
        card-timed-out (8),
        standby-card (9),
        downgrade-not-supported (10)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Reason why rapid upgrade was
unsuccessful on this card."
    ::= { cardEntry 205 }

```

```

cardSystemPrimaryClockDummyLPortConfig OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The interface index of the dummy
lport on the switch that specifies
        the primary clock source. A zero
specifies no port"
    ::= { cardEntry 206 }

```

```

cardSystemSecondaryClockDummyLPortConfig OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory

```

DESCRIPTION
 "The interface index of the dummy
 lport on the switch that specifies
 the secondary clock source. A
 zero specifies no port"
 ::= { cardEntry 207 }

cardVbrRtShapingEnable OBJECT-TYPE
 SYNTAX INTEGER {
 disabled(1),
 enabled(2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Controls whether QoSclass2
 (VBRrt) traffic transmitted into the switching fabric
 is shaped. The default is
 disabled(1) (no shaping)."
 ::= { cardEntry 208 }

cardVbrNrtShapingEnable OBJECT-TYPE
 SYNTAX INTEGER {
 disabled(1),
 enabled(2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Controls whether QoSclass3
 (VBRnrt) traffic transmitted into the switching fabric
 is shaped. The default is
 disabled(1) (no shaping)."
 ::= { cardEntry 209 }

cardTrafficPrioritizationEnable OBJECT-TYPE
 SYNTAX INTEGER {
 disabled(1),
 enabled(2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Controls whether IOM2 traffic is
 prioritized based on QOS class or is transmitted into

the switching fabric on a first
 come, first serve basis. If enabled, traffic is
 processed in strict priority
 order, where VBRrt is the highest priority, VBRnrt
 is second and UBR traffic is the
 lowest priority. The default is disabled(1)."
 ::= { cardEntry 210 }

cardTrafficPaceEnable OBJECT-TYPE
 SYNTAX INTEGER {
 disabled(1),
 enabled(2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "If enabled(1), data sent into the
 switching is fabric is limited to an OC3 rate.
 If disabled(1), data is
 transmitted as fast as allowed by the switching fabric."
 ::= { cardEntry 211 }

cardTemperature OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The current operating temperature of the
 card (x10)."
 ::= { cardEntry 212 }

cardSF1Temperature OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The current operating temperature of the
 SF1 card (x10)."
 ::= { cardEntry 213 }

cardSF2Temperature OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

```

        "The current operating temperature of the
SF2 card (x10)."
```

::= { cardEntry 214 }	
-----------------------	--

```

cardNrtsSwRev OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The software revision number of the NRTS
daughtercard"
    ::= { cardEntry 215 }

--          Discard threshold table

cardNrtsDiscardTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF CardNrtsDiscardEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "A list of ATM NRTS discard
threshold configuration records."
    ::= { card 3 }

cardNrtsDiscardEntry OBJECT-TYPE
    SYNTAX  CardNrtsDiscardEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "A discard threshold configuration
record for ATM NRTS."
    INDEX { cardNrtsDiscardLogSlot,
cardNrtsDiscardRedundState,
          cardNrtsDiscardIndex }
    ::= { cardNrtsDiscardTable 1 }

CardNrtsDiscardEntry ::=
    SEQUENCE {
        cardNrtsDiscardLogSlot
            INTEGER,
        cardNrtsDiscardRedundState
            INTEGER,
        cardNrtsDiscardIndex
            INTEGER,
        cardNrtsDiscardThresh
```

```

            INTEGER
        }

cardNrtsDiscardLogSlot OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The physical slot ID for this
card."
    ::= { cardNrtsDiscardEntry 1 }

cardNrtsDiscardRedundState OBJECT-TYPE
    SYNTAX  INTEGER {
        active (1),
        standby (2)
    }
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The current redundancy state of
this card."
    ::= { cardNrtsDiscardEntry 2 }

cardNrtsDiscardIndex OBJECT-TYPE
    SYNTAX  INTEGER (1..256)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The CLP=1 threshold index
corresponding to the MCR class."
    ::= { cardNrtsDiscardEntry 3 }

cardNrtsDiscardThresh OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "The CLP=1 discard threshold
corresponding to the MCR class."
    ::= { cardNrtsDiscardEntry 4 }

--          EFCI threshold table

cardNrtsEfciTable OBJECT-TYPE
```

SYNTAX SEQUENCE OF CardNrtsEfciEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "A list of ATM NRTS EFCI threshold configuration records."
 ::= { card 4 }

cardNrtsEfciEntry OBJECT-TYPE
 SYNTAX CardNrtsEfciEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "An EFCI configuration record for ATM NRTS."
 INDEX { cardNrtsEfciLogSlot,
 cardNrtsEfciRedundState, cardNrtsEfciIndex }
 ::= { cardNrtsEfciTable 1 }

CardNrtsEfciEntry ::=
 SEQUENCE {
 cardNrtsEfciLogSlot
 INTEGER,
 cardNrtsEfciRedundState
 INTEGER,
 cardNrtsEfciIndex
 INTEGER,
 cardNrtsEfciThresh
 INTEGER
 }

cardNrtsEfciLogSlot OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The physical slot ID for this card."
 ::= { cardNrtsEfciEntry 1 }

cardNrtsEfciRedundState OBJECT-TYPE
 SYNTAX INTEGER {
 active (1),
 standby (2)
 }

ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The current redundancy state of this card."
 ::= { cardNrtsEfciEntry 2 }

cardNrtsEfciIndex OBJECT-TYPE
 SYNTAX INTEGER (1..256)
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The EFCI threshold index corresponding to the MCR class."
 ::= { cardNrtsEfciEntry 3 }

cardNrtsEfciThresh OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The EFCI threshold corresponding to the MCR class.
 Must be less than the CLP=1 threshold for this MCR class."
 ::= { cardNrtsEfciEntry 4 }

-- Rate Increase Factor (RIF) table

cardNrtsRifTable OBJECT-TYPE
 SYNTAX SEQUENCE OF CardNrtsRifEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "A list of ATM NRTS RIF configuration records."
 ::= { card 5 }

cardNrtsRifEntry OBJECT-TYPE
 SYNTAX CardNrtsRifEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION

```

        "A RIF configuration record for
ATM NRTS."
        INDEX { cardNrtsRifLogSlot,
cardNrtsRifRedundState, cardNrtsRifIndex }
        ::= { cardNrtsRifTable 1 }

CardNrtsRifEntry ::=
    SEQUENCE {
        cardNrtsRifLogSlot
            INTEGER,
        cardNrtsRifRedundState
            INTEGER,
        cardNrtsRifIndex
            INTEGER,
        cardNrtsRifValue
            INTEGER
    }

cardNrtsRifLogSlot OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The physical slot ID for this
card."
    ::= { cardNrtsRifEntry 1 }

cardNrtsRifRedundState OBJECT-TYPE
    SYNTAX      INTEGER {
        active (1),
        standby (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current redundancy state of
this card."
    ::= { cardNrtsRifEntry 2 }

cardNrtsRifIndex OBJECT-TYPE
    SYNTAX      INTEGER (1..256)
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "The Rate Increase Factor index
corresponding to the MCR class."
        ::= { cardNrtsRifEntry 3 }

cardNrtsRifValue OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The Rate Increase Factor
corresponding to the MCR class.
        Must be less than 16."
        ::= { cardNrtsRifEntry 4 }

--      Rate Decrease Factor (RDF) table

cardNrtsRdfTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CardNrtsRdfEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of ATM NRTS RDF
configuration records."
        ::= { card 6 }

cardNrtsRdfEntry OBJECT-TYPE
    SYNTAX      CardNrtsRdfEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A RDF configuration record for
ATM NRTS."
    INDEX { cardNrtsRdfLogSlot,
cardNrtsRdfRedundState, cardNrtsRdfIndex }
    ::= { cardNrtsRdfTable 1 }

CardNrtsRdfEntry ::=
    SEQUENCE {
        cardNrtsRdfLogSlot
            INTEGER,
        cardNrtsRdfRedundState
            INTEGER,
        cardNrtsRdfIndex
            INTEGER,
        cardNrtsRdfValue

```

```

        INTEGER
    }

cardNrtsRdfLogSlot OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The physical slot ID for this
card."
    ::= { cardNrtsRdfEntry 1 }

cardNrtsRdfRedundState OBJECT-TYPE
    SYNTAX      INTEGER {
        active (1),
        standby (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current redundancy state of
this card."
    ::= { cardNrtsRdfEntry 2 }

cardNrtsRdfIndex OBJECT-TYPE
    SYNTAX      INTEGER (1..256)
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The Rate Decrease Factor index
corresponding to the MCR class."
    ::= { cardNrtsRdfEntry 3 }

cardNrtsRdfValue OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The Rate Decrease Factor
corresponding to the MCR class.
        Must be less than 16."
    ::= { cardNrtsRdfEntry 4 }

cardNtpRefTable OBJECT-TYPE

```

```

    SYNTAX      SEQUENCE OF CardNtpRefEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of cardNtpRefEntry's."
    ::= { card 7}

cardNtpRefEntry OBJECT-TYPE
    SYNTAX      CardNtpRefEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The card ntp reference entry
contains the configuration and
status information pertaining to
the time servers referenced
by the cards."

    INDEX      { cardNtpLogicalSlotId,
cardNtpRedundState, cardNtpPeerIndex }
    ::= { cardNtpRefTable 1}

CardNtpRefEntry ::=
    SEQUENCE {
        cardNtpLogicalSlotId
            INTEGER,
        cardNtpRedundState
            INTEGER,
        cardNtpPeerIndex
            INTEGER,
        cardNtpPeerAddr
            IpAddress,
        cardNtpPeerStatus
            INTEGER,
        cardNtpReachableStatus
            INTEGER,
        cardNtpOrgTimestampISec
            INTEGER,
        cardNtpOrgTimeStampFSec
            INTEGER,
        cardNtpOffset
            INTEGER,
        cardNtpMaxOffset
            INTEGER,
        cardNtpNumberOfPolls

```



```

        INTEGER,
cardNtpNumofFailedPolls
        INTEGER,
cardNtpReset
        INTEGER
    }

cardNtpLogicalSlotIdOBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Card Logical Slot"
    ::= { cardNtpRefEntry 1 }

cardNtpRedundStateOBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Card Redundancy State"
    ::= { cardNtpRefEntry 2 }

cardNtpPeerIndexOBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Ntp Peer Table Index"
    ::= { cardNtpRefEntry 3 }

cardNtpPeerAddr          OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This field is now OBSOLETE"
    ::= { cardNtpRefEntry 4 }

cardNtpPeerStatusOBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "clock selection status

```

```

rejected
sanity Checks"
    ::= { cardNtpRefEntry 5 }

cardNtpReachableStatusOBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Reachable status
            0 - not reachable
            1 - reachable"
    ::= { cardNtpRefEntry 6 }

cardNtpOrgTimestampISecOBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Seconds portion of last time the
local host sent a
            time request message to the peer"
    ::= { cardNtpRefEntry 7 }

cardNtpOrgTimeStampFSec OBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Fractions of a second part of the
last time the
            local host sent a time request
message to the peer"
    ::= { cardNtpRefEntry 8 }

cardNtpOffsetOBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Deviation between the local ntp
clock and the

```

```

0 -
1 - Passed

```



```

        DisplayString,
        subcardHwRev
        DisplayString,
        subcardEpromRev
        DisplayString,
        subcardProductCode
        DisplayString,
        subcardMfgPN
        DisplayString
    }

subcardLogicalSlotId OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The logical slot number of the
        card to which this subcard belongs."
    ::= { subcardEntry 1}

subcardPhysicalSubSlotId OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The physical subslot number of
        this subcard."
    ::= { subcardEntry 2}

subcardAdminType OBJECT-TYPE
    SYNTAX CardTypes
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The desired subcard type."
    ::= { subcardEntry 3}

subcardOperType OBJECT-TYPE
    SYNTAX CardTypes
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The actual subcard type."
    ::= { subcardEntry 4}

```

```

subcardAdminStatus OBJECT-TYPE
    SYNTAX CardStatuses
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The desired status of this
        subcard."
    ::= { subcardEntry 5}

subcardOperStatus OBJECT-TYPE
    SYNTAX CardStatuses
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The current status of this
        subcard."
    ::= { subcardEntry 6}

subcardSerial OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The serial number of the card."
    ::= { subcardEntry 7 }

subcardSwRev OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The software rev number
        (major.minor).".
    ::= { subcardEntry 8 }

subcardHwRev OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The hardware rev number
        (major.minor).".
    ::= { subcardEntry 9 }

subcardEpromRev OBJECT-TYPE

```

```

SYNTAX      DisplayString
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The EPROM firmware rev number
(major.minor).\"
      ::= { subcardEntry 10 }

subcardProductCode OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "This card's product code.\"
      ::= { subcardEntry 11 }

subcardMfgPN OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "This card's manufacturing part
number.\"
      ::= { subcardEntry 12 }

--
--      The Physical Port Group
--
--      The variables that configure physical ports at
a node
--

pportNumber OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The number of physical ports
(regardless of their current
state) present at this node.\"
      ::= { pport 1 }

pportTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF PportEntry

```

```

ACCESS      not-accessible
STATUS      mandatory
DESCRIPTION  "A list of physical port entries.
The number of entries is
given by the value of
pportNumber.\"
      ::= { pport 2 }

pportEntry OBJECT-TYPE
    SYNTAX      PportEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION  "The physical port entry contains
objects relevant to a
physical port.\"
    INDEX      { pportSlotId,
                pportId }
      ::= { pportTable 1 }

PportEntry ::=
    SEQUENCE {
        pportSlotId
            INTEGER,
        pportId
            INTEGER,
        pportAdminType
            INTEGER,
        pportNumLport
            INTEGER,
        pportDataRate
            INTEGER,
        pportType
            INTEGER,
        pportRecvClock
            INTEGER,
        pportXmitClock
            INTEGER,
        pportAdminStatus
            INTEGER,
        pportOperStatus
            INTEGER,
        pportDs1LineType
            INTEGER,

```

pportDs1ZeroCoding	INTEGER,	pportPeakCellRate0	INTEGER,
pportDs1LineBuildout	INTEGER,	pportPeakCellRate1	INTEGER,
pportDiagTestId	INTEGER,	pportPeakCellRate2	INTEGER,
pportDiagTestRuns	INTEGER,	pportPeakCellRate3	INTEGER,
pportInOctets	Counter,	pportPeakCellRate4	INTEGER,
pportInFrames	Counter,	pportPeakCellRate5	INTEGER,
pportInDiscards	Counter,	pportPeakCellRate6	INTEGER,
pportInErrors	Counter,	pportPeakCellRate7	INTEGER,
pportOutOctets	Counter,	pportInCells	Counter,
pportOutFrames	Counter,	pportInErrorCells	Counter,
pportOutDiscards	Counter,	pportOutCells	Counter,
pportOutErrors	Counter,	pportDs3LineBuildout	INTEGER,
pportDiagState	INTEGER,	pportSetDS0LoopUp	INTEGER,
pportDiagOptionStr	OCTET STRING,	pportSetDS0LoopDown	INTEGER,
pportDiagPassCount	INTEGER,	pportDS0LoopUpStatus	INTEGER,
pportDiagFailCount	INTEGER,	pportDS0LoopDownStatus	INTEGER,
pportDiagResultStr	DisplayString,	pportDS0LoopStatus	INTEGER,
pportLinkDownReason	INTEGER,	pportISDN	INTEGER,
pportInterface	INTEGER,		
pportAdminInterface	INTEGER,	pportdsx3LoopbackConfig	INTEGER,
pportCellScramble	INTEGER,	pportdsx3SendCode	INTEGER,
pportCbitParity	INTEGER,	pportdsx3LoopStatus	INTEGER,
pportMaxBufferSize		pportdsx3FEACStatus	INTEGER,

pportds1LoopbackConfig	INTEGER,		INTEGER,
pportds1SendCode	INTEGER,		pportBipSectionErrors
pportds1LoopStatus	INTEGER,		Counter,
pportSetClkBkup	INTEGER,		pportBipLineErrors
pportAtmIdleWord	INTEGER,		Counter,
pportAtmDisCardMode	INTEGER,		pportBipPathErrors
			Counter,
		pportAtmLastUnconfiguredVpi	pportFebeErrors
		INTEGER,	Counter,
		pportAtmLastUnconfiguredVci	pportHcsErrors
			Counter,
	INTEGER,		pportHcsSevereErrors
pportAtmUnconfiguredCells			Counter,
			pportCongestedReceivedCells
		Counter,	Counter,
pportAtmNumBitsVCI			pportCongestedTransmittedCells
			Counter,
		INTEGER,	pportAtmLayerErroredReceivedCells
pportAtmNumBitsVPI			Counter,
INTEGER,			
		pportAtmInterfaceType	pportAtmLayerErroredTransmittedCells
		INTEGER,	Counter,
		pportSonetSDHLoopbackConfig	pportDS0BitStuff
		INTEGER,	INTEGER,
		pportSonetSDHLoopStatus	pportDS0BitErrorCount
		INTEGER,	INTEGER,
		pportOutDiscardsCell	pportDS0BitErrorFreeSeconds
		Counter,	INTEGER,
		pportAtmPlcp	pportDS0BitErroredSeconds
			INTEGER,
INTEGER,			pportDS0MidspanRepeaters
		pportCbrTargetClockMode	INTEGER,
		INTEGER,	pportDS0TestPatternSync
		pportCbrCurrentClockMode	INTEGER,
		INTEGER,	pportDS0InjectBitError
		-- 75 is deprecated	INTEGER,
		-- This OID will be reused.	pportDS0FarendLpbkType
		pportFiberType	INTEGER,
		INTEGER,	pportDS0LpbkMode
		pportLaserStatus	INTEGER,
		INTEGER,	pportDS0SwitchLpbkStart
		pportMaxActiveVpiBits	INTEGER,
		INTEGER,	pportDS0SwitchLpbkEnd
		pportBipErrorsThresh	INTEGER,
			pportDS0FarendDS0InLpbk

INTEGER,	pportAAL5CPIError
pportDS0SendTestTraffic	Counter,
INTEGER,	pportAAL5LengthError
pportOc3LoopConfig	Counter,
INTEGER,	pportAAL5ReassemblyTimerError
pportOc3LoopStatus	Counter,
INTEGER,	pportAAL5MaxNrSegError
pportISDNipBaseAddr	Counter,
IpAddress,	pportRedundancyArch
pportSonetSTM1Scramble	INTEGER,
INTEGER,	pportAPSadminDir
pportEFCIMarking	INTEGER,
INTEGER,	pportAPSlineType
pportAtmQOSTransmitMode	INTEGER,
INTEGER,	pportAPSrevertiveMode
pportHECMode	INTEGER,
INTEGER,	pportAPSpairedSlotId
pportISDNChannelStatus	INTEGER,
OCTET STRING,	pportAPSpairedPportId
pportds1FarEndLoopStatus	INTEGER,
INTEGER,	pportAPSsfBerThresh
pportds1FDLControl	INTEGER,
INTEGER,	pportAPSsdBerThresh
pportds1FDLPrmXmit	INTEGER,
INTEGER,	pportAPSwtrPeriod
pportds1FDLPidXmit	INTEGER,
INTEGER,	pportAPSprotectionLineState
pportds1FDLXmitPid	INTEGER,
OCTET STRING,	pportAPSxCommand
pportds1FDLRcvPid	INTEGER,
OCTET STRING,	pportAPSconfigStatus
pportds1FDLRcvTsid	INTEGER,
OCTET STRING,	pportAPSOperRxStatus
pportSonetSDHframingMode	INTEGER,
INTEGER,	pportBertPattern
pportds1InbandLoopType	INTEGER,
INTEGER,	pportBertUserBytes
pportESFDataLinkStatus	INTEGER,
INTEGER,	pportBertErrorRate
pportPMTcaId	INTEGER,
INTEGER,	pportBertCommand
pportBchanTimerValue	INTEGER,
INTEGER,	pportBertStatus
pportAAL5CRC32Error	INTEGER,
Counter,	pportBertBitCount

```

        Gauge,
pportBertErrorCount
        Gauge,
pportds1FELoopbackControl
        INTEGER,
        pportFT1DS0s
        DisplayString,
        pportIMUXCnt
        INTEGER,
pportds1PMConfigThresh
        INTEGER,
        pportIdleCellType
        INTEGER,
        pportATMTcaInHECErrorUAlertPeriod
        INTEGER,
        pportATMTcaInHECErrorUThresh
        INTEGER,

pportATMTcaEBufOverflowCBRAAlertPeriod
        INTEGER,
        pportATMTcaEBufOverflowCBRThresh
        INTEGER,

pportATMTcaEBufOverflowABRAAlertPeriod
        INTEGER,
        pportATMTcaEBufOverflowABRThresh
        INTEGER,

pportATMTcaEBufOverflowVBR1AlertPeriod
        INTEGER,
        pportATMTcaEBufOverflowVBR1Thresh
        INTEGER,

pportATMTcaEBufOverflowVBR2AlertPeriod
        INTEGER,
        pportATMTcaEBufOverflowVBR2Thresh
        INTEGER,

pportATMTcaInFramerFIFOoverflowAlertPeriod
        INTEGER,

pportATMTcaInFramerFIFOoverflowThresh
        INTEGER,

pportATMTcaELookupFailureAlertPeriod

```

```

        INTEGER,
pportATMTcaELookupFailureThresh
        INTEGER,
pportATMTcaEnable
        INTEGER,
pportATMTcaId
        INTEGER,
pportFethAdminMacAddr
        OCTET STRING,
pportFethOperMacAddr
        OCTET STRING,
pportConfigAlarmSoakTime
        INTEGER,
pportConfigAlarmClearTime
        INTEGER,
pportFethPortCapability
        INTEGER,
pportVpshapingDiscardCellCount
        INTEGER,
pportLinkDownReasonNonZeroEnum
        INTEGER,
pportRecoveredChanClock
        INTEGER,
pportAPSTXK1K2mode
        INTEGER,
pportServiceType
        INTEGER
    }

pportSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The slot number of the
        corresponding physical port."
        ::= { pportEntry 1 }

pportId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The port number of the
        corresponding physical port"

```



```

                                on the board."
                                ::= { pportEntry 2 }

pportAdminType OBJECT-TYPE
    SYNTAX      INTEGER {
        v35-6 (1), -- 6-port
        V.35 i/o card
        ft1-1-24 (2), -- 1-port
        24-channel Fractional T1
        fe1-1-30 (3), -- 1-port
        30-channel Fractional E1
        uio-6 (4), -- 6-port
        universal i/o card
        cp1 (5), -- Control
        Processor
        uio-8 (6), -- 8-port
        V.35 i/o card
        ft1-4-24 (7), -- 4-port
        24-channel Fractional T1
        fe1-4-30 (8), -- 4-port
        30-channel Fractional E1
        ft3-1 (9), -- 1-port
        Fractional T3 i/o card
        fe3-1 (10), -- 1-port
        Fractional E3 i/o card
        hssi-2 (11), -- HSSI i/o card
        dsx1-10 (12), -- 10-port DSX-1 card
        rs232-18 (13), -- 18-port X.21/V.24 I/O card, for STDX 3000/6000 only
        rs232-8 (14), -- 8-port X.21/V.24 I/O card, for STDX 3000/6000 only
        ut1-4-24 (15), -- 4-port 24-channel Un-Channelized T1
        ue1-4-30 (16), -- 4-port 30-channel Un-Channelized E1
        atmds3-1 (17), -- 1-port ATM DS3 UNI I/O card
        atme3-1 (18), -- 1-port ATM E3 UNI I/O card
        pri-4 (19), -- 4-port ISDN PRI I/O card
        e1-pri-4 (20), -- 4-port E1 PRI I/O card
        sft1-4-24 (21), -- 4-port short haul 24-channel Fractional T1 card
        sut1-4-24 (22), -- 4-port short haul 24-channel Un-Channelized T1 card
        st1-pri-4 (23), -- 4-port short haul PRI I/O card
        t1-atm (24), -- T1 ATM
        e1-atm (25), -- E1 ATM
        ads3-t3 (26), -- ATM DS3 T3 (topaz)
        ads3-e3 (27), -- ATM DS3 E3 (topaz)
        cbr-ds1-s-4 (28), -- 4-port CBR T1 structured card
        cbr-ds1-us-4 (29), -- 4-port CE T1 card
        cbr-e1-s-4 (30), -- 4-port CBR E1 structured card
        cbr-e1-us-4 (31), -- 4-port CE E1 card
        cbr-atmiwu-1 (32), -- 1-port ATM-IWU STM-1/STS-3c card
        toc3-atm-4 (33), -- 4-port Topaz OC3c ATM card
        tstm1-atm-4 (34), -- 4-port Topaz STM1 ATM card
        atmcs-1 (37), -- 1-port ATM-CS card (siemens)
        toc12-atm-1 (38), -- 1-port Topaz OC12c ATM card
        tstm4-atm-1 (39), -- 1-port Topaz STM4 ATM card
        ads1-t1-8 (40), -- 8 port Topaz T1 ATM T1 card
        ads1-e1-8 (41), -- 8 port Topaz T1 ATM E1 card
        ads1-j2-8 (42), -- 8 port Topaz T1 ATM J2 card
        e1-12 (43), -- 12-port E1 i/o card
        bio1_4_16 (44), -- Garnet BIO1 4 PHY sub-cards 16 ports
    }

```

```

        bio1_oc3_4 (45),
-- Garnet BIO1 OC3 PHY sub-card 4 ports
        bio1_oc12_1 (46),
-- Garnet BIO1 OC12 PHY sub-card 1 port
        bio1_oc12x4 (47),--
Garnet BIO1 OC12x4 PHY sub-card 1 port 4 channels
        bio1_oc48_1 (48),--
Garnet BIO1 OC48 PHY sub-card 1 port
        np1 (49),    -- Garnet
Node Processor card
        sf1 (50),    -- Garnet
Switch Fabric card
        tm1 (51),    -- Garnet
Timing Module card
        tfds3-t3-6   (52),--
6-port Topaz DS3 T3 Ultracore card
        tfds3-e3-6   (53),--
6-port Topaz DS3 E3 Ultracore card
        tfast-ether-4 (54),--
4-port Topaz Fast Ethernet Ultracore card
        fast-ether-2  (55),--
2-port BSTDX Fast Ethernet Ultracore card
        ls-oc3-1     (56),--
1-port BSTDX OC3c/STM-1 Ultracore card
        tcfds3-t3-6  (57),--
6-port Topaz Cell Frame Cell DS3 T3 Ultracore card
        tcfds3-e3-6  (58),--
6-port Topaz Cell Frame Cell DS3 E3 Ultracore card
        toc3-cfc-2   (59),--
2-port Topaz Cell Frame Cell OC3c/STM-1 Ultracore card
        atmcs-e3-1   (60),--
1-port ATM-CS-E3 card (siemens)
        ipserver     (61),--
pport used to reference ip server on server card
        be1-atm-12   (62),--
12-port BSTDX E1 ATM card
        bt1-atm-12   (63),--
12-port BSTDX T1 ATM card
        bds3-1-0     (64),-- 1
port BSTDX Channelized 3/1/0
        gfether-4    (65), -- Granite
Topaz Fast Ethernet UC card
        gfds3-t3-6   (66),--
Granite Topaz Frame DS3 UC card

```

```

        gfds3-e3-6 (67),--
Granite Topaz Frame E3 UC card
        gchn-ds3-4 (68),--
Granite Topaz Channalized DS3 card
        g-server (69),--
Granite Topaz Server card
        bio3      (72),--
Piranha GX550 Frame card
        genet-1   (73),--
Piranha Gigabit Ethernet PHY
        bio1-uplink-1 (74),
-- GARNET UPLINK PHY card for shelf communications
attachment
        shelf-uplink-1 (75),
-- 1-port Shelf (fc) UPLINK card
        shelf-ds3-4   (76),
-- 4-port Shelf DS3 transport card
        shelf-red-ds3-4 (77)
-- 4-port Shelf Redundant DS3 transport card
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The defined type of the board
which the physical port is on."
    ::= { pportEntry 3 }

pportNumLport OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of logical ports on
the physical port."
    ::= { pportEntry 4 }

pportDataRate OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "An estimate of the physical
port's data rate in bits
per second. The data rate can't be
an arbitrary value. The

```

that the T1/E1 class of cards don't support this variable and return a 0

legal values are list below. Note

```

For UIO, DSX1:
    9600,      19200,
38400,      48000,      56000,      64000,
    128000, 192000,
256000, 320000, 384000, 448000,
    512000, 576000,
640000, 704000, 768000, 832000,
    896000, 960000,
1024000, 1088000, 1152000, 1216000,
    1280000, 1344000,
1408000, 1472000, 1536000, 1600000,
    1664000, 1728000,
1792000, 1856000, 1920000, 1984000,
    2048000, 4096000,
6144000, 8192000

For HSSI:
    1579000, 3158000,
4737000, 6316000, 7895000, 9474000,
    11053000, 12632000,
14211000, 15790000, 17369000,
    18948000, 20527000,
22106000, 23685000, 25264000,
    26843000, 28422000,
30001000, 31580000, 33159000,
    34738000, 36317000,
37896000, 39475000, 41054000,
    42633000, 44212000,
45791000, 47370000, 48949000,
    50528000

For ATM DS3, CHANNELIZED DS3:
    44736000

For ATM-IWU, TOPAZ OC3c:
    155520000

For T1, E1, UT1, UE1, PRI, SH-T1:
    0

For Fast Ethernet:
    1000000000

```

```

"
 ::= { pportEntry 5 }

pportType OBJECT-TYPE
    SYNTAX      INTEGER {
        v35-6 (1), -- 6-port
        ft1-1-24 (2), -- 1-port
        fe1-1-30 (3), -- 1-port
        uio-6 (4), -- 6-port
        cp1 (5), -- Control
        uio-8 (6), -- 8-port
        ft1-4-24 (7), -- 4-port
        fe1-4-30 (8), -- 4-port
        ft3-1 (9), -- 1-port
        fe3-1 (10), -- 1-port
        hssi-2 (11), -- HSSI i/
        dsx1-10 (12), -- 10-
        rs232-18 (13), -- 18-
        3000/6000 only
        rs232-8 (14), -- 8-port
        ut1-4-24 (15), -- 4-
        ue1-4-30 (16), -- 4-
        atm3-1 (17), -- 1-
        atme3-1 (18), -- 1-port
        pri-4 (19), -- 4-port
        e1-pri-4 (20), -- 4-
    }

V.35 i/o card
24-channel Fractional T1
30-channel Fractional E1
universal i/o card
Processor
V.35 i/o card
24-channel Fractional T1
30-channel Fractional E1
Fractional T3 i/o card
Fractional E3 i/o card
o card
port DSX-1 card
port X.21/V.24 I/O module, for STDX 3000/6000 only
X.21/V.24 I/O card, for STDX 3000/6000 only
port 24-channel Un-Channelized T1
port 30-channel Un-Channelized E1
port ATM DS3 UNI I/O card
ATM E3 UNI I/O card
ISDN PRI I/O card
port E1 PRI I/O card

```

port short haul 24-channel Fractional T1 card	sft1-4-24 (21), -- 4-	-- Garnet BIO1 OC3 PHY sub-card 4 ports	bio1_oc3_4 (45),
port short haul 24-channel Un-Channelized T1 card	sut1-4-24 (22), -- 4-	-- Garnet BIO1 OC12 PHY sub-card 1 port	bio1_oc12_1 (46),
port short haul PRI I/O card	st1-pri-4 (23), -- 4-	Garnet BIO1 OC12x4 PHY sub-card 1 port 4 channels	bio1_oc12x4 (47), --
T1 ATM	t1-atm (24), --	Garnet BIO1 OC48 PHY sub-card 1 port	bio1_oc48_1 (48), --
E1 ATM	e1-atm (25), --	Node Processor card	np1 (49), -- Garnet
DS3 T3 (topaz)	ads3-t3 (26), -- ATM	Switch Fabric card	sf1 (50), -- Garnet
DS3 E3 (topaz)	ads3-e3 (27), -- ATM	Timing Module card	tm1 (51), -- Garnet
port CBR T1 structured card	cbr-ds1-s-4 (28), -- 4-	6-port Topaz DS3 T3 Ultracore card	tfds3-t3-6 (52), --
4-port CE T1 card	cbr-ds1-us-4 (29), --	6-port Topaz DS3 E3 Ultracore card	tfds3-e3-6 (53), --
port CBR E1 structured card	cbr-e1-s-4 (30), -- 4-	4-port Topaz Fast Ethernet Ultracore card	tfast-ether-4 (54), --
port CE E1 card	cbr-e1-us-4 (31), -- 4-	2-port BSTDX Fast Ethernet Ultracore card	fast-ether-2 (55), --
1-port ATM-IWU STM-1/STS-3c card	cbr-atmiwu-1 (32), --	1-port BSTDX OC3c/STM-1 Ultracore card	ls-oc3-1 (56), --
port Topaz OC3c ATM card	toc3-atm-4 (33), -- 4-	6-port Topaz Cell Frame Cell DS3 T3 Ultracore card	tcfds3-t3-6 (57), --
port Topaz STM1 ATM card	tstm1-atm-4 (34), -- 4-	6-port Topaz Cell Frame Cell DS3 E3 Ultracore card	tcfds3-e3-6 (58), --
1-port ATM-CS card (siemens)	atmcs-1 (37), --	2-port Topaz Cell Frame Cell OC3c/STM-1 Ultracore card	toc3-cfc-2 (59), --
port Topaz OC12c ATM card	toc12-atm-1 (38), -- 1-	1-port ATM-CS-E3 card (siemens)	atmcs-e3-1 (60), --
port Topaz STM4 ATM card	tstm4-atm-1 (39), -- 1-	ipserver (61), --	
Topaz T1 ATM T1 card	ads1-t1-8 (40), -- 8 port	port used to reference ip server on server card	
Topaz T1 ATM E1 card	ads1-e1-8 (41), -- 8 port	12-port BSTDX E1 ATM card	be1-atm-12 (62), --
Topaz T1 ATM J2 card	ads1-j2-8 (42), -- 8 port	12-port BSTDX T1 ATM card	bt1-atm-12 (63), --
E1 i/o card	e1-12 (43), -- 12-port	port BSTDX Channelized 3/1/0	bds3-1-0 (64), -- 1
-- Garnet BIO1 4 PHY sub-cards 16 ports	bio1_4_16 (44),	Topaz Fast Ethernet UC card	gfether-4 (65), -- Granite
		Granite Topaz Frame DS3 UC card	gfds3-t3-6 (66), --

```

Granite Topaz Frame E3 UC card      gfd3-e3-6 (67), --
Granite Topaz Channalized DS3 card  gchn-ds3-4 (68), --
Granite Topaz Server card           g-server (69), --
-- GARNET UPLINK PHY card for shelf bio1-uplink-1 (74),
attachment                          communications
-- Shelf UPLINK card                shelf-uplink-1 (75),
-- Shelf DS3 transport card         shelf-ds3-4 (76)
                                     }
ACCESS      read-only
STATUS      mandatory
DESCRIPTION "The actual type of the physical
port."
::= { pportEntry 6 }

```

pportRecvClock		OBJECT-TYPE
	SYNTAX	INTEGER
	ACCESS	read-write
	STATUS	mandatory
	DESCRIPTION	"The receive clock source. This object works in cooperation with pportXmitClock."

The following are the various values for different clock

source types:

Source	pportRevClock	Type	Clock
pportEntry 7 }	{ pportEntry 8 }	pportXmitClock	{
..... 0	0	V.35	DCE
DCE ... 3	0	or UIO	LoopTime
..... 1	2		DTE

```

Trunk ... 1                                0                                Direct

                                Others                                Loop
Timed ..... 1                                1                                Internal
..... 2                                2                                External
..... don't care                                3
                                Chassis ..... 1
4
                                "
                                ::= { pportEntry 7 }

pportXmitClock OBJECT-TYPE
    SYNTAX          INTEGER
    ACCESS           read-write
    STATUS           mandatory
    DESCRIPTION
        "The transmit clock source. This
object works in cooperation with
                                pportXmitClock.

```

The following are the various values for different clock source types:

Source	pportRevClock	Type	Clock
		pportXmitClock	{
pportEntry 7 }	{ pportEntry 8 }		
..... 0	0	V.35	DCE
DCE ... 3	0	or UIO	LoopTime
..... 1	2		DTE
Trunk ... 1	0		Direct
Timed 1	1	Others	Loop
..... 2	2		Internal

```

..... don't care          3          External
                          Chassis ..... 1

4
    "
    ::= { pportEntry 8 }

pportAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        invalid (0),
        up (1),
        down (2),
        testing (3)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The desired state of the physical
port."
    ::= { pportEntry 9 }

pportOperStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        up (1),
        down (2),
        testing (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The current state of the physical
port."
    ::= { pportEntry 10 }

pportDs1LineType OBJECT-TYPE
    SYNTAX      INTEGER {
        d4 (1),
        esf-ansi (2),
        esf-att-address-a (3),
        esf-none (4),
        e1-cas-crc4 (5),
        e1-cas-no-crc4 (6),
        e1-no-cas-crc4 (7),
        e1-no-cas-no-crc4 (8),
        esf-att-address-b (9),

```

```

sf-ansi (10),
e1-unstructured (11)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The line type of the T1 or FT1-
24B port. ANSI ESF is
equivalent to Bellcore ESF."
    ::= { pportEntry 11 }

pportDs1ZeroCoding OBJECT-TYPE
    SYNTAX      INTEGER {
        ami (1),
        b8zs (2),
        hdb3 (3),
        jammed-bit (4),
        ami-nostuff (5)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The variety of zero code
suppression used on the T1
or FT1-24B link. Jammed bit is
equivalent to dsx1JBZS
where the DS0s will run at 56K
bps."
    ::= { pportEntry 12 }

pportDs1LineBuildout OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The line build out or line length
specification for
the DS1 or DSX-1 transmitter.
These values are card
specific:

10 port DSX-1 card
-----
The accepted values are:

```

1 - 0 to 110 feet
2 - 110 to 220 feet
3 - 220 to 330 feet
4 - 330 to 440 feet
5 - 440 to 550 feet
6 - 550 to 660 feet
7 - over 655 feet

1-port and 4-port T1 cards

The accepted values are:

96 - 0 to 133 feet
128 - 133 to 266 feet
160 - 266 to 399 feet
192 - 399 to 533 feet
224 - 533 to 655 feet
96 - 0 db
32 - -7.5 db
64 - -15 db

4-port circuit emulation short

The accepted values are:

96 - 0 to 133 feet (0.6 dB
128 - 133 to 266 feet (1.2 dB
160 - 266 to 399 feet (1.8 dB
192 - 399 to 533 feet (2.4 dB
224 - 533 to 655 feet (3.0 dB

4-port Short Haul T1 cards

The accepted values are:

96 - 0 to 133 feet
128 - 133 to 266 feet
160 - 266 to 399 feet
192 - 399 to 533 feet

224 - 533 to 655 feet

8 Port Topaz T1 ATM Card

The accepted values are:

1 - 0 to 133 feet
2 - 133 to 266 feet
3 - 266 to 399 feet
4 - 399 to 533 feet
5 - 533 to 655 feet

6 - E1 Short Haul
7 - E1 Long Haul"

::= { pportEntry 13 }

pportDiagTestId OBJECT-TYPE

SYNTAX INTEGER {
v35-sca-local-loopback (1),
v35-sca-remote-loopback (2),
v35-csu-loopback (3),
hssi-local-dte-loopback (5),
hssi-local-line (6),
hssi-remote-line-loopback (7),
ds1-framer-local-loopback

ds1-line-local-loopback (12),
ds1-framer-remote-loopback

ds1-line-remote-loopback (14),
ds1-external-local-loopback

(11),

(13),

(15)

ACCESS read-write
STATUS mandatory
DESCRIPTION

"Identification for the
diagnostics tests to be run."

::= { pportEntry 14 }

pportDiagTestRuns OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

haul T1 card

cable loss)

cable loss)

cable loss)

cable loss)

cable loss)

```

        "The number of passes of the
diagnostics tests to be run.
        The default value is 1."
        ::= { pportEntry 15 }

pportInOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of octets
received on the physical port,
        including framing characters."
        ::= { pportEntry 16 }

pportInFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of frames
received on the physical port."
        ::= { pportEntry 17 }

pportInDiscards OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of inbound
frames discarded."
        ::= { pportEntry 18 }

pportInErrors OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of inbound
frames that contained erroneous
        headers (e.g., illegal or unknown
DLCIs)."
        ::= { pportEntry 19 }

pportOutOctets OBJECT-TYPE

```

```

    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of octets
transmitted out of the physical
port, including framing
characters."
        ::= { pportEntry 20 }

pportOutFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of frames
transmitted out of the physical
port."
        ::= { pportEntry 21 }

pportOutDiscards OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of outbound
frames discarded due to
        severe congestion."
        ::= { pportEntry 22 }

pportOutErrors OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of outbound
frames that causes xmit errors."
        ::= { pportEntry 23 }

pportDiagState OBJECT-TYPE
    SYNTAX      INTEGER {
        inactive (0),
        active(1)
    }
    ACCESS      read-write

```



```

STATUS      mandatory
DESCRIPTION  "The current state of the
diagnostic on this physical port."
::= { pportEntry 24 }

pportDiagOptionStr OBJECT-TYPE
SYNTAX      OCTET STRING
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Optional parameters to the
diagnostic."
::= { pportEntry 25 }

pportDiagPassCount OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "Number of successful diagnostic
passes."
::= { pportEntry 26 }

pportDiagFailCount OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "Number of failed diagnostic
passes."
::= { pportEntry 27 }

pportDiagResultStr OBJECT-TYPE
SYNTAX      DisplayString
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "Description of last diagnostic
failure."
::= { pportEntry 28 }

pportLinkDownReason OBJECT-TYPE
SYNTAX      INTEGER {
none
(0),

```

```

red-alarm    (1),
yellow-alarm (2),
blue-alarm   (4),
carrier-loss (8),
looped-back  (16),
ber-threshold(64),
signal-label-mismatch(128),
loss-of-signal(256),
loss-of-frame(512),
loss-of-cell-delineation (1024),
line-AIS     (2048),
path-AIS     (4096),
loss-of-pointer (8192),
line-RFI     (16384),
path-RFI     (32768),
signal-label-undefined(65536),
idle         (131072),
equipment-mismatch (262144),
admin-down   (524288)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "Reason why the link is down. The
blue-alarm is equivalent
to the Alarm Indication Signal
(AIS) failure."
::= { pportEntry 29 }

pportInterface OBJECT-TYPE
SYNTAX      INTEGER {
eia449      (1),
x21         (2),
eia530      (3),
eia530A     (4),
v35         (5),
e1-coax     (6),
e1-db       (7),
none        (8),
v24         (9),
sonet       (10),
sdh         (11),
multi-mode  (12),
-- optical
interface for topaz only

```

```

        single-mode (13),      -- optical
interface for topaz only
        mii_connector (15), -- only on
Fast Ethernet ports
        rj45_connector(16), -- only on
Fast Ethernet ports
        rj48h_connector(17) -- 50 pin connector on
12 port e1
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Actual interface connected to
Multi-Interface Port or ATM-IWU."
        ::= { pportEntry 30 }

pportAdminInterface OBJECT-TYPE
    SYNTAX      INTEGER {
        eia449          (1),
        x21              (2),
        eia530          (3),
        eia530A         (4),
        v35              (5),
        e1-coax         (6),
        e1-db           (7),
        none             (8),
        v24              (9),
        sonet            (10),
        sdh              (11),
        multi-mode      (12), -- optical
interface for topaz only
        single-mode (13),      -- optical
interface for topaz only
        v35-nrzi      (14), -- only for
SDLC FRAD on UIO
        mii_connector (15), -- only on
Fast Ethernet ports
        rj45_connector(16), -- only on
Fast Ethernet ports
        rj48h_connector(17) -- 50 pin connector on
12 port e1
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

```

        "Configured interface connected to
Multi-Interface Port or ATM-IWU."
        ::= { pportEntry 31 }

pportCellScramble OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Configured ATM cell payload
scrambling."
        ::= { pportEntry 32 }

pportCbitParity OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Configured ATM DS3 C-bit Parity."
        ::= { pportEntry 33 }

pportMaxBufferSize OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Maximum receive/transmit buffer
size for the ATM UNI DS3 IOP"
        ::= { pportEntry 34 }

pportPeakCellRate0 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Peak Cell Rate (cell/sec.) for
rate queue #0.
        rate queues 0 - 3 are high
priority"

```

```

        ::= { pportEntry 35 }

pportPeakCellRate1 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Peak Cell Rate (cell/sec.) for
rate queue #1.
        rate queues 0 - 3 are high
priority"
    ::= { pportEntry 36 }

pportPeakCellRate2 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Peak Cell Rate (cell/sec.) for
rate queue #2.
        rate queues 0 - 3 are high
priority"
    ::= { pportEntry 37 }

pportPeakCellRate3 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Peak Cell Rate (cell/sec.) for
rate queue #3.
        rate queues 0 - 3 are high
priority"
    ::= { pportEntry 38 }

pportPeakCellRate4 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Peak Cell Rate (cell/sec.) for
rate queue #4.
        rate queues 4 - 7 are low
priority"
    ::= { pportEntry 39 }

```

```

pportPeakCellRate5 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Peak Cell Rate (cell/sec.) for
rate queue #5.
        rate queues 4 - 7 are low
priority"
    ::= { pportEntry 40 }

pportPeakCellRate6 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Peak Cell Rate (cell/sec.) for
rate queue #6.
        rate queues 4 - 7 are low
priority"
    ::= { pportEntry 41 }

pportPeakCellRate7 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Peak Cell Rate (cell/sec.) for
rate queue #7.
        rate queues 4 - 7 are low
priority"
    ::= { pportEntry 42 }

pportInCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of cells
received"
    ::= { pportEntry 43 }

pportInErrorCells OBJECT-TYPE

```

```

SYNTAX      Counter
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The total number of cells
received with error"
::= { pportEntry 44 }

pportOutCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The total number of cells
transmitted"
::= { pportEntry 45 }

pportDs3LineBuildout OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The line build out or line length
specification for
the DS3 transmitter.

1-port ATM-UNI DS3 card & 8-port
-----
-----
The accepted values are:

1 - 0 to 225 feet
2 - 226 to 450 feet"
::= { pportEntry 46 }

pportSetDS0LoopUp OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Bit map used to set one or more
DS0's into loopback. Low bit

```

```

corresponds to DS0 1. If a bit is set that DS0 is put
into loopback."
::= { pportEntry 47 }

pportSetDS0LoopDown OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Bit map used to set one or more
DS0's out of loopback. Low bit
corresponds to DS0 1. If a bit is set that DS0 is put
out of loopback."
::= { pportEntry 48 }

pportDS0LoopUpStatus OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Bit map reporting which DS0's
have gone into loopback since the
last time this variable was read"
::= { pportEntry 49 }

pportDS0LoopDownStatus OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Bit map reporting which DS0's
have gone out of loopback since the
last time this variable was read"
::= { pportEntry 50 }

pportDS0LoopStatus OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Bit map reporting which DS0's are
currently in loopback. Low bit
corresponds to DS0 1"
::= { pportEntry 51 }

```

pportISDN OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Specifies whether ISDN PRI is enabled
 for this physical port"
 ::= { pportEntry 52 }

pportdsx3LoopbackConfig OBJECT-TYPE
 SYNTAX INTEGER {
 dsx3NoLoop (1),
 dsx3PayloadLoop (2),
 dsx3LineLoop(3),
 dsx3DiagLoop(4)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Integer used to set the loopback state
 of the DS3 or E3"
 ::= { pportEntry 53 }

pportdsx3SendCode OBJECT-TYPE
 SYNTAX INTEGER {
 dsx3SendNoCode (1),
 dsx3SendLineCode (2),
 dsx3SendResetCode (4),
 dsx3SendUserCode (8)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Integer used to send loopback code to
 far-end DS3. User
 specified code can be set in cascadepm/
 cascadeDs3 mib
 variable dsx3FEACCode in dsx3ConfigTable
 table."
 ::= { pportEntry 54 }

pportdsx3LoopStatus OBJECT-TYPE

SYNTAX INTEGER {
 noLoop (1),
 payloadLoop (2),
 lineLoop (3),
 diagLoop (4),
 farLoopInit (5)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Integer indicating the current
 loopback status of the DS3 or E3"
 ::= { pportEntry 55 }

pportdsx3FEACStatus OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Integer indicating the current DS3
 FEAC status:
 none (0),
 DS3EquipmentFailure(1),
 DS3LOS (2),
 DS3OutOfFrame (4),
 DS3AISreceived (8),
 DS3IDLEreceived (16),
 DS3NonServiceAffectingEquipFailure
 (32),
 CommonEquipmentFailure (64),
 DS3LoopbackReceived(128),
 DS1ServiceAffectingEquipmentFailure (256),
 DS1NonServiceAffectingEquipFailure (512),
 SingleDS1LOS (1024),
 MultipleDS1sLOS (2048) "
 ::= { pportEntry 56 }

pportds1LoopbackConfig OBJECT-TYPE
 SYNTAX INTEGER {
 ds1NoLoop
 (1),
 ds1PayloadLoop
 (2),
 ds1LineLoop
 (3),

```

        ds1DiagLoop (4)
    }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "Integer used to set the loopback state
of the DS1"
    ::= { pportEntry 57 }

pportds1SendCode OBJECT-TYPE
    SYNTAX      INTEGER {
        ds1SendNoCode (1),
        ds1SendFramedInbandLineActuateLoop
(2),
        ds1SendFramedInbandLineReleaseLoop
(3),
        ds1SendUnframedInbandLineActuateLoop (4),
        ds1SendUnframedInbandLineReleaseLoop (5),
        ds1SendFdlESFAnsiLineActuateLoop
(6),
        ds1SendFdlESFAnsiLineReleaseLoop
(7),
        ds1SendFdlESFAnsiPayloadActuateLoop (8),
        ds1SendFdlESFAnsiPayloadReleaseLoop (9)
    }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "Integer used to send loopback code to
far-end DS1"
    ::= { pportEntry 58 }

pportds1LoopStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        noLoop (1),
        payloadLoop (2),
        lineLoop (3),
        diagFramerLoop (4),
        diagLIULoop (5),
        diagExternalLoop (6),

```

```

        farEndFramedInbandLineLoop (7),
        farEndUnframedInbandLineLoop (8),
        farEndFdlLineLoop (9),
        farEndFdlPayloadLoop (10)
    }
ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "Integer indicating the current
loopback status of the DS1"
    ::= { pportEntry 59 }

pportSetClkBkup OBJECT-TYPE
    SYNTAX      INTEGER {
        internalClkBkup (1),
        looptimedClkBkup (2)
    }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "The desired clock source backup if the
card is set in
        external clock source mode"
    ::= { pportEntry 60 }

pportAtmIdleWord OBJECT-TYPE
    SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "The word used to stuff the payload of
the ATM idle cell"
    ::= { pportEntry 61 }

pportAtmDisCardMode OBJECT-TYPE
    SYNTAX      INTEGER {
        ansiInval (1),
        ansiUnassignedInval(2),
        atmFInvalid (3),
        atmFUnassignedInval(4),
        ccittIdle (5),
        ccittUnassignedIdle(6)
    }

```

ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The desired clock source backup
 if the card is set in
 external clock source mode"
 ::= { pportEntry 62 }

pportAtmLastUnconfiguredVpi OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This entry holds the Vpi read from the
 last Unconfigured
 atm cell received. This entry applies
 to ATM pports only."
 ::= { pportEntry 63 }

pportAtmLastUnconfiguredVci OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This entry holds the Vci read from the
 last Unconfigured
 atm cell received. This entry applies
 to ATM pports only."
 ::= { pportEntry 64 }

pportAtmUnconfiguredCells OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This entry holds a count of the number
 of Unconfigured
 ATM cells received. This entry
 applies to ATM pports only."
 ::= { pportEntry 65 }

pportAtmNumBitsVCI OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only

STATUS mandatory
 DESCRIPTION
 "This entry holds a count of the VCI
 bits supported by this
 ATM card."
 ::= { pportEntry 66 }

pportAtmNumBitsVPI OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This entry holds a count of the VPI
 bits supported by this
 ATM card."
 ::= { pportEntry 67 }

pportAtmInterfaceType OBJECT-TYPE
 SYNTAX INTEGER {
 uni (1),
 nni (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Integer used to set ATM UNI or NNI
 type"
 ::= { pportEntry 68 }

pportSonetSDHLoopbackConfig OBJECT-TYPE
 SYNTAX INTEGER {
 noLoop (1),
 lineLoop (2),
 diagnosticsLoop (3),
 metallicLoop (4),
 noMetalicLoop (5),
 serialLoop (6),
 parallelLoop (7)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Integer used to set the loopback state
 of the Sonet/SDH port "
 ::= { pportEntry 69 }

```

pportSonetSDHLoopStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        noLoop          (1),
        lineLoop        (2),
        diagnosticsLoop (3),
        metallicLoop     (4),
        noMetalicLoop    (5),
        serialLoop       (6),
        parallelLoop(7)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Integer indicating the current
        loopback status of the Sonet/SDH port"
        ::= { pportEntry 70 }

pportOutDiscardsCell OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of outbound cell
        discarded due to
        congestion."
        ::= { pportEntry 71 }

pportAtmPlcp OBJECT-TYPE
    SYNTAX      INTEGER {
        enable  (1),
        disable (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The PLCP maintains the state of the
        ATM Physical Layer
        Convergence Protocol. When the
        protocol is
        disabled atm direct mapping is used
        with hec cell
        delineation."
        ::= { pportEntry 72 }

```

```

pportCbrTargetClockMode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The clocking method to be used by the
        CE and structured CBR card.

        4-port circuit emulation and CBR
        cards
        -----

        1 - synchronous (external)
        clocking
        2 - SRTS clocking
        3 - adaptive clock method"
        ::= { pportEntry 73 }

pportCbrCurrentClockMode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The clocking method currently used by
        the CE and structured CBR card.

        4-port circuit emulation and CBR
        cards
        -----

        1 - synchronous (external)
        clocking
        2 - SRTS clocking
        3 - adaptive clock method"
        ::= { pportEntry 74 }

pportFiberType OBJECT-TYPE
    SYNTAX      INTEGER {
        sonetMultiMode(4),
        sonetShortSingleMode(2)
    }
    ACCESS      read-only
    STATUS      mandatory

```


DESCRIPTION
 "The type of fiber connected to the ATM-IWU. Its type determines the maximum transmission distance.

1-port ATM-IWU STM-1/STS-3c card

4 - multimode fiber (maximum transmission distance approx. 2 km)
 2 - single mode fiber short haul (maximum transmission distance approx. 20 km)"

::= { pportEntry 76 }

pportLaserStatus OBJECT-TYPE

SYNTAX INTEGER {
 off (1),
 on (2)
 }

ACCESS read-write
 STATUS mandatory

DESCRIPTION
 "The configured state of the laser:

1-port ATM-IWU STM-1/STS-3c card & Topaz 4-port OC3 & STM-1 card

1 - off
 2 - on"

::= { pportEntry 77 }

pportMaxActiveVpiBits OBJECT-TYPE

SYNTAX INTEGER (0..12)
 ACCESS read-write
 STATUS mandatory

DESCRIPTION
 "The maximum number of active VPI bits configured for use at the ATM interface. At the ATM UNI, the maximum number of active VPI bits configured for use ranges from 0 to 8 only."

::= { pportEntry 78 }

pportBipErrorsThresh OBJECT-TYPE

SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory

DESCRIPTION
 "The threshold of BIP errors. If the number of line BIP-24/8 errors persists to exceed this value, the pport will be taken down and a trap will be issued:

1-port ATM-IWU STM-1/STS-3c card:

1 - ignore BIP errors
 4 - 10⁻⁴ errors
 5 - 10⁻⁵ errors
 6 - 10⁻⁶ errors"

::= { pportEntry 79 }

pportBipSectionErrors OBJECT-TYPE

SYNTAX Counter
 ACCESS read-only
 STATUS mandatory

DESCRIPTION
 "The number of B1 section BIP-8 errors since the last reset."

::= { pportEntry 80 }

pportBipLineErrors OBJECT-TYPE

SYNTAX Counter
 ACCESS read-only
 STATUS mandatory

DESCRIPTION
 "The number of line BIP-24/8 errors since the last reset."

::= { pportEntry 81 }

pportBipPathErrors OBJECT-TYPE

SYNTAX Counter
 ACCESS read-only
 STATUS mandatory

DESCRIPTION

"The number of B3 path BIP-8 errors
since the last reset."
::= { pportEntry 82 }

pportFebeErrors OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of line Far End Block
Errors since the last reset."
::= { pportEntry 83 }

pportHcsErrors OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of correctable HCS errors
since the last reset."
::= { pportEntry 84 }

pportHcsSevereErrors OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of uncorrectable HCS errors
since the last reset."
::= { pportEntry 85 }

pportCongestedReceivedCells OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of received cells that were
discarded due to congestion of
the ATM-IWU, since the last
reset."
::= { pportEntry 86 }

pportCongestedTransmittedCells OBJECT-TYPE

SYNTAX Counter
ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of cells to be transmitted,
that were discarded due to
congestion of the ATM-IWU, since
the last reset."
::= { pportEntry 87 }

pportAtmLayerErroredReceivedCells OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of received cells that were
discarded due to ATM layer
errors, since the last reset."
::= { pportEntry 88 }

pportAtmLayerErroredTransmittedCells OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of cells to be transmitted,
that were discarded due to ATM
layer errors, since the last
reset."
::= { pportEntry 89 }

pportDS0BitStuff OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"Bit stuffing on or off for 2047 bit
pattern in DS0 far end testing."
::= { pportEntry 90 }

pportDS0BitErrorCount OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

"Total number of errors in 2047 DS0 far
end testing."

```

        ::= { pportEntry 91 }

pportDS0BitErrorFreeSeconds OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Total number of error free seconds in
        2047 DS0 far end testing."
        ::= { pportEntry 92 }

pportDS0BitErroredSeconds OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Total number of errored seconds in
        2047 DS0 far end testing."
        ::= { pportEntry 93 }

pportDS0MidspanRepeaters OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Number of Midspan repeaters in a link
        to be punched thru
        for DS0 far end testing."
        ::= { pportEntry 94 }

pportDS0TestPatternSync OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "While DS0 far end testing, the DS0
        pattern has detected the
        pattern four consecutive times.  If the
        pattern is lost, this variable
        will be equal to one."
        ::= { pportEntry 95 }

pportDS0InjectBitError OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write

```

```

    STATUS      mandatory
    DESCRIPTION
        "While testing DS0 far end lpbk,
        setting this variable will
        inject a bit error into the test pattern."
        ::= { pportEntry 96 }

pportDS0FarendLpbkType OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The type of DS0 equipment to be looped
        back at the far end
        during DS0 far end testing.
        1 - OCU
        2 - DSU
        3 - CSU."
        ::= { pportEntry 97 }

pportDS0LpbkMode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This determines what mode the DS0
        Processor will be set to.
        1 - no lpbk
        2 - switch lpbk
        3 - far end lpbk."
        ::= { pportEntry 98 }

pportDS0SwitchLpbkStart OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This is the first DS0 in a sting of
        consecutive DS0's to
        be looped back at the switch if the DS0
        processor is set to switch
        loopback.  If it's set to far end loopback,
        this determines which
        singleton DS0 will be monitored at the receive
        end."

```

```

        ::= { pportEntry 99 }

pportDS0SwitchLpbkEnd OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This is the Last DS0, +1, in a sting
of consecutive DS0's to
        be looped back at the switch if the DS0
processor is set to switch
        loopback. If the DS0 processor is set to far
end loopback, this value
        will equal pportDS0SwitchLpbkStart + 1.."
    ::= { pportEntry 100 }

pportDS0FarendDS0InLpbk OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This indicates the DS0 in far end
loopback."
    ::= { pportEntry 101 }

pportDS0SendTestTraffic OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Enable or Disable sending DS0 2047
test pattern for DS0
        far end testing."
    ::= { pportEntry 102 }

pportOc3LoopConfig OBJECT-TYPE
    SYNTAX      INTEGER {
        oc3NoLoop      (1),
        oc3SerPhyLoop  (3),-- internal
        oc3ParPhyLoop  (4)-- internal
    }
    serial loopback
    parallel loopback
}

```

```

        ACCESS      read-write
        STATUS      mandatory
        DESCRIPTION
            "The target loopback state of the
ATM IWU OC3 / ATM-CS"
        ::= { pportEntry 103 }

pportOc3LoopStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        oc3NoLoop      (1),
        oc3SerPhyLoop  (3),-- internal
        oc3ParPhyLoop  (4)-- internal
    }
    serial loopback
    parallel loopback
}
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current loopback status of
the ATM IWU OC3 / ATM-CS"
    ::= { pportEntry 104 }

pportISDNipBaseAddr OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Specifies the base address used
for IP Dynamic Address Assignment"
    ::= { pportEntry 105 }

pportSonetSTM1Scramble OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Configured SONET/STM-1
scrambling."
    ::= { pportEntry 106 }

pportEFCIMarking OBJECT-TYPE

```

```

SYNTAX      INTEGER {
              disabled (1),
              enabled(2)
            }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Configured EFCI marking for cell
traffic in Topaz IOMs"
 ::= { pportEntry 107 }

pportAtmQOSTransmitMode OBJECT-TYPE
SYNTAX      INTEGER {
              fix-priority (1),
              weighted-round-robin (2)
            }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Select fix priority or weighted
round-robin for cell transmission in different ATM QOS
classes."
 ::= { pportEntry 108 }

pportHECMode OBJECT-TYPE
SYNTAX      INTEGER {
              disabled (1),
              enabled(2)
            }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Configured ATM HEC single bit
error correction routine."
 ::= { pportEntry 109 }

pportISDNChannelStatus OBJECT-TYPE
SYNTAX      OCTET STRING
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The ISDN call status of all the
B-Channels on the pport are
              encoded into this 24 character, (for T1 ISDN
PRI card...23B+D) or 31 character,

```

(for E1 ISDN PRI card...30B+D) ASCII string.
The respective call state for
each B-Channel is represented in its
corresponding bit position. The D-Channel
status is similarly encoded into the
appropriate bit position (24th for T1) or
(16th for E1). The encoding legend is as
follows...

I	B-Channel is in Idle
R	B-Channel is in
C	B-Channel is in
H	B-Channel is in
U	D-Channel is Up
D	D-Channel is Down"

```

 ::= { pportEntry 110 }

pportds1FarEndLoopStatus OBJECT-TYPE
SYNTAX INTEGER {
              fe_noloop      (1),
              fe_line_loop   (2),
              fe_payload_loop (3)
            }
ACCESS read-write
STATUS mandatory
DESCRIPTION  "DS1 Far End Loopback Status as
commanded by the switch"
 ::= { pportEntry 111 }

pportds1FDLControl OBJECT-TYPE
SYNTAX INTEGER {
              disabled (1),
              enabled  (2)
            }
ACCESS read-write
STATUS mandatory
DESCRIPTION

```

```

        "Enables or Disables FDL Function
for DS1 ESF pport"
        ::= { pportEntry 112 }

pportds1FDLPrmXmit OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled  (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Enables or Disables transmission
of Performance Monitoring Report
(PRM) messages on the DS1 ESF FDL"
        ::= { pportEntry 113 }

pportds1FDLPidXmit OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled  (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Enables or Disables transmission
of Path ID (PID) messages on
the DS1 ESF FDL"
        ::= { pportEntry 114 }

pportds1FDLXmitPid OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Transmit Path Id to be sent on
the DS1 ESF FDL. (76 bytes)"
        ::= { pportEntry 115 }

pportds1FDLRcvPid OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-only
    STATUS mandatory

```

```

        DESCRIPTION
            "The last path id message received
on the DS1 ESF FDL. (76 bytes)"
            ::= { pportEntry 116 }

pportds1FDLRcvTsid OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The last test id message received
on the DS1 ESF FDL. (76 bytes)"
        ::= { pportEntry 117 }

pportSonetSDHFramingMode OBJECT-TYPE
    SYNTAX INTEGER {
        sonet      (1),
        sdh        (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The Framing mode for SONET/SDH
port interface types."
        ::= { pportEntry 118 }

pportds1InbandLoopType OBJECT-TYPE
    SYNTAX INTEGER {
        ds1CSU (1),
        ds1NI  (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Integer used to distinguish
Inband Line loopback code sent
from the switch when commanding
inband line loopbacks, and
reckognized by the switch when responding
to remote
loopback commands"
        ::= { pportEntry 119 }

pportESFDataLinkStatus OBJECT-TYPE
    SYNTAX INTEGER {

```

```

        inService      (1),
        outOfService   (2)
    }
ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "The current status of the DS1 ESF
(FDL) data link."
    ::= { pportEntry 120 }

pportPMTcaId OBJECT-TYPE
    SYNTAX      INTEGER {
        currentThresholdCVL      (1),
        currentThresholdESL      (2),
        currentThresholdSESL      (3),
        currentThresholdUASL      (4),
        currentThresholdCVP      (5),
        currentThresholdESP      (6),
        currentThresholdSESP      (7),
        currentThresholdSASP      (8),
        currentThresholdCSSP      (9),
        currentThresholdUASP      (10),
        currentThresholdCVS      (11),
        currentThresholdESS      (12),
        currentThresholdSESS      (13),
        currentThresholdESx      (14),
        dayThresholdCVL          (15),
        dayThresholdESL          (16),
        dayThresholdSESL          (17),
        dayThresholdUASL          (18),
        dayThresholdCVP          (19),
        dayThresholdESP          (20),
        dayThresholdSESP          (21),
        dayThresholdSASP          (22),
        dayThresholdCSSP          (23),
        dayThresholdUASP          (24),
        dayThresholdCVS          (25),
        dayThresholdESS          (26),
        dayThresholdSESS          (27),
        dayThresholdESx          (28),
        currentThresholdCVCPP      (29),
        currentThresholdESCPP      (30),
        currentThresholdSESCPP      (31),
        currentThresholdSASCPP      (32),
        currentThresholdUASCPP      (33),

```

```

        dayThresholdCVCPP      (34),
        dayThresholdESCPP      (35),
        dayThresholdSESCPP      (36),
        dayThresholdSASCPP      (37),
        dayThresholdUASCPP      (38),
        currentThresholdCVCPPFE      (39),
        currentThresholdESCPPFE      (40),
        currentThresholdSESCPPFE      (41),
        currentThresholdSASCPPFE      (42),
        currentThresholdUASCPPFE      (43),
        dayThresholdCVCPPFE      (44),
        dayThresholdESCPPFE      (45),
        dayThresholdSESCPPFE      (46),
        dayThresholdSASCPPFE      (47),
        dayThresholdUASCPPFE      (48)
    }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "This object identifies the the
most recently declared pport
threshold crossing alert"
    ::= { pportEntry 121 }

pportBchanTimerValue OBJECT-TYPE
    SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "This value is used on a per port basis
to add a delay to
answering a ISDN call of the initial
Disconnect from the
network. This due to the ARP cache not
updating quick
enough on the routers"
    ::= { pportEntry 122 }

pportAAL5CRC32Error OBJECT-TYPE
    SYNTAX      Counter
ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "Number of received AAL5 packets
with CRC32 errors."

```

```

        ::= { pportEntry 123 }

pportAAL5CPIError OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of received AAL5 packets
with CPI errors
        The only valid value currently
defined for the CPI
        field is all zeros"
    ::= { pportEntry 124 }

pportAAL5LengthError OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of received AAL5 packets
which satisfied one of the following
error conditions:
        1. number of received cells * 48
bytes - length value in trailer > 55 bytes
        2. number of received cells * 48
bytes - length value in trailer < 8 bytes"
    ::= { pportEntry 125 }

pportAAL5ReassemblyTimerError OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of expired reassembly
timers"
    ::= { pportEntry 126 }

pportAAL5MaxNrSegError OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of received AAL5 packets
which exceeds the maximum allowed length"
    ::= { pportEntry 127 }

```

```

pportRedundancyArch OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        aps-intracard (2),
        aps-with-resilient-uni (3),
        aps-with-trunk-backup (4),
        aps-intercard (5)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Pport redundancy architecture. Default
is disabled.
        aps-intracard -- ports are both
on same card.
        aps-with-resilient-uni -- ports
may be on different
        cards, resilient UNI
is used to reroute traffic.
        aps-intercard-trunk-backup --
ports may be on different
        cards, aps keeps phy
layer in sync w/trunk backup.
        aps-intercard-redundant vc's --
ports on diff cards, vcs dupl. on protection card"
    ::= { pportEntry 128 }

pportAPSadminDir OBJECT-TYPE
    SYNTAX INTEGER {
        uni-directional (1),
        bi-directional (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Provisioned APS switch-direction-mode.
Default is uni-
        directional."
    ::= { pportEntry 129 }

pportAPSlineType OBJECT-TYPE
    SYNTAX INTEGER {
        working-line (1),
        protection-line (2)
    }

```



```

    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "APS line type for the pport. Writable
only when
        pportRedundancyArch is disabled."
    ::= { pportEntry 130 }

pportAPSrevertiveMode OBJECT-TYPE
    SYNTAX INTEGER {
        revertive (1),
        nonrevertive (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "APS revertive mode. When revertive,
after the condition
        for an automatic switchover
clears, user traffic will be
        switched back to the working line
after the pportAPSwtrPeriod
        expires. Default is revertive."
    ::= { pportEntry 131 }

pportAPSpairedSlotId OBJECT-TYPE
    SYNTAX INTEGER (1..16)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Slot ID of the paired-with APS pport.
Writable only when
        pportRedundancyArch is disabled."
    ::= { pportEntry 132 }

pportAPSpairedPportId OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Pport ID of the paired-with APS pport.
Writable only when
        pportRedundancyARch is disabled."
    ::= { pportEntry 133 }

```

```

pportAPSsfBerThresh OBJECT-TYPE
    SYNTAX INTEGER (3..5)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Exponent N for APS Signal Failure based
on BER. A line
        bit-error-rate above 10^-N causes
an SF BER failure to be
        asserted. SF BER is cleared when
the line BER returns to
        less than 10^-7."
    ::= { pportEntry 134 }

pportAPSsdBerThresh OBJECT-TYPE
    SYNTAX INTEGER (6..9)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Exponent N for APS Signal Degrade based
on BER. A line
        bit-error-rate above 10^-N causes
an SD BER failure to be
        asserted. SD BER is cleared when
the line BER returns to
        less than 10^-(N+1)."
    ::= { pportEntry 135 }

pportAPSwtrPeriod OBJECT-TYPE
    SYNTAX INTEGER (5..12)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "APS wait-to-restore period. The number
of minutes to
        wait after an automatic switch
condition clears before
        switching back to the working
line."
    ::= { pportEntry 136 }

pportAPSprotectionLineState OBJECT-TYPE
    SYNTAX INTEGER {
        released (1),

```

```

        selected (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Indicates the state of the protection
line selector.
        When selected, a protection
switchover has taken place
        and user traffic is being selected
from the protection
        line."
    ::= { pportEntry 137 }

pportAPSxCommand OBJECT-TYPE
    SYNTAX INTEGER {
        clear (1),
        lockout-protection (2),
        forced-switch-w-to-p (3),
        forced-switch-p-to-w (4),
        manual-switch-w-to-p (5),
        manual-switch-p-to-w (6),
        exercise (7)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "External switch commands. The clear
command clears
        any previously activated external
command. Manual
        switch is preemptable by auto-
switch-requests (line
        failures) while forced switch is
not preemptable (except
        if the protection line fails).
Manual and forced switch
        from protection to working, is
valid only for 1+1 mode.
        Exercise simulates a switchover
using APS signalling
        without actually performing a
switch to protection line."
    ::= { pportEntry 138 }

```

```

pportAPSconfigStatus OBJECT-TYPE
    SYNTAX INTEGER {
        not-configured (1),
        valid (2),
        invalid (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Status of APS pport configuration. The
not-configured
        status indicates the pport APS
feature is not configured
        or it is a non-APS pport. The
valid state indicates the
        pport APS function is configured
and has been validated
        by the APS manager. The invalid
state indicates that the
        APS manager has detected a
conflict between the working
        line and protection line pport
configurations. The user
        must clear the invalid state by
changing the configuration
        of the misconfigured pport as soon
as possible. Check
        pportAPSadminDir,
pportAPSlineType, pportAPSrevertiveMode,
        and pportAPSwtrPeriod for any
misconfigurations."
    ::= { pportEntry 139 }

pportAPSOperRxStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        up (1),
        down (2),
        testing (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current state of the pair of
APS pports with respect

```

to the ability of the pair to
 Receive user traffic. When
 indicated as up, user traffic may
 be received on at least
 one of the ports in the APS
 pair."

::= { pportEntry 140 }

pportBertPattern OBJECT-TYPE

SYNTAX INTEGER {
 allZeros (1),
 allOnes (2),
 oneZero (3),
 oneOneZeroZero(4),
 oneOf8 (5),
 threeOf24 (6),
 qRSS (7),
 user1Byte (8),
 user2Byte (9),
 user3Byte (10),
 user4Byte (11)
 }

ACCESS read-write
 STATUS mandatory

DESCRIPTION
 "Pattern generated by the XBERT"
 ::= { pportEntry 141 }

pportBertUserBytes OBJECT-TYPE

SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"Definition of 1,2,3 or 4 byte
 pattern if UserNByte selected."
 ::= { pportEntry 142 }

pportBertErrorRate OBJECT-TYPE

SYNTAX INTEGER {
 none (1),
 tenMinusThree(2),
 tenMinusSix (3)
 }

ACCESS read-write
 STATUS mandatory

DESCRIPTION

"Error rate to insert in generated
 pattern."

::= { pportEntry 143 }

pportBertCommand OBJECT-TYPE

SYNTAX INTEGER {
 start (1),
 stop (2),
 clearCounters(3),
 injectError (4)
 }

ACCESS read-write
 STATUS mandatory

DESCRIPTION
 "Single shot commands to the

BERT."

::= { pportEntry 144 }

pportBertStatus OBJECT-TYPE

SYNTAX INTEGER {
 unused (1),
 unavailable (2),
 outOfFrame (3),
 inFrame (4)
 }

ACCESS read-only
 STATUS mandatory

DESCRIPTION
 "Current status of the BERT for

this channel."

::= { pportEntry 145 }

pportBertBitCount OBJECT-TYPE

SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

"The number of bits received -
 stops counting at 0xFFFFFFFF"
 ::= { pportEntry 146 }

pportBertErrorCount OBJECT-TYPE

SYNTAX Gauge
 ACCESS read-only

STATUS mandatory
DESCRIPTION "The number of bits received in
error- stops counting
at 0xFFFFFFFF"
::= { pportEntry 147 }

pportds1FELoopbackControl OBJECT-TYPE
SYNTAX INTEGER {
disabled (1),
enabled (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Enables or Disables Far end
loopback control of the
switch. Enabled (2) = Loop up and down
commands from far
end equipment will be processed.
Disabled (1) - loop up
and down commands from far end equipment
shall be ignored.
This control does not affect the switch's
transmission of
loopback commands to the far end"
::= { pportEntry 148 }

pportFT1DS0s OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-write
STATUS mandatory
DESCRIPTION
"DS0 usage bitmask for Fractional
T1/E1 data rates."
::= { pportEntry 149 }

pportIMUXCnt OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"DS3 Inverse Multiplexer counter
value - specifies number of idle

cells to insert by the outbound process
Hardware."
::= { pportEntry 150 }

pportds1PMConfigThresh OBJECT-TYPE
SYNTAX INTEGER {
rfc1406 (1),
itu-g826 (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The setting determines which
standard is used for performance monitoring
configuration thresholds"
::= { pportEntry 151 }

pportIdleCellType OBJECT-TYPE
SYNTAX INTEGER {
atmforum (1),
itu (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The setting determines the type
of Idle/unassigned cell
transmitted by the pport.
1 -- ATM Forum CLP=0,
payload=6A
2 -- ITU CLP=1,
payload=6A"
::= { pportEntry 152 }

pportATMTcaInHECErrorUAlertPeriod OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"ATM tca ingress HEC error uncorrectable
alert
period (in min.)."
DEFVAL { 15 }
::= { pportEntry 153 }

```

pportATMTcaInHECErrorUThresh OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ATM tca ingress HEC error uncorrectable
threshold."
        DEFVAL { 1 }
        ::= { pportEntry 154 }

pportATMTcaEBufOverflowCBRAAlertPeriod OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ATM tca egress buffer overflow CBR Alert
period (in min)"
        DEFVAL { 15 }
        ::= { pportEntry 155 }

pportATMTcaEBufOverflowCBRThresh OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ATM tca egress buffer overflow CBR
threshold."
        DEFVAL { 1 }
        ::= { pportEntry 156 }

pportATMTcaEBufOverflowABRAAlertPeriod OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ATM tca egress buffer overflow ABR alert
period (in min)"
        DEFVAL { 15 }
        ::= { pportEntry 157 }

pportATMTcaEBufOverflowABRThresh OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION

```

```

        "ATM tca egress buffer overflow ABR
threshold."
        DEFVAL { 1 }
        ::= { pportEntry 158 }

pportATMTcaEBufOverflowVBR1AlertPeriod OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ATM tca egress buffer overflow VBR1 alert
period (in min)"
        DEFVAL { 15 }
        ::= { pportEntry 159 }

pportATMTcaEBufOverflowVBR1Thresh OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ATM tca egress buffer overflow VBR1
threshold."
        DEFVAL { 1 }
        ::= { pportEntry 160 }

pportATMTcaEBufOverflowVBR2AlertPeriod OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ATM tca egress buffer overflow VBR2 alert
period (in min)"
        DEFVAL { 15 }
        ::= { pportEntry 161 }

pportATMTcaEBufOverflowVBR2Thresh OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ATM tca egress buffer overflow VBR2
threshold."
        DEFVAL { 1 }
        ::= { pportEntry 162 }

```

pportATMTcaInFramerFIFOoverflowAlertPeriod OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "ATM tca ingress framer FIFO overflow
 alert
 period (in min)"
 DEFVAL { 15 }
 ::= { pportEntry 163 }

pportATMTcaInFramerFIFOoverflowThresh OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "ATM tca ingress framer FIFO overflow
 threshold."
 DEFVAL { 1 }
 ::= { pportEntry 164 }

pportATMTcaELookupFailureAlertPeriod OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "ATM tca egress lookup failure alert
 period (in min)"
 DEFVAL { 15 }
 ::= { pportEntry 165 }

pportATMTcaELookupFailureThresh OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "ATM tca egress lookup failure
 threshold."
 DEFVAL { 1 }
 ::= { pportEntry 166 }

pportATMTcaEnable OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory

DESCRIPTION
 "ATM tca port enable."
 ::= { pportEntry 167 }

pportATMTcaId OBJECT-TYPE
 SYNTAX INTEGER {
 ingressHECErrorUThresholdC (1),
 egressCBRBufferOverflowC (2),
 egressABRBufferOverflowC(3),
 egressVBR1BufferOverflowC(4),
 egressVBR2BufferOverflowC(5),
 ingressFramerFIFOoverflowC(6),
 egressLookupFailureC (7)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object identifies the the
 most recently declared pport
 ATM threshold crossing alert"
 ::= { pportEntry 168 }

pportFethAdminMacAddr OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE(6))
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The configured MAC address to use
 for this Fast Ethernet
 port. Setting this to all zeros
 will force the port to use
 the burned in MAC address."
 ::= { pportEntry 169 }

pportFethOperMacAddr OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE(6))
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The actual MAC address in use for
 this Fast Ethernet port."
 ::= { pportEntry 170 }

pportConfigAlarmSoakTime OBJECT-TYPE
 SYNTAX INTEGER (0..65535)

ACCESS read-write
STATUS mandatory
DESCRIPTION
"This is the soak time for configurable
alarms. An alarm
of this type must persist for this period
before it is
declared. The time is specified in
milliseconds units."
::= { pportEntry 171 }

pportConfigAlarmClearTime OBJECT-TYPE
SYNTAX INTEGER (0..65535)
ACCESS read-write
STATUS mandatory
DESCRIPTION
"This is the soak time for configurable
alarms. An alarm
of this type must remain clear for this
period before it is
declared to be cleared. The time is
specified in
milliseconds units."
::= { pportEntry 172 }

pportFethPortCapability OBJECT-TYPE
SYNTAX INTEGER {
fullDuplex100Mbps (1),
halfDuplex100Mbps (2),
fullDuplex10Mbps (3),
halfDuplex10Mbps (4)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Selection for the speed (10/100)
and mode (half/full duplex) of operation
for Fast Ethernet ports."
::= { pportEntry 173 }

pportVpshapingDiscardCellCount OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

"Cells discarded due to buffer
overflow on this pport because
of traffic shaping."
::= { pportEntry 174 }

pportLinkDownReasonNonZeroEnum OBJECT-TYPE
SYNTAX INTEGER {
none (1),
red-alarm (2),
yellow-alarm(4),
blue-alarm (8),
carrier-loss(16),
looped-back (64),
ber-threshold(128),
signal-label-mismatch(256),
loss-of-signal(512),
loss-of-frame(1024),
loss-of-cell-delineation (2048),
line-AIS (4096),
path-AIS (8192),
loss-of-pointer (16384),
line-RFI (32768),
path-RFI (65536),
signal-label-undefined(131072),
idle (262144),
equipment-mismatch (524288),
admin-down (1048576)
}
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Reason why the link is down.
The blue-alarm is equivalent to the Alarm
Indication Signal
(AIS) failure."
::= { pportEntry 175 }

pportRecoveredChanClock OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The channel number (1-x) on a
port that specifies the recovered

clock to be used as the transmit
clock source.

A zero specifies no channel"
::= { pportEntry 176 }

pportAPSTXK1K2mode OBJECT-TYPE
SYNTAX INTEGER {
disabled (1),
enabled (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Enables or Disables transmission of K1K2
on the working
channel as well as the protection.
disable - transmit APS K1K2 on
protection line only
enable - transmit APS K1K2 on
both protection and
working lines.
default is disabled"
::= { pportEntry 177 }

pportServiceType OBJECT-TYPE
SYNTAX INTEGER {
circuit-emulation(1),
atm(2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The DS3-CE card port can be configured as either
CE or ATM UNI.
A new field service type will be shown on Pport
NMS window.
If service type is ce, AAL1 configuration
parameters will be shown on
Pport window and 'Cell Payload Scramble' and 'Idle
Cell Type'
fields will be unavailable to configure."
::= {pportEntry 178}

-- The traffic Shaper parameter table

pportTrafficShaperTable OBJECT-TYPE
SYNTAX SEQUENCE OF
PportTrafficShaperEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
"A list of Parameters assigned to the
16 traffic shaper parameter
combinations of each pport of the
ATM-IWU."
::= { pport 3 }

pportTrafficShaperEntry OBJECT-TYPE
SYNTAX PportTrafficShaperEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
"Information of a single system
reference clock source."
INDEX { pportSlotId, pportId,
pportTrafficShaperIndex }
::= { pportTrafficShaperTable 1 }

PportTrafficShaperEntry ::=
SEQUENCE {
pportTrafficShaperIndex
INTEGER,
pportTrafficShaperPriority
INTEGER,
pportTrafficShaperCellRatioDividend
INTEGER,
pportTrafficShaperCellRatioDivisor
INTEGER,
pportTrafficShaperPeak
INTEGER,
pportTrafficShaperCredit
INTEGER,
pportTrafficShaperAggregate
INTEGER
}

pportTrafficShaperIndex OBJECT-TYPE
SYNTAX INTEGER (1..16)


```

ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "A positive integer to identify an
entry in the pportTrafficShaperTable.
    The ATM-IWU and CS cards support
exactly 16 shapers."
    ::= { pportTrafficShaperEntry 1 }

pportTrafficShaperPriority OBJECT-TYPE
SYNTAX      INTEGER (0..15)
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "The priority of the Shaper.
    Channels tied to a Shaper are
served only if no higher priority Shapers
    await service. 0 is the highest,
15 the lowest priority."
    ::= { pportTrafficShaperEntry 2 }

pportTrafficShaperCellRatioDividend OBJECT-TYPE
SYNTAX      INTEGER (0..255)
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "The quotient of
pportTrafficShaperCellRatioDividend and
    pportTrafficShaperCellRatioDivisor
determines the average rate allocated
    to the shaper. The shaper serves
pportTrafficShaperCellRatioDividend cells
    in
pportTrafficShaperCellRatioDivisor cell times."
    ::= { pportTrafficShaperEntry 3 }

pportTrafficShaperCellRatioDivisor OBJECT-TYPE
SYNTAX      INTEGER (1.. 16777215)
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "See
pportTrafficShaperCellRatioDividend"
    ::= { pportTrafficShaperEntry 4 }

```

```

pportTrafficShaperPeak OBJECT-TYPE
SYNTAX      INTEGER (0..255)
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "The peak cell rate.
    It defines the minimum gap (in
cell units) between emission of any
    consecutive cells in this
channel."
    ::= { pportTrafficShaperEntry 5 }

pportTrafficShaperCredit OBJECT-TYPE
SYNTAX      INTEGER (0..255)
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "Defines the maximum number of credits
that can be accumulated by a
    shaper. This is equivalent to the
maximum burst allowed at the peak rate."
    ::= { pportTrafficShaperEntry 6 }

pportTrafficShaperAggregate OBJECT-TYPE
SYNTAX      INTEGER {
                vc-shaping      (1),
                vp-shaping      (2)
            }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "Sets the traffic shaper into
either normal (VC) shaping mode or
    aggregate (VP) shaping mode. In
normal (VC) shaping mode each
    VC assigned to the shaper is
shaped at the specified shaping rate
    In aggregate (VP) shaping mode
each time the shaper is scheduled the
    next available VC has a cell
sent."
    ::= { pportTrafficShaperEntry 7 }

--      The Physical Channel Group
--

```

```
--      The variables that configure physical channels
on a port at a node
--
```

channelNumber OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The number of physical channels
(regardless of their current
state) present at this node."

::= { chan 1 }

channelTable OBJECT-TYPE

SYNTAX SEQUENCE OF ChanEntry

ACCESS not-accessible

STATUS mandatory

DESCRIPTION

"A list of physical channel
entries. The number of entries is
given by the value of

channelNumber."

::= { chan 2 }

chanEntry OBJECT-TYPE

SYNTAX ChanEntry

ACCESS not-accessible

STATUS mandatory

DESCRIPTION

"The physical channel entry
contains objects relevant to a
physical channel."

INDEX { chanSlotId, chanPortId,
chanId }

::= { channelTable 1 }

ChanEntry ::=

SEQUENCE {

chanSlotId

INTEGER,

chanPortId

INTEGER,

chanId

INTEGER,

chanAdminType

INTEGER,

chanNumLport

INTEGER,

chanDataRate

INTEGER,

chanType

INTEGER,

chanXmitClock

INTEGER,

chanAdminStatus

INTEGER,

chanOperStatus

INTEGER,

chanDs1LineType

INTEGER,

chanDs1ZeroCoding

INTEGER,

chanInOctets

Counter,

chanInFrames

Counter,

chanInDiscards

Counter,

chanInErrors

Counter,

chanOutOctets

Counter,

chanOutFrames

Counter,

chanOutDiscards

Counter,

chanOutErrors

Counter,

chanBertPattern

INTEGER,

chanBertUserBytes

INTEGER,

chanBertErrorRate

INTEGER,

chanBertCommand

INTEGER,

chanBertStatus

INTEGER,

chanBertBitCount

```

        Gauge,
chanBertErrorCount
        Gauge,
chanLinkDownReason
        INTEGER,
chands1SendFarEndCode
        INTEGER,
chands1CodeTypeRsp
        INTEGER,
chands1NearEndLoopConfig
        INTEGER,
chands1NearEndLoopStatus
        INTEGER,
chanBackupClock
        INTEGER,
chanFT1DS0s
        INTEGER,
chanLinkDownReasonNonZeroEnum
        INTEGER
    }

chanSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The slot number of the
        corresponding physical channel."
        ::= { chanEntry 1 }

chanPortId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The port number of this channel
        on the board."
        ::= { chanEntry 2 }

chanId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "The channel number of the
        corresponding physical channel."
        ::= { chanEntry 3 }

chanAdminType OBJECT-TYPE
    SYNTAX      INTEGER {
        ft3-1 (9)          -- 1-port
    }
    Fractional T3 i/o card
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The defined type of the board
        which the physical channel is on."
        ::= { chanEntry 4 }

chanNumLport OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of logical ports on
        the physical channel."
        ::= { chanEntry 5 }

chanDataRate OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "An estimate of the physical
        channels's data rate in bits
        per second. The data rate is based
        on N56/N64 and DS0 usage."
        ::= { chanEntry 6 }

chanType OBJECT-TYPE
    SYNTAX      INTEGER {
        ft3-1 (9)          -- 1-port
    }
    Fractional T3 i/o card
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

channel."
    ::= { chanEntry 7 }

chanXmitClock OBJECT-TYPE
    SYNTAX      INTEGER {
        loopTimed (1),
        internal (2),
        external (3)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The transmit clock source."
    ::= { chanEntry 8 }

chanAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        up (1),
        down (2),
        testing (3),
        invalid (255)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The desired state of the physical
channel."
    ::= { chanEntry 9 }

chanOperStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        up (1),
        down (2),
        testing (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current state of the physical
channel."
    ::= { chanEntry 10 }

chanDs1LineType OBJECT-TYPE
    SYNTAX      INTEGER {

```

```

        d4 (1),
        esf (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The line type of the T1 or FT1-
24B channel. ANSI ESF is
        equivalent to Bellcore ESF."
    ::= { chanEntry 11 }

chanDs1ZeroCoding OBJECT-TYPE
    SYNTAX      INTEGER {
        nx64 (1),
        nx56 (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The variety of zero code
suppression used on the other end
of the T1 link will change the
information rate available"
    ::= { chanEntry 12 }

chanInOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of octets
received on the physical channel,
including framing characters."
    ::= { chanEntry 13 }

chanInFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of frames
received on the physical channel."
    ::= { chanEntry 14 }

chanInDiscards OBJECT-TYPE

```

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of inbound frames discarded."
	::= { chanEntry 15 }

chanInErrors OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of inbound frames that contained erroneous headers (e.g., illegal or unknown DLCIs)."
	::= { chanEntry 16 }

chanOutOctets OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of octets transmitted out of the physical channel, including framing characters."
	::= { chanEntry 17 }

chanOutFrames OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of frames transmitted out of the physical channel."
	::= { chanEntry 18 }

chanOutDiscards OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	

	"The total number of outbound frames discarded due to severe congestion."
	::= { chanEntry 19 }

chanOutErrors OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The total number of outbound frames that causes xmit errors."
	::= { chanEntry 20 }

chanBertPattern OBJECT-TYPE

SYNTAX	INTEGER {	
	allZeros	(1),
	allOnes	(2),
	oneZero	(3),
	oneOneZeroZero	(4),
	oneOf8	(5),
	threeOf24	(6),
	qRSS	(7),
	user1Byte	(8),
	user2Byte	(9),
	user3Byte	(10),
	user4Byte	(11)
	}	
ACCESS	read-write	
STATUS	mandatory	
DESCRIPTION	"Pattern generated by the XBERT"	
	::= { chanEntry 21 }	

chanBertUserBytes OBJECT-TYPE

SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Definition of 1,2,3 or 4 byte pattern if UserNByte selected."
	::= { chanEntry 22 }

chanBertErrorRate OBJECT-TYPE

SYNTAX	INTEGER {
--------	-----------

```

        none (1),
        tenMinusThree(2),
        tenMinusSix (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION "Error rate to insert in generated
pattern."
    ::= { chanEntry 23 }

chanBertCommand OBJECT-TYPE
    SYNTAX INTEGER {
        start (1),
        stop (2),
        clearCounters(3),
        injectError (4)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION "Single shot commands to the
BERT."
    ::= { chanEntry 24 }

chanBertStatus OBJECT-TYPE
    SYNTAX INTEGER {
        unused (1),
        unavailable (2),
        outOfFrame (3),
        inFrame (4)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION "Current status of the BERT for
this channel."
    ::= { chanEntry 25 }

chanBertBitCount OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "The number of bits received -
stops counting at 0xFFFFFFFF"
        ::= { chanEntry 26 }

chanBertErrorCount OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION "The number of bits received in
error- stops counting
at 0xFFFFFFFF"
    ::= { chanEntry 27 }

chanLinkDownReason OBJECT-TYPE
    SYNTAX INTEGER {
        none (0),
        red-alarm (1),
        yellow-alarm(2),
        blue-alarm (4),
        carrier-loss(8),
        looped-back (16)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION "Reason why the link is down. The
blue-alarm is equivalent
to the Alarm Indication Signal
(AIS) failure."
    ::= { chanEntry 28 }

chands1SendFarEndCode OBJECT-TYPE
    SYNTAX INTEGER {
        ds1SendNoCode (1),
        ds1SendFramedCSULineActuateLoop
(2),
        ds1SendFramedCSULineReleaseLoop
(3),
        ds1SendFramedNILineActuateLoop
(4),
        ds1SendFramedNILineReleaseLoop
(5),
        ds1SendFdLESFAnsiLineActuateLoop
(6),

```

```

(7),
ds1SendFdlESFAnsiLineReleaseLoop
ds1SendFdlESFAnsiPayloadActuateLoop (8),
ds1SendFdlESFAnsiPayloadReleaseLoop (9),
ds1SendUnframedCSULineActuateLoop
(10),
ds1SendUnframedCSULineReleaseLoop
(11),
ds1SendUnframedNILineActuateLoop
(12),
ds1SendUnframedNILineReleaseLoop
(13),
ds1Send00BNILineActuateLoop
(14),
ds1Send00BNILineReleaseLoop
(15)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Integer used to send loopback
code to far-end DS1"
::= { chanEntry 29 }

chands1CodeTypeRsp OBJECT-TYPE
SYNTAX INTEGER {
ds1CSUFramedInbandLineLoop (1),
ds1NIFramedInbandLineLoop (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Integer used to distinguish
Framed Inband Line loopback code
(CSU or NI) that near end will
recognize from far-end DS1"
::= { chanEntry 30 }

chands1NearEndLoopConfig OBJECT-TYPE
SYNTAX INTEGER {
ds1ClearLoop (1),
ds1PayloadLoop (2),
ds1LineLoop (3),

```

```

ds1DiagLoop (4)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Integer used to set the near end
loopback state of the DS1,
Diag is xmit => recv"
::= { chanEntry 31 }

chands1NearEndLoopStatus OBJECT-TYPE
SYNTAX INTEGER {
noLoop
(1),
framedInbandLineLoop (2),
fdlESFAnsiLineLoop (3),
fdlESFAnsiPayloadLoop (4),
ds3CbitLineLoop (5),
nMSLineLoop (6),
nMSPayloadLoop (7),
nMSDiagLoop (8)
}
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Integer indicating the current
loopback status of the near
end of the DS1"
::= { chanEntry 32 }

chanBackupClock OBJECT-TYPE
SYNTAX INTEGER {
loop (1),
internal (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Backup clock source if External
timing fails."
::= { chanEntry 33 }

chanFT1DS0s OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write

```

```

STATUS      mandatory
DESCRIPTION  "DS0 usage bitmask for Fractional
T1 data rates."
::= { chanEntry 34 }

chanLinkDownReasonNonZeroEnum OBJECT-TYPE
SYNTAX      INTEGER {
    none                (1),
    red-alarm           (2),
    yellow-alarm(4),
    blue-alarm          (8),
    carrier-loss(16),
    looped-back (32)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "Reason why the link is down. The
blue-alarm is equivalent
(AIS) failure."
::= { chanEntry 35 }

--      The Frame Relay Billing Group
--
--
fracctControl OBJECT-TYPE
SYNTAX      INTEGER {
    disabled            (1),
    pvcentabled (2),
    svcenabled (3),
    enabled            (4)
}
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "This object defines the
capability to enable or disable
usage-based FR accounting at the
switch level.

The possible values are:

```

```

disabled - Usage measurement
is disabled
pvcentabled - Usage measurement
is enabled for PVCs only
svcenabled - Usage measurement
is enabled for SVCs only
enabled - Usage measurement
is enabled for PVCs and SVCs

When the value of this object is a
value other than 'disabled',
the value of a logical port's
(SVC) recording capability and
circuit level (PVC) recording
capability will take precedence.

When the value of this object is
'disabled', it overrides
all logical port and circuit level
recording capability
objects, and accounting is
disabled across the entire switch.

The default value of this object
is 'disabled'.

This object is considered to be to
'administrative' state
of the FR accounting system on the
switch, whereas the object
fracctOperState is the
corresponding operational state."
::= { fracct 1 }

fracctASAddressPri OBJECT-TYPE
SYNTAX      IPAddress
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The IP Address of the primary
Accounting Server
that is servicing FR accounting
for this switch."
::= { fracct 2 }

```



```

fracctASAddressSec OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The IP Address of the secondary
Accounting Processor that
        is servicing FR accounting for
this switch."
    ::= { fracct 3 }

fracctASControl OBJECT-TYPE
    SYNTAX INTEGER {
        primary (1),
        secondary (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object controls which
configured FR Accounting
        Accounting Server address is to be
used for transferring
        usage data."
    ::= { fracct 4 }

fracctPvcRecIntrvl OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object defines the recording
interval over which PVC
        usage measurements are taken and
transferred to the Accounting
        Server, as defined by Bellcore GR-
1110-CORE.

        Acceptable values represent 15-
minute increments. The minimum
        value is 1 (15 minutes). The
maximum value is 96 (24 hours).

        The default value is 4 (1 hour)."
    ::= { fracct 5 }

```

```

fracctSnapshotPeriod OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object defines how often the
switch snapshots the state
        of all FR PVCs and SVCs to stable
storage.

        Acceptable values represent 5-
minute increments. The minimum
        value is 0 (no snapshots). The
maximum value is 12 (1 hour).

        The default value is 1 (5
minutes)."
    ::= { fracct 6 }

fracctStressTestRate OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The rate (calls/sec/IOP) of
simulated SVCs, for stress
        testing the accounting components
on the IOPs and CP.

        This object is for internal
debugging purposes, and is
        read-only in release versions."
    ::= { fracct 7 }

fracctAdminAction OBJECT-TYPE
    SYNTAX INTEGER {
        invalid (1),
        forceUpload (2),
        resetBWstats (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION

```

"This object defines a set of administrative actions that can be performed by the FR Accounting System.

forceUpload - Forces an upload of any queued FR usage data to the FR Accounting Server.

resetBWstats - Reset the AS Communications Bandwidth tracking statistics to zero.

This object always returns invalid(1) when read.

"
::= { fracct 8 }

fracctSwASCommsFailures OBJECT-TYPE

SYNTAX Counter
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The number of times that communication from the switch to the FR Accounting Server has failed during the current day. A failure signifies failure of a file transfer operation to the Accounting Server."

::= { fracct 9 }

fracctPvcRecIntrvlStart OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The start-time (GMT) of the current FR PVC recording interval."

::= { fracct 10 }

fracctPvcRecIntrvlEnd OBJECT-TYPE

SYNTAX TimeTicks

ACCESS read-only
STATUS mandatory
DESCRIPTION

"The end-time (GMT) of the current FR PVC recording interval."
::= { fracct 11 }

fracctSvcUsageRecCreated OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"Count of the number of new FR SVCs for which usage records were created during the current rate period."

::= { fracct 12 }

fracctSvcTotalUsageRecCreated OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"Count of the number of new FR SVCs for which usage records were created during the current day."

::= { fracct 13 }

fracctPvcUsageRecCreated OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"This object reports the number of FR PVC usage records that were created at the end of the previous recording interval. This counter indicates the number of PVCs for which usage measurement was enabled during the last recording interval."

::= { fracct 14 }

```

fracctUsageRecCrFailures OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total number of FR usage records
that could not be created
        during the current day."
    ::= { fracct 15 }

fracctUsageRecSent OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total number of FR usage records
that have been transferred
        to the FR Accounting Server during
the current day."
    ::= { fracct 16 }

fracctAvgTransportBwUsed OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object reports the average
amount of bandwidth (in
        bits per second) that has been
used to transport FR
        Accounting data to the Accounting
Server during the current
        day."
    ::= { fracct 17 }

fracctAvgTransportBwBurst OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object reports the average
transport bandwidth burst
        rate (in bits per second) obtained
to transport FR accounting

```

```

        data to the Accounting Server
during the current day."
    ::= { fracct 18 }

fracctMinTransportBwBurst OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object reports the minimum
transport bandwidth burst
        rate (in bits per second) obtained
to transport FR accounting
        data to the Accounting Server
during the current day."
    ::= { fracct 19 }

fracctMaxTransportBwBurst OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object reports the maximum
transport bandwidth burst
        rate (in bits per second) obtained
to transport FR accounting
        data to the Accounting Server
during the current day."
    ::= { fracct 20 }

fracctOperState OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        pvcenabled (2),
        svcenabled (3),
        enabled (4)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object corresponds to the
operational state of the FR
        Accounting system on the switch.

        The possible values are:

```

disabled - Usage measurement
is disabled
pvcenabled - Usage measurement
is enabled for PVCs only
svcenabled - Usage measurement
is enabled for SVCs only
enabled - Usage measurement
is enabled for PVCs and SVCs

This object is considered to be the 'operational' state of the FR Accounting system on the switch, whereas the object fracctControl is the corresponding 'administrative' state."

::= { fracct 21 }

fracctASCommsState OBJECT-TYPE
SYNTAX INTEGER {
red (1),
yellow (2),
green (3)
}
ACCESS read-only
STATUS mandatory
DESCRIPTION
"This object identifies the current state of communications to the FR Accounting Server.

Possible values are:

red - File transfers have repeatedly failed, and all switch resources for storing additional accounting data have been exhausted. The operational state of FR accounting for the switch has been downgraded to DISABLED.

yellow - File transfers are experiencing significant failures. Several unsuccessful attempts have

been made to transport the file at the head of the queue. New data is continuing to be generated, and queued up. The operational state of FR Accounting has not been downgraded yet.

green - File transfers are not experiencing significant failures. Any accounting data queued during failure periods has been successfully transported to the Accounting Server.

Note: a value of zero (0) indicates that the Accounting Server Addresses have not been configured, and the state of communications cannot be assessed"

::= { fracct 22 }

fracctLastBWResetTime OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The last time (GMT) that the AS Communications Bandwidth tracking statistics were reset to zero."

::= { fracct 23 }

fracctSvcCbrCellCounting OBJECT-TYPE
SYNTAX INTEGER {
disabled (1),
intraenabled (3)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object is used to enable or disable CBR SVC usage data counting when CBR Recording is enabled.

For Intra-network CBR SVCs, the switch will record CBR usage data for the SVC if and only if the parameter is set to intraenabled(3) and CBR Recording is enabled (at the switch and logical port level).

This parameter will also support CBR usage data counting for inter-network SVCs in the future.

The default value of this object is intraenabled(3)."
::= { fracct 24 }

fracctSvcAfrRecording OBJECT-TYPE
SYNTAX INTEGER {

disabled (1),
intraenabled (3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object is used to enable or disable the recording of FR AFR SVCs.

For Intra-network AFR SVCs, the switch will generate usage data for the SVC if and only if the parameter is set to intraenabled(3) and the corresponding logical port AFR Recording parameter is set to enabled or study.

This parameter also support AFR recording for inter-network SVCs in the future.

The default value of this object is intraenabled(3)."
::= { fracct 25 }

fracctSvcCfrRecording OBJECT-TYPE
SYNTAX INTEGER {

disabled (1),
intraenabled (3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object is used to enable or disable the recording of FR CFR SVCs.

For Intra-network CFR SVCs, the switch will generate usage data for the SVC if and only if the parameter is set to intraenabled(3) and the corresponding logical port CFR Recording parameter is set to enabled or study.

This parameter also support CFR recording for inter-network SVCs in the future.

The default value of this object is intraenabled(3)."
::= { fracct 26 }

fracctSvcUfrRecording OBJECT-TYPE
SYNTAX INTEGER {

disabled (1),
intraenabled (3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object is used to enable or disable the recording of FR UFR SVCs.

For Intra-network UFR SVCs, the switch will generate usage data for the SVC if and only if the parameter is set to intraenabled(3) and the corresponding logical port UFR Recording parameter is set to enabled or study.

This parameter also support UFR recording for inter-network SVCs in the future.

The default value of this object is intraenabled(3)."
::= { fracct 27 }

frmacctSvcVfrRecording OBJECT-TYPE
SYNTAX INTEGER {

disabled (1),
intraenabled (3)
}

ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object is used to enable or disable the recording of FR VFR SVCs.

For Intra-network VFR SVCs, the switch will generate usage data for the SVC if and only if the parameter is set to intraenabled(3) and the corresponding logical port VFR Recording parameter is set to enabled or study.

This parameter also support VFR recording for inter-network SVCs in the future.

The default value of this object is intraenabled(3)."

::= { fracct 28 }

fracctLportTable OBJECT-TYPE

SYNTAX SEQUENCE OF FracctLportEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION

"A table of lport-related FR Accounting System manageable objects, indexed by logical port identifier."

::= { fracct 29 }

fracctLportEntry OBJECT-TYPE

SYNTAX FracctLportEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION

"An fracctLportEntry contains a set of lport-related FR Accounting System manageable objects, indexed by logical port identifier."

INDEX { fracctLportIfIndex }
::= { fracctLportTable 1 }

FracctLportEntry ::= SEQUENCE {

fracctLportIfIndex
Index,
fracctLportSvcOrigControl
INTEGER,
fracctLportSvcTermControl
INTEGER,
fracctLportSvcDefaultAddress
OCTET STRING,
fracctLportSvcDefaultAddressType
INTEGER,
fracctLportSvcUnsuccRecording
INTEGER,
fracctLportSvcSubAddressRecording
INTEGER,
fracctLportSvcUsageMeasurement
INTEGER,
fracctLportSvcParamRecording

```

        INTEGER,
        fracctlportSvcIntraAfrRecording
        INTEGER,
        fracctlportSvcIntraCfrRecording
        INTEGER,
        fracctlportSvcIntraUfrRecording
        INTEGER,
        fracctlportSvcIntraVfrRecording
        INTEGER
    }

fracctlportIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Index: logical-port identifier."
    ::= { fracctlportEntry 1 }

fracctlportSvcOrigControl OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2),
        study (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object defines the ability
to enable and disable FR
        SVC accounting of SVCs that
originate on this logical port.
        When the value of fracctlControl is
'enabled', the value of
        this object will take precedence.
When the value of
        fracctlControl is 'disabled', the
value of this object will be
        overridden and FR SVC accounting
will be disabled.

        disabled = Usage measurement will
not be performed for
        SVC calls that
originate on this port."

```

```

        enabled = Usage measurement
will be performed for SVC
        calls that originate on
this port.
        study = Usage measurement will
be performed for SVC
        calls that originate on
this port, and the usage
        records will be
marked as 'study', as per
        Bellcore GR-1110-
CORE.

        The default value of this object
is enabled(2).

        When set to a enabled(2) or
study(3), unsuccessful FR
        SVC calls will be recorded
according to the value of the
        fracctlportUnsuccSvcRecording
object. Otherwise
        unsuccessful calls will not be
recorded."
    ::= { fracctlportEntry 2 }

fracctlportSvcTermControl OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2),
        study (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object defines the ability
to enable and disable FR
        SVC accounting of SVCs that
terminate on this logical port.
        When the value of fracctlControl is
'enabled', the value of
        this object will take precedence.
When the value of
        fracctlControl is 'disabled', the
value of this object will be

```

will be disabled. overridden and FR SVC accounting

disabled = Usage measurement will not be performed for SVC calls that terminate on this port.

enabled = Usage measurement will be performed for SVC calls that terminate on this port.

study = Usage measurement will be performed for SVC calls that terminate on this port, and the usage records will be marked as 'study', as per Bellcore GR-1110-CORE.

The default value of this object is enabled(2)."

```
 ::= { fracctlportEntry 3 }
```

```
fracctlportSvcDefaultAddress OBJECT-TYPE
    SYNTAX OCTET STRING(SIZE(1..20))
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object defines a Default Billing Address for FR SVCs which originate at his lport. Note that this address may be different from the Default UNI Address defined for Calling Party Insertion.
```

The Default address for the port must be recorded at the switch whenever:

- 1) no Calling Party Number is present, or
- 2) the Calling Party Number fails screening or is invalid, or

3) the Calling Party Number is different from the default address."

```
 ::= { fracctlportEntry 4 }
```

```
fracctlportSvcDefaultAddressType OBJECT-TYPE
    SYNTAX INTEGER {
        e164 (1),
        x121 (2),
        unknown (4),
        useCPIaddress (5)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object identifies the type of FR address that is to be used as the default billing address for SVCs originating on this logical port. The octet string comprising this address is given by parameter fracctlportSvcDefaultAddress.
```

Note: if the value of this parameter is useCPIaddress (5), the switch will use the Calling Party Insertion address (object svcConfigCgPtyInsertionAddress) defined for this logical port as the default billing address. In this case, the value of fracctlportSvcDefaultAddress has no meaning, and should be set to null."

```
 ::= { fracctlportEntry 5 }
```

```
fracctlportSvcUnsuccRecording OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        originating (2),
        terminating (3),
        enabled (4)
    }
    ACCESS read-write
```


STATUS mandatory
DESCRIPTION

"This object is used to enable or disable the recording of usage information for unsuccessful FR SVCs that originate or terminate on this port.

disabled = Usage data will not be generated for unsuccessful calls on this port.

originating = Usage data is generated for all unsuccessful calls that originated on this port. This value can only be set for UNI ports.

terminating = Usage data is generated for all unsuccessful calls that terminated on this port.

enabled = Usage data is generated for all unsuccessful calls that originated or terminated on this port. This value can only be set for UNI ports.

The default value of this object is enabled(4) at the UNI interface and disabled(1) at the network interface.

The acceptable values of this object on a network interface are disabled(1) or terminating(3)."

::= { fracctlportEntry 6 }

fracctlportSvcSubAddressRecording OBJECT-TYPE
SYNTAX INTEGER {

disabled (1),
callingParty (2),
calledParty (3),

enabled (4)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object is used to enable or disable the recording of the Sub-addresses in FR SVC accounting records at the UNI.

disabled = Do not records Sub-addresses

callingParty = Record the Calling Party Sub-address when present in a call

calledParty = Record the Called Party Sub-address when present in a call

enabled = Record both sub-addresses when present

The default value of this object is disabled(1)."

::= { fracctlportEntry 7 }

fracctlportSvcUsageMeasurement OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object is used to enable or disable the recording of individual usage counts for FR SVC circuits terminating on this port. This object is a bit field, where a '1' represents 'record counts', and a '0' represents 'do not record counts'.

The bit positions are defined as follows (bit 0 = LSB):

0: received bytes

1: received frames
 2: received DE bytes
 3: sent bytes
 4: sent frames
 5: sent DE bytes

The default value is 0x01 (record received bytes only).

Note: usage records are not generated if SVC Recording (fracctlportSvcControl) is disabled."
 ::= { fracctlportEntry 8 }

fracctlportSvcParamRecording OBJECT-TYPE
 SYNTAX INTEGER {

disabled (1),
 enabled (2)
 }

ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This object controls the recording of FR SVC parameters when usage measurement is enabled for this port. When set to enabled(2), all of the following parameters will be recorded in the usage data for each direction of each SVC terminating on this port:
 Throughput (CIR)
 Committed Burst Size

(Bc)

Excess Burst Size (Be)

This object is defined at the user (UNI) and network interfaces (B-ICI and NNI).

The default value of this object is disabled(1)."
 ::= { fracctlportEntry 9 }

fracctlportSvcIntraAfrRecording OBJECT-TYPE

SYNTAX INTEGER {

disabled (1),
 enabled (2),
 study (3)
 }

ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This object is used to enable or disable the recording of Intranetwork FR AFR SVCs at the UNI. The switch will generate usage data for the SVC only if the parameter is set to enabled(2) or study(3). If this parameter is set to study, usage data that is generated is marked as 'study', per Bellcore GR-1110-CORE.

This parameter does not apply to AFR recording for inter-network SVCs.

The default value of this object is enabled(2)."
 ::= { fracctlportEntry 10 }

fracctlportSvcIntraCfrRecording OBJECT-TYPE

SYNTAX INTEGER {

disabled (1),
 enabled (2),
 study (3)
 }

ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This object is used to enable or disable the recording of Intranetwork FR CFR SVCs at the UNI. The switch will generate usage data for the SVC only if the parameter

is set to enabled(2) or study(3).
 If this parameter is set to study,
 usage data that is generated is marked as 'study',
 per Bellcore GR-1110-CORE.

This parameter does not apply to
 CFR recording for inter-network SVCs.

The default value of this object
 is enabled(2)."
 ::= { fracctLportEntry 11 }

fracctLportSvcIntraUfrRecording OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2),
 study (3)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or
 disable the recording of
 Intranetwork FR UFR SVCs at the
 UNI. The switch will
 generate usage data for the SVC
 only if the parameter
 is set to enabled(2) or study(3).
 If this parameter is set to study,
 usage data that is generated is marked as 'study',
 per Bellcore GR-1110-CORE.

This parameter does not apply to
 UFR recording for inter-network SVCs.

The default value of this object
 is enabled(2)."
 ::= { fracctLportEntry 12 }

fracctLportSvcIntraVfrRecording OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2),
 study (3)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or
 disable the recording of
 Intranetwork FR VFR SVCs at the
 UNI. The switch will
 generate usage data for the SVC
 only if the parameter
 is set to enabled(2) or study(3).
 If this parameter is set to study,
 usage data that is generated is marked as 'study',
 per Bellcore GR-1110-CORE.

This parameter does not apply to
 VFR recording for inter-network SVCs.

The default value of this object
 is enabled(2)."
 ::= { fracctLportEntry 13 }

fracctCktTable OBJECT-TYPE
 SYNTAX SEQUENCE OF FracctCktEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "A table of ckt-related FR
 Accounting System manageable
 objects, indexed by source logical
 port id and source DLCI."
 ::= { fracct 30 }

fracctCktEntry OBJECT-TYPE
 SYNTAX FracctCktEntry
 ACCESS not-accessible
 STATUS mandatory

DESCRIPTION
 "An fracctCktEntry contains a set
 of ckt-related
 FR Accounting System managable
 objects, indexed by source
 logical port id and source DLCI."
 INDEX { fracctCktSrcIfIndex, fracctCktSrcDlci
 }
 ::= { fracctCktTable 1 }

FracctCktEntry ::= SEQUENCE {
 fracctCktSrcIfIndex
 Index,
 fracctCktSrcDlci
 INTEGER,
 fracctCktControl
 INTEGER,
 fracctCktUsageMeasurement
 INTEGER,
 fracctCktParamRecording
 INTEGER,
 fracctCktChargeablePartyId
 OCTET STRING,
 fracctCktCreationTime
 INTEGER
 }

fracctCktSrcIfIndex OBJECT-TYPE
 SYNTAX Index
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Index: source logical-port
 identifier."
 ::= { fracctCktEntry 1 }

fracctCktSrcDlci OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Index: source DLCI."
 ::= { fracctCktEntry 2 }

fracctCktControl OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2),
 study (3)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or
 disable FR PVC recording
 for accounting purposes.
 disabled = The PVC will not be
 recorded at this interface
 enabled = The PVC will be
 recorded at this interface
 study = The PVC will be
 recorded and marked as study
 (as defined by
 Bellcore GR-1110-CORE)
 This object is defined at the user
 (UNI) and network
 interfaces (B-ICI and NNI).
 The default value of this object
 is enabled(2) at the UNI
 and enabled(2) at the network
 interface."
 ::= { fracctCktEntry 3 }

fracctCktUsageMeasurement OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or
 disable the recording of
 individual usage counts for FR PVC
 circuits terminating on
 this port. This object is a bit
 field, where a '1' represents
 'record counts', and a '0'
 represents 'do not record counts'.

The bit positions are defined as follows (bit 0 = LSB):

- 0: received bytes
- 1: received frames
- 2: received DE bytes
- 3: sent bytes
- 4: sent frames
- 5: sent DE bytes

The default value is 0x01 (record received bytes only).

Note: usage records are not generated if PVC Recording (fracctControl, fracctCktControl) is disabled."

```
 ::= { fracctCktEntry 4 }
```

fracctCktParamRecording OBJECT-TYPE

```
SYNTAX INTEGER {
    disabled (1),
    enabled  (2)
}
```

ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object controls the recording of FR PVC parameters when usage measurement is enabled for this port. When set to enabled(2), all of the following parameters will be recorded in the usage data for each direction of each PVC terminating on this port:

- Throughput (CIR)
- Committed Burst Size
- Excess Burst Size (Be)

(Bc)

This object is defined at the user (UNI) and network interfaces (B-ICI and NNI).

The default value of this object is disabled(1)."

```
 ::= { fracctCktEntry 5 }
```

fracctCktChargeablePartyId OBJECT-TYPE

```
SYNTAX OCTET STRING(SIZE(1..16))
ACCESS read-write
STATUS mandatory
DESCRIPTION
```

"This object defines a 1 to 16 digit decimal chargeable party for this FR PVC, per Bellcore GR-1110-CORE."

```
 ::= { fracctCktEntry 6 }
```

fracctCktCreationTime OBJECT-TYPE

```
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
```

"This object represents the time (UCT, seconds since Jan. 1, 1970) that the circuit was created. Once created, this object is read-only, since it is used for correlating accounting records for the circuit."

```
 ::= { fracctCktEntry 7 }
```

fracctASAddress OBJECT-TYPE

```
SYNTAX IpAddress
ACCESS read-only
STATUS mandatory
DESCRIPTION
```

"The IP Address of Accounting Server being used for Frame Relay accounting"

```
 ::= { fracct 31 }
```

-- The Logical Port Group
--

```
--      The variables that configure logical ports at
a node
--
```

```
lportTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LportEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of logical port entries.
        The number of entries is
        given by the value of ifNumber in
        MIB-II."
    ::= { lport 1 }
```

```
lportEntry OBJECT-TYPE
    SYNTAX      LportEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The logical port entry contains
        objects relevant to a
        logical port."
    INDEX      { lportIfIndex }
    ::= { lportTable 1 }
```

```
LportEntry ::=
    SEQUENCE {
        lportIfIndex
            Index,
        lportSlotId
            INTEGER,
        lportPportId
            INTEGER,
        lportId
            INTEGER,
        lportLink
            INTEGER,
        lportProtocol
            INTEGER,
        lportSignal
            INTEGER,
        lportFt1Ds0s
            DisplayString,
        lportGlobalDlci
```

```
INTEGER,
lportDlcmiStd
INTEGER,
lportDlciAddrFmt
INTEGER,
lportDlciAddrLen
INTEGER,
lportMaxFramesize
INTEGER,
lportDceVerifTimer
Counter,
lportDceErrorThresh
Counter,
lportDceEventCount
Counter,
lportDteErrorThresh
Counter,
lportDteEventCount
Counter,
lportDtePollTimer
Counter,
lportDteFullCounter
Counter,
lportDteMulticast
INTEGER,
lportTrkRnode
IpAddress,
lportTrkRlport
INTEGER,
lportCongestState
INTEGER,
lportQP1Len
INTEGER,
lportQP2Len
INTEGER,
lportQP3Len
INTEGER,
lportQP4Len
INTEGER,
lportErrTime
TimeTicks,
lportErrType
INTEGER,
lportErrData
OCTET STRING,
```

lportDiagTestId	INTEGER,	Counter,
lportDiagTestRuns	INTEGER,	lportDTEInErrorFrames
lportDataRate	INTEGER,	Counter,
lportTrkStatus	INTEGER,	lportDTEOutPollFrames
lportSevCongests	INTEGER,	Counter,
lportAbsCongests	INTEGER,	lportDTEPollErrorCounts
lportTrkOverhead	INTEGER,	Counter,
lportTrkUtil	INTEGER,	lportDTEFailCounts
lportVAvailbw	INTEGER,	Counter,
lportTrkLastTimeChange	TimeTicks,	lportDTEFailReason
lportCongestRate	INTEGER,	INTEGER,
lportCongestRateThresh	INTEGER,	lportDTEOperStatus
lportDiagState	INTEGER,	INTEGER,
lportDiagOptionStr	OCTET STRING,	lportDCEInPollFrames
lportDiagPassCount	INTEGER,	Counter,
lportDiagFailCount	INTEGER,	lportDCEInErrorFrames
lportDiagResultStr	DisplayString,	Counter,
lportDs0BitStuff	INTEGER,	lportDCEOutStatusFrames
lportErrorThreshold	INTEGER,	Counter,
lportUnsyncBandwidth	INTEGER,	lportDCEOutFullStatusFrames
lportDTEInStatusFrames	Counter,	Counter,
lportDTEInFullStatusFrames	Counter,	lportDCEOutAsyncStatusFrames
lportDTEInAsyncStatusFrames		Counter,
		lportDCEPollErrorCounts
		Counter,
		lportDCEFailCounts
		Counter,
		lportDCEFailReason
		INTEGER,
		lportDCEOperStatus
		INTEGER,
		lportDCEOperDlcmiStd
		INTEGER,
		lportLMIInErrorFrames
		Counter,
		lportDCEnN4
		INTEGER,
		lportDCEnT3
		INTEGER,
		lportXmitLatencyThreshold
		INTEGER,
		lportXmitRefillPriority0Percentage
		INTEGER,
		lportXmitRefillPriority1Percentage
		INTEGER,

```

lportXmitRefillPriority2Percentage
    INTEGER,
lportXmitRefillPriority3Percentage
    INTEGER,
lportAbsoluteThreshold
    INTEGER,
lportSevereThreshold
    INTEGER,
lportMildThreshold
    INTEGER,
lportAtmUPCEnable
    INTEGER,
lportAtmUniType
    INTEGER,
lportConnectionType
    INTEGER,
lportAtmCellType
    INTEGER,
lportTrkKeepAliveTimer
    INTEGER,
lportTrkKeepAliveErrorThreshold
    INTEGER,
lportIgCutThruStatus
    INTEGER,
lportEgCutThruStatus
    INTEGER,
lportEgCutThruThresh
    INTEGER,
lportFrameRelayTrkEnable
    INTEGER,
lportSmdsSsiIf
    INTEGER,
lportSmdsSsiSlot
    INTEGER,
lportSmdsScrnId
    INTEGER,
lportSmdsIaScrnOp
    INTEGER,
lportSmdsGaScrnOp
    INTEGER,
lportSmdsIaScrnMap
    OCTET STRING,
lportSmdsGaScrnMap
    OCTET STRING,
lportSmdsTrkAddr

```

```

OCTET STRING,
lportSmdsCrc
    INTEGER,
lportSmdsCpePoll
    INTEGER,
lportSmdsPduCheck
    INTEGER,
lportSmdsCntOutFrDxi2HbPolls
    Counter,
lportSmdsCntOutByteDxi2HbPolls
    Counter,
lportSmdsCntInFrDxi2HbPolls
    Counter,
lportSmdsCntInByteDxi2HbPolls
    Counter,
lportSmdsCntOutFrSip3s
    Counter,
lportSmdsCntOutByteSip3s
    Counter,
lportSmdsCntInFrSip3s
    Counter,
lportSmdsCntInByteSip3s
    Counter,
lportSmdsCntDxi2LinkIdInvalids
    Counter,
lportSmdsCntDxi2StationIdInvalids
    Counter,
lportSmdsCntDxi2CrInvalids
    Counter,
lportSmdsCntDxi2AeInvalids
    Counter,
lportSmdsCntDxi2CtrlInvalids
    Counter,
lportSmdsCntDxi2FrameSizeErrors
    Counter,
lportSmdsCntSip3RsvdInvalids
    Counter,
lportSmdsCntSip3BetagMismatchcs
    Counter,
lportSmdsCntSip3BabaseIncorrectcs
    Counter,
lportSmdsCntSip3BabaseInvalids
    Counter,
lportSmdsCntSip3DaTypeInvalids
    Counter,

```


lportIlmiAdminStatus	OCTET STRING,
INTEGER,	lportSmdsPduHdrSip3DstGaNotFound
lportIlmiOperStatus	OCTET STRING,
INTEGER,	lportSmdsPduHdrSip3DstIaScrnFail
lportIlmiPollRetry	OCTET STRING,
INTEGER,	lportSmdsPduHdrSip3SaValFail
lportAtmVpiBits	OCTET STRING,
INTEGER,	lportSmdsPduHdrSip3DstIaNotFound
lportAtmVciBits	OCTET STRING,
INTEGER,	lportSmdsPduHdrSip3SrcIaScrnFail
lportAtmOamAlarmEnable	OCTET STRING,
INTEGER,	lportSmdsPduHdrSip3DstGaScrnFail
-- 218 is deprecated	OCTET STRING,
-- this OID will be reused	lportSmdsPduHdrSip3SaTypeInvalid
lportbwUNIPolicy	OCTET STRING,
INTEGER,	lportSmdsPduHdrSip3DaTypeInvalid
lportStarvation	OCTET STRING,
INTEGER,	lportSmdsPduHdrDxi2LinkIdInvalid
lportRecOverflow	OCTET STRING,
INTEGER,	lportSmdsPduHdrDxi2CrInvalid
lportLossOfCellSequence	OCTET STRING,
INTEGER,	lportSmdsPduHdrDxi2CtrlInvalid
lportLossOfStructurePointer	OCTET STRING,
INTEGER,	
lportCbrInsDummyCells	lportSmdsPduHdrDxi2StationIdInvalid
Counter,	OCTET STRING,
lportRecFifoUnderflowCnt	lportSmdsPduHdrDxi2AeInvalid
Counter,	OCTET STRING,
lportRecFifoOverflowCnt	lportDS0FarendLpbkEnabled
Counter,	INTEGER,
lportCbrLossOfStructurePointerCnt	lportDS0FarendLpbkDisabled
Counter,	INTEGER,
lportCbrLossOfCellSequenceCnt	lportTrkProtFailureThreshold
Counter,	INTEGER,
lportShaperId	lportPtr
INTEGER,	OCTET STRING,
lportDteIlmiPrefixScreenMode	lportISDNPoolUtil
INTEGER,	INTEGER,
lportSmdsPduViolTca	lportPPPNegotiationFailCode
INTEGER,	INTEGER,
lportSmdsPduViolThresh	lportTrkUtilQoS1
INTEGER,	INTEGER,
lportSmdsPduHdrSip3SaNotFound	lportTrkUtilQoS2
OCTET STRING,	INTEGER,
lportSmdsPduHdrSip3SaDaOnSamePort	lportTrkUtilQoS3

INTEGER,
 lportTrkUtilQoS4
 INTEGER,
 lportIlmiNumOctetsTx
 INTEGER,
 lportIlmiNumOctetsRx
 INTEGER,
 lportIlmiNumPdusTx
 INTEGER,
 lportIlmiNumPdusRx
 INTEGER,
 lportIlmiNumErrorsRx
 INTEGER,
 lportIlmiNumUmePollsTx
 INTEGER,
 lportIlmiNumUmeResponsesRx
 INTEGER,
 lportIlmiVPI
 INTEGER,
 lportIlmiVCI
 INTEGER,
 lportInCells
 Counter,
 lportOutCells
 Counter,
 lportDS1ChannelId
 INTEGER,
 lportCDV
 INTEGER,
 lportAtmTrkIomCktDiagStr
 OCTET STRING,
 lportAtmTrkSpCktDiagStr
 OCTET STRING,
 lportAuthState
 INTEGER,
 lportAuthDomainID
 INTEGER,
 lportAuthPPPOption
 INTEGER,
 lportAuthFailReason
 INTEGER,
 lportEchoRequestOption
 INTEGER,
 lportEchoRequestInterval
 INTEGER,

lportEchoRequestMaxTries
 INTEGER,
 lportMultilinkProtocolOption
 INTEGER,
 lportMultilinkProtocolFailReason
 INTEGER,
 lportBandwidthAllocProtocolOption
 INTEGER,
 lportBandwidthAllocProtocolCallFailReason
 INTEGER,
 lportPrivateNetOverflow
 INTEGER,
 lportCbrFifoHalfLength
 INTEGER,
 lportCustomerID
 INTEGER,
 lportCongestThresh0
 INTEGER,
 lportCongestThresh1
 INTEGER,
 lportCongestThresh2
 INTEGER,
 lportCongestThresh3
 INTEGER,
 lportSevereCongestNotifyTime
 INTEGER,
 lportSevereCongestStatus
 INTEGER,
 lportSmdsNumInFramesIa
 Counter,
 lportSmdsNumInBytesIa
 Counter,
 lportSmdsNumInFramesGa
 Counter,
 lportSmdsNumInBytesGa
 Counter,
 lportSmdsNumOutFramesIa
 Counter,
 lportSmdsNumOutBytesIa
 Counter,
 lportSmdsNumOutFramesGa
 Counter,
 lportSmdsNumOutBytesGa
 Counter,

lportAtmTrkCLPOut	INTEGER,	lportPPPCnfgRqstMaxTime	INTEGER,
lportAtmTrkCLPIn	INTEGER,		INTEGER,
lportAtmTrkEFCIOut	INTEGER,	--	
lportAtmTrkEFCIIn	INTEGER,	-- lportEntry 325 - 326 are available	
lportBadPVCFactor	INTEGER,		lportOutVAvailbwQoS1CPS
lportAmberReductionPm	INTEGER,		INTEGER,
lportAmberReductionPs	INTEGER,		lportOutVAvailbwQoS2CPS
lportCongestionCheckInterval	INTEGER,		INTEGER,
lportCongestionClearDelay	INTEGER,		lportOutVAvailbwQoS3CPS
lportNrtsRmGenType	INTEGER,		INTEGER,
lportNrtsRmTermType	INTEGER,		lportOutVAvailbwQoS4CPS
lportNrtsEfciCheck	INTEGER,		INTEGER,
lportNrtsBufAlloc	INTEGER,		lportInVAvailbwQoS1CPS
lportNrtsClp01Thresh	INTEGER,		INTEGER,
lportNrtsDiscardThresh	INTEGER,		lportInVAvailbwQoS2CPS
lportNrtsEfciThresh	INTEGER,		INTEGER,
lportNrtsRmCellCount	Counter,		lportInVAvailbwQoS3CPS
lportCloseLoopSwitch	INTEGER,		INTEGER,
lportAtmVPIShutdown	INTEGER,		lportInVAvailbwQoS4CPS
lportSegmentation	INTEGER,		INTEGER,
lportServiceClassType	INTEGER,		lportOutAllocbwQoS1CPS
lportTrkOSPFAreaID	IpAddress,		INTEGER,
lportAtmVPIRmtStop			lportOutAllocbwQoS2CPS
			INTEGER,
			lportOutAllocbwQoS3CPS
			INTEGER,
			lportOutAllocbwQoS4CPS
			INTEGER,
			lportInAllocbwQoS1CPS
			INTEGER,
			lportInAllocbwQoS2CPS
			INTEGER,
			lportInAllocbwQoS3CPS
			INTEGER,
			lportInAllocbwQoS4CPS
			INTEGER,
		lportBundleId	INTEGER,
		lportCLLMAdminState	INTEGER,
		lportCLLMInterval	INTEGER,

lportCLLMCount
INTEGER,
lportCLLMThresholdNone
INTEGER,
lportCLLMThresholdMild
INTEGER,
lportTrkIfInOctetsPeak
OCTET STRING,
lportTrkIfOutOctetsPeak
OCTET STRING,
lportTrkIfInErrorsPeak
OCTET STRING,
lportTrkIfOutErrorsPeak
OCTET STRING,
lportFRInOctetsPeak
Counter,
lportFROutOctetsPeak
Counter,
lportFRInErrorsPeak
Counter,
lportFROutErrorsPeak
Counter,
lportCtlUpcEnable
INTEGER,
lportEthernetTxEncapsulation
INTEGER,
lportNrtsmcbyc
INTEGER,
lportIPServerId
INTEGER,
lportShapingRateCPS
INTEGER,
lportQoSTransmitSchedMode
INTEGER,
lportNearEndLoopConfig
INTEGER,
lportDs0Loop
DisplayString,
lportEgressDeClpBitMapping
INTEGER,
lportIngressClpDeBitMapping
INTEGER,
lportEgressFecnEfciBitMapping
INTEGER,
lportIngressEfciFecnBitMapping

INTEGER,
lportNearEndLoopStatus
INTEGER,
lportDS0SendFarEndCode
INTEGER,
lportBertPattern
INTEGER,
lportBertUserBytes
INTEGER,
lportBertErrorRate
INTEGER,
lportBertCommand
INTEGER,
lportBertStatus
INTEGER,
lportBertBitCount
Gauge,
lportBertErrorCount
Gauge,
lportBertDs0Mask
DisplayString,
lportEcnThreshold
Counter,
lportInLongErrors
Counter,
lportInCRCErrors
Counter,
lportInOverrunErrors
Counter,
lportInFrameErrors
Counter,
lportInAbortErrors
Counter,
lportInLongErrThreshold
INTEGER,
lportInCRCErrThreshold
INTEGER,
lportInOverrunErrThreshold
INTEGER,
lportInFrameErrThreshold
INTEGER,
lportInAbortErrThreshold
INTEGER,
lportHoldQFrameMemory
Counter,

```

        lportBertPatternDetected
            Gauge,
        lportAllowVfrtNegative
            INTEGER,
        lportNumPVC
            INTEGER,
        lportNumSVC
            INTEGER,
        lportResilientLmiAdminStatus
            INTEGER,

lportResilientLmiMaxFullStatusAttempts
            INTEGER,
        lportResilientLmiOperStatus
            INTEGER,
        lportTrkIpArea
            IpAddress,
        lportTrkIpCost
            INTEGER,
        lportFrameCIRPolicing
            INTEGER,

lportResilientLmiFullStatusAttempts
            INTEGER,
        lportLmiRxDelay
            INTEGER,
        lportApsParentInterface
            INTEGER,
        lportApsPartnerInterface
            INTEGER,
        lportApsTrkRParentlport
            INTEGER,
        lportBuFailReasonNonZeroEnum
            INTEGER,
        lportTrkStatusNonZeroEnum
            INTEGER
    }

lportIfIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The ifIndex value of the
        corresponding ifEntry."

```

```

        ::= { lportEntry 1 }

lportSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The slot number of the board the
        port is on."
        ::= { lportEntry 2 }

lportPportId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The physical port number of the
        interface on the board."
        ::= { lportEntry 3 }

lportId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The logical port number of the
        interface on the physical
        port. A logical port can be
        uniquely identified in a
        Cascade network as {
        NodeId.lportSlotId.lportPportId.lportId }.
        lportId is defaulted to 1 (i.e.,
        one-to-one mapping between the
        physical port and the logical port
        such as local V.35 or
        carrier) except the following
        cases:
        - For ufr, nfr and trk logical
        port, it indicates the bundle
        number for fractional T1 or 24-
        bundle T1.
        - For pdntrk logical port, it
        indicates the dlci over the PDN.
        Note that pdntrk is not allowed on
        fractional T1 or 24-bundle

```

```

        T1 physical port."
        ::= { lportEntry 4 }

lportLink OBJECT-TYPE
    SYNTAX      INTEGER {
        user (0),          -- user
        link: connecting to non-casc
        connecting to casc switch      trk (1),          -- trunk:
        connecting 2 FR networks using one circuit      transport (2),-- transport:
        physiscal pport's lport index used as ifindex for      phyif (3)          --
        standard mib indexing          --
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The equipment type of the peer to
        which the logical port
        is connected."
        ::= { lportEntry 5 }

lportProtocol OBJECT-TYPE
    SYNTAX      INTEGER {
        relay protocol      fr (0),          -- frame
        frame relay protocol      nfr (1),          -- non-
        frad usr port or casc trunk)          -- (direct
        frad, PPP-to-1294      fradPPPTo1294 (2),-- xlation
        user-network      smds(3),          -- SMDS
        channel      atm (4),          -- ATM
        management trunk for SMDS      isdndchan (5),-- ISDN pri d-
        management trunk      dirmgmttrk(7),-- Direct
        management trunk      smdsoptmgmt(8),-- SMDS OPT
        management trunk      sdlcfrad(9),          -- SDLC FRAD
        management trunk      atmcb(10),

```

```

        internal(11),          -- for internal
        lport      ml_trk(12),          -- Multilink Trk
        aggregator      ml_member(13),          -- Multilink
        Member      ethernet(14) -- Fast Ethernet
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The data link protocol running on
        the logical port."
        ::= { lportEntry 6 }

lportSignal OBJECT-TYPE
    SYNTAX      INTEGER {
        side      dce (1),          -- network
        side      dte (2),          -- user
        directional, both network & user      nni (3)          -- bi-
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The user-network signalling
        capability for SVC and DLCMI
        of the logical port.
        Note that this only applies to fr
        protocol port."
        ::= { lportEntry 7 }

lportFt1Ds0s OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The bit mask indicating the DS0s
        for the fractional T1/E1
        logical port which must be a
        subset of the corresponding
        pportDs1Ds0s. It's represented by
        a 32-bit hex char string."

```



```

        ::= { lportEntry 8 }

lportGlobalDlci OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The global DLCI correspondent to
        the interface if the DLCI is
        globally significant in the
        network. Note that this object is
        read-write only during creation,
        and read-only after creation."
        ::= { lportEntry 9 }

lportDlcmiStd OBJECT-TYPE
    SYNTAX INTEGER {
        not-applicable (0), -- Not
        applicable, for example, on a trunk
        disabled (1),
        lmiRev1 (2),
        ansiT1-617-D (3), -- ANSI
        T1.617 Annex D
        ccittQ-933-A (4), -- CCITT
        Q.933 Annex A
        autodetect(5), -- Auto
        Detection
        ansiT1-617-B (6) -- ANSI
        T1.617 Annex B
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This variable states which Data
        Link Connection Management
        scheme is active (and by
        implication, what DLCI it uses) on
        the Frame Relay interface."
        ::= { lportEntry 10 }

lportDlciAddrFmt OBJECT-TYPE
    SYNTAX INTEGER {
        q922 (1) -- 10-bit
        (CCITT Standard)

```

```

    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This variable states which
        address format is in use on the
        Frame Relay interface."
        ::= { lportEntry 11 }

lportDlciAddrLen OBJECT-TYPE
    SYNTAX INTEGER {
        two-octets-10-bits (1), --
        Current Standard
        three-octets-10-bits (2),
        three-octets-16-bits (3),
        four-octets-17-bits (4),
        four-octets-23-bits (5)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This variable states which
        address length in octets. In the
        case of Q922 format, the length
        indicates the entire length
        of the address including the
        control portion."
        ::= { lportEntry 12 }

lportMaxFramesize OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The maximum frame size supported
        on the interface. Currently
        it's not used."
        ::= { lportEntry 13 }

lportDceVerifTimer OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

"The polling verification timer (secs) on the DCE interface. If the port is configured as a DXI/SNI, then this MIB object defines the heartbeat poll timer setting. This value must be between 5 and 30."

```
 ::= { lportEntry 14 }
```

lportDceErrorThresh OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "The error threshold on the DCE interface. If the port is configured as a DXI/SNI, then this MIB object defines the heartbeat poll No Ack threshold setting. This value must be between 1 and 10 when the interface is not a DXI/SNI."

```
 ::= { lportEntry 15 }
```

lportDceEventCount OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "The monitored events count on the DCE interface. This value must be between 1 and 10."

```
 ::= { lportEntry 16 }
```

lportDteErrorThresh OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "The error threshold on the DTE interface."

This value must be between 1 and 10."

```
 ::= { lportEntry 17 }
```

lportDteEventCount OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "The monitored events count on the DTE interface. This value must be between 1 and 10."

```
 ::= { lportEntry 18 }
```

lportDtePollTimer OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "The link status polling timer (secs) on the DTE interface. This value must be between 5 and 30."

```
 ::= { lportEntry 19 }
```

lportDteFullCounter OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "The full status polling counter on the DTE interface. This value must be between 1 and 255."

```
 ::= { lportEntry 20 }
```

lportDteMulticast OBJECT-TYPE
 SYNTAX INTEGER {
 one-way (1),
 two-way (2),
 m-way (3)
 }
 ACCESS read-only
 STATUS mandatory

```

DESCRIPTION
    "The multicast capability of the
interface."
    ::= { lportEntry 21 }

lportTrkRnode OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Node at the other end of the
trunk. This object is read-write
        only during lport creation, and
read-only thereafter."
    ::= { lportEntry 22 }

lportTrkRlport OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Logical port (IfIndex) at the
other end of the trunk. This
"
    ::= { lportEntry 23 }

lportCongestState OBJECT-TYPE
    SYNTAX      INTEGER {
        normal (1), -- below "knee"
point
        mild (2),      -- between
"knee" & "cliff" points
        severe (3), -- above "cliff"
point
        critical (4)-- xmit queue is
full
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Congestion State for the logical
port."
    ::= { lportEntry 24 }

lportQP1Len OBJECT-TYPE

```

```

SYNTAX      INTEGER
ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "Priority-1 queue length (number
of packets) in xmit buffer."
    ::= { lportEntry 25 }

lportQP2Len OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Priority-2 queue length (number
of packets) in xmit buffer."
    ::= { lportEntry 26 }

lportQP3Len OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Priority-3 queue length (number
of packets) in xmit buffer."
    ::= { lportEntry 27 }

lportQP4Len OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Priority-4 queue length (number
of packets) in xmit buffer."
    ::= { lportEntry 28 }

lportErrTime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The value of sysUpTime at which
the last error was detected."
    ::= { lportEntry 29 }

lportErrType OBJECT-TYPE

```

```

SYNTAX      INTEGER {
                short-frame (1),
                hdlc-abort(2),
                residual-bit (3),
                crc-Error(4),
                rcv-Long(5),
                rcv-overflow (6),
                tx-underrun (7),
                unknownError (8),
                illegalDLCI (9),
                unknownDLCI (10),
                dlcmiProtoErr (11),
                dlcmiUnknownIE (12),
                dlcmiSequenceErr (13),
                dlcmiUnknownRpt (14),
                unknownProt (15),
                discardFW (16),
                discardRange (17),
                discardPortMismatch (18),
                discardIllegalLen (19),
                discardNNIUnknownDLCI (20),
                discardNNIFwd (21),
                discardOTRKVctooBig (22),
                discardOTRKVcnotfound (23),
                discardOTRKNoLportMatch (24),
                discardOTRKFwd (25),
                discardCTRKNoLportMatch (26),
                unknownDFA (27),
                unknownVCid (28),
                discardXlat (29)
            }
ACCESS      read-only
STATUS      mandatory
DESCRIPTION "The type of error that was last
seen on this interface."
::= { lportEntry 30 }

```

```

lportErrData OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "An octet string containing as
much of the error packet as

```

```

possible. As a minimum, it must
contain the Q.922 Address
or as much as was delivered. It
is desirable to include
all information up to the PDU."
::= { lportEntry 31 }

```

```

lportDiagTestId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "Identification for the
diagnostics tests to be run."
::= { lportEntry 32 }

```

```

lportDiagTestRuns OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "Number of passes of the
diagnostics tests to be run.
The default value is 1."
::= { lportEntry 33 }

```

```

lportDataRate OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "An estimate of the logical port's
data rate in bits per
second."
::= { lportEntry 34 }

```

```

lportTrkStatus OBJECT-TYPE
    SYNTAX      INTEGER {
                ndown (0),
                nattempt (1),
                ninit (2),
                n2way (3),
                nexstart (4),
                nexchange (5),
                nloading (6),

```

```

nfull (7),
btdefined (9)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The current state of the trunk.
The btdefined state only
              applies to backup trunks."
::= { lportEntry 35 }

lportSevCongests OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The cumulative number of times
that the lport's congestion
                  state has changed from mildly-
congested to severely-congested
                  since the last reset."
::= { lportEntry 36 }

lportAbsCongests OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The cumulative number of times
that the lport's congestion
                  state has changed from severely-
congested to absolutely-
congested since the last reset."
::= { lportEntry 37 }

lportTrkOverhead OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "An estimate of the overhead
(headers and internal control
                  messages) in trunking user data in
terms of a percentage of
                  the configured trunk bandwidth."

```

```

::= { lportEntry 38 }

lportTrkUtil OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "An estimate of the real
utilization of the trunk bandwidth
                  in terms of a percentage of the
configured trunk bandwidth."
::= { lportEntry 39 }

lportVAvailbw OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Currently available virtual trunk
bandwidth."
::= { lportEntry 40 }

lportTrkLastTimeChange OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The sysUpTime value when the
trunk was last changed to
                  the current status."
::= { lportEntry 41 }

lportCongestRate OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The rate (%) of entering severely
or absolutely congested
                  states in the last one minute
interval."
::= { lportEntry 42 }

lportCongestRateThresh OBJECT-TYPE
    SYNTAX      INTEGER

```

ACCESS read-write
STATUS mandatory
DESCRIPTION "The alert threshold (%) for the CongestRate; trap will be sent when exceeded."
::= { lportEntry 43 }

lportDiagState OBJECT-TYPE
SYNTAX INTEGER {
inactive (0),
active(1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION "The current state of the diagnostic on this logical port."
::= { lportEntry 44 }

lportDiagOptionStr OBJECT-TYPE
SYNTAX OCTET STRING
ACCESS read-write
STATUS mandatory
DESCRIPTION "Optional parameters to the diagnostic."
::= { lportEntry 45 }

lportDiagPassCount OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION "Number of successful diagnostic passes."
::= { lportEntry 46 }

lportDiagFailCount OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION "Number of failed diagnostic passes."

::= { lportEntry 47 }

lportDiagResultStr OBJECT-TYPE
SYNTAX DisplayString
ACCESS read-only
STATUS mandatory
DESCRIPTION "Description of last diagnostic failure."
::= { lportEntry 48 }

lportDs0BitStuff OBJECT-TYPE
SYNTAX INTEGER {
no-bit-stuffing (0),
bit-stuffing (1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION "Is bit stuffing enabled on this lport?"
::= { lportEntry 49 }

lportErrorThreshold OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "The per minute error threshold before a link error trap is sent. Rounded down to nearest power of 2. Value of 0 = link error traps never sent."
::= { lportEntry 50 }

lportUnsyncBandwidth OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION "The accumulated allocated/deallocated bandwidth which has not been propagated by OSPF yet."

```

        ::= { lportEntry 51 }

lportDTEInStatusFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of LMI STATUS frames
received from the DCE since the
        last system reset. The count
includes link integrity
        verification frames only."
    ::= { lportEntry 52 }

lportDTEInFullStatusFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of LMI Full STATUS
frames received from the DTE since
        the last system reset."
    ::= { lportEntry 53 }

lportDTEInAsyncStatusFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of asynchronous LMI
Status frames received from the
        DTE since the last system reset.
For LMI Rev 1, these are Update
        STATUS frames. For ANSI Annex D
and CCITT Annex A these are
        Asynchronous STATUS frames."
    ::= { lportEntry 54 }

lportDTEInErrorFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of LMI frames received
containing protocol errors."

```

```

        ::= { lportEntry 55 }

lportDTEOutPollFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of LMI Status Enquiry
frames transmitted since the last system
        reset."
    ::= { lportEntry 56 }

lportDTEPollErrorCounts OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of DTE in-channel
signaling link reliability errors (i.e.
        LMI Status Enquiry frames that
were not responded to, sequence number
        errors) since the last system
reset."
    ::= { lportEntry 57 }

lportDTEFailCounts OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of times since the
last system reset
        LMI has declared the DTE side of
the link down due to excessive
        errors."
    ::= { lportEntry 58 }

lportDTEFailReason OBJECT-TYPE
    SYNTAX      INTEGER {
                                ok                      (0), -- no
failure                                dte-bad-Nr(1), -- received Nr
!= Ns                                dte-timeout(2), -- timeout
waiting for STATUS message

```

```

error
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The LMI failure reason. If the
        rate of LMI detected errors
        exceeds the threshold, this
        contains the cause of the most
        recent error."
    ::= { lportEntry 59 }

lportDTEOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        invalid (0),
        up      (1),
        down    (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The operational status of the DTE
        side of LMI on this link."
    ::= { lportEntry 60 }

lportDCEInPollFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of LMI poll frames
        received from the DTE since the
        last system reset."
    ::= { lportEntry 61 }

lportDCEInErrorFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of LMI frames received
        containing protocol errors."
    ::= { lportEntry 62 }

```

```

lportDCEOutStatusFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of LMI STATUS frames
        transmitted since the last
        system reset. The count includes
        link integrity verification
        frames only."
    ::= { lportEntry 63 }

lportDCEOutFullStatusFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of LMI Full STATUS
        frames transmitted since the
        last system reset."
    ::= { lportEntry 64 }

lportDCEOutAsyncStatusFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of asynchronous LMI
        Status frames transmitted since
        the last system reset. For LMI Rev
        1, these are Update STATUS
        frames. For ANSI Annex D and CCITT
        Annex A these are
        Asynchronous STATUS frames."
    ::= { lportEntry 65 }

lportDCEPollErrorCounts OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of DCE in-channel
        signaling link reliability errors (i.e.
        timeouts waiting for LMI Status
        Enquiry frames, sequence number errors)"

```



```

        since the last system reset."
 ::= { lportEntry 66 }

lportDCEFailCounts OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of times since the
last system reset
        LMI has declared the DCE side of
the link down due to excessive
errors."
 ::= { lportEntry 67 }

lportDCEFailReason OBJECT-TYPE
    SYNTAX INTEGER {
        ok                      (0), -- no
failure
        dce-bad-Nr(1), -- received Nr
!= Ns
        dce-timeout(2), -- timeout
waiting for Status Enquiry
message
        prot-error(3) -- protocol
error
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The LMI failure reason. If the
rate of LMI detected errors
exceeds the threshold, this
contains the cause of the most
recent error."
 ::= { lportEntry 68 }

lportDCEOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        invalid (0),
        up      (1),
        down    (2)
    }
    ACCESS      read-only

```

```

STATUS      mandatory
DESCRIPTION
        "The operational status of the DCE
side of LMI on this link."
 ::= { lportEntry 69 }

lportDCEOperDlcmiStd OBJECT-TYPE
    SYNTAX INTEGER {
        unknown (1),
        lmiRev1 (2),
        ansiT1-617-D (3), -- ANSI
T1.617 Annex D
        ccittQ-933-A (4), -- CCITT
Q.933 Annex A
        reserved (5),
        ansiT1-617-B (6) -- ANSI
T1.617 Annex B
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This variable states which Data
Link Connection Management
scheme is actually being run on
this link. This is used for DCE
links configured for AutoDetect
and indicates the LMI standard
used in the last poll received
from the DTE."
 ::= { lportEntry 70 }

lportLMIInErrorFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of total frames
received with an error.
        For NNI links this is the sum of
lportDTEInErrorFrames and
lportDCEInErrorFrames."
 ::= { lportEntry 71 }

lportDCEnN4 OBJECT-TYPE
    SYNTAX      INTEGER

```

ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This variable specifies the maximum number of LMI Status Enquiry frames that can be received from a DTE within time interval lportDCEnT3. This is only valid on lports using LMIREV1."
 ::= { lportEntry 72 }

lportDCEnT3 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This variable specifies the time interval (secs) used to determine if lportDCEnN4 an excess number (lportDCEnN4) of Status Enquiry messages are received. This is only valid on lports using LMIREV1."
 ::= { lportEntry 73 }

lportXmitLatencyThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Outbound frames are allowed on the transmit commit queue when the commit queue falls below this threshold (in microseconds)."
 ::= { lportEntry 74 }

lportXmitRefillPriority0Percentage OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Percentage of time the transmit queue is refilled in priority order 0, 1, 2, 3."
 ::= { lportEntry 75 }

lportXmitRefillPriority1Percentage OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Percentage of time the transmit queue is refilled in priority order 1, 2, 3, 0."
 ::= { lportEntry 76 }

lportXmitRefillPriority2Percentage OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Percentage of time the transmit queue is refilled in priority order 2, 3, 0, 1."
 ::= { lportEntry 77 }

lportXmitRefillPriority3Percentage OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Percentage of time the transmit queue is refilled in priority order 3, 0, 1, 2."
 ::= { lportEntry 78 }

lportAbsoluteThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Absolute Congestion Threshold. When the time average queue length (TAQL) or the absolute queue length hits
 1. (Severe-congestion-threshold + 3/4 (Absolute-congestion-threshold - Severe-congestion-threshold)), light absolute congestion state is indicated or
 2. (Absolute-congestion-threshold), heavy absolute congestion state is

indicated.
 This threshold value is configured in units of
 56 byte buffers."
 ::= { lportEntry 79 }

lportSevereThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Severe congestion threshold. When the time
 average queue length (TAQL) hits
 1. 1/2(Mild-congestion-threshold + Severe-
 congestion-threshold),
 light severe congestion state is
 indicated or
 2. (Severe-congestion-threshold), heavy
 severe congestion state is indicated.
 This threshold value is configured in units of
 56 byte buffers."
 ::= { lportEntry 80 }

lportMildThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Mild congestion threshold. When the time
 average queue length (TAQL) hits
 1. 3/4 (Mild-congestion-threshold), light-
 mild congestion state is indicated or
 2. (Mild-congestion-threshold), heavy-mild
 congestion state is indicated.
 This threshold value is configured in units of
 56 byte buffers."
 ::= { lportEntry 81 }

lportAtmUPCEnable OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"Enable ATM UPC Function."
 ::= { lportEntry 82 }

lportAtmUniType OBJECT-TYPE
 SYNTAX INTEGER {
 public (1),
 private (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The type of UNI for this ATM
 lport."
 ::= { lportEntry 83 }

lportConnectionType OBJECT-TYPE
 SYNTAX INTEGER {
 network-endsystem (1),
 network-network (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The type of connection at this
 lport."
 ::= { lportEntry 84 }

lportAtmCellType OBJECT-TYPE
 SYNTAX INTEGER {
 atm-uni-cell-hdr (1),
 atm-nni-cell-hdr(2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "atm cell header with uni-format
 or nni-format with no GFC."
 ::= { lportEntry 85 }

lportTrkKeepAliveTimer OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"Send a keep-alive packet after this many 100 milliseconds. These packets are sent on trunk links only. The range is 0 thru 150, with zero meaning the keep-alive protocol is disabled. The default is ten."
 ::= { lportEntry 86 }

lportTrkKeepAliveErrorThreshold OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Declare the interface down after this many keep-alive packets in a row are missed. The default is five."
 ::= { lportEntry 87 }

lportIgCutThruStatus OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Enable ingress cut-thru on this user lport. Default is disabled."
 ::= { lportEntry 88 }

lportEgCutThruStatus OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Enable egress cut-thru on this user lport. Default is disabled."
 ::= { lportEntry 89 }

lportEgCutThruThresh OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Egress cut thru threshold - start transmitting a frame on a user port after this many segments have arrived."
 ::= { lportEntry 90 }

lportFrameRelayTrkEnable OBJECT-TYPE
 SYNTAX INTEGER {
 allowed (1),
 not-allowed (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Allow Frame Relay Trunks on the user link."
 ::= { lportEntry 91 }

lportSmdsSsiIf OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The interface number of the SSI which this DXI/SNI is multiplexed to."
 ::= { lportEntry 92 }

lportSmdsSsiSlot OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The slot of the SSI which this DXI/SNI is multiplexed to."

```

        ::= { lportEntry 93 }

lportSmdsScrnId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The ID of address screen for this
interface."
    ::= { lportEntry 94 }

lportSmdsIaScrnOp OBJECT-TYPE
    SYNTAX      INTEGER {
        allow(1),
        disallow(2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Individual address screen
operation."
    ::= { lportEntry 95 }

lportSmdsGaScrnOp OBJECT-TYPE
    SYNTAX      INTEGER {
        allow(1),
        disallow(2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Group address screen operation."
    ::= { lportEntry 96 }

lportSmdsIaScrnMap OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The individual address screen
member bit map. For set request,
1 for deleting, 2 for
the bit map. The bit

```

```

        position of each bit in this bit
map represent a screen
        member ID. The most significant
bit is corresponding to
        individual address ID 1. For get
response, The whole
        string is the bit map. "
    ::= { lportEntry 97 }

lportSmdsGaScrnMap OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The group address screen member
bit map. For set request,
the first byte is the operation :
1 for deleting, 2 for
adding. The following bytes are
the bit map. The bit
position of each bit in this bit
map represent a screen
        member ID. The most significant
bit is corresponding to
        group address ID 1. For get
response, The whole
        string is the bit map. "
    ::= { lportEntry 98 }

lportSmdsTrkAddr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "SMDS address. For SSI feeder
port, this address is the
        local address of all SMDS optimum
paths associated with this
        SSI feeder port. For SSI Optimum
path port, this address is
        the remote address of this SSI
optimum path.
        The 4 most significant bits are
1100. The following 4 bits are

```

0001. The following 5 bytes are
the 10 digits number in BCD
format. The following 16 bits are
padded with 1's"
::= { lportEntry 99 }

lportSmdsCrc OBJECT-TYPE

SYNTAX INTEGER {
crc16(1),
crc32(2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"CRC which CPE generates."
::= { lportEntry 100 }

lportSmdsCpePoll OBJECT-TYPE

SYNTAX INTEGER {
nopoll(1),
poll(2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Whether CPE supports heart beat
poll or not."
::= { lportEntry 101 }

lportSmdsPduCheck OBJECT-TYPE

SYNTAX INTEGER {
off(0),
on (1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"turn on/off the detailed SIP3 PDU
error checking."
::= { lportEntry 102 }

lportSmdsCntOutFrDxi2HbPolls OBJECT-TYPE

SYNTAX Counter
ACCESS read-write

STATUS mandatory
DESCRIPTION
"Number of DXI2 heart beat poll
frames transmitted."
::= { lportEntry 103 }

lportSmdsCntOutByteDxi2HbPolls OBJECT-TYPE

SYNTAX Counter
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Total number of octets in DXI2
heart beat poll frames transmitted."
::= { lportEntry 104 }

lportSmdsCntInFrDxi2HbPolls OBJECT-TYPE

SYNTAX Counter
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Number of DXI2 heart beat poll
frames received."
::= { lportEntry 105 }

lportSmdsCntInByteDxi2HbPolls OBJECT-TYPE

SYNTAX Counter
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Total number of octets in DXI2
heart beat poll frames received."
::= { lportEntry 106 }

lportSmdsCntOutFrSip3s OBJECT-TYPE

SYNTAX Counter
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Number of SIP3 frames
transmitted."
::= { lportEntry 107 }

lportSmdsCntOutByteSip3s OBJECT-TYPE

SYNTAX Counter
ACCESS read-write

STATUS	mandatory
DESCRIPTION	"Total number of octets in SIP3 frames transmitted."
	::= { lportEntry 108 }
lportSmdsCntInFrSip3s	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of SIP3 frames received."
	::= { lportEntry 109 }
lportSmdsCntInByteSip3s	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Total number of octets in SIP3 frames received."
	::= { lportEntry 110 }
lportSmdsCntDxi2LinkIdInvalids	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that DXI2 link ID is invalid."
	::= { lportEntry 111 }
lportSmdsCntDxi2StationIdInvalids	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that DXI2 station ID is invalid."
	::= { lportEntry 112 }
lportSmdsCntDxi2CrInvalids	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory

DESCRIPTION	"Number of instances that DXI2 command/response field is invalid."
	::= { lportEntry 113 }
lportSmdsCntDxi2AeInvalids	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that DXI2 address extension field is invalid."
	::= { lportEntry 114 }
lportSmdsCntDxi2CtrlInvalids	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that DXI2 control field is invalid."
	::= { lportEntry 115 }
lportSmdsCntDxi2FrameSizeErrors	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances there is a DXI2 frame size error."
	::= { lportEntry 116 }
lportSmdsCntSip3RsvdInvalids	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 reserved field in header is invalid."
	::= { lportEntry 117 }
lportSmdsCntSip3BetagMismatch	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory

DESCRIPTION	"Number of instances that SIP3 BE tag is not matched."
	::= { lportEntry 118 }
lportSmdsCntSip3BsizeIncorrects OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 BA size is incorrect."
	::= { lportEntry 119 }
lportSmdsCntSip3BsizeInvalids OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 BA size is invalid."
	::= { lportEntry 120 }
lportSmdsCntSip3DaTypeInvalids OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 destination address type is invalid."
	::= { lportEntry 121 }
lportSmdsCntSip3DaInvalids OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 destination address is invalid."
	::= { lportEntry 122 }
lportSmdsCntSip3SaTypeInvalids OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory

DESCRIPTION	"Number of instances that SIP3 source address type is invalid."
	::= { lportEntry 123 }
lportSmdsCntSip3SaInvalids OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 source address is invalid."
	::= { lportEntry 124 }
lportSmdsCntSip3BsizeMismatchcs OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 BA sizes in the header and trailer are not matched."
	::= { lportEntry 125 }
lportSmdsCntSip3HeLenInvalids OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 header extension length is invalid."
	::= { lportEntry 126 }
lportSmdsCntSip3HeVersionInvalids OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 header extension version is invalid."
	::= { lportEntry 127 }
lportSmdsCntSip3HeCarrierInvalids OBJECT-TYPE	
SYNTAX	Counter
ACCESS	read-write

STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 header extension carrier is invalid."
	::= { lportEntry 128 }

lportSmdsCntSip3Crc32Errors OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of SIP3 CRC errors."
	::= { lportEntry 129 }

lportSmdsCntSip3TRsvdInvalids OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that SIP3 reserved field in trailer is invalid."
	::= { lportEntry 130 }

lportSmdsCntSaNotFounds OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that source address not found."
	::= { lportEntry 131 }

lportSmdsCntSaValidationFails OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that source address validation failed."
	::= { lportEntry 132 }

lportSmdsCntSaDaOnSamePorts OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory

DESCRIPTION	"Number of instances that source address and destination addresses are on the same port."
	::= { lportEntry 133 }

lportSmdsCntDaSsiMismacths OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Obsolete."
	::= { lportEntry 134 }

lportSmdsCntSsiProvisionErrors OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Obsolete."
	::= { lportEntry 135 }

lportSmdsCntDstIaNotFounds OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that destination individual address not found."
	::= { lportEntry 136 }

lportSmdsCntDstGaNotFounds OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Number of instances that destination group address not found."
	::= { lportEntry 137 }

lportSmdsCntSrcIaScrnFails OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	

"Number of instances that source
 individual address screening failed."
 ::= { lportEntry 138 }

lportSmdsCntDstIaScrnFails OBJECT-TYPE

SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"Number of instances that
 destination individual address screening failed."
 ::= { lportEntry 139 }

lportSmdsCntDstGaScrnFails OBJECT-TYPE

SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"Number of instances that
 destination group address screening failed."
 ::= { lportEntry 140 }

lportSmdsTotalDiscards OBJECT-TYPE

SYNTAX Counter
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"total number of discards."
 ::= { lportEntry 141 }

lportSmdsSsiNode OBJECT-TYPE

SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"The Node of the SSI which this
 DXI/SNI is multiplexed
 to."
 ::= { lportEntry 142 }

lportBilling OBJECT-TYPE

SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }

ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This object defines the ability
 to enable and disable billing
 on this logical port (for SMDS
 this must be a DXI). When the
 value of nodeBilling is
 'enabled', the value of this object
 will take precedence. When the
 value of nodeBilling is
 'disabled', the value of this
 object will be overridden and
 billing will be disabled.

The default value of this object
 is 'disabled'.

"
 ::= { lportEntry 143 }

lportSmdsCntDstGaSrcIsCascade OBJECT-TYPE

SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This counter is applicable when
 the netSmdsTrafficMode (i.e.;
 SMDS Group Address processing
 mode) is Cascade and the SMDS
 lport is SSI. This counter
 indicates the number of instances
 that a Ga frame was received with
 a Cascade src address.

"
 ::= { lportEntry 144 }

lportLinkStatus OBJECT-TYPE

SYNTAX INTEGER {
 up (1),
 down (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"Link protocol status. The Link protocol may be frame relay LMI, DXI heart beat poll, PPP LCP, etc, depends on the lport type."

```
 ::= { lportEntry 145 }
```

lportLMIDelay OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The number of seconds 1-9 to buffer (or initiate) a FR LMI async update (or ATM OAM alarms) to allow filtering of LMI async events. Zero (0) indicates that no buffering is done (all updates are immediate) and 255 indicates that no updates are sent."

```
 ::= { lportEntry 146 }
```

lportCRC OBJECT-TYPE
 SYNTAX INTEGER {
 crc16 (0),
 crc32 (1)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Lport CRC selection:
 0 - 16 bit CRC
 1 - 32 bit CRC"

```
 ::= { lportEntry 147 }
```

lportSmdsMulticastGaOBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 " The Multicast Group Address is the smds broadcast address which is used to get smds address from its IP address."

```
 ::= { lportEntry 148 }
```

lportSmdsMulticastIpAddressOBJECT-TYPE
 SYNTAX IpAddress
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 " This IP address is this logical port's IP address. "

```
 ::= { lportEntry 149 }
```

lportAtmVPI OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "VPI value in the ATM cell header: ATM DXI with HSSI IOP VPI (4 lsb bit) range: 0 - 15
 ATM UNI DS3/E3 IOP VPI (4 lsb bit) range: 0 - 15"

```
 ::= { lportEntry 150 }
```

lportAtmVCI OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "VCI value in the ATM cell header: ATM DXI with HSSI IOP VCI (6 lsb bit) range: 32 - 63
 ATM UNI DS3/E3 IOP VCI (8 lsb bit) range: 32 - 255"

```
 ::= { lportEntry 151 }
```

lportPeakCellRateindex OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Peak cell rate queue index"

```
 ::= { lportEntry 152 }
```

lportSustCellRate OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write

```

STATUS      mandatory
DESCRIPTION  "Sustainable cell rate in cell/
second"
::= { lportEntry 153 }

lportBurstTolerance OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Burst Tolerance in multiple of 32
cells"
::= { lportEntry 154 }

lportBuTrkOnFailure OBJECT-TYPE
SYNTAX      INTEGER {
                    disabled (0),
                    enabled  (1)
                }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Enables or disables trunk backup
due to link down."
::= { lportEntry 155 }

lportTrkFailureThrsh OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The number of seconds a primary
trunk must remain down for
trunk backup to be initiated."
::= { lportEntry 156 }

lportTrkRestThrsh OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The number of seconds a primary
trunk must remain up for trunk
backup to be terminated"

```

```

::= { lportEntry 157 }

lportBuTrkRetryInt OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The number of seconds between
backup trunk call setup retries."
::= { lportEntry 158 }

lportBuTrkRetryNum OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The number of backup trunk call
setup tries per call setup
cycle."
::= { lportEntry 159 }

lportBuTrkCycleInt OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The number of seconds between
backup trunk call setup cycles."
::= { lportEntry 160 }

lportTrkManualBu OBJECT-TYPE
SYNTAX      INTEGER {
                    none          (0),
                    initCmd      (1),
                    termCmd      (2),
                    initSched    (3),
                    termSched    (4)
                }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Initiate or terminate manual
backup for a primary trunk.
                    none      neither initiate or
terminate

```

```

initCmd  initiate operator
commanded backup
termCmd  terminate operator
commanded backup
initSchedinitiate scheduled
backup
termSchedterminate scheduled
backup"
    ::= { lportEntry 161 }

lportPrimTrk OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Indicates the primary trunk
lportIfIndex for which a backup
value is also used to
following convention:
                Value      Trunk Type
                0          Normal
                lportIfIndex of this trunk
Primary
                other lportIfIndex  Backup"
    ::= { lportEntry 162 }

lportInitCallSetup OBJECT-TYPE
    SYNTAX      INTEGER {
                false (0),
                true   (1)
                }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "TRUE if node must initiate backup
trunk call setup for this
                primary trunk.  Otherwise FALSE."
    ::= { lportEntry 163 }

lportBuFailReason OBJECT-TYPE
    SYNTAX      INTEGER {
                none          (0),
                buTrkNotDef   (1),

```

```

buTrkNotEstab (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Indicates the reason for the
failure to perform trunk backup."
    ::= { lportEntry 164 }

lportQ922Enable OBJECT-TYPE
    SYNTAX      INTEGER {
                enable (1),
                disable (2)
                }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Set 1 to enable Q.922 on this
port. Q.922 must be enabled
if the port is used for SVC."
    ::= { lportEntry 165 }

lportQ922State OBJECT-TYPE
    SYNTAX      INTEGER {
                uninitialized (0),
                tei-unassigned (1),
                assign-awaiting (2),
                establish-awaiting (3),
                tei-assigned (4),
                awaiting-establishment (5),
                awaiting-release (6),
                multiple-frame-established (7),
                timer-recovery (8)
                }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Q.922 state. This object only
makes sense when Q.922 is
                enabled."
    ::= { lportEntry 166 }

lportTrkPduRevision OBJECT-TYPE
    SYNTAX      INTEGER

```

```

        ACCESS      read-only
        STATUS      mandatory
        DESCRIPTION
            "The Trunk PDU Revision number
being used over this trunk."
        ::= { lportEntry 167 }

lportPVCMgrPduRevision OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The PVC Manager PDU Revision
number being used over this
        trunk."
        ::= { lportEntry 168 }

lportDS0LoopStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        normal (1),
        switchlpbk(2),
        farendlpbk(3),
        t1nodeslpbk (4)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Indicates the DS0 Lpbk Status of the Lport."
        ::= { lportEntry 169 }

lportISDNDuration OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of seconds that the
ISDN call has been established."
        ::= { lportEntry 170 }

lportISDNSourceAddr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The E.164 address of the source
of this ISDN connection."

```

```

        ::= { lportEntry 171 }

lportISDNDestAddr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The E.164 address of the
destination of this ISDN
        connection."
        ::= { lportEntry 172 }

lportISDNIPAddr OBJECT-TYPE
    SYNTAX      IpAddress
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Ip Address of the client
connected to this B-Channel"
        ::= { lportEntry 173 }

lportISDNCallRejCause OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The cause of the call rejection -
inability to
        authenticate or pool is busy."
        ::= { lportEntry 174 }

lportLastInvalidDLCI OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This item pertains to user frame
relay lports only. The frame
        relay header of the received frame
contains a dlci, which
        uniquely identifies a specific pvc
on this lport. When no pvc
        has been configured, on the lport,
that corresponds to the
        dlci specified in the frame
header, the frame is said to have
        an invalid dlci. This lport entry
holds the value of the

```

```

        most recent invalid dlci received
on this lport, to be used in
        troubleshooting faulty
configurations."
        ::= { lportEntry 175 }

lportTrkProtState OBJECT-TYPE
    SYNTAX      INTEGER {
        enabled (1),
        disabled (2),
        none (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The current operational state of
the link trunk protocol
        on this link."
        ::= { lportEntry 176 }

lportTrkTrafficMix OBJECT-TYPE
    SYNTAX      INTEGER {
        normal (1),
        management-only (2),
        management-and-PVCs (3),
        private (4)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "The types of traffic allowed over
a Cascade trunk."
        ::= { lportEntry 177 }

lportNumVC OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of VCs going to or
through a particular
        port."
        ::= { lportEntry 178 }

lportTrkAdminCost OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory

```

```

        DESCRIPTION "The administrative cost of the
trunk. Used when
        routing circuits. Trunks with
lower costs are preferred.
        Value ranges from 1 to 65,535."
        ::= { lportEntry 179 }

lportPrivateNet OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "If non-zero, indicates the
private network that the
        lport belongs to. If 0, the lport
is publicly shared."
        ::= { lportEntry 180 }

lportTrkStaticDelay OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "This object is used for both
direct/optimum trunks
        and PNNI trunks. Its semantics
differ for both cases and are
        described below. For this object,
static delay is defined
        as the sum of cell transmission
time and propagation delay.
        It excludes buffering effects.

        For direct/optimum trunks, this
object represents the
        measured one-way static delay of
the trunk, in units of 100
        microseconds, measured when the
trunk last became operational.
        Setting this object will
temporarily override the advertised
        delay until the next time the
trunk becomes inoperational.
        Sets to this object are not
retained in non-volatile storage.
        If the value is 0, it means delay
value is not available for

```

this direct/optimum trunk.

For PNNI trunks, this object represents the configured static delay of the trunk, in units of 1 microsecond.

Transmission Delay The service-category specific Cell (CTD) advertised by PNNI is the sum of this object and the appropriate service-category specific Cell Delay Variation, taken from the provisioned CAC objectives.

Default values provided by the switch to be equal to the nominal cell transmission time for the physical port plus 5 microseconds attributable to propagation delay. Sets to this object are retained in non-volatile storage. "

```
 ::= { lportEntry 181 }
```

lportTrkDynamicDelay OBJECT-TYPE

```
SYNTAX      INTEGER
ACCESS      read-only
STATUS      mandatory
DESCRIPTION "The recently measured one-way delay of the trunk, in units of 100 microseconds. May vary from lportTrkStaticDelay due to congestion, or reprovisioning of the underlying media.
```

If the value is 0, it means delay value is not available for this trunk."

```
 ::= { lportEntry 182 }
```

lportAtmDataRateQoS1 OBJECT-TYPE

```
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
```

```
DESCRIPTION "An estimate of the logical port's data rate in bits per second reserved for QoS class 1."
 ::= { lportEntry 183 }
```

lportAtmDataRateQoS2 OBJECT-TYPE

```
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION "An estimate of the logical port's data rate in bits per second reserved for QoS class 2."
 ::= { lportEntry 184 }
```

lportAtmDataRateQoS3 OBJECT-TYPE

```
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION "An estimate of the logical port's data rate in bits per second reserved for QoS class 3."
 ::= { lportEntry 185 }
```

lportAtmDataRateQoS4 OBJECT-TYPE

```
SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION "An estimate of the logical port's data rate in bits per second reserved for QoS class 4."
 ::= { lportEntry 186 }
```

lportOutVAvailbwQoS1 OBJECT-TYPE

```
SYNTAX      INTEGER
ACCESS      read-only
STATUS      mandatory
DESCRIPTION "Current outgoing available virtual bandwidth reserved for QoS class 1."
 ::= { lportEntry 187 }
```

lportOutVAvailbwQoS2 OBJECT-TYPE

```
SYNTAX      INTEGER
ACCESS      read-only
STATUS      mandatory
```


DESCRIPTION	"Current outgoing available virtual bandwidth reserved for QoS class 2." ::= { lportEntry 188 }
lportOutVAvailbwQoS3 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Current outgoing available virtual bandwidth reserved for QoS class 3." ::= { lportEntry 189 }
lportOutVAvailbwQoS4 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Current outgoing available virtual bandwidth reserved for QoS class 4." ::= { lportEntry 190 }
lportInVAvailbwQoS1 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Current incoming available virtual bandwidth reserved for QoS class 1." ::= { lportEntry 191 }
lportInVAvailbwQoS2 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Current incoming available virtual bandwidth reserved for QoS class 2." ::= { lportEntry 192 }
lportInVAvailbwQoS3 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory

DESCRIPTION	"Current incoming available virtual bandwidth reserved for QoS class 3." ::= { lportEntry 193 }
lportInVAvailbwQoS4 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Current incoming available virtual bandwidth reserved for QoS class 4." ::= { lportEntry 194 }
lportOutAllocbwQoS1 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Current outgoing allocated bandwidth for QoS Class 1." ::= { lportEntry 195 }
lportOutAllocbwQoS2 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Current outgoing allocated bandwidth for QoS Class 2." ::= { lportEntry 196 }
lportOutAllocbwQoS3 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"Current outgoing allocated bandwidth for QoS Class 3." ::= { lportEntry 197 }
lportOutAllocbwQoS4 OBJECT-TYPE	
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory

```

DESCRIPTION
    "Current outgoing allocated
bandwidth for QoS Class 4."
    ::= { lportEntry 198 }

lportInAllocbwQoS1 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current incoming allocated
bandwidth for QoS Class 1."
    ::= { lportEntry 199 }

lportInAllocbwQoS2 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current incoming allocated
bandwidth for QoS Class 2."
    ::= { lportEntry 200 }

lportInAllocbwQoS3 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current incoming allocated
bandwidth for QoS Class 3."
    ::= { lportEntry 201 }

lportInAllocbwQoS4 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current incoming allocated
bandwidth for QoS Class 4."
    ::= { lportEntry 202 }

lportDynamicQoSbw OBJECT-TYPE
    SYNTAX      INTEGER {
        qos-class-1(1),
        qos-class-2(2),

```

```

        qos-class-3(4),
        qos-class-4(8)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Bitmap defining which QoS Classes
should have bandwidth
        allocated dynamically from
lportDataRate instead of reserving
        a percentage up-front."
    ::= { lportEntry 203 }

lportSvcHoldDownTimer OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "The duration in seconds (1..255)
the network is allowed
        to re-establish a SVC after
network failure before clearing the SVC.
        A value of (0) indicates immediate
SVC clearing by the network."
    ::= { lportEntry 204 }

lportAtmConnectionType OBJECT-TYPE
    SYNTAX      INTEGER {
        private (1),          --
        connection does not involve public network
        public-switch (2),-- connection
        between private and public networks
        public-endsystem (3)-- connection
        between public network and endsystem
    }
    ACCESS      read-write
    STATUS      deprecated
    DESCRIPTION
        "Type of network connection at
this logical port. This object has
        been replaced by lportAtmUniType
and lportConnectionType."
    ::= { lportEntry 205 }

lportAtmRouteMetricQoS1 OBJECT-TYPE
    SYNTAX      INTEGER {

```

```

        administrative-cost (1),
        end-to-end-delay (2),
        cell-delay-variation (3)
    }
ACCESS    read-write
STATUS    mandatory
DESCRIPTION "Routing metric associated with
QoS Class 1."
::= { lportEntry 206 }

```

```

lportAtmRouteMetricQoS2 OBJECT-TYPE
    SYNTAX      INTEGER {
        administrative-cost (1),
        end-to-end-delay (2),
        cell-delay-variation (3)
    }
ACCESS    read-write
STATUS    mandatory
DESCRIPTION "Routing metric associated with
QoS Class 2."
::= { lportEntry 207 }

```

```

lportAtmRouteMetricQoS3 OBJECT-TYPE
    SYNTAX      INTEGER {
        administrative-cost (1),
        end-to-end-delay (2),
        cell-delay-variation (3)
    }
ACCESS    read-write
STATUS    mandatory
DESCRIPTION "Routing metric associated with
QoS Class 3."
::= { lportEntry 208 }

```

```

lportAtmRouteMetricQoS4 OBJECT-TYPE
    SYNTAX      INTEGER {
        administrative-cost (1),
        end-to-end-delay (2),
        cell-delay-variation (3)
    }
ACCESS    read-write
STATUS    mandatory
DESCRIPTION "Routing metric associated with
QoS Class 4."
::= { lportEntry 209 }

```

```

lportIlmiPollTimeout OBJECT-TYPE
    SYNTAX      INTEGER (1..255)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION    "If ILMI is enabled for this ATM
port, the duration in seconds that
the ILMI poll is generated, if
DCE, or monitored, if DTE. The default
value is 5 seconds."
::= { lportEntry 210 }

```

```

lportAtmProtocol OBJECT-TYPE
    SYNTAX      INTEGER {
        uni-30 (1),
        uni-31 (2),
        iisp-31 (3),
        bici-11 (4),
        iisp-30 (5),
        uni-40 (6),
        pnni-10 (7),
        bici-20 (8),
        q2931-q2971 (9)
    }
ACCESS    read-write
STATUS    mandatory
DESCRIPTION    "ATM protocol version supported at
this ATM port."
::= { lportEntry 211 }

```

```

lportIlmiAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        enabled (1),
        disabled (2)
    }
ACCESS    read-write
STATUS    mandatory
DESCRIPTION    "Administrative state for ILMI
function on this ATM port. When enabled
on DCE ports, the port will
actively transmit polls and monitor responses"

```

in order to determine the operational status of the port. When enabled for DTE ports, the port will passively monitor polls to determine the operational status of the port."

```
 ::= { lportEntry 212 }
```

lportIlmiOperStatus OBJECT-TYPE
 SYNTAX INTEGER {
 down (1),
 registering (2),
 up (3)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Operational status for ILMI function on this ATM port."
 ::= { lportEntry 213 }

lportIlmiPollRetry OBJECT-TYPE
 SYNTAX INTEGER (1..255)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "If ILMI is enabled for this ATM port, the consecutive missed poll threshold to be reached before declaring the port's operational status down. The default value is 4 times."
 ::= { lportEntry 214 }

lportAtmVpiBits OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Number of bits of VPI supported."
 ::= { lportEntry 215 }

lportAtmVciBits OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory

DESCRIPTION
 "Number of bits of VCI supported."
 ::= { lportEntry 216 }

lportAtmOamAlarmEnable OBJECT-TYPE
 SYNTAX INTEGER {
 enabled(1),
 disabled(2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "If disabled then OAM alarms are not generated for circuits that are down on this lport."
 ::= { lportEntry 217 }

lportBwUNIPolicy OBJECT-TYPE
 SYNTAX INTEGER {
 enable-uni-bw-
 policing(1),
 disable-uni-bw-
 policing(2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The network policy towards requiring sufficient bandwidth at the UNI interface prior to allowing a circuit to be established."
 ::= { lportEntry 219 }

lportStarvation OBJECT-TYPE
 SYNTAX INTEGER {
 ok(1),
 error(2)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The CE/CBR card detected a starvation condition on this lport for an extended period"
 ::= { lportEntry 220 }

lportRecOverflow OBJECT-TYPE
 SYNTAX INTEGER {
 ok(1),
 error(2)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The CE/CBR card detected a receive
 overflow condition on this lport
 for an extended period."
 ::= { lportEntry 221 }

lportLossOfCellSequence OBJECT-TYPE
 SYNTAX INTEGER {
 ok(1),
 error(2)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The CE/CBR card detected a LOS
 condition on this lport
 for an extended period."
 ::= { lportEntry 222 }

lportLossOfStructurePointer OBJECT-TYPE
 SYNTAX INTEGER {
 ok(1),
 error(2)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The structured CBR card detected a
 loss of structure pointer
 condition on this lport for an
 extended period."
 ::= { lportEntry 223 }

lportCbrInsDummyCells OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory

DESCRIPTION
 "The number of dummy cells inserted due
 to cell loss on a constant bit rate (AAL1) interface."
 ::= { lportEntry 224 }

lportRecFifoUnderflowCnt OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of receive FIFO underflows
 since the last reset.
 If this condition persists, a
 lportCBRLineDataError trap is issued
 indicating the lportStarvation."
 ::= { lportEntry 225 }

lportRecFifoOverflowCnt OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of receive FIFO overflows
 since the last reset.
 If this condition persists, a
 lportCBRLineDataError trap is issued
 indicating the receive FIFO
 overflow."
 ::= { lportEntry 226 }

lportCbrLossOfStructurePointerCnt OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The object counts how often the
 structured CBR card detected a loss of the
 structure pointer since the last
 reset."
 ::= { lportEntry 227 }

lportCbrLossOfCellSequenceCnt OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory

```

DESCRIPTION
    "The number of loss of cell sequence
since the last reset."
    ::= { lportEntry 228 }

lportShaperId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The shaper to be used for this ATM
trunk interworking with frame relay:
        1-port ATM-IWU STM-1/STS-3c card
        -----

        Values: 1..16"
    ::= { lportEntry 229 }

lportDteIlmiPrefixScreenMode OBJECT-TYPE
    SYNTAX      INTEGER {
        node-prefix (1),
        port-prefix (2),
        node-prefix-or-port-
prefix (3),
        reject-all (127),
        accept-all (255)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The type of screening, if any, to
apply against dynamic prefixes
        received from the peer ILMI
entity at this ATM DTE port."
    ::= { lportEntry 230 }

lportSmadsPduViolTca OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

```

    "This object defines the ability
to enable and disable SMDS
    pdu violation traps on this
logical port. This functionality
    applies to the following logical
port types:
        SMDS DXI/SNI DCE
        SMDS DXI/SNI DTE
        SMDS SSI DTE
        SMDS Optimum Trunk
        Direct Line Trunk
        The default value of this object
is 'disabled'.
    "
    ::= { lportEntry 231 }

lportSmadsPduViolThresh OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This object defines the Smads pdu
violation threshold for this
logical port. The allowable range
of threshold values is 1-255.
        The default value of this object
is '10'.
    "
    ::= { lportEntry 232 }

lportSmadsPduHdrSip3SaNotFound OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the Smads
destination address and Smads
source address of the last Smads
pdu to cause the violation
        Smads Sa Not Found. The first 8
bytes of the octet string
        (i.e.; 16 digits in BCD format)
correspond to the destination
address. The second 8 bytes
correspond to the source address.

```

```

"
 ::= { lportEntry 233 }

lportSmDsPduHdrSip3SaDaOnSamePortOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the SmDs
destination address and SmDs
        source address of the last SmDs
pdu to cause the violation
        SmDs Sa Da On Same Port. The first
8 bytes of the octet string
        (i.e.; 16 digits in BCD format)
correspond to the destination
        address. The second 8 bytes
correspond to the source address.
        "
 ::= { lportEntry 234 }

lportSmDsPduHdrSip3DstGaNotFoundOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the SmDs
destination address and SmDs
        source address of the last SmDs
pdu to cause the violation
        SmDs Dst Ga Not Found. The first 8
bytes of the octet string
        (i.e.; 16 digits in BCD format)
correspond to the destination
        address. The second 8 bytes
correspond to the source address.
        "
 ::= { lportEntry 235 }

lportSmDsPduHdrSip3DstIaScrnFailOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "This object provides the SmDs
destination address and SmDs
        source address of the last SmDs
pdu to cause the violation
        SmDs Dst Ia Scrn Fail. The first 8
bytes of the octet string
        (i.e.; 16 digits in BCD format)
correspond to the destination
        address. The second 8 bytes
correspond to the source address.
        "
 ::= { lportEntry 236 }

lportSmDsPduHdrSip3SaValFailOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the SmDs
destination address and SmDs
        source address of the last SmDs
pdu to cause the violation
        SmDs Sa Val Fail. The first 8
bytes of the octet string
        (i.e.; 16 digits in BCD format)
correspond to the destination
        address. The second 8 bytes
correspond to the source address.
        "
 ::= { lportEntry 237 }

lportSmDsPduHdrSip3DstIaNotFoundOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the SmDs
destination address and SmDs
        source address of the last SmDs
pdu to cause the violation
        SmDs Dst Ia Not Found. The first 8
bytes of the octet string
        (i.e.; 16 digits in BCD format)
correspond to the destination

```

address. The second 8 bytes correspond to the source address.

```

"
 ::= { lportEntry 238 }

lportSmdsPduHdrSip3SrcIaScrnFailOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the Smds
        destination address and Smds
        source address of the last Smds
        pdu to cause the violation
        Smds Src Ia Scrn Fail. The first 8
        bytes of the octet string
        (i.e.; 16 digits in BCD format)
        correspond to the destination
        address. The second 8 bytes
        correspond to the source address.
        "
    ::= { lportEntry 239 }

lportSmdsPduHdrSip3DstGaScrnFailOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the Smds
        destination address and Smds
        source address of the last Smds
        pdu to cause the violation
        Smds Dst Ga Scrn Fail. The first 8
        bytes of the octet string
        (i.e.; 16 digits in BCD format)
        correspond to the destination
        address. The second 8 bytes
        correspond to the source address.
        "
    ::= { lportEntry 240 }

lportSmdsPduHdrSip3SaTypeInvalidOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory

```

```

DESCRIPTION
    "This object provides the Smds
    destination address and Smds
    source address of the last Smds
    pdu to cause the violation
    Smds Sa Type Invalid. The first 8
    bytes of the octet string
    (i.e.; 16 digits in BCD format)
    correspond to the destination
    address. The second 8 bytes
    correspond to the source address.
    "
    ::= { lportEntry 241 }

lportSmdsPduHdrSip3DaTypeInvalidOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the Smds
        destination address and Smds
        source address of the last Smds
        pdu to cause the violation
        Smds Da Type Invalid. The first 8
        bytes of the octet string
        (i.e.; 16 digits in BCD format)
        correspond to the destination
        address. The second 8 bytes
        correspond to the source address.
        "
    ::= { lportEntry 242 }

lportSmdsPduHdrDxi2LinkIdInvalidOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the dxi2
        header of the last Smds pdu to
        cause the violation Dxi2 Link Id
        Invalid. The length of this
        object is 4 bytes.
        "
    ::= { lportEntry 243 }

```



```

lportSmdsPduHdrDxi2CrInvalidOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the dxi2
header of the last Smds pdu to
        cause the violation Dxi2 Cr
Invalid. The length of this
        object is 4 bytes.
        "
    ::= { lportEntry 244 }

lportSmdsPduHdrDxi2CtrlInvalidOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the dxi2
header of the last Smds pdu to
        cause the violation Dxi2 Ctrl
Invalid. The length of this
        object is 4 bytes.
        "
    ::= { lportEntry 245 }

lportSmdsPduHdrDxi2StationIdInvalidOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This object provides the dxi2
header of the last Smds pdu to
        cause the violation Dxi2 Station
Id Invalid. The length of this
        object is 4 bytes.
        "
    ::= { lportEntry 246 }

lportSmdsPduHdrDxi2AeInvalidOBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "This object provides the dxi2
header of the last Smds pdu to
        cause the violation Dxi2 Ae
Invalid. The length of this
        object is 4 bytes.
        "
    ::= { lportEntry 247 }

lportDS0FarendLpbkEnabledOBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Set a single DS0 into farend
loopback 1-24."
    ::= { lportEntry 248 }

lportDS0FarendLpbkDisabledOBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Disable a single DS0 out farend
loopback 1-24."
    ::= { lportEntry 249 }

lportTrkProtFailureThresholdOBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The time, measured in seconds,
that Trunk Protocol waits before
        transitioning the state of an
unresponsive trunk from UP to
        DOWN. Trunk protocol keepalive
requests are issued on the
        trunk lport once per second. This
value defines the failure
        threshold, that is, the number of
consecutive requests that
        must go unanswered before the
Trunk Protocol application will
        declare the trunk lport DOWN."

```

```

        ::= { lportEntry 250 }

lportPtr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "An octet string indicating the
lport pointer."
        ::= { lportEntry 251 }

lportISDNPoolUtil OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The percent utilization of the B-
channel pool that
                this b-channel belongs to."
        ::= { lportEntry 252 }

lportPPPNegotiationFailCode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The cause value for why PPP
negotiation has failed."
        ::= { lportEntry 253 }

lportTrkUtilQoS1 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "An estimate of the real QoS1
utilization of the trunk bandwidth
                in terms of a percentage of the
configured trunk bandwidth."
        ::= { lportEntry 254 }

lportTrkUtilQoS2 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

```

        "An estimate of the real QoS2
utilization of the trunk bandwidth
                in terms of a percentage of the
configured trunk bandwidth."
        ::= { lportEntry 255 }

lportTrkUtilQoS3 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "An estimate of the real QoS3
utilization of the trunk bandwidth
                in terms of a percentage of the
configured trunk bandwidth."
        ::= { lportEntry 256 }

lportTrkUtilQoS4 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "An estimate of the real QoS4
utilization of the trunk bandwidth
                in terms of a percentage of the
configured trunk bandwidth."
        ::= { lportEntry 257 }

lportIlmiNumOctetsTx OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of ILMI octets
transmitted on this ATM port."
        ::= { lportEntry 258 }

lportIlmiNumOctetsRx OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of ILMI octets
received on this ATM port."
        ::= { lportEntry 259 }

```

```

lportIlmiNumPdusTx OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of ILMI PDU's
transmitted on this ATM port."
    ::= { lportEntry 260 }

lportIlmiNumPdusRx OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of properly formatted
ILMI PDU's received on this
        ATM port."
    ::= { lportEntry 261 }

lportIlmiNumErrorsRx OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of improperly
formatted ILMI PDU's received on this
        ATM port."
    ::= { lportEntry 262 }

lportIlmiNumUmePollsTx OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of ILMI polls sent by
the UME entity on this ATM DCE port."
    ::= { lportEntry 263 }

lportIlmiNumUmeResponsesRx OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "The number of ILMI poll responses
received by the UME entity on this
        ATM DCE port."
    ::= { lportEntry 264 }

lportIlmiVPI OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The VPI value of the VCC
provisioned for the ILMI. The default value
        is 0."
    ::= { lportEntry 265 }

lportIlmiVCI OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The VCI value of the VCC
provisioned for the ILMI. The default value
        is 16."
    ::= { lportEntry 266 }

lportInCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of cells
received"
    ::= { lportEntry 267 }

lportOutCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The total number of cells
transmitted"
    ::= { lportEntry 268 }

lportDS1ChannelId OBJECT-TYPE
    SYNTAX      INTEGER

```

ACCESS read-write
 STATUS mandatory
 DESCRIPTION "The channel id of the DS1 channel
 for the channelized DS3 IOP."
 ::= { lportEntry 269 }

lportCDV OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "The Cell Delay Variation of this
 port measured in microseconds."
 ::= { lportEntry 270 }

lportAtmTrkIomCktDiagStr OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "Internal diagnostic information."
 ::= { lportEntry 271 }

lportAtmTrkSpCktDiagStr OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "Internal diagnostic information."
 ::= { lportEntry 272 }

lportAuthState OBJECT-TYPE
 SYNTAX INTEGER {
 auth-enabled (1),
 auth_disabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "Authentication enabled for this
 port, yes or no."
 ::= { lportEntry 273 }

lportAuthDomainID OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "Authentication Domain ID for this
 lport."
 ::= { lportEntry 274 }

lportAuthPPPOption OBJECT-TYPE
 SYNTAX INTEGER {
 pap-only (1),
 chap-only (2),
 pap-and-chap (3)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION "PPP authentication options."
 ::= { lportEntry 275 }

lportAuthFailReason OBJECT-TYPE
 SYNTAX INTEGER {
 syserNoDomain (1),
 syserNoServer (2),
 syserInvAuthMethod (3),
 syserNoUsername (4),
 syserNoPassword (5),
 syserNoSecret (6),
 syserNoPlChallenge (7),
 syserNoEnChallenge (8),
 syserNoPortId (9),
 syserSendError (10),
 noRespFromServer(11),
 invRespFromServer(12),
 invServiceType (13),
 invFramedProtocol(14),
 invDomainId (15),
 authenticationFailed(16)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "Reason for authentication failure
 - trap sent to NMS."

```

        ::= { lportEntry 276 }

lportEchoRequestOption OBJECT-TYPE
    SYNTAX      INTEGER {
        echo_rqst_enabled  (1),
        echo_rqst_disabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The sending of Echo Requests
        enabled for this port, yes or no."
        ::= { lportEntry 277 }

lportEchoRequestInterval OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The # seconds to wait between
        sending Echo Requests."
        ::= { lportEntry 278 }

lportEchoRequestMaxTries OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The max # times to send an Echo
        Request without getting a
        response."
        ::= { lportEntry 279 }

lportMultilinkProtocolOption OBJECT-TYPE
    SYNTAX      INTEGER {
        mp_enabled  (1),
        mp_disabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "PPP Multilink Protocol enabled
        for this port, yes or no."
        ::= { lportEntry 280 }

```

```

lportMultilinkProtocolFailReason OBJECT-TYPE
    SYNTAX      INTEGER {
        failBundleCreate (1),
        failLinkAdd      (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Failure to create an MP bundle or
        to add a link to an
        MP Bundle - trap sent."
        ::= { lportEntry 281 }

lportBandwidthAllocProtocolOption OBJECT-TYPE
    SYNTAX      INTEGER {
        bap_enabled  (1),
        bap_disabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "PPP Bandwidth Alloc Protocol
        enabled for this port, yes or no."
        ::= { lportEntry 282 }

lportBandwidthAllocProtocolCallFailReason OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "BAP Call Fail Status code (Q.931
        cause code) - trap sent
        to NMS."
        ::= { lportEntry 283 }

lportPrivateNetOverflow OBJECT-TYPE
    SYNTAX      INTEGER {
        restrict (0),
        use-public (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Indicates how circuits belonging
        to private lports"

```

are handled, when the resources of the network have become exhausted. If set to use-public, the resources of the public network can be used during overflow conditions."
 ::= { lportEntry 284 }

lportCbrFifoHalfLength OBJECT-TYPE
 SYNTAX INTEGER (2..8)
 ACCESS read-write
 STATUS deprecated
 DESCRIPTION
 "CBR card was never released. Determines the size of the FIFO used on the CBR COBRA. The unit are the number of cells stored in the FIFO in direction towards the line interface. The size of the FIFO influences the average cell delay and the maximum tolerable cell delay variation. In ACM mode (pportCbrCurrentClockMode=3) the COBRA tries to keep the FIFO filled up to lportCbrFifoHalfLength and adjusts the line speed accordingly. In all other clock modes (STRS, synchronous) the line speed cannot be varied. Decreasing this value from its default (and maximum) of 8 reduces the cell (and ultimately the line) delay at the cost of decreasing the cell delay variation that can be handled."
 ::= { lportEntry 285 }

lportCustomerID OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory

DESCRIPTION "The Customer that owns this lport. For Virtual Private Networking Support."
 ::= { lportEntry 286 }

lportCongestThresh0 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Congestion threshold #0 for NTM/ NDC in cells/second. Used as a severe congestion abatement threshold on an IOM."
 ::= { lportEntry 287 }

lportCongestThresh1 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Congestion threshold #1 for NTM/ NDC in cells/second. Used as a low congestion threshold on an IOM."
 ::= { lportEntry 288 }

lportCongestThresh2 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Congestion threshold #2 for NTM/ NDC in cells/second. Used as a high congestion threshold on an IOM."
 ::= { lportEntry 289 }

lportCongestThresh3 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Congestion threshold #3 for NTM/ NDC in cells/second."

```

        Used as a severe congestion
threshold on an IOM."
        ::= { lportEntry 290 }

lportSevereCongestNotifyTime OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Selects a minimum severe
congestion period upon which
        an alarm is generated on an IOM.
Default value is
        30 seconds."
        ::= { lportEntry 291 }

lportSevereCongestStatus OBJECT-TYPE
    SYNTAX INTEGER {
        notCongested (1),
        congested (2)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Indicates the state of severe
congestion on a logical port."
        ::= { lportEntry 292 }

lportSmdsNumInFramesIa OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of SMDS IA Frames received on an
SSI/DXI-SNI lport."
        ::= { lportEntry 293 }

lportSmdsNumInBytesIa OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of SMDS IA Bytes received on an
SSI/DXI-SNI lport."
        ::= { lportEntry 294 }

```

```

lportSmdsNumInFramesGa OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of SMDS GA Frames received on an
SSI/DXI-SNI lport."
        ::= { lportEntry 295 }

lportSmdsNumInBytesGa OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of SMDS GA Bytes received on an
SSI/DXI-SNI lport."
        ::= { lportEntry 296 }

lportSmdsNumOutFramesIa OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of SMDS IA Frames transmitted on
an SSI/DXI-SNI lport."
        ::= { lportEntry 297 }

lportSmdsNumOutBytesIa OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of SMDS IA Bytes transmitted on an
SSI/DXI-SNI lport."
        ::= { lportEntry 298 }

lportSmdsNumOutFramesGa OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of SMDS GA Frames transmitted on
an SSI/DXI-SNI lport."
        ::= { lportEntry 299 }

```

```

lportSmdsNumOutBytesGa OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of SMDS GA Bytes transmitted on an
        SSI/DXI-SNI lport."
    ::= { lportEntry 300 }

```

```

lportAtmTrkCLPOut OBJECT-TYPE
    SYNTAX INTEGER {
        clp_always_0 (0),
        clp_always_1 (1),
        clp_mapped_from_receive (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "CLP mapping for circuit data
        carried over an ATM trunk. If clp_always_0 is
        selected then all circuit data
        sent over the ATM trunk lport will have the
        clp bit in the ATM cells set to 0
        (high priority traffic). If clp_always_1
        is selected then all circuit data
        sent over the ATM trunk lport will have
        the clp bit in the ATM cells set
        to 1 (low priority traffic). If
        clp_mapped_from_receive is
        selected then the clp bit in each cell is
        taken from the circuit data. If
        the circuit is frame relay then the DE
        bit of the frame is mapped to the
        clp bit of the cell. If the circuit endpoint was
        ATM then the CLP bit of from the
        circuit enpoint is used for the clp bit of the
        cells transmitted on the trunk"
    ::= { lportEntry 301 }

```

```

lportAtmTrkCLPIn OBJECT-TYPE
    SYNTAX INTEGER {
        clp_always_0 (0),
        clp_always_1 (1),
        clp_mapped_from_receive (2)
    }

```

```

    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "CLP mapping for circuit data
        received from an ATM trunk. If clp_always_0 is
        selected then all circuit data
        received from the ATM trunk lport will have the
        clp bit set to 0. If clp_always_1
        is selected then all circuit data received from
        the ATM trunk will have the clp
        bit set to 1. If clp_mapped_from_receive is selected then
        the clp bit of the received data
        will be passed unchanged."
    ::= { lportEntry 302 }

```

```

lportAtmTrkEFCIOut OBJECT-TYPE
    SYNTAX INTEGER {
        efci_always_0 (0),
        efci_always_1 (1),
        efci_mapped_from_receive (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "EFCI mapping for circuit data
        carried over an ATM trunk. If efci_always_0 is
        selected then all circuit data
        sent over the ATM trunk lport will have the
        efci bit in the ATM cells set to 0
        (no congestion). If efci_always_1
        is selected then all circuit data
        sent over the ATM trunk lport will have
        the efci bit in the ATM cells set
        to 1 (congestion experienced). If
        efci_mapped_from_receive is
        selected then the efci bit in each cell is
        taken from the circuit data. If
        the circuit is frame relay then the FECN
        bit of the frame is mapped to the
        clp bit of the cell. If the circuit endpoint was
        ATM then the EFCI bit of from the
        circuit enpoint is used for the efci bit of the
        cells transmitted on the trunk"
    ::= { lportEntry 303 }

```



```

lportAtmTrkEFCIIn OBJECT-TYPE
    SYNTAX  INTEGER {
        efc_i_always_0 (0),
        efc_i_always_1 (1),
        efc_i_mapped_from_receive (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "EFCI mapping for circuit data
received from an ATM trunk. If efc_i_always_0 is
        selected then all circuit data
received from the ATM trunk lport will have the
        efc_i bit set to 0. If
efc_i_always_1 is selected then all circuit data received
from
        the ATM trunk will have the efc_i
bit set to 1. If efc_i_mapped_from_receive is selected then
        the efc_i bit of the received data
will be passed unchanged."
        ::= { lportEntry 304 }

lportBadPVCFactor OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "The factor used to determine the threshold for
bad PVC detection. Its value ranges
        from 0 to 32. The relationship between the
threshold and the factor is defined as:
                                Bc + ( Be
/ 2 )
                                Threshold = -----
----- ,
                                2 ^ (32-
Fb)
        where Fb is the factor. By default, it is set
to 30. "
        ::= { lportEntry 305 }

lportAmberReductionPm OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write

```

```

    STATUS  mandatory
    DESCRIPTION
        "The percentage of amber frame reduction when mild
congestion happens, by default, it is
        set to 50."
        ::= { lportEntry 306 }

lportAmberReductionPs OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "The percentage of amber frame reduction when
severe congestion happens, by default, it
        is set to 75."
        ::= { lportEntry 307 }

lportCongestionCheckInterval OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Specifies the interval (measured in seconds)
between successive congestion state checking
        on a port. Default is 1 second."
        ::= { lportEntry 308 }

lportCongestionClearDelay OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Specifies, the delay (measured in seconds) before
congestion clearance message is sent
        when the congested port becomes less
congested. Default is 3 seconds."
        ::= { lportEntry 309 }

lportNrtsRmGenType OBJECT-TYPE
    SYNTAX  INTEGER {
        none (1),
        ccrm (2),
        bcm (3)
    }
    ACCESS  read-write

```

STATUS	mandatory
DESCRIPTION	"The type of RM cells the NRTS processor generates on this lport."
	::= { lportEntry 310 }

lportNrtsRmTermType OBJECT-TYPE

SYNTAX	INTEGER { ccrmOnly (1), ccrmAndBcm (2) }
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"The type of RM cells the NRTS processor terminates on this lport."
	::= { lportEntry 311 }

lportNrtsEfciCheck OBJECT-TYPE

SYNTAX	INTEGER { no (1), yes (2) }
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Whether the NRTS processor checks the EFCI bit for circuits on this lport when incrementing EFCI counts."
	::= { lportEntry 312 }

lportNrtsBufAlloc OBJECT-TYPE

SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Cell buffer size for this lport controlled by the NRTS processor."
	::= { lportEntry 313 }

lportNrtsClp01Thresh OBJECT-TYPE

SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"The CLP=0+1 threshold for this lport used by the NRTS processor. Must be smaller than the cell buffer size allocated for this lport."
	::= { lportEntry 314 }

lportNrtsDiscardThresh OBJECT-TYPE

SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"The CLP=1 discard threshold for this lport used by the NRTS processor. Must be smaller than the CLP=0+1 threshold. May also be used as the EPD threshold."
	::= { lportEntry 315 }

lportNrtsEfciThresh OBJECT-TYPE

SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"The EFCI threshold for this lport used by the NRTS processor. Must be smaller than the CLP=0+1 and discard thresholds."
	::= { lportEntry 316 }

lportNrtsRmCellCount OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of RM cells received on this lport by the NRTS processor."
	::= { lportEntry 317 }

```

lportCloseLoopSwitch OBJECT-TYPE
    SYNTAX INTEGER {
        off (0),
        ospfBased (1),
        perVCBased (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Close loop congestion control function switch on
this logical port.
        0:   Close loop control OFF,
        1:   Close loop control ON OSPF Based.
        2:   Close loop control ON Per VC Based
        By default, it is set to OFF. "
    ::= {lportEntry 318 }

lportAtmVPIShutdown OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The stop value for the PVC VPI range.
        Used only by VP Mux termination
lports"
    ::= {lportEntry 319 }

lportSegmentation OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Specifies the transportation feature of a trunk
port. If enabled, the port cuts user packets
        into fix-length segments for delivery over
the trunk, otherwise user packets are delivered over
        the trunk without segmentation. If the port
service class type is configured as 'multi-class',
        the default is 'enabled'. If the port service
class type is configured as 'mono-class',
        the default is 'disabled'."
    ::= {lportEntry 320 }

lportServiceClassType OBJECT-TYPE
    SYNTAX INTEGER

```

```

    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Specifies the service class types to be supported
by the logical port.
        The valid values and their corresponding
definitions are:
        0:   mono-class,
        1-15: multi-class "
    ::= {lportEntry 321 }

lportTrkOSPFAreaID OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "OSPF Area ID to which the trunk
belongs. Default
        value is 0.0.0.1 for historical
reasons."
    ::= { lportEntry 322 }

lportAtmVPIRmtStop OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "RMT VPI range is specified over an optimum
trunk
        logical ports. This range falls
within the VPI range
        as specified for SVs. This object
specifies the last
        VPI value which can be assigned to
an RMT Path."
    ::= {lportEntry 323 }

lportPPPCnfgRqstMaxTime OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Max # of seconds LCP will attempt
to negotiate before giving

```

```

        up. Valid values = 0-99999.
Default = 0 (try forever)."
    ::= { lportEntry 324 }

--
-- lportEntry 325 - 326 can be reused
--

lportOutVAvailbwQoS1CPS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current outgoing available
virtual bandwidth reserved for QoS class 1
        measured in cells per second."
    ::= { lportEntry 327 }

lportOutVAvailbwQoS2CPS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current outgoing available
virtual bandwidth reserved for QoS class 2
        measured in cells per second."
    ::= { lportEntry 328 }

lportOutVAvailbwQoS3CPS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current outgoing available
virtual bandwidth reserved for QoS class 3
        measured in cells per second."
    ::= { lportEntry 329 }

lportOutVAvailbwQoS4CPS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current outgoing available
virtual bandwidth reserved for QoS class 4

```

```

        measured in cells per second."
    ::= { lportEntry 330 }

lportInVAvailbwQoS1CPS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current incoming available
virtual bandwidth reserved for QoS class 1
        measured in cells per second."
    ::= { lportEntry 331 }

lportInVAvailbwQoS2CPS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current incoming available
virtual bandwidth reserved for QoS class 2
        measured in cells per second."
    ::= { lportEntry 332 }

lportInVAvailbwQoS3CPS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current incoming available
virtual bandwidth reserved for QoS class 3
        measured in cells per second."
    ::= { lportEntry 333 }

lportInVAvailbwQoS4CPS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current incoming available
virtual bandwidth reserved for QoS class 4
        measured in cells per second."
    ::= { lportEntry 334 }

lportOutAllocbwQoS1CPS OBJECT-TYPE
    SYNTAX      INTEGER

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current outgoing allocated bandwidth for
QoS Class 1 measured in cells per second."
::= { lportEntry 335 }

lportOutAllocbwQoS2CPS OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current outgoing allocated bandwidth for
QoS Class 2 measured in cells per second."
::= { lportEntry 336 }

lportOutAllocbwQoS3CPS OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current outgoing allocated bandwidth for
QoS Class 3 measured in cells per second."
::= { lportEntry 337 }

lportOutAllocbwQoS4CPS OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current outgoing allocated bandwidth for
QoS Class 4 measured in cells per second."
::= { lportEntry 338 }

lportInAllocbwQoS1CPS OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current incoming allocated bandwidth for
QoS Class 1 measured in cells per second."
::= { lportEntry 339 }

lportInAllocbwQoS2CPS OBJECT-TYPE
SYNTAX INTEGER

ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current incoming allocated bandwidth for
QoS Class 2 measured in cells per second."
::= { lportEntry 340 }

lportInAllocbwQoS3CPS OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current incoming allocated bandwidth for
QoS Class 3 measured in cells per second."
::= { lportEntry 341 }

lportInAllocbwQoS4CPS OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current incoming allocated bandwidth for
QoS Class 4 measured in cells per second."
::= { lportEntry 342 }

lportBundleId OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
" The lport Id if the ML Trunk Bundle
lport is added to the lport configuration, a zero
indicates that is lport is not
associated with an other lport. The default is zero."
::= { lportEntry 343 }

lportCLLMAdminState OBJECT-TYPE
SYNTAX INTEGER {
 disable (1),
 enable (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The Administrative status of the CLLM notification on this logical port."

DEFVAL { disable }
::= { lportEntry 344 }

lportCLLMInterval OBJECT-TYPE

SYNTAX INTEGER (1..255)
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The time duration between two consecutive CLLM messages sent on a the UNI port, in seconds. The CLLM message is sent as long as at least one VC on this logical port is in congested state due to congestion."

DEFVAL { 10 }
::= { lportEntry 345 }

lportCLLMCount OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION

"This parameter shows the number of CLLM PDUs sent out so far."

::= { lportEntry 346 }

lportCLLMThresholdNone OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This is the percentage threshold value of BECN frames received on any VC on this port. If the percentage of BECN frames on received on any VC is less than this threshold value then the VC is considered to be in noncongested state. If the percentage of BECN frames received on a VC exceeds this threshold value, but does not exceed lportCLLMThresholdMild, the VC is considered to be in Mild congested state."

DEFVAL { 10 }
::= { lportEntry 347 }

lportCLLMThresholdMild OBJECT-TYPE

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This is the percentage threshold value of BECN frames received on any VC on this port. If the percentage of BECN frames received on a VC exceeds this percentage value, the VC is considered to be in absolute congested state."

DEFVAL { 40 }
::= { lportEntry 348 }

lportTrkIfInOctetsPeak OBJECT-TYPE

SYNTAX OCTET STRING
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The 5-minute peak value of the number of input octets (bytes) for a trunk - from Bulk Statistics. Note that this is a 64-bit counter (so an Octet String is used)."

::= { lportEntry 349 }

lportTrkIfOutOctetsPeak OBJECT-TYPE

SYNTAX OCTET STRING
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The 5-minute peak value of the number of output octets (bytes) for a trunk - from Bulk Statistics. Note that this is a 64-bit counter (so an Octet String is used)."

::= { lportEntry 350 }

lportTrkIfInErrorsPeak OBJECT-TYPE

SYNTAX OCTET STRING
ACCESS read-only
STATUS mandatory

```

        DESCRIPTION
            "The 5-minute peak value of the
number of input octets (bytes)
            in error for a trunk - from Bulk
Statistics. Note that this is
            a 64-bit counter (so an Octet
String is used)."
        ::= { lportEntry 351 }

lportTrkIfOutErrorsPeak OBJECT-TYPE
    SYNTAX  OCTET STRING
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The 5-minute peak value of the
number of output octets (bytes)
            in error for a trunk - from Bulk
Statistics. Note that this is
            a 64-bit counter (so an Octet
String is used)."
        ::= { lportEntry 352 }

lportFRInOctetsPeak OBJECT-TYPE
    SYNTAX  Counter
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The 5-minute peak value of the
number of input octets (bytes)
            for a Frame Relay UNI/NNI - from
Bulk Statistics."
        ::= { lportEntry 353 }

lportFROutOctetsPeak OBJECT-TYPE
    SYNTAX  Counter
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The 5-minute peak value of the
number of output octets (bytes)
            for a Frame Relay UNI/NNI - from
Bulk Statistics."
        ::= { lportEntry 354 }

```

```

lportFRInErrorsPeak OBJECT-TYPE
    SYNTAX  Counter
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The 5-minute peak value of the
number of input octets (bytes)
            in error for a Frame Relay UNI/NNI
- from Bulk Statistics."
        ::= { lportEntry 355 }

lportFROutErrorsPeak OBJECT-TYPE
    SYNTAX  Counter
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The 5-minute peak value of the
number of output octets (bytes)
            in error for a Frame Relay UNI/NNI
- from Bulk Statistics."
        ::= { lportEntry 356 }

lportCtlUpcEnable OBJECT-TYPE
    SYNTAX  INTEGER {
        disabled (1),
        enabled  (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Enable/Disable UPC for control
circuits"
    DEFVAL { disabled }
    ::= { lportEntry 357 }

lportEthernetTxEncapsulation OBJECT-TYPE
    SYNTAX  INTEGER {
        ieee_snap (1),
        ethernet_ii (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Controls the encapsulation type
for transmitted IP frames out

```

```

        an Ethernet port."
        ::= { lportEntry 358 }

lportNrtsmcrbyc OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "MCR by C value used by the NRTS
        when the MPT circuit is set up
        on a per node basis in cells per
        second"
    DEFVAL { 100 }
    ::= { lportEntry 359 }

lportIPServerId OBJECT-TYPE
    SYNTAX  INTEGER {
        ipserver_1 (1),
        ipserver_2 (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Indicates ip server that serves
        this ip server lport on this card"
    ::= { lportEntry 360 }

lportShapingRateCPS OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Traffic shaping rate for first VP
        (which carries VC
        connections) on this lport.
        Setting the shaping rate to zero
        disables the VP shaping."
    DEFVAL { 100 }
    ::= { lportEntry 361 }

lportQoSTransmitSchedMode OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION

```

```

        "Specifies the Priority Frame QoS transmission
        scheduling mode for the lport.
        This parameter only applies when the logical
        port is configured for multi-
        class operation.
        0: CFR->VFRrt->VFRnrt->UFR (strict priority
        policy)
        1: CFR - Head of Line; VFRrt/VFRnrt -
        Weighted Round Robin; UFR - Best Effort."
        ::= { lportEntry 362 }

lportNearEndLoopConfig OBJECT-TYPE
    SYNTAX  INTEGER {
        lportClearNELoop (1),
        lportEnableNELoop (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Integer used to set the near end
        loopback state of the lport"
    ::= { lportEntry 363 }

lportDs0Loop OBJECT-TYPE
    SYNTAX  DisplayString
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "The bit mask indicating the DS0s
        for the logical port
        loopback which must be a subset of
        the corresponding
        lportFt1Ds0s. It's represented by
        a 32-bit hex char string."
    ::= { lportEntry 364 }

lportEgressDeClpBitMapping OBJECT-TYPE
    SYNTAX  INTEGER {
        clp0 (1),
        clp1 (2),
        fr-de (3)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION

```



```

        "CLP mapping for Frames carried on
an ATM trunk."
        ::= { lportEntry 365 }

lportIngressClpDeBitMapping OBJECT-TYPE
    SYNTAX  INTEGER {
        de0      (1),
        de1      (2),
        atm-clp  (3)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "DE bit mapping for Frames
received from an ATM trunk."
        ::= { lportEntry 366 }

lportEgressFecNefciBitMapping OBJECT-TYPE
    SYNTAX  INTEGER {
        efci0  (1),
        fecn  (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "EFCI mapping for Frames carried
on an ATM trunk."
        ::= { lportEntry 367 }

lportIngressEfciFecNBitMapping OBJECT-TYPE
    SYNTAX  INTEGER {
        fecn0  (1),
        efci   (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "FECN bit mapping for Frames
received from an ATM trunk."
        ::= { lportEntry 368 }

lportNearEndLoopStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        noloop          (1),
        nearendloopback (2)

```

```

    }
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Integer indicating the current
loopback status of the near
end of the lport"
        ::= { lportEntry 369 }

lportDS0SendFarEndCode OBJECT-TYPE
    SYNTAX  INTEGER {
        sendNoCode      (1),
        sendOCUCode     (2),
        sendDSUCode     (3),
        sendCSUCode     (4)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Integer used to send loopback
code to far-end lport"
        ::= { lportEntry 370 }

lportBertPattern OBJECT-TYPE
    SYNTAX  INTEGER {
        allZeros      (1),
        allOnes       (2),
        oneZero       (3),
        oneOneZeroZero (4),
        oneOf8        (5),
        threeOf24     (6),
        qRSS          (7),
        user1Byte     (8),
        user2Byte     (9),
        user3Byte     (10),
        user4Byte     (11)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Pattern generated by the XBERT"
        ::= { lportEntry 371 }

lportBertUserBytes OBJECT-TYPE
    SYNTAX  INTEGER

```

```

ACCESS read-write
STATUS mandatory
DESCRIPTION
    "Definition of 1,2,3 or 4 byte pattern if
UserNByte selected."
    ::= { lportEntry 372 }

lportBertErrorRate OBJECT-TYPE
    SYNTAX INTEGER {
        none (1),
        tenMinusThree (2),
        tenMinusSix (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Error rate to insert in generated
pattern."
    ::= { lportEntry 373 }

lportBertCommand OBJECT-TYPE
    SYNTAX INTEGER {
        start (1),
        stop (2),
        clearCounters (3),
        injectError (4)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Single shot commands to the BERT."
    ::= { lportEntry 374 }

lportBertStatus OBJECT-TYPE
    SYNTAX INTEGER {
        unused (1),
        unavailable (2),
        outOfFrame (3),
        inFrame (4)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current status of the BERT for this
channel."

```

```

    ::= { lportEntry 375 }

lportBertBitCount OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The number of bits received - stops
counting at 0xFFFFFFFF"
    ::= { lportEntry 376 }

lportBertErrorCount OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The number of bits received in error-
stops counting
        at 0xFFFFFFFF"
    ::= { lportEntry 377 }

lportBertDs0Mask OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The bit mask indicating the DS0s
for the logical port
bert test which must be a subset
of the corresponding
lportFt1Ds0s. It's represented by
a 32-bit hex char string."
    ::= { lportEntry 378 }

lportEcnThreshold OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The congestion threshold, in
terms of 56 byte buffers, which
will trigger Fecn and Becn for
this lport."
    ::= { lportEntry 379 }

```

```

lportInLongErrors OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The total number of inbound
frames that were discarded due
        to length."
    ::= { lportEntry 380 }

lportInCRCErrors OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The total number of inbound
frames that were discarded due
        to invalid CRC."
    ::= { lportEntry 381 }

lportInOverrunErrors OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The total number of inbound
frames that were discarded due
        to overrun errors."
    ::= { lportEntry 382 }

lportInFrameErrors OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The total number of inbound
frames that were discarded due
        to not an exact number of octets."
    ::= { lportEntry 383 }

lportInAbortErrors OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

```

        "The total number of inbound
frames that were discarded due
        to frame abort."
    ::= { lportEntry 384 }

lportInLongErrThreshold OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Send trap if the total number of
inbound frames that were
        discarded due to length exceeds
this in a minute interval.
        Zero value implies no check. "
    ::= { lportEntry 385 }

lportInCRCErrThreshold OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Send trap if the total number of
inbound frames that were
        discarded due to invalid CRC
exceeds this in a minute
        interval. Zero value implies no
check. "
    ::= { lportEntry 386 }

lportInOverrunErrThreshold OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Send trap if the total number of
inbound frames that were
        discarded due to overrun errors
exceeds this in a minute
        interval. Zero value implies no
check. "
    ::= { lportEntry 387 }

lportInFrameErrThreshold OBJECT-TYPE
    SYNTAX      INTEGER

```

```

ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "Send trap if the total number of
inbound frames that were
discarded due to not an exact
number of octets exceeds
this in a minute interval. Zero
value implies no check. "
    ::= { lportEntry 388 }

lportInAbortErrThreshold OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Send trap if the total number of
inbound frames that were
discarded due to frame abort
exceeds this in a minute
interval. Zero value implies no
check. "
    ::= { lportEntry 389 }

lportHoldQFrameMemory OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The frame memory utilization, in
terms of bytes, currently
on the Hold Queues for this
lport."
    ::= { lportEntry 390 }

lportBertPatternDetected OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The Bert Pattern detected at the
lport."
    ::= { lportEntry 391 }

lportAllowVfrtNegative OBJECT-TYPE

```

```

SYNTAX      INTEGER
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "Ascend switches reroute circuits
in response to trunk
failure. In doing so, Ascend
switches will allow only
non real time
bandwidths(UFR,UBR,...) on the trunk
to go negative. By setting this
variable to 1 on
trk lport, Ascend switch will also
allow VFR-RT bw go
negative on trunk failure reroute
of circuits. 0
wouldn't allow it to go negative."
    DEFVAL { 0 }
    ::= { lportEntry 392 }

lportNumPVC OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of PVCs going to or
through a particular
port."
    ::= { lportEntry 393 }

lportNumSVC OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of SVCs and SPVCs going to
or through a particular
port."
    ::= { lportEntry 394 }

lportResilientLmiAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled(1),
        enabled(2)
    }
    ACCESS      read-write
    STATUS      mandatory

```

```

DESCRIPTION
    "Resilient LMI enable/disable."
DEFVAL { disabled }
::= { lportEntry 395 }

lportResilientLmiMaxFullStatusAttempts OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "For 'master' resilient LMI
operation, this is the number
        of LMI Full Status Enquiry
attempts used to bring up the
        working interface. The value is
Nattempt, where the
        interval for attempting Full
Status exchange is equal to
        (Nattempt x N391 x T391). This
value must be greater
        than 0."
    DEFVAL { 3 }
    ::= { lportEntry 396 }

lportResilientLmiOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        none (1),
        idle (2),
        workingInit (3),
        workingDown (4),
        workingUp (5),
        protectInit (6),
        protectDown (7),
        protectUp (8)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Resilient LMI operational state."
    ::= { lportEntry 397 }

lportTrkIpArea OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS      read-write
    STATUS      mandatory

```

```

DESCRIPTION
    "The OSPF Area ID used when
exchanging IP routing
        information over the trunk."
    ::= { lportEntry 398 }

lportTrkIpCost OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Cost of the trunk when used to
route IP traffic.
        If the cost is set to 0, IP
routing is disabled
        over the trunk. Otherwise, the IP
cost of the trunk
        varies between 1 and 65,535,
inclusive."
    ::= { lportEntry 399 }

lportFrameCIRPolicing OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Enable/Disable frame CIR
policing."
    DEFVAL { enabled }
    ::= { lportEntry 400 }

lportResilientLmiFullStatusAttempts OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "For 'master' resilient LMI operation,
this is the number
        of LMI Full Status Enquiry attempts made
so far to bring up
        the working interface."
    ::= { lportEntry 401 }

```



```

        in MIB-II."
 ::= { lport 2 }

lportPriBwEntry OBJECT-TYPE
    SYNTAX      LportPriBwEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The logical port priority
        bandwidth entry contains
        objects relevant to priority
        bandwidth classes on a
        logical port."
    INDEX      { lportPriBwIfIndex,
lportPriBwClass }
    ::= { lportPriBwTable 1 }

LportPriBwEntry ::=
    SEQUENCE {
        lportPriBwIfIndex
            Index,
        lportPriBwClass
            Index,
        lportPriBwNumVC
            Counter,
        lportPriBwAlloc
            INTEGER
    }

lportPriBwIfIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The ifIndex value of the
        corresponding ifEntry."
    ::= { lportPriBwEntry 1 }

lportPriBwClass OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The priority bandwidth class."
    ::= { lportPriBwEntry 2 }

```

```

lportPriBwNumVC OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of VCs of this
        interface/class/qos."
    ::= { lportPriBwEntry 4 }

lportPriBwAlloc OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The amount of virtual bandwidth
        allocated by the
        VCs of this interface/class/qos."
    ::= { lportPriBwEntry 5 }

--
-- The Network Traffic Management table.
-- This table contains NTM statistics per GR-1248.
--

lportNtmTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF LportNtmEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of Network Traffic
        Management statistics for
        a logical port on an IOM."
    ::= { lport 3 }

lportNtmEntry OBJECT-TYPE
    SYNTAX      LportNtmEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A record of Network Traffic
        Management statistics
        for a logical port on an IOM."
    INDEX { lportNtmIfIndex, lportNtmHistIndex }
    ::= { lportNtmTable 1 }

```

LportNtmEntry ::=	SEQUENCE {	lportNtmIfIndex	Index,	ACCESS read-only	STATUS mandatory	DESCRIPTION	"An index of the Network Traffic Management history."
		lportNtmHistIndex	INTEGER,	::= { lportNtmEntry 2 }			
		lportNtmTimeStamp	INTEGER,	lportNtmTimeStamp OBJECT-TYPE	SYNTAX INTEGER		
		lportNtmOutDiscardCells	INTEGER,	ACCESS read-only	STATUS mandatory		
		lportNtmInMcl0	INTEGER,	DESCRIPTION	"For the current counts		
		lportNtmEnterMcl0	INTEGER,	(lportNtmHistIndex of 1),	time elapsed in the current 5-		
		lportNtmInMcl1	INTEGER,	minute NTM collection	interval. For the history counts		
		lportNtmEnterMcl1	INTEGER,	(lportNtmHistIndex	of 2 to 4), timestamp at the end		
		lportNtmInMcl2	INTEGER,	of 5-minute NTM	collection interval. Resolution		
		lportNtmEnterMcl2	INTEGER,	is 1 second."	::= { lportNtmEntry 3 }		
		lportNtmInMcl3	INTEGER,	lportNtmOutDiscardCells OBJECT-TYPE	SYNTAX INTEGER		
		lportNtmEnterMcl3	INTEGER	ACCESS read-only	STATUS mandatory		
	}	DESCRIPTION					
lportNtmIfIndex OBJECT-TYPE	SYNTAX	Index	"A count of the outgoing CLP=0+1				
	ACCESS	read-only	user and OAM cells				
	STATUS	mandatory	discarded within the Network				
	DESCRIPTION	Traffic Management					
		"The ifIndex value of the	5-minute interval."				
corresponding ifEntry."		::= { lportNtmEntry 4 }					
		::= { lportNtmEntry 1 }					
lportNtmHistIndex OBJECT-TYPE	SYNTAX	INTEGER {	lportNtmInMcl0 OBJECT-TYPE				
		current (1),	SYNTAX INTEGER				
		history1 (2),	ACCESS read-only				
		history2 (3),	STATUS mandatory				
		history3 (4)	DESCRIPTION				
	}	"A number of times the smoothed					
		Measure of Congestion					
		is in Machine Congestion Level					
		#0. Counts the number					


```

of 20 ms periods within the
Network Traffic Management
5-minute interval."
 ::= { lportNtmEntry 5 }

lportNtmEnterMcl0 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion
        enters Machine Congestion Level
#0. Counts the number of
        20 ms periods within the Network
Traffic Management
        5-minute collection interval."
 ::= { lportNtmEntry 6 }

lportNtmInMcl1 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion
        is in Machine Congestion Level
#1. Counts the number
        of 20 ms periods within the
Network Traffic Management
        5-minute interval."
 ::= { lportNtmEntry 7 }

lportNtmEnterMcl1 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion
        enters Machine Congestion Level
#1. Counts the number of
        20 ms periods within the Network
Traffic Management
        5-minute collection interval."

```

```

 ::= { lportNtmEntry 8 }

lportNtmInMcl2 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion
        is in Machine Congestion Level
#2. Counts the number
        of 20 ms periods within the
Network Traffic Management
        5-minute interval."
 ::= { lportNtmEntry 9 }

lportNtmEnterMcl2 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion
        enters Machine Congestion Level
#2. Counts the number of
        20 ms periods within the Network
Traffic Management
        5-minute collection interval."
 ::= { lportNtmEntry 10 }

lportNtmInMcl3 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion
        is in Machine Congestion Level
#3. Counts the number
        of 20 ms periods within the
Network Traffic Management
        5-minute interval."
 ::= { lportNtmEntry 11 }

lportNtmEnterMcl3 OBJECT-TYPE

```

```

SYNTAX  INTEGER
ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "A number of times the smoothed
Measure of Congestion
    enters Machine Congestion Level
#3. Counts the number of
    20 ms periods within the Network
Traffic Management
    5-minute collection interval."
    ::= { lportNtmEntry 12 }

--
-- The Network Data Collection table.
-- This table contains NDC statistics per GR-1248.
--

lportNdcTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF LportNdcEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "A list of Network Data Collection
statistics for
        a logical port on an IOM."
    ::= { lport 4 }

lportNdcEntry OBJECT-TYPE
    SYNTAX  LportNdcEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "A record of Network Data
Collection statistics for
        a logical port on an IOM."
    INDEX { lportNdcIfIndex, lportNdcHistIndex }
    ::= { lportNdcTable 1 }

LportNdcEntry ::=
    SEQUENCE {
        lportNdcIfIndex
            Index,
        lportNdcHistIndex
            INTEGER,

```

```

        lportNdcTimeStamp
            INTEGER,
        lportNdcInCells
            INTEGER,
        lportNdcOutCells
            INTEGER,
        lportNdcOutDiscardCells
            INTEGER,
        lportNdcInMc10
            INTEGER,
        lportNdcEnterMc10
            INTEGER,
        lportNdcInMc11
            INTEGER,
        lportNdcEnterMc11
            INTEGER,
        lportNdcInMc12
            INTEGER,
        lportNdcEnterMc12
            INTEGER,
        lportNdcInMc13
            INTEGER,
        lportNdcEnterMc13
            INTEGER
    }

lportNdcIfIndex OBJECT-TYPE
    SYNTAX  Index
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The ifIndex value of the
corresponding ifEntry."
    ::= { lportNdcEntry 1 }

lportNdcHistIndex OBJECT-TYPE
    SYNTAX  INTEGER {
        current (1),
        history1 (2),
        history2 (3)
    }
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

        "An index of the Network Data
Collection history."
        ::= { lportNdcEntry 2 }

lportNdcTimeStamp OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "For the current counts
(lportNDChistIndex of 1),
minute NDC collection
interval. For the history counts
(lportNDChistIndex
of 2 to 3), timestamp at the end
of 15-minute NDC
collection interval. Resolution
is 1 second."
        ::= { lportNdcEntry 3 }

lportNdcInCells OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A count of the incoming CLP=0+1
user and OAM cells
received within the Network Data
Collection
15-minute interval."
        ::= { lportNdcEntry 4 }

lportNdcOutCells OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A count of the outgoing CLP=0+1
user and OAM
cells transmitted within the
Network Data Collection
15-minute interval."
        ::= { lportNdcEntry 5 }

```

```

lportNdcOutDiscardCells OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A count of the outgoing CLP=0+1
user and OAM
cells discarded within the
Network Data Collection
15-minute interval."
        ::= { lportNdcEntry 6 }

lportNdcInMcl0 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion
is in Machine Congestion Level
#0. Counts the number
of 20 ms periods within the
Network Data Collection
15-minute interval."
        ::= { lportNdcEntry 7 }

lportNdcEnterMcl0 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion
enters Machine Congestion Level
#0. Counts the number
of 20 ms periods within the
Network Data Collection
15-minute interval."
        ::= { lportNdcEntry 8 }

lportNdcInMcl1 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "A number of times the smoothed
Measure of Congestion      is in Machine Congestion Level
#1. Counts the number      enters Machine Congestion Level
        of 20 ms periods within the
Network Data Collection    15-minute interval."
        ::= { lportNdcEntry 9 }

lportNdcEnterMc11 OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion      enters Machine Congestion Level
#1. Counts the number      of 20 ms periods within the
Network Data Collection    15-minute interval."
        ::= { lportNdcEntry 10 }

lportNdcInMc12 OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion      is in Machine Congestion Level
#2. Counts the number      of 20 ms periods within the
Network Data Collection    15-minute interval."
        ::= { lportNdcEntry 11 }

lportNdcEnterMc12 OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion

```

```

        enters Machine Congestion Level
#2. Counts the number      of 20 ms periods within the
Network Data Collection    15-minute interval."
        ::= { lportNdcEntry 12 }

lportNdcInMc13 OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion      is in Machine Congestion Level
#3. Counts the number      of 20 ms periods within the
Network Data Collection    15-minute interval."
        ::= { lportNdcEntry 13 }

lportNdcEnterMc13 OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "A number of times the smoothed
Measure of Congestion      enters Machine Congestion Level
#3. Counts the number      of 20 ms periods within the
Network Data Collection    15-minute interval."
        ::= { lportNdcEntry 14 }

--
--      The variables that configure and monitor
circuits on a port.
--

cktTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CktEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION

```

"A table containing information
about specific DLCIs, channels
and corresponding circuits."
::= { ckt 1 }

cktEntry OBJECT-TYPE

SYNTAX CktEntry

ACCESS not-accessible

STATUS mandatory

DESCRIPTION

"The information regarding a

single Data Link

Connection Identifier."

INDEX { cktSrcIfIndex, cktSrcDlci }

::= { cktTable 1 }

CktEntry ::=

SEQUENCE {

cktSrcIfIndex

Index,

cktSrcDlci

INTEGER,

cktPriority

INTEGER,

cktCir

INTEGER,

cktBc

INTEGER,

cktBe

INTEGER,

cktDestNodeId

INTEGER,

cktDestIfIndex

INTEGER,

cktDestDlci

INTEGER,

cktTos

INTEGER,

cktOde

INTEGER,

cktAdminStatus

INTEGER,

cktCreationTime

TimeTicks,

cktLastTimeChange

TimeTicks,

cktVcState

INTEGER,

cktDceState

INTEGER,

cktDteStatus

INTEGER,

cktRnr

INTEGER,

cktNiDown

INTEGER,

cktDteState

INTEGER,

cktOperStatus

INTEGER,

cktOutForward

INTEGER,

cktRerouteCnt

INTEGER,

cktVcPtr

DisplayString,

cktHopCnt

INTEGER,

cktPath

DisplayString,

cktFailReason

INTEGER,

cktFailNode

INTEGER,

cktFailPort

INTEGER,

cktMcastGroupId

INTEGER,

cktMcastMemberList

OCTET STRING,

cktMcastParentGroups

OCTET STRING,

cktInFrames

Counter,

cktInDEFrames

Counter,

cktInODEFrames

Counter,

cktInFECNFrames

Counter,

cktInBECNFrames
Counter,
cktInDiscards
Counter,
cktInOctets
Counter,
cktInDEOctets
Counter,
cktInODEOctets
Counter,
cktOutFrames
Counter,
cktOutDEFrames
Counter,
cktOutODEFrames
Counter,
cktOutFECNFrames
Counter,
cktOutBECNFrames
Counter,
cktOutOctets
Counter,
cktOutDEOctets
Counter,
cktOutODEOctets
Counter,
cktOutLostFrames
Counter,
cktOutLostDEFrames
Counter,
cktOutLostODEFrames
Counter,
cktOutLostOctets
Counter,
cktOutLostDEOctets
Counter,
cktOutLostODEOctets
Counter,
cktRtMinDelay
INTEGER,
cktRtMaxDelay
INTEGER,
cktRtAvgDelay
INTEGER,
cktDiagTestId

INTEGER,
cktDiagTestRuns
INTEGER,
cktHelloCounter
INTEGER,
cktHelloAckCounter
INTEGER,
cktDefinedPath
OCTET STRING,
cktDefinedPathCount
INTEGER,
cktDefinedPathEnable
INTEGER,
cktDefinedPathAltOption
INTEGER,
cktUsingDefinedPath
INTEGER,
cktOCIRCCircuit
INTEGER,
cktNotVirgin
INTEGER,
cktInForward
INTEGER,
cktBtusSeg
INTEGER,
cktInSegmentsDiscards
Counter,
cktAtmVPI
INTEGER,
cktAtmVCI
INTEGER,
cktType
INTEGER,
cktSvcCallingParty
OCTET STRING,
cktSvcCalledParty
OCTET STRING,
cktSvcDuration
TimeTicks,
cktSvcCause
INTEGER,
cktXlatFlag
INTEGER,
cktDestLaddr
INTEGER,

cktSrcLaddr
INTEGER,
cktLoop
INTEGER,
cktRerouteBalance
INTEGER,
cktCallingBackup
INTEGER,
cktRCir
INTEGER,
cktAtmQoS
INTEGER,
cktAtmInCells
Counter,
cktAtmOutCells
Counter,
cktAtmInDiscardedClp0Cells
Counter,
cktAtmInDiscardedClp1Cells
Counter,
cktAtmVcType
INTEGER,
cktAtmPCR
INTEGER,
cktAtmSCR
INTEGER,
cktAtmMBS
INTEGER,
cktAtmInPassedClp0Cells
Counter,
cktAtmInPassedClp1Cells
Counter,
cktAtmInTaggedCells
Counter,
cktAtmOutClp0Cells
Counter,
cktAtmOutClp1Cells
Counter,
cktAtmRQoS
INTEGER,
cktAtmTfdType
INTEGER,
cktAtmRTfdType
INTEGER,
cktAtmTfdParam1

INTEGER,
cktAtmTfdParam2
INTEGER,
cktAtmTfdParam3
INTEGER,
cktAtmRTfdParam1
INTEGER,
cktAtmRTfdParam2
INTEGER,
cktAtmRTfdParam3
INTEGER,
cktAtmFrameIWF
INTEGER,
cktAtmUserPlane
INTEGER,
cktRBC
INTEGER,
cktRBe
INTEGER,
cktOamLoopbackDirection
INTEGER,
cktOamLoopbackType
INTEGER,
cktOamLoopbackHops
INTEGER,
cktOamLoopbackCount
INTEGER,
cktOamLoopbackReceived
Counter,
cktOamLoopbackTimeouts
Counter,
cktOamLoopbackReceivedHigh
INTEGER,
cktOamLoopbackReceivedLow
INTEGER,
cktOamLoopbackReceivedAvg
INTEGER,
cktOamAlarmDisable
INTEGER,
cktShaperId
INTEGER,
cktReqCDV
INTEGER,
cktReqRCDV
INTEGER,

cktOutPort	INTEGER,	cktPrivateNetOverflow	INTEGER,
cktOutVc	INTEGER,	cktCustomerID	INTEGER,
cktrVc	INTEGER,	cktAtmCDVT	INTEGER,
cktEntryType	INTEGER,	cktNdcEnable	INTEGER,
cktDiagStr	OCTET STRING,	cktInterworkingFrToAtmCLP	INTEGER,
cktSvcAalType	INTEGER,	cktInterworkingFrToAtmDe	INTEGER,
cktSvcBBearerClass	INTEGER,	cktNrtsCLP1	INTEGER,
cktSvcBBearerClippingSusc	INTEGER,	cktNrtsDiscardClp0	Counter,
cktSvcBBearerTmgReq	INTEGER,	cktNrtsDiscardClp1	Counter,
cktSvcBBearerTfcType	INTEGER,	cktMPEnableAMF	INTEGER,
cktAtmUPCEnable	INTEGER,	cktMPEligible	INTEGER,
cktrPriority	INTEGER,	cktMPForcedCaller	INTEGER,
cktrRtPriority	INTEGER,	cktMPForcedCallee	INTEGER,
cktDeltaBc	INTEGER,	cktFrameSize	INTEGER,
cktDeltaBe	INTEGER,	cktrFrameSize	INTEGER,
cktDeltaRBc	INTEGER,	cktrNrtsCLP1	INTEGER,
cktDeltaRBe	INTEGER,	cktBBearerAtmTransferCapability	INTEGER,
cktRedFrPcnt	INTEGER,	cktAtmFrameDiscard	INTEGER,
cktRedFrRPcnt	INTEGER,	cktRAtmFrameDiscard	INTEGER,
cktRateEnforceSchm	INTEGER,	cktAbrFRMRTT	INTEGER,
cktRateEnforceRSchm	INTEGER,	cktAbrICR	INTEGER,
cktrOde	INTEGER,	cktrAbrICR	INTEGER,
cktPrivateNet			

cktAbrRIF
INTEGER,
cktrAbrRIF
INTEGER,
cktAbrRDF
INTEGER,
cktrAbrRDF
INTEGER,
cktAbrTBE
INTEGER,
cktrAbrTBE
INTEGER,
cktAbrNRM
INTEGER,
cktrAbrNRM
INTEGER,
cktAbrTRM
INTEGER,
cktrAbrTRM
INTEGER,
cktAbrCDF
INTEGER,
cktrAbrCDF
INTEGER,
cktAbrADTF
INTEGER,
cktrAbrADTF
INTEGER,
cktAccumCTD
INTEGER,
cktAccumCDV
INTEGER,
cktAccumRCDV
INTEGER,
cktCLR
INTEGER,
cktrCLR
INTEGER,
cktAtmLijId
INTEGER,
cktAtmLijType
INTEGER,
cktRtLastDelay
INTEGER,
cktRtAccuMinDelay

INTEGER,
cktRtAccuMaxDelay
INTEGER,
cktRtAccuAvgDelay
INTEGER,
cktQosIntPeriod
INTEGER,
cktAtmOutOAMClp0Cells
Counter,
cktAtmOutOAMClp1Cells
Counter,
cktReqCTD
INTEGER,
cktInOctetsPeak
Counter,
cktOutOctetsPeak
Counter,
cktInDEOctetsPeak
Counter,
cktOutDEOctetsPeak
Counter,
cktInODEOctetsPeak
Counter,
cktOutODEOctetsPeak
Counter,
cktAdminCostThreshold
INTEGER,
cktAtmSvcServiceCategory
INTEGER,
cktAtmSvcRServiceCategory
INTEGER,
cktInterworkingFrToAtmEFCI
INTEGER,
cktDiagSARMon
INTEGER,
cktAdminCostReal
INTEGER,
cktAtmInClp0Cells
Counter,
cktAtmInClp1Cells
Counter,
cktATMAAL5CRC32Error
Counter,
cktATMAAL5CPIError
Counter,

cktATMAAL5LengthError	Counter,	cktInUniSetDEFrames
Counter,	Counter,	Counter,
cktATMAAL5ReassemblyTimerError	Counter,	cktInUniSetDEOctets
Counter,	Counter,	Counter,
cktATMAAL5MaxNrSegError	Counter,	cktInRcvBECNFrames
Counter,	Counter,	Counter,
cktIWF1490to1483Error	Counter,	cktInRcvBECNOctets
Counter,	Counter,	Counter,
cktIWF1490to1483LastBadHeader	DisplayString,	cktInUniSetBECNFrames
DisplayString,	Counter,	Counter,
cktIWF1483to1490Error	Counter,	cktInUniSetBECNOctets
Counter,	Counter,	Counter,
cktIWF1483to1490LastBadHeader	DisplayString,	cktOutXmitDEFrames
DisplayString,	Counter,	Counter,
cktRedir2ndNodeId	INTEGER,	cktOutXmitDEOctets
INTEGER,	Counter,	Counter,
cktRedir2ndIfIndex	INTEGER,	cktOutXmitNonDEFrames
INTEGER,	Counter,	Counter,
cktRedir2ndDlci	INTEGER,	cktOutXmitNonDEOctets
INTEGER,	Counter,	Counter,
cktRedirEndpointType	INTEGER,	cktOutUniSetFECNFrames
INTEGER,	Counter,	Counter,
cktRedirSwitchoverMode	INTEGER,	cktOutUniSetFECNOctets
INTEGER,	Counter,	Counter,
cktRedirSwitchoverReq	INTEGER,	cktOutUniDiscardDEFrames
INTEGER,	Counter,	Counter,
cktRedirSwitchoverLastAction	INTEGER,	cktOutUniDiscardDEOctets
INTEGER,	Counter,	Counter,
cktOperStatusNonZeroEnum	INTEGER,	cktOutUniDiscardNonDEFrames
INTEGER,	Counter,	Counter,
cktFailReasonNonZeroEnum	INTEGER,	cktOutUniDiscardNonDEOctets
INTEGER,	Counter,	Counter,
cktPrevFailReason	INTEGER,	cktInFECNOctets
INTEGER,	Counter,	Counter,
cktRedirSWOVReq	INTEGER,	cktInOctetDiscards
INTEGER,	Counter,	Counter,
cktRedirSWOVLastAction	INTEGER,	
INTEGER,		
cktInRcvDEFrames	Counter,	
Counter,		
cktInRcvDEOctets	Counter,	
Counter,		
cktInRcvNonDEFrames	Counter,	
Counter,		
cktInRcvNonDEOctets		

```

}

cktSrcIfIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

"The ifIndex value of the corresponding ifEntry. The ifEntry must be of type supporting this circuit. The lportProtocol must be either fr or some other valid UNI/NNI."

```
 ::= { cktEntry 1 }
```

cktSrcDlci OBJECT-TYPE

SYNTAX	INTEGER																								
ACCESS	read-only																								
STATUS	mandatory																								
DESCRIPTION	"The DLCI used as the key for the circuit. For local DLCI significance, this is the local DLCI. For Global DLCI significance, this is the remote DLCI. For ATM circuits, the VPI (most significant 16 bits) and VCI (least significant 16 bits) are concatenated to form this value. Significant bounds for setting this index are based on the LMI rev type on this ifEntry: <table border="0"> <tr> <td></td> <td>Lower</td> <td>Upper</td> <td>Type</td> </tr> <tr> <td></td> <td>0</td> <td>4096</td> <td>Disabled</td> </tr> <tr> <td></td> <td>16</td> <td>1007</td> <td>LMIREV1</td> </tr> <tr> <td></td> <td>16</td> <td>991</td> <td>All</td> </tr> </table> other FR types." <pre> ::= { cktEntry 2 }</pre> cktPriority OBJECT-TYPE <table border="0"> <tr> <td>SYNTAX</td> <td>INTEGER</td> </tr> <tr> <td>ACCESS</td> <td>read-write</td> </tr> <tr> <td>STATUS</td> <td>mandatory</td> </tr> <tr> <td>DESCRIPTION</td> <td>"The priority level (0 through 3) for this circuit. When port service type is defined as 'mono-class', this priority means the forward priority of the circuit. </td> </tr> </table>		Lower	Upper	Type		0	4096	Disabled		16	1007	LMIREV1		16	991	All	SYNTAX	INTEGER	ACCESS	read-write	STATUS	mandatory	DESCRIPTION	"The priority level (0 through 3) for this circuit. When port service type is defined as 'mono-class', this priority means the forward priority of the circuit.
	Lower	Upper	Type																						
	0	4096	Disabled																						
	16	1007	LMIREV1																						
	16	991	All																						
SYNTAX	INTEGER																								
ACCESS	read-write																								
STATUS	mandatory																								
DESCRIPTION	"The priority level (0 through 3) for this circuit. When port service type is defined as 'mono-class', this priority means the forward priority of the circuit.																								

When port service type is defined as 'multi-class', this priority means the discard priority of the circuit. "

```
 ::= { cktEntry 3 }
```

cktCir OBJECT-TYPE

SYNTAX	INTEGER																
ACCESS	read-write																
STATUS	mandatory																
DESCRIPTION	"The average number of user data (bits) that the network agrees to transfer over the circuit in one direction, measured over the measurement interval T = cktBc/cktCir." <pre> ::= { cktEntry 4 }</pre> cktBc OBJECT-TYPE <table border="0"> <tr> <td>SYNTAX</td> <td>INTEGER</td> </tr> <tr> <td>ACCESS</td> <td>read-write</td> </tr> <tr> <td>STATUS</td> <td>mandatory</td> </tr> <tr> <td>DESCRIPTION</td> <td>"The maximum amount of data (bits) that the network agrees to transfer over the circuit under normal conditions, during the measurement interval." <pre> ::= { cktEntry 5 }</pre> cktBe OBJECT-TYPE <table border="0"> <tr> <td>SYNTAX</td> <td>INTEGER</td> </tr> <tr> <td>ACCESS</td> <td>read-write</td> </tr> <tr> <td>STATUS</td> <td>mandatory</td> </tr> <tr> <td>DESCRIPTION</td> <td>"The maximum amount of uncommitted data (bits) that the network will attempt to transfer over the circuit during the measurement interval. By default, if not configured when creating the entry, the Excess Information Burst Size is set to the value of ifSpeed." </td> </tr> </table> </td></tr></table>	SYNTAX	INTEGER	ACCESS	read-write	STATUS	mandatory	DESCRIPTION	"The maximum amount of data (bits) that the network agrees to transfer over the circuit under normal conditions, during the measurement interval." <pre> ::= { cktEntry 5 }</pre> cktBe OBJECT-TYPE <table border="0"> <tr> <td>SYNTAX</td> <td>INTEGER</td> </tr> <tr> <td>ACCESS</td> <td>read-write</td> </tr> <tr> <td>STATUS</td> <td>mandatory</td> </tr> <tr> <td>DESCRIPTION</td> <td>"The maximum amount of uncommitted data (bits) that the network will attempt to transfer over the circuit during the measurement interval. By default, if not configured when creating the entry, the Excess Information Burst Size is set to the value of ifSpeed." </td> </tr> </table>	SYNTAX	INTEGER	ACCESS	read-write	STATUS	mandatory	DESCRIPTION	"The maximum amount of uncommitted data (bits) that the network will attempt to transfer over the circuit during the measurement interval. By default, if not configured when creating the entry, the Excess Information Burst Size is set to the value of ifSpeed."
SYNTAX	INTEGER																
ACCESS	read-write																
STATUS	mandatory																
DESCRIPTION	"The maximum amount of data (bits) that the network agrees to transfer over the circuit under normal conditions, during the measurement interval." <pre> ::= { cktEntry 5 }</pre> cktBe OBJECT-TYPE <table border="0"> <tr> <td>SYNTAX</td> <td>INTEGER</td> </tr> <tr> <td>ACCESS</td> <td>read-write</td> </tr> <tr> <td>STATUS</td> <td>mandatory</td> </tr> <tr> <td>DESCRIPTION</td> <td>"The maximum amount of uncommitted data (bits) that the network will attempt to transfer over the circuit during the measurement interval. By default, if not configured when creating the entry, the Excess Information Burst Size is set to the value of ifSpeed." </td> </tr> </table>	SYNTAX	INTEGER	ACCESS	read-write	STATUS	mandatory	DESCRIPTION	"The maximum amount of uncommitted data (bits) that the network will attempt to transfer over the circuit during the measurement interval. By default, if not configured when creating the entry, the Excess Information Burst Size is set to the value of ifSpeed."								
SYNTAX	INTEGER																
ACCESS	read-write																
STATUS	mandatory																
DESCRIPTION	"The maximum amount of uncommitted data (bits) that the network will attempt to transfer over the circuit during the measurement interval. By default, if not configured when creating the entry, the Excess Information Burst Size is set to the value of ifSpeed."																

```

        ::= { cktEntry 6 }

cktDestNodeId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The destination node ID for this
circuit."
    ::= { cktEntry 7 }

cktDestIfIndex OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The interface identifier at the
destination node for this
circuit."
    ::= { cktEntry 8 }

cktDestDlci OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The DLCI which is the destination
of the key DLCI. For
local DLCI significance, this is
the remote DLCI since the
key DLCI is the local DLCI. For
global significance, this is
the local DLCI since the key DLCI
is the remote DLCI.
For ATM circuits, the VPI (most
significant 16 bits)
and VCI (least significant 16
bits) are concatenated to form
this value."
    ::= { cktEntry 9 }

cktTos OBJECT-TYPE
    SYNTAX      INTEGER {
        committed (1),
        shared (2)

```

```

    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The type of service for the
circuit. Only committed is
supported in the FCS."
    ::= { cktEntry 10 }

cktOde OBJECT-TYPE
    SYNTAX      INTEGER {
        off (0),
        on (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This variable states whether
graceful discard is enabled
for the ckt."
    ::= { cktEntry 11 }

cktAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        invalid (0),
        down (1),
        up (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The desired state of the ckt."
    DEFVAL { up }
    ::= { cktEntry 12 }

cktCreationTime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The value of sysUpTime when the
circuit was created
(activated)."
    ::= { cktEntry 13 }

```

```

cktLastTimeChange OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The sysUpTime value when the
circuit was last changed to
        the current state."
    ::= { cktEntry 14 }

cktVcState OBJECT-TYPE
    SYNTAX      INTEGER {
        invalid (0),
        inactive (1),
        retry (2),
        calling (3),
        wcbdeact(4),
        wcbdelete(5),
        active (6),
        svcall (7),
        svclr (8),
        backedup (9),
        wcbbkdp (10),
        wcbreact (11),
        slowretry (12)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current state of the PVC
segment in the Cascade network."
    ::= { cktEntry 15 }

cktDceState OBJECT-TYPE
    SYNTAX      INTEGER {
        invalid (0),
        inactive (1),
        active (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The DCE state of the circuit."
    ::= { cktEntry 16 }

```

```

cktDteStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        invalid (0),
        inactive (1),
        active (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The DTE status of the circuit."
    ::= { cktEntry 17 }

cktRnr OBJECT-TYPE
    SYNTAX      INTEGER {
        recvnotready (1),
        recvready (0)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The receiver's readiness for
accepting data flow."
    ::= { cktEntry 18 }

cktNiDown OBJECT-TYPE
    SYNTAX      INTEGER {
        niup (0),
        nidown (1)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The state of the network
interface."
    ::= { cktEntry 19 }

cktDteState OBJECT-TYPE
    SYNTAX      INTEGER {
        invalid (0),
        inactive (1),
        active (2)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "The DTE state of the circuit."
        ::= { cktEntry 20 }

cktOperStatus OBJECT-TYPE
    SYNTAX      INTEGER {
                    invalid (0),
                    inactive (1),
                    active (2)
                }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current operational status of
the entire PVC."
        ::= { cktEntry 21 }

cktOutForward OBJECT-TYPE
    SYNTAX      INTEGER {
                    off (0),
                    on (1)
                }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "If the value is 1, it means the
outbound flow is on."
        ::= { cktEntry 22 }

cktRerouteCnt OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The reroute count."
        ::= { cktEntry 23 }

cktVcPtr OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "An 8-byte Octect string
indicating the vc pointer."
        ::= { cktEntry 24 }

```

```

cktHopCnt OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The count of hops along the
circuit path. (Max is 16)"
        ::= { cktEntry 25 }

cktPath OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The circuit path consisting a
sequence of outbound interface
indexes at nodes along the
established circuit. The format is
interface:interface:interface:....."
        ::= { cktEntry 26 }

cktFailReason OBJECT-TYPE
    SYNTAX      INTEGER {
                    none (0),
                    adminDown (1),
                    noVcBuff (2),
                    noBW (3),
                    noRoute (4),
                    timeout (5),
                    noDupBuff (6),
                    noDest (7),
                    trkRnr (8),
                    trkDown (9),
                    balancereroute (10),
                    dead (11),
                    defpathreroute (12),
                    niDown (13),
                    otherpvcsegdown (14),
                    otherpvcsegrnr (15),
                    usingaltpathwarning (16),
                    iopdown (17),
                    numsgbuffer (18),
                    noPort (19),
                    misconfig (20),

```

```

        svcsetupfail(21),
        srcbackedup(22),
        srcunknown(23),
        dstunknown(24),
        bkpdldcollision(25),
        oldrevinpath(26),
        smdsmgmttrunk(27),
        nevercalled(28),
        bothendptbackup(29),
        pvcroutemgttrunk(30),
        nomultipointparent(31),
        pvcroutefail(32),
        novpivci(33),
        svcuserclear(34),
        pathregfailed(35),
        noatmchan(36),
        norevbw(37),
        internalreset(38),
        highprivcinpath(39),
        nopribw(40)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The reason for the PVC
establishment failure."
    ::= { cktEntry 27 }

cktFailNode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The node which causes the PVC
failure."
    ::= { cktEntry 28 }

cktFailPort OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The port on the fail node which
causes the PVC failure."
    ::= { cktEntry 29 }

```

```

cktMcastGroupId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Multicast group identifier
(1..32).
                This field is 0 for unicast PVCs."
    ::= { cktEntry 30 }

cktMcastMemberList OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "A list of operations and the
affected unicast DLCIs (lportId,
                    cktId)s in a multicast group. The
syntax is as follows:
[op:dlci,dlci,...,op:dlci,dlci,...] where op can either be
                    delete (0) or add (1)"
    ::= { cktEntry 31 }

cktMcastParentGroups OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "An 8-byte Octect string
indicating the parent groups this
                    DLCI belongs to."
    ::= { cktEntry 32 }

cktInFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The number of inbound frames
since the last reset."
    ::= { cktEntry 33 }

cktInDEFrames OBJECT-TYPE

```

```

SYNTAX      Counter
ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "The number of inbound DE-marked
frames since the last reset."
    ::= { cktEntry 34 }

cktInODEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound ODE-marked
frames since the last reset."
        ::= { cktEntry 35 }

cktInFECNFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound frames
indicating forward congestion
since the last reset."
        ::= { cktEntry 36 }

cktInBECNFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound frames
indicating backward congestion
since the last reset."
        ::= { cktEntry 37 }

cktInDiscards OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Number of inbound frames
discarded by rate enforcement."
        ::= { cktEntry 38 }

```

```

cktInOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound octets
since the last reset."
        ::= { cktEntry 39 }

cktInDEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound DE-marked
octets since the last reset."
        ::= { cktEntry 40 }

cktInODEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound ODE-marked
octets since the last reset."
        ::= { cktEntry 41 }

cktOutFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound frames
since the last reset."
        ::= { cktEntry 42 }

cktOutDEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound DE-marked
frames since the last reset."
        ::= { cktEntry 43 }

```



```

cktOutODEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound ODE-marked
frames since the last reset."
    ::= { cktEntry 44 }

cktOutFECNFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound FECN-
marked frames since the last
reset."
    ::= { cktEntry 45 }

cktOutBECNFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound BECN-
marked frames since the last
reset."
    ::= { cktEntry 46 }

cktOutOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound octets
since the last reset."
    ::= { cktEntry 47 }

cktOutDEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "The number of outbound DE-marked
octets since the last reset."
    ::= { cktEntry 48 }

cktOutODEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound ODE-marked
octets since the last reset."
    ::= { cktEntry 49 }

cktOutLostFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound frames
that have been lost since the
last reset."
    ::= { cktEntry 50 }

cktOutLostDEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound DE-marked
frames that have been lost
since the last reset."
    ::= { cktEntry 51 }

cktOutLostODEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound ODE-marked
frames that have been lost
since the last reset."
    ::= { cktEntry 52 }

cktOutLostOctets OBJECT-TYPE
    SYNTAX      Counter

```

```

ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "The number of outbound octets
that have been lost since the
    last reset."
    ::= { cktEntry 53 }

```

```

cktOutLostDEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound DE-marked
octets that have been lost
        since the last reset."
    ::= { cktEntry 54 }

```

```

cktOutLostODEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound ODE-marked
octets that have been lost
        since the last reset."
    ::= { cktEntry 55 }

```

```

cktRtMinDelay OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The minimum round-trip delay
(micro-seconds)."
    ::= { cktEntry 56 }

```

```

cktRtMaxDelay OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The maximum round-trip delay
(micro-seconds)."
    ::= { cktEntry 57 }

```

```

cktRtAvgDelay OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The average round-trip delay
(micro-seconds)."
    ::= { cktEntry 58 }

```

```

cktDiagTestId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Identification for the
diagnostics tests to be run."
    ::= { cktEntry 59 }

```

```

cktDiagTestRuns OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Number of passes of the
diagnostics tests to be run.
        The default value is 1."
    ::= { cktEntry 60 }

```

```

cktHelloCounter OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Number of PVC hello pdu frames
received in the VC entry of the
        called side."
    ::= { cktEntry 61 }

```

```

cktHelloAckCounter OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "Number of PVC hello Ack pdu
frames received in the VC entry of the
        calling side."
        ::= { cktEntry 62 }

cktDefinedPath OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "User defined path. in the format
of Nx,x,x,Nx,.... If x is
        not prefixed with 'N', x is an
interface ID. If x is
        prefixed with `N`, x is a node
ID."
        ::= { cktEntry 63 }

cktDefinedPathCount OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "User defined path hop count."
        ::= { cktEntry 64 }

cktDefinedPathEnable OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "If set to 1, it means there is an
user defined path for this
        circuit and it is enabled."
        ::= { cktEntry 65 }

cktDefinedPathAltOption OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "If set to 1, it means that if the
user defined path fails,
        use the ospf-determined path."

```

```

        ::= { cktEntry 66 }

cktUsingDefinedPath OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "If set to 1, it indicates the PVC
is currently using the
        defined path."
        ::= { cktEntry 67 }

ckt0CIRCircuit OBJECT-TYPE
    SYNTAX      INTEGER {
        none (0),    -- Neither direction
        fwd  (1),    -- Only the forward
        rev  (2),    -- Only the reverse
        both (3)     -- Both forward and
reverse are 0 CIR
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Controls the interpretation of
the traffic parameters
        for 0 CIR Frame Relay circuits. 0
CIR circuits make use
        of CIR and rCIR in routing but
not in frame coloring."
        ::= { cktEntry 68 }

cktNotVirgin OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "If set to 1, it means this VC
entry has been successfully
        activated before."
        ::= { cktEntry 69 }

cktInForward OBJECT-TYPE

```


SYNTAX	TimeTicks		network-out-of-order(38), --
ACCESS	read-only		network out of order
STATUS	mandatory		temp-fail (41), --
DESCRIPTION	"The duration since the SVC circuit has been running."		access-info-discard(43), -- access
	::= { cktEntry 78 }		no-vcc-available(45), -- no
cktSvcCause	OBJECT-TYPE		VPCI/VCI unavailable
SYNTAX	INTEGER {		resources-unavailable(47), --
	unalloc-nmb (1), --		resources unavailable, unspecified
unallocated (unassigned)	number		qos-unavailable (49), -- Quality
	no-route-transnet(2), -- no		of Service unavailable
route to transit network			rate-unavailable-30(51), -- UNI
	no-route-dest (3), -- no		3.0: user cell rate unavailable
route to destination			b-cap-not-authorized(57), -- bearer
	vcc-unacceptable-30(10), -- UNI		capability not authorized
3.0: VPI/VCI unacceptable			b-cap-unavailable(58), -- bearer
	normal-call-clr-31(16), -- UNI		capability not available
3.1: normal call clearing			service-unavailable(63), -- Service
	user-busy (17), --		or option unavailable
user busy			b-cap-not-implemented(65), --
	no-user-response(18), -- no user		bearer capability not implemented
response			combination-unsupported (73), --
	call-reject (21), --		unsupported comb. of traffic parameters
call rejected			aal-params-un supp-31(78), -- UNI
	nmb-changed (22), --		3.1: AAL parameters cannot be supported
number changed			invalid-call-reference(81), --
	call-reject-clir(23), -- user		invalid call reference
rejects all calls with CLIR			no-channel (82), --
	dest-out-of-order(27), --		identified channel does not exist
destination out of order			dest-incompatible(88), --
	invalid-nmb-format(28), -- invalid		incompatible destination
number format			invalid-endpoint-ref(89), --
	response-stat-enq(30), --		invalid endpoint reference
response to STATUS ENQUIRY			invalid-transit-net(91), -- invalid
	normal-unspecified(31), -- normal		transit network selection
unspecified			too-many-add-pty-req(92), -- too
	req-vcc-unavailable(35), --		many add party requests
requested VPCI/VCI unavailable			aal-params-un supp-30(93), -- UNI
	vcc-fail-31 (36), --		3.0:AAL parameteres cannot be supported
UNI 3.1: VPCI/VCI assignment failure			info-element-missing(96), --
	rate-unavail-31 (37), -- UNI		mandatory info element is missing
3.1: user cell rate unavailable			msg-type-not-imp(97), -- message
			type not implemented

```

info-element-not-imp(99),-- info
element not implemented
invalid-info-element(100),--
invalid info element
message-not-compatible(101),-- msg
type not compatible with call st
timer-recovery (102),--
recovery on timer expiration
invalid-message-len(104),--
incorrect message length
protocol-error (111),--
protocol error, unspecified
optional-element-error(127)-- opt
info el content error (non-std)
}
ACCESS read-only
STATUS mandatory
DESCRIPTION
"SVC cause number."
::= { cktEntry 79 }

cktXlatFlag OBJECT-TYPE
SYNTAX INTEGER {
no-translation (0),
rfc1483 (1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"0 if RFC1490 or no translation; 1
if RFC1483 translation."
::= { cktEntry 80 }

cktDestLaddr OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The destination logical address
of the circuit."
::= { cktEntry 81 }

cktSrcLaddr OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write

```

```

STATUS mandatory
DESCRIPTION
"The source logical address of the
circuit."
::= { cktEntry 82 }

cktLoop OBJECT-TYPE
SYNTAX INTEGER {
disabled(0),
local(1),
remote(2),
both(3)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Setting this variable controls
the loopback status of the
given circuit endpoint."
::= { cktEntry 83 }

cktRerouteBalance OBJECT-TYPE
SYNTAX INTEGER {
enabled(0),
disabled(1)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"Setting this variable controls
the use of rerouting to
balance link usage."
::= { cktEntry 84 }

cktCallingBackup OBJECT-TYPE
SYNTAX INTEGER {
false(0),
true(1)
}
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Indicates if a caller endpoint is
calling a backup PVC."
::= { cktEntry 85 }

```

```

cktRCir OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The average number of user data
        (bits) that the network agrees
        to transfer over the circuit in
        the opposite direction,
        measured over the measurement
        interval T = cktBc/cktCir."
        ::= { cktEntry 86 }

cktAtmQoS OBJECT-TYPE
    SYNTAX INTEGER {
        cbr (1),
        vbr1 (2),
        vbr2 (3),
       ubr_abr (4),
        unspecified (5)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The Quality of Service of the
        ATM/Cascade QoS Frame Relay Circuit.
        Valid only for ATM/Cascade QoS
        Frame Relay type circuits. If an ATM
        SVC, this object represents the
        signaled QoS class value where:

        unspecified (5)      = QoS Class 0 (or not signaled),
                                cbr (1)=
        QoS Class 1,
                                vbr1 (2)=
        QoS Class 2,
                                vbr2 (3)=
        QoS Class 3,
                               ubr_abr(4)
        = QoS Class 4.
                                "
        ::= { cktEntry 87 }

cktAtmInCells OBJECT-TYPE

```

```

    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM cells received
    on a VC (VPC or VCC)."
        ::= { cktEntry 88 }

cktAtmOutCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM cells
    transmitted on a VC (VPC or VCC).. "
        ::= { cktEntry 89 }

cktAtmInDiscardedClp0Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM CLP 0 cells
    received and discarded on a VC (VPC or VCC).. For the BI01
    card (on Garnet Platform) the number of tagged cells is
    included in this count."
        ::= { cktEntry 90 }

cktAtmInDiscardedClp1Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM CLP 1 cells
    received and discarded on a VC (VPC or VCC). "
        ::= { cktEntry 91 }

cktAtmVcType OBJECT-TYPE
    SYNTAX      INTEGER {
        vpc (1),
        vcc (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "Type of ATM connection (VPC or
    VCC)."
        ::= { cktEntry 92 }

cktAtmPCR OBJECT-TYPE

```

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "The Peak Cell Rate measured in cells/second at which cells are transmitted for this circuit."
::= { cktEntry 93 }

cktAtmSCR OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "The Sustainable Cell Rate is the average transmission rate in cells per second for this circuit. It must be less than or or equal to the Peak Cell Rate."
::= { cktEntry 94 }

cktAtmMBS OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "The Maximum Burst size determines the maximum number of cells that can be transmitted at the peak cell rate."
::= { cktEntry 95 }

cktAtmInPassedClp0Cells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The Number of ATM CLP 0 cells received and passed UPC on a VC (VPC or VCC)."
::= { cktEntry 96 }

cktAtmInPassedClp1Cells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory

DESCRIPTION "The Number of ATM CLP 1 cells received and passed UPC on a VC (VPC or VCC)."
::= { cktEntry 97 }

cktAtmInTaggedCells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The Number of ATM cells received and tagged on a VC (VPC or VCC). For BIO1 card (on Garnet Platform), this count is not reported separately - see cktEntry 90."
::= { cktEntry 98 }

cktAtmOutClp0Cells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The Number of ATM CLP 0 cells transmitted on a VC (VPC or VCC).. For BIO1 card (on Garnet Platform), this count includes OAM CLP0 cells."
::= { cktEntry 99 }

cktAtmOutClp1Cells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The Number of ATM CLP 1 cells transmitted on a VC (VPC or VCC).. For BIO1 card (on Garnet Platform), this count includes OAM CLP1 cells."
::= { cktEntry 100 }

cktAtmRQoS OBJECT-TYPE
SYNTAX INTEGER {
cbr (1),
vbr1 (2),
vbr2 (3),
ubr_abr (4),
unspecified (5)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION "The Quality of Service of the ATM/Cascade QoS Frame Relay connection"


```

        ::= { cktEntry 107 }

cktAtmRTfdParam2 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The traffic descriptor parameter
        2 for opposite direction."
    ::= { cktEntry 108 }

cktAtmRTfdParam3 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The traffic descriptor parameter
        3 for opposite direction."
    ::= { cktEntry 109 }

cktAtmFrameIWF OBJECT-TYPE
    SYNTAX      INTEGER {
        default(1),
        iwf(2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Frame Relay/ATM Interworking
        Function indicator."
    ::= { cktEntry 110 }

cktAtmUserPlane OBJECT-TYPE
    SYNTAX      INTEGER {
        point-to-point(1),
        point-to-multipoint(2),
        unspecified(3)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Type of connectivity for this
        circuit."
    ::= { cktEntry 111 }

```

```

cktRBc OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The maximum amount of data (bits)
        that the network agrees
        to transfer over the circuit in
        the opposite direction under
        normal conditions, during the
        measurement interval."
    ::= { cktEntry 112 }

cktRBe OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The maximum amount of uncommitted
        data (bits) that the network
        will attempt to transfer over the
        circuit in the opposite direction
        during the measurement interval.
        By default, if not configured when
        creating the entry, the Excess
        Information Burst Size is set
        to the value of ifSpeed."
    ::= { cktEntry 113 }

cktOamLoopbackDirection OBJECT-TYPE
    SYNTAX      INTEGER {
        local(1),
        remote(2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Which direction to send the
        loopback cell. If 'local', send out this
        circuit entry's port. If
        'remote', send out the remote circuit
        entry's port."
    ::= { cktEntry 114}

```



```

ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "If disabled, then don't generate
oam alarms if this circuit is down."
    ::= { cktEntry 123}

```

```

cktShaperId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The shaper to be used for this virtual
connection interworking
        with frame relay:

        1-port ATM-IWU STM-1/STS-3c card
        -----

        Values: 1..16"
    ::= { cktEntry 124 }

```

```

cktReqCDV OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The requested cell delay
variation for this circuit, in microseconds.
        The range for PVC is 1 -
0x00FFFFFF. The default is 0x00FFFFFF, which
        means not valid."
    ::= { cktEntry 125 }

```

```

cktReqRCDV OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The requested reverse cell delay
variation for this circuit, in microseconds.
        The range for PVC is 1 -
0x00FFFFFF. The default is 0x00FFFFFF, which
        means not valid."
    ::= { cktEntry 126 }

```

```

cktOutPort OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The outgoing port number for the
adjacent VC entry in this switch."
    ::= { cktEntry 127 }

```

```

cktOutVc OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The adjacent VC entry
corresponding to this circuit across the bus."
    ::= { cktEntry 128 }

```

```

cktRVc OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The adjacent VC entry
corresponding to this circuit across the trunk."
    ::= { cktEntry 129 }

```

```

cktEntryType OBJECT-TYPE
    SYNTAX      INTEGER {
        fr-user(1),
        as-trunk(2),
        on-trunk(3),
        lmi(4),
        multicast(5),
        mgmt(6),
        smds(7),
        split-multicast(8),
        control(9),
        atm-user(10),
        atm-leaf(11)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "The internal type of circuit
entry allocated by the circuit manager."
        ::= { cktEntry 130 }

cktDiagStr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Internal diagnostic information."
        ::= { cktEntry 131 }

cktSvcAalType OBJECT-TYPE
    SYNTAX      INTEGER {
        aal1 (1),
        unspecified (2),
        aal3-4 (3),
        user-defined (4),
        aal5 (5)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The AAL type for this SVC."
        ::= { cktEntry 132 }

cktSvcBBearerClass OBJECT-TYPE
    SYNTAX      INTEGER {
        unspecified (1),
        class-A (2),
        class-C (3),
        class-X (4),
        class-VP (5)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The Broadband bearer capability
class for this SVC."
        ::= { cktEntry 133 }

cktSvcBBearerClippingSusc OBJECT-TYPE
    SYNTAX      INTEGER {
        unspecified (1),
        not-susceptible (2),

```

```

        susceptible (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The Broadband bearer capability
clipping susceptibility for this SVC."
        ::= { cktEntry 134 }

cktSvcBBearerTmgReq OBJECT-TYPE
    SYNTAX      INTEGER {
        not-indicated (1),
        end-to-end (2),
        not-end-to-end (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The Broadband bearer capability
timing requirements for this SVC."
        ::= { cktEntry 135 }

cktSvcBBearerTfctType OBJECT-TYPE
    SYNTAX      INTEGER {
        not-indicated (1),
        cbr (2),
        vbr (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The Broadband bearer capability
traffic type for this SVC."
        ::= { cktEntry 136 }

cktAtmUPCEnable OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Enable ATM UPC Function."
        ::= { cktEntry 137 }

```

cktRPriority OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The priority level (0 through 3) for this circuit in the opposite direction.

When port service type is defined as 'mono-class', this

priority means the forward priority of the circuit.

When port service type is defined as 'multi-class', this

priority means the discard priority of the circuit."

::= { cktEntry 138 }

cktRtPriority OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The routing priority level of the circuit which is a 8 bit

number where the 3-bit bumping priority is contained in bits

0-2 and the 4-bit bandwidth priority is contained in bits 3-6.

For ATM multipoint ckts, bw and bumping priorities should be zero."

::= { cktEntry 139 }

cktDeltaBc OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum number of bits that the network agree to transfer

over the circuit as committed bits during the measurement

interval under the CONDITION that the circuit still has POSITIVE

committed bit (Bc) credits before receiving a frame but will have

NEGATIVE Bc credits after accepting the frame. The range of this

variable is 0 to 65,528 bits. By default, if not configured when

creating the entry, it is set to 65,528 bits."

::= { cktEntry 140 }

cktDeltaBe OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum number of bits that the network agree to transfer

over the circuit as allowed excess bits during the measurement

interval under the CONDITION that the circuit still has POSITIVE

excess bit (Be) credits before receiving a frame but will have

NEGATIVE Be credits after accepting the frame. The range of this

variable is 0 to 65,528 bits. By default, if not configured when

creating the entry, it is set to 65,528 bits."

::= { cktEntry 141 }

cktDeltaRbc OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum number of bits that the network agree to transfer

over the circuit as committed bits in the opposite direction

during the measurement interval under the CONDITION that

the circuit still has POSITIVE committed bit (Bc) credits before

receiving a frame but will have

NEGATIVE Bc credits after
 accepting the frame. The range of this
 variable is 0 to 65,528 bits. By
 default, if not configured when
 creating the entry, it is set to
 65,528 bits."

::= { cktEntry 142 }

cktDeltaRBe OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"The maximum number of bits that
 the network agree to transfer
 over the circuit as allowed
 excess bits in the opposite
 direction during the measurement
 interval under the CONDITION that
 the circuit still has POSITIVE
 excess bit (Be) credits before
 receiving a frame but will have
 NEGATIVE Be credits after
 accepting the frame. The range of this
 variable is 0 to 65,528 bits. By
 default, if not configured when
 creating the entry, it is set to
 65,528 bits."

::= { cktEntry 143 }

cktRedFrPcnt OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"The percentage of RED frame bits
 that are allowed to enter the
 network, during the measurement
 interval, under non-congestion
 condition. Its value range is 0 -
 100 and default value is 100. Its
 calculation is as follows:

$$\text{cktRedFrPcn} = (\text{allowed RED frame bits}) / (\text{Bc} + \text{Be} + \text{allowed RED frame bits})"$$

::= { cktEntry 144 }

cktRedFrRPcnt OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"The percentage of RED frame bits
 that are allowed to enter the
 network in the opposite
 direction,
 during the measurement interval,
 under non-congestion
 condition. Its value range is 0 -
 100 and default value is 100.
 Its calculation is as follows:

$$\text{cktRedFrRPcn} = (\text{allowed RED frame bits}) / (\text{rBc} + \text{rBe} + \text{allowed RED frame bits})"$$

 ::= { cktEntry 145 }

cktRateEnforceSchm OBJECT-TYPE
 SYNTAX INTEGER {
 slide (0),
 jump (1),
 simple (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"Variable used to indicate the
 rate enforcement scheme employed.
 0: Slide window rate
 enforcement scheme
 1: Jump window rate
 enforcement scheme
 2: Simple rate enforcement
 scheme

Default value is 2."
 ::= { cktEntry 146 }

cktRateEnforceRSchm OBJECT-TYPE
 SYNTAX INTEGER {
 slide (0),
 jump (1),

```

simple (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "Variable used to indicate the
rate enforcement scheme employed
    in the opposite direction.
    0: Slide window rate
enforcement scheme
    1: Jump window rate
enforcement scheme
    2: Simple rate enforcement
scheme
    Default value is 2."
::= { cktEntry 147 }

cktRode OBJECT-TYPE
    SYNTAX      INTEGER {
        off (0),
        on (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This variable states whether
graceful discard is enabled
        for the ckt in the opposite
direction."
    ::= { cktEntry 148 }

cktPrivateNet OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "If non-zero, indicates the
private network that the
        circuit belongs to. If 0, the
circuit has access to the
        entire public portion of the
network."
    ::= { cktEntry 149 }

cktPrivateNetOverflow OBJECT-TYPE
    SYNTAX      INTEGER {

```

```

        restrict (0),
        use-public (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "Indicates how private network
circuits are handled,
        when the resources of the network
have become exhausted.
        If set to use-public, the
resources of the public network
        can be used during overflow
conditions."
    ::= { cktEntry 150 }

cktCustomerID OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "The Customer that owns this
circuit. For Virtual
        Private Networking Support."
    ::= { cktEntry 151 }

cktAtmCDVT OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The Cell Delay Variation Tolerance for the
VC"
    ::= { cktEntry 152 }

cktNdcEnable OBJECT-TYPE
    SYNTAX      INTEGER {
        off (1),
        on (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Enable/disable Network Data
Collection for a PVC on an IOM."

```


The number of NDC-monitored PVCs is limited as follows:

- 30 per DS3 interface, 90 per OC3 interface, and 360 per OC12 interface."

```

::= { cktEntry 153 }

cktInterworkingFrToAtmCLP OBJECT-TYPE
    SYNTAX  INTEGER {
        clp0  (0),
        clp1  (1),
        fr-de (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "CLP mapping for Frame Relay To
        ATM Service Interworking."
    ::= { cktEntry 154 }

cktInterworkingFrToAtmDe OBJECT-TYPE
    SYNTAX  INTEGER {
        de0    (0),
        de1    (1),
        atm-clp (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "DE bit mapping for ATM To Frame
        Relay Service Interworking."
    ::= { cktEntry 155 }

cktNrtsCLP1 OBJECT-TYPE
    SYNTAX  INTEGER {
        no (1),
        yes (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Whether to use the discard
        threshold as the CLP1
        Discard threshold upon reception
        of a cell by the NRTS

```

```

processor in the forward
direction."
::= { cktEntry 156 }

cktNrtsDiscardClp0 OBJECT-TYPE
    SYNTAX  Counter
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The number of the CLP0 cells
        received and discarded by the
        NRTS processor."
    ::= { cktEntry 157 }

cktNrtsDiscardClp1 OBJECT-TYPE
    SYNTAX  Counter
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The number of the CLP1 cells
        received and discarded by the
        NRTS processor."
    ::= { cktEntry 158 }

cktMPEnableAMF OBJECT-TYPE
    SYNTAX  INTEGER {
        disableAMF (1),
        enableAMF  (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Whether the Multilink PPP PVC
        Attributes Modification Feature
        is enabled."
    ::= { cktEntry 159 }

cktMPEligible OBJECT-TYPE
    SYNTAX  INTEGER {
        isMPEligible (1),
        isNotMPEligible (2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION

```

```

        "Whether this circuit is eligible
to be a member of a
        Multilink PPP bundle."
        ::= { cktEntry 160 }

cktMPForcedCaller OBJECT-TYPE
    SYNTAX      INTEGER {
        isMPForcedCaller (1),
        isNotMPForcedCaller (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Whether this end of the circuit
has been forced to be caller
        to support Multilink PPP PVC
Attributes Modification Feature."
        ::= { cktEntry 161 }

cktMPForcedCallee OBJECT-TYPE
    SYNTAX      INTEGER {
        isMPForcedCallee (1),
        isNotMPForcedCallee (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Whether this end of the circuit
has been forced to be callee
        to support Multilink PPP PVC
Attributes Modification Feature."
        ::= { cktEntry 162 }

cktFrameSize OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The average frame size (measured in
number of bytes) of the traffic
        on the circuit. If not
configured, it is set to 280 (bytes) by default."
        ::= { cktEntry 163 }

cktRFrameSize      OBJECT-TYPE

```

```

    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The average frame size (measured in
number of bytes) of the traffic
        on the circuit on the reverse direction.
If not configured, it is
        set to 280 (bytes) by default."
        ::= { cktEntry 164 }

cktRNrtsCLP1 OBJECT-TYPE
    SYNTAX      INTEGER {
        no (1),
        yes (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Whether to use the discard
threshold as the CLP1
        Discard threshold upon reception
of a cell by the NRTS
        processor in the reverse
direction."
        ::= { cktEntry 165 }

cktBBearerAtmTransferCapability OBJECT-TYPE
    SYNTAX      INTEGER {
        none (1),
        cbr (2),
        cbr-with-clr_01 (3),
        vbr-rt (4),
        vbr-rt-with-clr_01 (5),
        vbr-nrt (6),
        vbr-nrt-with-clr_01 (7),
        abr (8)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The broadband bearer ATM transfer
capability of this SVC. This object is
        not pertinent to IISP 3.x, UNI
3.x or Q.2931 signaling."

```

```

        ::= { cktEntry 166 }

cktAtmFrameDiscard OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The ATM frame discard state for
this circuit."
    DEFVAL { disabled }
    ::= { cktEntry 167 }

cktRatmFrameDiscard OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The reverse ATM frame discard
state for this circuit."
    DEFVAL { disabled }
    ::= { cktEntry 168 }

cktAbrFRMRTT OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The ABR fixed RM round trip time
for this SVC."
    ::= { cktEntry 169 }

cktAbrICR OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The ABR initial cell rate for
this SVC."
    ::= { cktEntry 170 }

```

```

cktRAbrICR OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The reverse ABR initial cell rate
for this SVC."
    ::= { cktEntry 171 }

cktAbrRIF OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The ABR rate increase factor for
this SVC."
    ::= { cktEntry 172 }

cktRAbrRIF OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The reverse ABR rate increase
factor for this SVC."
    ::= { cktEntry 173 }

cktAbrRDF OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The ABR rate decrease factor for
this SVC."
    ::= { cktEntry 174 }

cktRAbrRDF OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The reverse ABR rate decrease
factor for this SVC."
    ::= { cktEntry 175 }

```

cktAbrTBE OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The ABR transient buffer exposure for this SVC." ::= { cktEntry 176 }	SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The reverse ABR TRM for this SVC." ::= { cktEntry 181 }
cktRAbrTBE OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The reverse ABR transient buffer exposure for this SVC." ::= { cktEntry 177 }	cktAbrCDF OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The ABR CDF for this SVC." ::= { cktEntry 182 }
cktAbrNRM OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The ABR NRM for this SVC." ::= { cktEntry 178 }	cktRAbrCDF OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The reverse ABR CDF for this SVC." ::= { cktEntry 183 }
cktRAbrNRM OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The reverse ABR NRM for this SVC." ::= { cktEntry 179 }	cktAbrADTF OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The ABR ADTF for this SVC." ::= { cktEntry 184 }
cktAbrTRM OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The ABR TRM for this SVC." ::= { cktEntry 180 }	cktRAbrADTF OBJECT-TYPE SYNTAX INTEGER ACCESS read-only STATUS mandatory DESCRIPTION "The reverse ABR ADTF for this SVC." ::= { cktEntry 185 }
cktRAbrTRM OBJECT-TYPE	cktAccumCTD OBJECT-TYPE SYNTAX INTEGER ACCESS read-only

```

STATUS mandatory
DESCRIPTION
    "The accumulated cell(frame)
transfer delay for this circuit, in microseconds.
    The distinguished value 0x00FFFFFF
means not valid."
    ::= { cktEntry 186 }

cktAccumCDV OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The accumulated cell delay
variation for this circuit, in microseconds.
        The distinguished value 0x00FFFFFF
means not valid."
        ::= { cktEntry 187 }

cktAccumRCDV OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The accumulated reverse cell
delay variation for this circuit, in microseconds.
        The distinguished value 0x00FFFFFF
means not valid."
        ::= { cktEntry 188 }

cktCLR OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The cell loss ratio requirement,
expressed as a negative exponent of 10.
        The default value 255 represents
any cell loss ratio acceptable."
        ::= { cktEntry 189 }

cktRCLR OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory

```

```

DESCRIPTION
    "The reverse cell loss ratio
requirement, expressed as a negative exponent
    of 10. The default value 255
represents any cell loss ratio
    acceptable."
    ::= { cktEntry 190 }

cktAtmLijId OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Leaf Initiated Join ID of the
PMP SVC rooted at this interface."
        ::= { cktEntry 191 }

cktAtmLijType OBJECT-TYPE
    SYNTAX INTEGER {
        not-lij (1),          -- not a
PMP SVC                      root-lij (2),      -- network
LIJ disallowed              network-lij (3)      -- network
LIJ allowed                  }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Leaf Initiated Join type of
the PMP SVC rooted at this interface."
        ::= { cktEntry 192 }

cktRtLastDelay OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The last round-trip delay (micro-
seconds)."
        ::= { cktEntry 193 }

cktRtAccuMinDelay OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only

```

```

STATUS    mandatory
DESCRIPTION
    "The prev min round-trip delay (micro-
seconds)."
    ::= { cktEntry 194 }

cktRtAccuMaxDelay OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "The prev max round-trip delay (micro-
seconds)."
        ::= { cktEntry 195 }

cktRtAccuAvgDelay OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "The prev avg round-trip delay (micro-
seconds)."
        ::= { cktEntry 196 }

cktQosIntPeriod OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-write
    STATUS    mandatory
    DESCRIPTION
        "The number of periods for calculating qos
params."
        ::= { cktEntry 197 }

cktAtmOutOAMClp0Cells OBJECT-TYPE
    SYNTAX    Counter
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "The number of OAM CLP0 cells
transmitted on this circuit. For BIO1 card (on Garnet
Platform), this count is not reported separately - see
cktEntry 99. "
        ::= { cktEntry 198 }

cktAtmOutOAMClp1Cells OBJECT-TYPE

```

```

SYNTAX    Counter
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "The number of OAM CLP1 cells
transmitted on this circuit. For BIO1 card (on Garnet
Platform), this count is not reported separately - see
cktEntry 100."
    ::= { cktEntry 199 }

cktReqCTD OBJECT-TYPE
    SYNTAX    INTEGER
    ACCESS    read-write
    STATUS    mandatory
    DESCRIPTION
        "The requested cell/frame delay
variation for this circuit, in microseconds.
        The range for PVC is 1 -
0x00FFFFFF. The default is 0x00FFFFFF, which
        means not valid."
        ::= { cktEntry 200 }

cktInOctetsPeak OBJECT-TYPE
    SYNTAX    Counter
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "The 5-minute peak value of the
number of inbound octets (bytes)
for the circuit - from Bulk
Statistics."
        ::= { cktEntry 201 }

cktOutOctetsPeak OBJECT-TYPE
    SYNTAX    Counter
    ACCESS    read-only
    STATUS    mandatory
    DESCRIPTION
        "The 5-minute peak value of the
number of outbound octets
(bytes) for the circuit - from
Bulk Statistics."
        ::= { cktEntry 202 }

cktInDEOctetsPeak OBJECT-TYPE

```

```

SYNTAX      Counter
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The 5-minute peak value of the
number of inbound DE-marked
octets (bytes) for the circuit -
from Bulk Statistics."
::= { cktEntry 203 }

cktOutDEOctetsPeak OBJECT-TYPE
SYNTAX      Counter
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The 5-minute peak value of the
number of outbound DE-marked
octets (bytes) for the circuit -
from Bulk Statistics."
::= { cktEntry 204 }

cktInODEOctetsPeak OBJECT-TYPE
SYNTAX      Counter
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The 5-minute peak value of the
number of inbound ODE-marked
octets (bytes) for the circuit -
from Bulk Statistics."
::= { cktEntry 205 }

cktOutODEOctetsPeak OBJECT-TYPE
SYNTAX      Counter
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The 5-minute peak value of the
number of outbound ODE-marked
octets (bytes) for the circuit -
from Bulk Statistics."
::= { cktEntry 206 }

cktAdminCostThreshold OBJECT-TYPE
SYNTAX      INTEGER

```

```

ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Maximum allowable admin cost for
the circuit.
If no paths are available with
cost less than or
equal to this value, the circuit
is not established.
DEFVAL is 0 which means invalid,
valid values range
from 1 to 0xFFFFFFFF."
::= { cktEntry 207 }

cktAtmSvcServiceCategory OBJECT-TYPE
SYNTAX INTEGER {
    cbr (1),
    vbr1 (2),
    vbr2 (3),
    ubr_abr (4),
    unspecified (5)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The derived service category in
the forward direction for this ATM SVC."
::= { cktEntry 208 }

cktAtmSvcRServiceCategory OBJECT-TYPE
SYNTAX INTEGER {
    cbr (1),
    vbr1 (2),
    vbr2 (3),
    ubr_abr (4),
    unspecified (5)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The derived service category in
the reverse direction for this ATM SVC."
::= { cktEntry 209 }

cktInterworkingFrToAtmEFCI OBJECT-TYPE
SYNTAX      INTEGER {

```

```

        fr-fecn (1),
        efci0 (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "EFCI mapping for Frame Relay To
ATM Service Interworking."
    ::= { cktEntry 210 }

cktDiagSARMon OBJECT-TYPE
    SYNTAX INTEGER {
        flowOnInbound (1),
        flowOffInbound (2),
        flowOnOutbound (3),
        flowOffOutbound (4),
        flowOnInboundOutbound (5),
        flowOffInboundOutbound (6)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Used to start or stop flow on the
inbound/outbound ATMizer
        without informing the PPC."
    ::= { cktEntry 211 }

cktAdminCostReal OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Actual value of total
administration cost of a circuit.
        Ranges from 0 to 0xFFFFFFFF."
    ::= { cktEntry 212 }

cktAtmInClp0Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM CLP 0 cells
received on a VC
        (VPC or VCC)."
```

```

    ::= { cktEntry 213 }

cktAtmInClp1Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM CLP 1 cells
received on a VC
        (VPC or VCC)."
```

```

    ::= { cktEntry 214 }

cktATMAAL5CRC32Error OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of received AAL5 packets
with CRC32 errors."
    ::= { cktEntry 215 }

cktATMAAL5CPIError OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of received AAL5 packets
with CPI errors
        The only valid value currently
defined for the CPI
        field is all zeros"
    ::= { cktEntry 216 }

cktATMAAL5LengthError OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of received AAL5 packets
which satisfied one of the following
error conditions:
        1. number of received cells * 48
bytes - length value in trailer > 55 bytes
        2. number of received cells * 48
bytes - length value in trailer < 8 bytes"
```



```

        ::= { cktEntry 217 }

cktATMAAL5ReassemblyTimerError OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of expired reassembly
timers"
        ::= { cktEntry 218 }

cktATMAAL5MaxNrSegError OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of received AAL5 packets
which exceeds the maximum allowed length"
        ::= { cktEntry 219 }

cktIWF1490to1483Error OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of Frames received that failed the
rfc1490 to rfc 1483 header
translation. This error counter indicates
that frames being received
from the frame relay side of the
connection have an incorrectly formatted
1490 header and cannot be translated. See
cktIWF1490to1483LastBadHeader
for the last received 1490 header"
        ::= { cktEntry 220 }

cktIWF1490to1483LastBadHeader OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Ascii string of the first 8 bytes of the
header from the last frame
discarded because the 1490 to 1483 header
translation failed. The

```

```

        string displays the hexadecimal values
for the data bytes"
        ::= { cktEntry 221 }

cktIWF1483to1490Error OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Number of Frames received that failed the
rfc1483 to rfc 1490 header
translation. This error counter indicates
that frames being received
from the atm side of the connection have
an incorrectly formatted
1483 header and cannot be translated. See
cktIWF1483to1490LastBadHeader
for the last received 1490 header"
        ::= { cktEntry 222 }

cktIWF1483to1490LastBadHeader OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Ascii string of the first 10 bytes of the
header from the last frame
discarded because the 1483 to 1490 header
translation failed. The
string displays the hexadecimal values
for the data bytes"
        ::= { cktEntry 223 }

cktRedir2ndNodeId OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The secondary destination node ID of this
redirect PVC.
It is not used in a standard PVC
or a resilient PVC"
        ::= { cktEntry 224 }

cktRedir2ndIfIndex OBJECT-TYPE

```

SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The interface identifier at the secondary destination node of this redirect PVC. It's not used in a standard PVC or a resilient PVC."
::= { cktEntry 225 }

cktRedir2ndDlci OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The DLCI at the secondary destination node of this redirect PVC. It is not used in a standard PVC or a resilient PVC."
::= { cktEntry 226 }

cktRedirEndpointType OBJECT-TYPE
SYNTAX INTEGER {
standard (1),
pivot (2),
primary (3),
secondary (4)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The type of vc endpoint in this redirect PVC. The type of resilient PVC or normal PVC endpoint is standard (1)."
DEFVAL {standard}
::= { cktEntry 227 }

cktRedirSwitchoverMode OBJECT-TYPE
SYNTAX INTEGER {
manual (1),
non-revertive (2),
revertive (3)
}
}

ACCESS read-write
STATUS mandatory
DESCRIPTION
"The mode of switchover operation in this redirect PVC. It is not used in a standard or resilient PVC."
DEFVAL {manual}
::= { cktEntry 228 }

cktRedirSwitchoverReq OBJECT-TYPE
SYNTAX INTEGER {
noop (1),
forward-switchover (2),
backward-switchover (3)
}
ACCESS read-write
STATUS deprecated
DESCRIPTION
"The configuration to switch the called endpoint from the primary to secondary or from the secondary to primary for this redirect PVC. It is not used in a standard or resilient PVC. Read value should be noop(1)."
::= { cktEntry 229 }

cktRedirSwitchoverLastAction OBJECT-TYPE
SYNTAX INTEGER {
none (1),
manfswov (2),
manbwsow (3),
fswondemand (4),
bwsowndemand (5)
}
ACCESS read-only
STATUS deprecated
DESCRIPTION
"The last action that the node took to switch the called endpoint from the primary to secondary or from the secondary to primary in this redirect PVC."

manfwswov: manual forward-switchover as a result of cktRedirSwitchoverReq.
manbwswov: manual backward-switchover as a result of cktRedirSwitchoverReq.
fwswovdemand: forward-switchover triggered by a DTE status change in non-revertive mode or revertive mode.
bwswondemand: backward-switchover triggered by a DTE status change in non-revertive mode or revertive mode."

::= { cktEntry 230 }

cktOperStatusNonZeroEnum OBJECT-TYPE

SYNTAX INTEGER {
invalid (1),
inactive (2),
active (3)
}

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The current operational status of

the entire PVC."

::= { cktEntry 231 }

cktFailReasonNonZeroEnum OBJECT-TYPE

SYNTAX INTEGER {
none (1),
admindown (2),
novcbuff (3),
nobw (4),
noroute (5),
timeout (6),
nopdubuff (7),
nodest (8),
trkrnr (9),
trkdown (10),
balancereroute (11),
dead(12),
defpathreroute(13),
nidown(14),
otherpvcsegrnr(15),
otherpvcsegrnr(16),

usingaltpathwarning(17),
iopdown(18),
numsgbuffer(19),
noport(20),
misconfig(21),
svcsetupfail(22),
srcbackedup(23),
srcunknown(24),
dstunknown(25),
bkpdlcicollision(26),
oldrevinpath(27),
smdsmgmttrunk(28),
nevercalled(29),
bothendptbackup(30),
pvcroutemgttrunk(31),
nomultipointparent(32),
pvcroute(33),
novpivci(34),
svcuserclear(35),
pathregfailed(36),
noatmchan(37),
norevbw(38),
internalreset(39),
highprivcinpath(40),
nopribw(41)

}

ACCESS read-only

STATUS mandatory

DESCRIPTION

"It is the same as cktFailReason

except that it does not

have zero enum value.

The reason for the PVC establishment

failure."

::= { cktEntry 232 }

cktPrevFailReason OBJECT-TYPE

SYNTAX INTEGER {
none (1),
admindown (2),
novcbuff (3),
nobw (4),
noroute (5),
timeout (6),
nopdubuff (7),

```

nodest (8),
trkrnr (9),
trkdown (10),
balancereroute (11),
dead(12),
defpathreroute(13),
nidown(14),
otherpvcsegrnr(15),
otherpvcsegrnr(16),
usingaltpathwarning(17),
iopdown(18),
numsgbuffer(19),
noport(20),
misconfig(21),
svcsetupfail(22),
srcbackedup(23),
srcunknown(24),
dstunknown(25),
bkpdlcicollision(26),
oldrevinpath(27),
smdsmgmttrunk(28),
nevercalled(29),
bothendptbackup(30),
pvcroutemgttrunk(31),
nomultipointparent(32),
pvcroutefail(33),
novpivci(34),
svcuserclear(35),
pathregfailed(36),
noatmchan(37),
norevbw(38),
internalreset(39),
highprivcinpath(40),
nopribw(41)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The previous reason for the PVC
establishment failure."
::= { cktEntry 233 }

cktRedirSWOVReq OBJECT-TYPE
SYNTAX      INTEGER {
goprimary (1),

```

```

gosecondary (2)
}
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The configuration to switch the called
endpoint from the primary
to secondary or from the secondary to
primary for this redirect
PVC. It is not used in a standard or
resilient PVC."
DEFVAL      {goprimary}
::= { cktEntry 234 }

cktRedirSWOVLastAction OBJECT-TYPE
SYNTAX      INTEGER {
gopri-manual (1),
gosec-manual (2),
gopri-ondemand (3),
gosec-ondemand (4)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The last action that the node took to
switch the called endpoint
from the primary to secondary or from the
secondary to primary
in this redirect PVC.
gopri-manual: manual switchover to primary
as a result of
cktRedirSwitchoverReq.
gosen-manual: manual switchover to
secondary as a result of
cktRedirSwitchoverReq.
gopri-ondemand: switchover to primary
triggered by a DTE
status
change in revertive mode.
gosec-ondemand: switchover to secondary
triggered by a DTE
status
change in non-revertive mode or revertive mode."

```

```

::= { cktEntry 235 }

cktInRcvDEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound DE-marked
        frames received at the UNI/NNI. This count
        does not include frames marked DE
        by the switch."
    ::= { cktEntry 236 }

cktInRcvDEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound DE-marked
        octets received at the UNI/NNI. This count
        does not include octets marked DE
        by the switch."
    ::= { cktEntry 237 }

cktInRcvNonDEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound non DE-
        marked frames received at the UNI/NNI."
    ::= { cktEntry 238 }

cktInRcvNonDEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound non DE-
        marked octets received at the UNI/NNI."
    ::= { cktEntry 239 }

cktInUniSetDEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only

```

```

STATUS      mandatory
DESCRIPTION
    "The number of inbound non DE-
    marked frames received at the UNI/NNI that are marked DE
    by the switch."
    ::= { cktEntry 240 }

cktInUniSetDEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound non DE-
        marked octets received at the UNI/NNI that are marked DE
        by the switch."
    ::= { cktEntry 241 }

cktInRcvBECNFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound BECN-marked
        frames received at the UNI/NNI. This count
        does not include frames marked
        BECN by the switch."
    ::= { cktEntry 242 }

cktInRcvBECNOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound BECN-marked
        octets received at the UNI/NNI. This count
        does not include octets marked
        BECN by the switch."
    ::= { cktEntry 243 }

cktInUniSetBECNFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

"The number of inbound frames received at the UNI/NNI that are marked BECN by the switch."

::= { cktEntry 244 }

cktInUniSetBECNOctets OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of inbound octets received at the UNI/NNI that are marked BECN by the switch."

::= { cktEntry 245 }

cktOutXmitDEFrames OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of outbound DE-marked frames transmitted at the UNI/NNI. This count includes both DE and ODE marked frames."

::= { cktEntry 246 }

cktOutXmitDEOctets OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of outbound DE-marked octets transmitted at the UNI/NNI. This count includes both DE and ODE marked octets."

::= { cktEntry 247 }

cktOutXmitNonDEFrames OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of outbound non DE-marked frames transmitted at the UNI/NNI."

::= { cktEntry 248 }

cktOutXmitNonDEOctets OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of outbound non DE-marked octets transmitted at the UNI/NNI."

::= { cktEntry 249 }

cktOutUniSetFECNFrames OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of outbound frames marked FECN by the UNI/NNI."

::= { cktEntry 250 }

cktOutUniSetFECNOctets OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of outbound octets marked FECN by the UNI/NNI."

::= { cktEntry 251 }

cktOutUniDiscardDEFrames OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

"The number of outbound DE-marked frames discarded at the UNI/NNI. This count includes both DE and ODE marked frames which are discarded."

::= { cktEntry 252 }

cktOutUniDiscardDEOctets OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION

```

        "The number of outbound DE-marked
octets discarded at the UNI/NNI. This count
        includes both DE and ODE marked
octets which are discarded."
        ::= { cktEntry 253 }

cktOutUniDiscardNonDEFrames OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound non DE-
marked frames discarded at the UNI/NNI."
        ::= { cktEntry 254 }

cktOutUniDiscardNonDEOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of outbound non DE-
marked octets discarded at the UNI/NNI."
        ::= { cktEntry 255 }

cktInFECNOctets OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of inbound octets
indicating forward congestion
        since last reset. This count
corresponds to cktInFECNFrames."
        ::= { cktEntry 256 }

cktInOctetDiscards OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Number of inbound octets discarded by
rate enforcement."
        ::= { cktEntry 257 }

--

```

```

-- The cktLeafTable
--

cktLeafTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CktLeafEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A table containing information
about leaves of multipoint circuits."
        ::= { ckt 2 }

cktLeafEntry OBJECT-TYPE
    SYNTAX      CktLeafEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The objects relevant to a single
leaf in a multipoint circuit."
    INDEX { cktLeafSrcIfIndex, cktLeafSrcDlci,
cktLeafEndpointIndex }
        ::= { cktLeafTable 1 }

CktLeafEntry ::=
    SEQUENCE {
        cktLeafSrcIfIndex
            Index,
        cktLeafSrcDlci
            INTEGER,
        cktLeafEndpointIndex
            INTEGER,
        cktLeafCreationTime
            TimeTicks,
        cktLeafEgressIfIndex
            Index,
        cktLeafEgressDlci
            INTEGER,
        cktLeafDestNodeId
            INTEGER,
        cktLeafDestIfIndex
            Index,
        cktLeafDestDlci
            INTEGER,
        cktLeafSvcCallingParty
            OCTET STRING,

```

```

cktLeafSvcCalledParty
    OCTET STRING,
cktLeafAdminStatus
    INTEGER,
cktLeafVcState
    INTEGER,
cktLeafOperStatus
    INTEGER,
cktLeafDceState
    INTEGER,
cktLeafDteStatus
    INTEGER,
cktLeafDteState
    INTEGER,
cktLeafVcPtr
    OCTET STRING,
cktLeafHopCnt
    INTEGER,
cktLeafPath
    OCTET STRING,
cktLeafFailReason
    INTEGER,
cktLeafFailNode
    INTEGER,
cktLeafFailPort
    INTEGER,
cktLeafHelloCounter
    INTEGER,
cktLeafHelloAckCounter
    INTEGER,
cktLeafAtmVPI
    INTEGER,
cktLeafAtmVCI
    INTEGER,
cktLeafType
    INTEGER,
cktLeafAtmInCells
    Counter,
cktLeafAtmOutCells
    Counter,
cktLeafAtmInDiscardedClp0Cells
    Counter,
cktLeafAtmInDiscardedClp1Cells
    Counter,
cktLeafAtmInPassedClp0Cells

```

```

    Counter,
cktLeafAtmInPassedClp1Cells
    Counter,
cktLeafAtmInTaggedCells
    Counter,
cktLeafAtmOutClp0Cells
    Counter,
cktLeafAtmOutClp1Cells
    Counter,
cktLeafOutPort
    INTEGER,
cktLeafOutVc
    INTEGER,
cktLeafRVc
    INTEGER,
cktLeafEntryType
    INTEGER,
cktLeafDiagStr
    OCTET STRING,
cktLeafEgressEndpointIndex
    INTEGER,
cktLeafNrtsDiscardClp0
    Counter,
cktLeafNrtsDiscardClp1
    Counter,
cktLeafAtmOutOAMClp0Cells
    Counter,
cktLeafAtmOutOAMClp1Cells
    Counter,
cktLeafOperStatusNonZeroEnum
    INTEGER,
cktLeafFailReasonNonZeroEnum
    INTEGER,
cktLeafPrevFailReason
    INTEGER

```

```

}

```

```

cktLeafSrcIfIndex OBJECT-TYPE

```

```

    SYNTAX      Index

```

```

    ACCESS      read-only

```

```

    STATUS      mandatory

```

```

    DESCRIPTION

```

```

        "The interface ID at this node's
        ingress port for the corresponding
        multipoint circuit."

```



```

        ::= { cktLeafEntry 1 }

cktLeafSrcDlci OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The DLCI, if a frame relay
        circuit, or concatenated VPI and VCI, if an
        ATM circuit, at this node's
        ingress port for the corresponding
        multipoint circuit."
    ::= { cktLeafEntry 2 }

cktLeafEndpointIndex OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "An identifier unique to this leaf
        for the corresponding multipoint
        circuit."
    ::= { cktLeafEntry 3 }

cktLeafCreationTime OBJECT-TYPE
    SYNTAX      TimeTicks
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The value of sysUpTime when this
        leaf was created for the corresponding
        multipoint circuit."
    ::= { cktLeafEntry 4 }

cktLeafEgressIfIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The interface ID at this node's
        egress port for this leaf's segment of
        the corresponding multipoint
        circuit."
    ::= { cktLeafEntry 5 }

```

```

cktLeafEgressDlci OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The DLCI, if a frame relay
        circuit, or concatenated VPI and VCI, if an
        ATM circuit, at this node's
        egress port for this leaf's segment of the
        corresponding multipoint
        circuit."
    ::= { cktLeafEntry 6 }

cktLeafDestNodeId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The node ID of the node where
        this leaf terminates."
    ::= { cktLeafEntry 7 }

cktLeafDestIfIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The interface ID at the egress
        port of the destination node for this leaf,
        if this is a PVC."
    ::= { cktLeafEntry 8 }

cktLeafDestDlci OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The DLCI, if a frame relay
        circuit, or concatenated VPI and VCI, if an
        ATM circuit, at this node's
        destination port for the corresponding
        multipoint circuit."
    ::= { cktLeafEntry 9 }

cktLeafSvcCallingParty OBJECT-TYPE

```

```

SYNTAX      OCTET STRING
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The calling party number for this
leaf, if this is an SVC."
::= { cktLeafEntry 10 }

```

```

cktLeafSvcCalledParty OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The called party number for this
leaf, if this is an SVC."
    ::= { cktLeafEntry 11 }

```

```

cktLeafAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
                    invalid (0),
                    down (1),
                    up (2)
                }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "The desired state for the leaf
entry."
    ::= { cktLeafEntry 12 }

```

```

cktLeafVcState OBJECT-TYPE
    SYNTAX      INTEGER {
                    invalid (0),
                    inactive (1),
                    retry (2),
                    calling (3),
                    wcbdeact(4),
                    wcbdelete(5),
                    active (6),
                    svcall (7),
                    svclr (8),
                    backedup (9),
                    wcbbkdp (10),
                    wcbreact (11),
                    slowretry (12)
                }

```

```

    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The current state of the leaf PVC
segment in the Cascade network."
    ::= { cktLeafEntry 13 }

```

```

cktLeafOperStatus OBJECT-TYPE
    SYNTAX      INTEGER {
                    invalid (0),
                    inactive (1),
                    active (2)
                }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The current operational status of
the entire leaf PVC."
    ::= { cktLeafEntry 14 }

```

```

cktLeafDceState OBJECT-TYPE
    SYNTAX      INTEGER {
                    invalid (0),
                    inactive (1),
                    active (2)
                }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The DCE state of the circuit."
    ::= { cktLeafEntry 15 }

```

```

cktLeafDteStatus OBJECT-TYPE
    SYNTAX      INTEGER {
                    invalid (0),
                    inactive (1),
                    active (2)
                }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The DTE status of the circuit."
    ::= { cktLeafEntry 16 }

```

```

cktLeafDteState OBJECT-TYPE
    SYNTAX      INTEGER {
                    invalid (0),
                    inactive (1),
                    active (2)
                }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The DTE state of the circuit."
    ::= { cktLeafEntry 17 }

```

```

cktLeafVcPtr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "An 8-byte Octect string
        indicating the vc pointer."
    ::= { cktLeafEntry 18 }

```

```

cktLeafHopCnt OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The count of hops along the
        circuit path. (Max is 16)"
    ::= { cktLeafEntry 19 }

```

```

cktLeafPath OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The circuit path consisting of a
        sequence of outbound
        interface indices at nodes along
        the established circuit.
        The format is
        interface:interface:interface:....."
    ::= { cktLeafEntry 20 }

```

```

cktLeafFailReason OBJECT-TYPE
    SYNTAX      INTEGER {

```

```

        none (0),
        admin down (1),
        novcbuff (2),
        nobw (3),
        noroute (4),
        timeout (5),
        noprdubuff (6),
        nodest (7),
        trkrnr (8),
        trkdown (9),
        balancereroute (10),
        dead(11),
        defpathreroute(12),
        nidown(13),
        otherpvcsegdown(14),
        otherpvcsegrnr(15),
        usingaltpathwarning(16),
        iopdown(17),
        numsgbuffer(18),
        noport(19),
        misconfig(20),
        svcsetupfail(21),
        srcbackedup(22),
        srcunknown(23),
        dstunknown(24),
        bkpdldcollision(25),
        oldrevinpath(26),
        smdsgmttrunk(27),
        nevercalled(28),
        bothendptbackup(29),
        pvcroutemgttrunk(30),
        nomultipointparent(31),
        pvcroute fail(32),
        novpivci(33)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The reason for the PVC
        establishment failure."
    ::= { cktLeafEntry 21 }

```

```

cktLeafFailNode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only

```

```

STATUS      mandatory
DESCRIPTION  "The node which causes the PVC
failure."
::= { cktLeafEntry 22 }

cktLeafFailPort OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The port on the fail node which
causes the PVC failure."
    ::= { cktLeafEntry 23 }

cktLeafHelloCounter OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of PVC hello pdu frames
received in the VC entry of the
called side."
    ::= { cktLeafEntry 24 }

cktLeafHelloAckCounter OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "Number of PVC hello Ack pdu
frames received in the VC entry of the
calling side."
    ::= { cktLeafEntry 25 }

cktLeafAtmVPI OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "VPI value in the ATM cell header"
    ::= { cktLeafEntry 26 }

cktLeafAtmVCI OBJECT-TYPE
    SYNTAX      INTEGER

```

```

ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "VCI value in the ATM cell header"
    ::= { cktLeafEntry 27 }

cktLeafType OBJECT-TYPE
    SYNTAX      INTEGER {
                                pvc (1),
                                svc (2)
                            }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "1 if a permanent virtual circuit;
2 if a switched virtual circuit."
    ::= { cktLeafEntry 28 }

cktLeafAtmInCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The Number of ATM cells received
on a VCC."
    ::= { cktLeafEntry 29 }

cktLeafAtmOutCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The Number of ATM cells
transmitted on a VCC."
    ::= { cktLeafEntry 30 }

cktLeafAtmInDiscardedClp0Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The Number of ATM CLP 0 cells
received and discarded on a VCC."
    ::= { cktLeafEntry 31 }

cktLeafAtmInDiscardedClp1Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only

```

```

        STATUS      mandatory
        DESCRIPTION "The Number of ATM CLP 1 cells
received and discarded on a VCC."
        ::= { cktLeafEntry 32 }

cktLeafAtmInPassedClp0Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM CLP 0 cells
received and passed UPC on a VCC."
    ::= { cktLeafEntry 33 }

cktLeafAtmInPassedClp1Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM CLP 1 cells
received and passed UPC on a VCC."
    ::= { cktLeafEntry 34 }

cktLeafAtmInTaggedCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM cells received
and tagged on a VCC."
    ::= { cktLeafEntry 35 }

cktLeafAtmOutClp0Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM CLP 0 cells
transmitted on a VCC."
    ::= { cktLeafEntry 36 }

cktLeafAtmOutClp1Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM CLP 1 cells
transmitted on a VCC."
    ::= { cktLeafEntry 37 }

```

```

cktLeafOutPort OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The outgoing port number for the
adjacent VC entry in this switch."
    ::= { cktLeafEntry 38 }

cktLeafOutVc OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The adjacent VC entry
corresponding to this circuit across the bus."
    ::= { cktLeafEntry 39 }

cktLeafRVc OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The adjacent VC entry
corresponding to this circuit across the trunk."
    ::= { cktLeafEntry 40 }

cktLeafEntryType OBJECT-TYPE
    SYNTAX      INTEGER {
        fr-user(1),
        as-trunk(2),
        on-trunk(3),
        lmi(4),
        multicast(5),
        mgmt(6),
        smds(7),
        split-multicast(8),
        control(9),
        atm-user(10),
        atm-leaf(11)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

```

        "The internal type of circuit
entry allocated by the circuit manager."
        ::= { cktLeafEntry 41 }

cktLeafDiagStr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Internal diagnostic information."
        ::= { cktLeafEntry 42 }

cktLeafEgressEndpointIndex OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "An identifier unique to this leaf
at this node's egress port for this leaf's
segment of the corresponding
multipoint circuit."
        ::= { cktLeafEntry 43 }

cktLeafNrtsDiscardClp0 OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of the CLP0 cells
received and discarded by the
NRTS processor."
        ::= { cktLeafEntry 44 }

cktLeafNrtsDiscardClp1 OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of the CLP1 cells
received and discarded by the
NRTS processor."
        ::= { cktLeafEntry 45 }

cktLeafAtmOutOAMClp0Cells OBJECT-TYPE
    SYNTAX      Counter

```

```

    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of OAM CLP0 cells
transmitted on this circuit."
        ::= { cktLeafEntry 46 }

cktLeafAtmOutOAMClp1Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of OAM CLP1 cells
transmitted on this circuit."
        ::= { cktLeafEntry 47 }

cktLeafOperStatusNonZeroEnum OBJECT-TYPE
    SYNTAX      INTEGER {
        invalid (1),
        inactive (2),
        active (3)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The current operational status of
the entire leaf PVC."
        ::= { cktLeafEntry 48 }

cktLeafFailReasonNonZeroEnum OBJECT-TYPE
    SYNTAX      INTEGER {
        none (1),
        admin (2),
        novcbuff (3),
        nobw (4),
        noroute (5),
        timeout (6),
        noprbuf (7),
        node (8),
        trkrnr (9),
        trkdown (10),
        balancereroute (11),
        dead (12),
        defpathreroute (13),
        nidown (14),
    }

```

```

otherpvcsegrnr(16),
usingaltpathwarning(17),
iopdown(18),
numsgbuffer(19),
noport(20),
misconfig(21),
svcsetupfail(22),
srcbackedup(23),
srcunknown(24),
dstunknown(25),
bkpdlcicollision(26),
olddrevinpath(27),
smdsmgmttrunk(28),
nevercalled(29),
bothendptbackup(30),
pvcroutemgttrunk(31),
nomultipointparent(32),
pvcroutefail(33),
novpivci(34)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The reason for the PVC
establishment failure."
::= { cktLeafEntry 49 }

```

```

cktLeafPrevFailReason OBJECT-TYPE
    SYNTAX      INTEGER {
        none (1),
        admindown (2),
        novcbuff (3),
        nobw (4),
        noroute (5),
        timeout (6),
        nopdubuff (7),
        nodest (8),
        trkrnr (9),
        trkdown (10),
        balancereroute (11),
        dead(12),
        defpathreroute(13),
        nidown(14),
        otherpvcsegrnr(15),

```

```

otherpvcsegrnr(16),
usingaltpathwarning(17),
iopdown(18),
numsgbuffer(19),
noport(20),
misconfig(21),
svcsetupfail(22),
srcbackedup(23),
srcunknown(24),
dstunknown(25),
bkpdlcicollision(26),
olddrevinpath(27),
smdsmgmttrunk(28),
nevercalled(29),
bothendptbackup(30),
pvcroutemgttrunk(31),
nomultipointparent(32),
pvcroutefail(33),
novpivci(34)
}
ACCESS      read-only
STATUS      mandatory
DESCRIPTION  "The reason for the previous PVC
establishment failure."
::= { cktLeafEntry 50 }

```

```

--
-- A Circuit Table to manage SMDS routes
--

cktSmdsRtTableOBJECT-TYPE
    SYNTAX      SEQUENCE OF
    CktSmdsRtEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION  "A table containing
information about destination, VC,
hops and routes."
::= { ckt 3 }

```

```

cktSmdsRtEntry OBJECT-TYPE
    SYNTAX      CktSmdsRtEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The information regarding routes
from a node to all its
        neighbors."
    INDEX { cktSmdsRemoteNode }
    ::= { cktSmdsRtTable 1 }

CktSmdsRtEntry ::=
    SEQUENCE {
        cktSmdsRemoteNode
            INTEGER,
        cktSmdsHopCnt
            INTEGER,
        cktSmdsRoute
            OCTET STRING,
        cktSmdsLocalPort
            INTEGER,
        cktSmdsRemotePort
            INTEGER,
        cktSmdsVcState
            INTEGER
    }

cktSmdsRemoteNode OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The nodeId of the node to which a
route is sought."
    ::= { cktSmdsRtEntry 1 }

cktSmdsHopCnt OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of hops to reach the
desired destination node."
    ::= { cktSmdsRtEntry 2 }

```

```

cktSmdsRoute OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The out-going Interface Id of
each of the nodes in the path."
    ::= { cktSmdsRtEntry 3 }

cktSmdsLocalPort OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The out-going local portId."
    ::= { cktSmdsRtEntry 4 }

cktSmdsRemotePort OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The remote portId of the
destination nodeId."
    ::= { cktSmdsRtEntry 5 }

cktSmdsVcState OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The state of the circuit."
    ::= { cktSmdsRtEntry 6 }

--
-- A Circuit Table for Network Data Collection per GR-
1248
--

cktNdcTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CktNdcEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION

```



```

statistics for      "A list of Network Data Collection
                    a PVC."
                    ::= { ckt 4 }

cktNdcEntry OBJECT-TYPE
    SYNTAX  CktNdcEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "A record of Network Data
        Collection statistics for
         a PVC."
    INDEX { cktNdcIfIndex, cktNdcSrcDlci,
    cktNdcHistIndex }
    ::= { cktNdcTable 1 }

CktNdcEntry ::=
    SEQUENCE {
        cktNdcIfIndex
            Index,
        cktNdcSrcDlci
            INTEGER,
        cktNdcHistIndex
            INTEGER,
        cktNdcTimeStamp
            INTEGER,
        cktNdcInClp01Cells
            Counter,
        cktNdcOutClp01Cells
            Counter,
        cktNdcInDiscardClp0Cells
            Counter,
        cktNdcInDiscardClp01Cells
            Counter,
        cktNdcInTaggedCells
            Counter,
        cktNdcInDiscardClp0CellThresh
            Counter,
        cktNdcInDiscardClp01CellThresh
            Counter
    }

cktNdcIfIndex OBJECT-TYPE
    SYNTAX  Index

```

```

ACCESS  read-only
STATUS  mandatory
DESCRIPTION
    "The ifIndex value of the
    corresponding ifEntry."
    ::= { cktNdcEntry 1 }

cktNdcSrcDlci OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The DLCI used as the key for the
        ATM PVC.
         The VPI (most significant 16
        bits) and VCI (least
        significant 16 bits) are
        concatenated to form this value."
    ::= { cktNdcEntry 2 }

cktNdcHistIndex OBJECT-TYPE
    SYNTAX  INTEGER {
        current (1),
        history1 (2),
        history2 (3)
    }
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "An index of the Network Data
        Collection history."
    ::= { cktNdcEntry 3 }

cktNdcTimeStamp OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "For the current counts
        (cktNDChistIndex of 1), time
        elapsed in the current 15-minute
        NDC collection interval.
         For the history counts
        (cktNDChistIndex of 2 to 3),

```

timestamp at the end of 15-minute
NDC collection interval.
Resolution is 1 second."
::= { cktNdcEntry 4 }

cktNdcInClp01Cells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"A count of user+OAM CLP=0+1 cells
incoming on a circuit,
received within the Network Data
Collection 15-minute
interval."
::= { cktNdcEntry 5 }

cktNdcOutClp01Cells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"A count of user+OAM CLP=0+1 cells
outgoing on a circuit,
transmitted within the Network
Data Collection 15-minute
interval."
::= { cktNdcEntry 6 }

cktNdcInDiscardClp0Cells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"A count of user+OAM CLP=0 cells
incoming on a circuit,
discarded due to UPC/NPC policing
within the Network Data
Collection 15-minute interval."
::= { cktNdcEntry 7 }

cktNdcInDiscardClp01Cells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory

DESCRIPTION
"A count of user+OAM CLP=0+1 cells
incoming on a circuit,
discarded due to UPC/NPC policing
within the Network Data
Collection 15-minute interval."
::= { cktNdcEntry 8 }

cktNdcInTaggedCells OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"A count of user+OAM CLP=0 cells
incoming on a circuit,
tagged as CLP=1 due to UPC/NPC
policing within the Network
Data Collection 15-minute
interval."
::= { cktNdcEntry 9 }

cktNdcInDiscardClp0CellThresh OBJECT-TYPE
SYNTAX Counter
ACCESS read-write
STATUS mandatory
DESCRIPTION
"A count of user+OAM CLP=0 cells
incoming on a circuit,
discarded due to UPC/NPC policing
within the Network Data
Collection current 15-minute
interval. An alarm is issued once
in the current interval upon
crossing of that threshold provided
that the threshold is greater
than 0 (default)."
::= { cktNdcEntry 10 }

cktNdcInDiscardClp01CellThresh OBJECT-TYPE
SYNTAX Counter
ACCESS read-write
STATUS mandatory
DESCRIPTION
"A threshold count of user+OAM
CLP=0+1 cells incoming on a circuit,

discarded due to UPC/NPC policing
 within the Network Data
 Collection current 15-minute
 interval. An alarm is issued once
 in the current interval upon
 crossing of that threshold provided
 that the threshold is greater
 than 0 (default)."
 ::= { cktNdcEntry 11 }

-- the Cascade DS1 Configuration Table

cascds1ConfigTable OBJECT-TYPE
 SYNTAX SEQUENCE OF Cascds1ConfigEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "The DS1 Configuration table."
 ::= { cascds1 1 }

cascds1ConfigEntry OBJECT-TYPE
 SYNTAX Cascds1ConfigEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "An entry in the DS1 Configuration
 table."
 INDEX { cascds1SlotId, cascds1PortId }
 ::= { cascds1ConfigTable 1 }

Cascds1ConfigEntry ::=

SEQUENCE {

cascds1SlotId
 INTEGER,

cascds1PortId
 INTEGER,

cascds1TimeElapsed
 INTEGER,

cascds1ValidIntervals
 INTEGER,

cascds1LineType
 INTEGER,

cascds1LineCoding

INTEGER,
 cascds1SendCode
 INTEGER,
 cascds1CircuitIdentifier
 DisplayString,
 cascds1LoopbackConfig
 INTEGER,
 cascds1LineStatus
 INTEGER,
 cascds1SignalMode
 INTEGER,
 cascds1TransmitClockSource
 INTEGER,
 cascds1Fdl
 INTEGER,
 cascds1FdlVersion
 INTEGER

}

cascds1SlotId OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The slot number of the
 corresponding DS1."
 ::= { cascds1ConfigEntry 1 }

cascds1PortId OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The port number of the
 corresponding DS1
 on the board."
 ::= { cascds1ConfigEntry 2 }

cascds1TimeElapsed OBJECT-TYPE
 SYNTAX INTEGER (0..899)
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

elapsed since the beginning of the current error-measurement period."
 ::= { cascds1ConfigEntry 3 }

cascds1ValidIntervals OBJECT-TYPE
 SYNTAX INTEGER (0..96)
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of previous intervals for which valid data was collected. This value is the number of complete 15-minute intervals since the interface was brought on-line, or a maximum of 96 if the interface has been on-line for more than 24 hours."
 ::= { cascds1ConfigEntry 4 }

cascds1LineType OBJECT-TYPE
 SYNTAX INTEGER {
 other(1),
 cascds1ESF(2),
 cascds1D4(3),
 cascds1E1(4),
 cascds1E1-CRC(5),
 cascds1E1-MF(6),
 cascds1E1-CRC-MF(7)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This variable indicates the variety of DS1 Line implementing this circuit.
 The type of

per second circuit affects the number of bits that the circuit can reasonably carry, as well as the interpretation of the usage and error statistics. The values, in sequence, describe:

	TITLE:	SPECIFICATION:
	cascds1ESF	Extended SuperFrame
DS1	cascds1D4	AT&T D4 format DS1
	cascds1E1	CCITT Recommendation
G.704		(Table 4a)
	cascds1E1-CRC	CCITT Recommendation
G.704		(Table 4b)
	cascdsE1-MF	G.704 (Table 4a) with
TS16		multiframeing
enabled	cascds1E1-CRC-MF	G.704 (Table 4b)
with TS16		multiframeing
enabled"		

::= { cascds1ConfigEntry 5 }

cascds1LineCoding OBJECT-TYPE
 SYNTAX INTEGER {
 cascds1JBZS (1),
 cascds1B8ZS (2),
 cascds1HDB3 (3),
 cascds1ZBTSI (4),
 cascds1AMI (5),
 other(6)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This variable describes the variety of Zero

link, which in turn affects a number of its characteristics.	Code Suppression used on the data."	requirements, such as inverting HDLC
Zero Suppression specification of at least one pulse every 8 bit periods is literally implemented by forcing a pulse in bit 8 of each channel, or 1.344 Mbps, is available for data.	cascds1JBZS refers the Jammed Bit sion, in which the AT&T least one pulse every 8 bit ly implemented by forcing a each channel. Thus, only seven nel, or 1.344 Mbps, is available	cascds1ConfigEntry 6 }
specified pattern violations sequence of eight	cascds1B8ZS refers to the use of a tern of normal bits and bipolar which are used to replace a zero bits.	cascds1SendCode OBJECT-TYPE SYNTAX INTEGER { cascds1SendNoCode(1), cascds1SendLineCode(2), cascds1SendPayloadCode(3), cascds1SendResetCode(4), cascds1SendQRS(5), cascds1Send511Pattern(6), cascds1Send3in24Pattern(7), cascds1SendOtherTestPattern(8) } ACCESS read-only STATUS mandatory DESCRIPTION
cascds1ZBTISI, or Zero	ANSI Clear Channels may use Byte Time Slot Interchange.	"This variable indicates what type of code is being sent across the DS1 interface by the device. The values mean:
cascds1HDB3 or	E1 links, with or without CRC, use cascds1AMI.	cascds1SendNoCode sending looped or
wherein no zero code line encoding directly. In this application, the higher layer must provide data which meets or exceeds the pulse	cascds1AMI refers to a mode suppression is present and the does not solve the problem termination request	cascds1SendLineCode sending a request for cascds1SendPayloadCode sending a request for cascds1SendResetCode sending a loopback cascds1SendQRS sending a Quasi-Random pattern
density re-	Signal (QRS) test	

fixed test pattern	cascds1Send511Pattern sending a 511 bit		return badValue in	ing read/write access should
			state that the	response to a requested loopback
			values mean:	interface does not support. The
pattern of 3 bits set	cascds1Send3in24Pattern sending a fixed test in 24			cascds1NoLoop Not in the loopback
other than those	cascds1Send0therTestPattern sending a test pattern		state. A device that	is not capable of
object"	described by this		performing a loopback on	the interface shall
	::= { cascds1ConfigEntry 7 }		always return thisas	it's value.
cascds1CircuitIdentifier OBJECT-TYPE	SYNTAX DisplayString (SIZE (0..255))			cascds1PayloadLoop The received signal at
	ACCESS read-only		this interfaceis	looped through
	STATUS mandatory		the device. Typically the	received signal is
transmission	DESCRIPTION "This variable contains the		looped back for re-	transmission after
the purpose of	vendor's circuit identifier, for		it has passed through	the device's framing
	facilitating troubleshooting."		function.	
	::= { cascds1ConfigEntry 8 }			cascds1LineLoop The received signal at
cascds1LoopbackConfig OBJECT-TYPE	SYNTAX INTEGER {		this interface does	not go through the
	cascds1NoLoop(1),		device (minimum pene-	tration) but is looped
	cascds1PayloadLoop(2),		back out.	
	cascds1LineLoop(3),			cascds10therLoop Loopbacks that are not
	cascds10therLoop(4)			defined here."
loopback confi-	}			::= { cascds1ConfigEntry 9 }
Agents support-	ACCESS read-only			
	STATUS mandatory			
	DESCRIPTION "This variable represents the			
	guration of the DS1 interface.			
			</	

	STATUS	mandatory
	DESCRIPTION	
Status of the		"This variable indicates the Line
failure, re-		interface. It contains loopback,
'alarm' infor-		ceived 'alarm' and transmitted
		mation.
		The cascds1LineStatus is a bitmap
represented as a sum,		therefore, it can represent
multiple failures (alarms) and		a LoopbackState simultaneously.
		cascds1NoAlarm should be set if
and only if no other flag is		set.
		If the cascds1LoopbackState bit is
set, the loopback in ef-		fect can be determined from the
cascds1LoopbackConfig object.		
		The various bit positions are:
Alarm Present	1	cascds1NoAlarm No
end LOF (a.k.a., Yellow Alarm)	2	cascds1RcvFarEndLOF Far
Near end sending LOF Indication	4	cascds1XmtFarEndLOF
sending AIS	8	cascds1RcvAIS Far end
sending AIS	16	cascds1XmtAIS Near end
Near end LOF (a.k.a., Red Alarm)	32	cascds1LossOfFrame
Near end Loss Of Signal	64	cascds1LossOfSignal
Near end is looped	128	cascds1LoopbackState
AIS	256	cascds1T16AIS E1 TS16

512	cascds1RcvFarEndLOMF	Far
End Sending TS16 LOMF		
1024	cascds1XmtFarEndLOMF	
Near End Sending TS16 LOMF		
2048	cascds1RcvTestCode	
Near End detects a test code		
4096	cascds10therFailure	any
line status not defined here"		
	::= { cascds1ConfigEntry 10 }	
cascds1SignalMode	OBJECT-TYPE	
SYNTAX	INTEGER {	
	none (1),	
	robbedBit (2),	
	bitOriented (3),	
	messageOriented (4)	
	}	
ACCESS	read-only	
STATUS	mandatory	
DESCRIPTION		
reserved for		"'none' indicates that no bits are
		signaling on this channel.
		'robbedBit' indicates that T1
Robbed Bit Sig-		naling is in use.
		'bitOriented' indicates that E1
Channel Asso-		ciated Signaling is in use.
		'messageOriented' indicates that
Common Chan-		nel Signaling is in use either on
channel 16 of		an E1 link or channel 24 of a T1."
	::= { cascds1ConfigEntry 11 }	
cascds1TransmitClockSource	OBJECT-TYPE	
SYNTAX	INTEGER {	
	loopTiming (1),	
	localTiming (2),	

```

    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The source of Transmit Clock.

    'loopTiming' indicates that the
    recovered re-ceive clock is used as the
    transmit clock.

    'localTiming' indicates that a
    local clock source is used.

    'throughTiming' indicates that
    recovered re-ceive clock from another
    interface is used as the transmit clock."
    ::= { cascds1ConfigEntry 12 }

```

```

cascds1Fdl OBJECT-TYPE
    SYNTAX      INTEGER {
        other(1),
        cascds1Ansi-T1-403(2),
        cascds1Att-54016(4),
        cascds1Fdl-none(8)
    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "This bitmap describes the use of
    the facili-ties data link, and is the sum of
    the capabili-ties:

    'other' indicates that a protocol
    other than one following is used.

```

```

    FDL exchange 'cascds1Ansi-T1-403' refers to the
    recommended by ANSI.

    'cascds1Att-54016' refers to ESF
    FDL exchanges.

    'cascds1Fdl-none' indicates that
    the device does not use the FDL."
    ::= { cascds1ConfigEntry 13 }

```

```

cascds1FdlVersion OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The version of the Dallas FDL
    firmware"
    ::= { cascds1ConfigEntry 14 }

```

```

-- the DS1 Current Table

-- The DS1 current table contains various statistics being
-- collected for the current 15 minute interval.

```

```

cascds1CurrentTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Cascds1CurrentEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION  "The DS1 Current table."
    ::= { cascds1 2 }

```

```

cascds1CurrentEntry OBJECT-TYPE
    SYNTAX      Cascds1CurrentEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION  "An entry in the DS1 Current
    table."

```



```

INDEX      { cascds1CurrentSlotId,
cascds1CurrentPortId }
::= { cascds1CurrentTable 1 }

```

```

Cascds1CurrentEntry ::=
SEQUENCE {
    cascds1CurrentSlotId
        INTEGER,
    cascds1CurrentPortId
        INTEGER,
    cascds1CurrentESS
        Gauge,
    cascds1CurrentSESS
        Gauge,
    cascds1CurrentSEFSS
        Gauge,
    cascds1CurrentUASS
        Gauge,
    cascds1CurrentCSSs
        Gauge,
    cascds1CurrentBESS
        Gauge,
    cascds1CurrentEBs
        Gauge,
    cascds1CurrentG826EB
        Gauge,
    cascds1CurrentG826ES
        Gauge,
    cascds1CurrentG826SES
        Gauge,
    cascds1CurrentG826BBE
        Gauge,
    cascds1CurrentG826ESR
        INTEGER,
    cascds1CurrentG826SESR
        INTEGER,
    cascds1CurrentG826BBER
        INTEGER
}

```

```

cascds1CurrentSlotId OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-only
STATUS      mandatory
DESCRIPTION

```

```

"The slot number of the
corresponding DS1."
::= { cascds1CurrentEntry 1 }

```

```

cascds1CurrentPortId OBJECT-TYPE
SYNTAX      INTEGER
ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "The port number of the
corresponding DS1
on the board."
::= { cascds1CurrentEntry 2 }

```

```

cascds1CurrentESS OBJECT-TYPE
SYNTAX      Gauge
ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "The number of Errored Seconds,
encountered by
a DS1 interface in the current 15
minute inter-
val."
::= { cascds1CurrentEntry 3 }

```

```

cascds1CurrentSESS OBJECT-TYPE
SYNTAX      Gauge
ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "The number of Severely Errored
Seconds encoun-
tered by a DS1 interface in
the current 15
minute interval."
::= { cascds1CurrentEntry 4 }

```

```

cascds1CurrentSEFSS OBJECT-TYPE
SYNTAX      Gauge
ACCESS      read-only
STATUS      mandatory
DESCRIPTION

```

Framing Seconds "The number of Severely Errored
encountered by a DS1 interface
in the current 15 minute interval."
 ::= { cascds1CurrentEntry 5 }

cascds1CurrentUASS OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of Unavailable Seconds
encountered by a DS1 interface in the current
15 minute in-terval."
 ::= { cascds1CurrentEntry 6 }

cascds1CurrentCSSs OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of Controlled Slip
Seconds encoun-tered by a DS1 interface in
the current 15 minute interval."
 ::= { cascds1CurrentEntry 7 }

cascds1CurrentBESS OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of Bursty Errored
Seconds (BESS) encountered by a DS1 interface
in the current 15 minute interval."
 ::= { cascds1CurrentEntry 8 }

cascds1CurrentEBs OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of Errored Blocks
(EBs) encountered by a DS1 interface
in the current 15 minute interval per G.826."
 ::= { cascds1CurrentEntry 9 }

cascds1CurrentG826EB OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current E1 ITU G.826 Errored Block
Count."
 ::= { cascds1CurrentEntry 10 }

cascds1CurrentG826ES OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current E1 ITU G.826 Errored Seconds
Count."
 ::= { cascds1CurrentEntry 11 }

cascds1CurrentG826SES OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
"Current E1 ITU G.826 Severely Errored
Seconds Count."
 ::= { cascds1CurrentEntry 12 }

cascds1CurrentG826BBE OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION

```

        "Current E1 ITU G.826 Background Block
Errors Count."
        ::= { cascds1CurrentEntry 13 }

```

```

cascds1CurrentG826ESR OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Errored Seconds
Ratio X 1000000."
        ::= { cascds1CurrentEntry 14 }

```

```

cascds1CurrentG826SESR OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Severely Errored
Seconds Ratio X 1000000."
        ::= { cascds1CurrentEntry 15 }

```

```

cascds1CurrentG826BBBER OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Background Block
Errors Ratio X 1000000."
        ::= { cascds1CurrentEntry 16 }

```

```

-- the DS1 Interval

-- The DS1 Interval Table contains various statistics
-- collected by each DS1 Interface over the previous 24
hours of
-- operation. The past 24 hours are broken into 96
completed
-- 15 minute intervals.

```

```

cascds1IntervalTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Cascds1IntervalEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION

```

```

        "The DS1 Interval table."
        ::= { cascds1 3 }

```

```

cascds1IntervalEntry OBJECT-TYPE
    SYNTAX      Cascds1IntervalEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "An entry in the DS1 Interval
table."
    INDEX      { cascds1IntervalSlotId,
cascds1IntervalPortId, cascds1IntervalNumber }
    ::= { cascds1IntervalTable 1 }

```

```

Cascds1IntervalEntry ::=
    SEQUENCE {
        cascds1IntervalSlotId
            INTEGER,
        cascds1IntervalPortId
            INTEGER,
        cascds1IntervalNumber
            INTEGER,
        cascds1IntervalESS
            Gauge,
        cascds1IntervalSESS
            Gauge,
        cascds1IntervalSEFSS
            Gauge,
        cascds1IntervalUASS
            Gauge,
        cascds1IntervalCSSs
            Gauge,
        cascds1IntervalBESS
            Gauge,
        cascds1IntervalG826EB
            Gauge,
        cascds1IntervalG826ES
            Gauge,
        cascds1IntervalG826SES
            Gauge,
        cascds1IntervalG826BBE
            Gauge
    }

```



```

cascds1IntervalCSSs OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of Controlled Slip
Seconds   encoun-
          tered by a DS1 interface in one of
the previous
          96, individual 15 minute,
intervals."
    ::= { cascds1IntervalEntry 8 }

```

```

cascds1IntervalBESSs OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The number of Bursty   Errored
Seconds   (BESS)
          encountered by a DS1 interface
in one of the
          previous 96, individual 15 minute,
intervals."
    ::= { cascds1IntervalEntry 9 }

```

```

cascds1IntervalG826EB OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval E1 ITU G.826 Errored Block
Count."
    ::= { cascds1IntervalEntry 10 }

```

```

cascds1IntervalG826ES OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval E1 ITU G.826 Errored Seconds
Count."
    ::= { cascds1IntervalEntry 11 }

```

```

cascds1IntervalG826SES OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval E1 ITU G.826 Severely Errored
Seconds Count."
    ::= { cascds1IntervalEntry 12 }

```

```

cascds1IntervalG826BBE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval E1 ITU G.826 Background Block
Errors Count."
    ::= { cascds1IntervalEntry 13 }

```

```

-- the DS1 Total

-- The DS1 Total Table contains the cumulative sum of the
-- various statistics for the 24 hour period preceding the
-- current interval.

```

```

cascds1TotalTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF Cascds1TotalEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The DS1 Total table.  24 hour
interval."
    ::= { cascds1 4 }

```

```

cascds1TotalEntry OBJECT-TYPE
    SYNTAX      Cascds1TotalEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "An entry in the DS1 Total table."
    INDEX      { cascds1TotalSlotId,
cascds1TotalPortId }
    ::= { cascds1TotalTable 1 }

```

```

Cascds1TotalEntry ::=

```

```

SEQUENCE {
    cascds1TotalSlotId
        INTEGER,
    cascds1TotalPortId
        INTEGER,
    cascds1TotalESSs
        Gauge,
    cascds1TotalSESSs
        Gauge,
    cascds1TotalSEFSSs
        Gauge,
    cascds1TotalUASSs
        Gauge,
    cascds1TotalCSSs
        Gauge,
    cascds1TotalBESSs
        Gauge,
    cascds1TotalG826EB
        Gauge,
    cascds1TotalG826ES
        Gauge,
    cascds1TotalG826SES
        Gauge,
    cascds1TotalG826BBE
        Gauge
}

cascds1TotalSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The slot number of the
corresponding DS1."
    ::= { cascds1TotalEntry 1 }

cascds1TotalPortId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The port number of the
corresponding DS1
on the board."

```

```

::= { cascds1TotalEntry 2 }

cascds1TotalESSs OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The number of Errored Seconds
encountered by a
DS1 interface in the previous 24
hour interval"
    ::= { cascds1TotalEntry 3 }

cascds1TotalSESSs OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The number of Severely Errored
Seconds encoun-
tered by a DS1 interface in
the previous 24
hour interval."
    ::= { cascds1TotalEntry 4 }

cascds1TotalSEFSSs OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The number of Severely Errored
Framing Seconds
encountered by a DS1 interface in
the previous
24 hour interval."
    ::= { cascds1TotalEntry 5 }

cascds1TotalUASSs OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION

```

	DESCRIPTION
encountered by a DS1 interface in the previous 24 hour interval."	"Total E1 ITU G.826 Errored Seconds Count."
::= { cascds1TotalEntry 6 }	::= { cascds1TotalEntry 10 }
cascds1TotalCSSs OBJECT-TYPE	cascds1TotalG826SES OBJECT-TYPE
SYNTAX Gauge	SYNTAX Gauge
ACCESS read-only	ACCESS read-only
STATUS mandatory	STATUS mandatory
DESCRIPTION	DESCRIPTION
"The number of Controlled Slip Seconds encountered by a DS1 interface in the previous 24 hour interval."	"Total E1 ITU G.826 Severely Errored Seconds Count."
::= { cascds1TotalEntry 7 }	::= { cascds1TotalEntry 11 }
cascds1TotalBESs OBJECT-TYPE	cascds1TotalG826BBE OBJECT-TYPE
SYNTAX Gauge	SYNTAX Gauge
ACCESS read-only	ACCESS read-only
STATUS mandatory	STATUS mandatory
DESCRIPTION	DESCRIPTION
"The number of Bursty Errored Seconds (BESs) encountered by a DS1 interface in the previous 24 hour interval."	"Total E1 ITU G.826 Background Block Errors Count."
::= { cascds1TotalEntry 8 }	::= { cascds1TotalEntry 12 }
cascds1TotalG826EB OBJECT-TYPE	--
SYNTAX Gauge	-- SMDS address : An SMDS address can be a local individual address
ACCESS read-only	-- assigned to a DXI/SNI, a local group address defined in the STDx,
STATUS mandatory	-- an individual address which is not assigned to any DXI/SNI in this
DESCRIPTION	-- STDx but is a member of an individual address screen, or can be
"Total E1 ITU G.826 Errored Block Count."	-- a group address which is not defined in the STDx but is a member
::= { cascds1TotalEntry 9 }	-- of a group address screen.
cascds1TotalG826ES OBJECT-TYPE	--
SYNTAX Gauge	smdsaddrTable OBJECT-TYPE
ACCESS read-only	SYNTAX SEQUENCE OF SmdsaddrEntry
STATUS mandatory	ACCESS not-accessible
	STATUS mandatory
	DESCRIPTION
	"A list of smds address entries."
	::= { smdsaddr 1 }

```

smdsaddrEntry OBJECT-TYPE
    SYNTAX      SmdsaddrEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "An smds address and its
associated information."
    INDEX      { smdsaddrAddr }
    ::= { smdsaddrTable 1 }

SmdsaddrEntry ::=
    SEQUENCE {
        smdsaddrAddr
            OCTET STRING,
        smdsaddrType
            INTEGER,
        smdsaddrId
            INTEGER,
        smdsaddrIf
            INTEGER,
        smdsaddrParentGrpMap
            OCTET STRING,
        smdsaddrParentScrnMap
            OCTET STRING,
        smdsaddrMemberAddrMap
            OCTET STRING,
        smdsaddrAdminStatus
            INTEGER,
        smdsaddrSlot
            INTEGER,
        smdsaddrSsiIfNum
            INTEGER
    }

smdsaddrAddr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "SMDS address. The 4 most
significant bits are the address
type : 1100 for an individual
address, 1110 for a group

```

address. The following 4 bits are
 0001. The following 5 bytes
 are the 10 digits number in BCD
 format. The following 16 bits
 are padded with 1's"
 ::= { smdsaddrEntry 1 }

```

smdsaddrType OBJECT-TYPE
    SYNTAX      INTEGER {
        local-individual-address(1),
        local-group-address(2),
        non-local-individual-address(3),
        non-local-group-address(4),
        distributed-individual-address(5),
        ssi-feeder-address(6)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "SMDS address internal type."
    ::= { smdsaddrEntry 2 }

```

```

smdsaddrId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "smds address internal ID.
        Range from 1 to 192 for local
individual addresses.
        Range from 193 to 704 for Alien
individual addresses.
        Range from 1 to 64 for local
group addresses.
        Range from 65 to 576 for alien
group addresses."
    ::= { smdsaddrEntry 3 }

```

```

smdsaddrIf OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The interface to which this
address is assigned."

```



```

        ::= { smdsaddrEntry 4 }

smdsaddrParentGrpMap OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The parent group bit map. The bit
position of each bit
        in this bit map represent a
parent group address ID. The most
        significant bit is corresponding
to group address ID 1. This
        MIB object applies to a local
individual address only."
        ::= { smdsaddrEntry 5 }

smdsaddrParentScrnMap OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "This MIB object not applicable to
switch software versions
        03.99.00 and above.
        The parent screen bit map. The
bit position of each bit
        in this bit map represent a
parent screen ID. The most
        significant bit is corresponding
to screen ID 1."
        ::= { smdsaddrEntry 6 }

smdsaddrMemberAddrMap OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The member individual address bit
map. For set request,
        the first byte is the operation :
1 for deleting, 2 for
        adding. The following bytes are
the bit

```

```

map. The bit position of each bit
in this bit map represent
        a member local individual address
ID. The most significant
        bit is corresponding to local
individual address ID 1. For
        get response, The whole string is
the bit map."
        ::= { smdsaddrEntry 7 }

smdsaddrAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        invalid(0),
        down(1),
        up(2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "administration status"
        ::= { smdsaddrEntry 8 }

smdsaddrSlot OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The Slot in which this address is
assigned."
        ::= { smdsaddrEntry 9 }

smdsaddrSsiIfNum OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The SSI to which this address is
associated."
        ::= { smdsaddrEntry 10 }

--
--      ISDN Addr Group
--
--      The ISDN addr group is comprised of two
tables:

```

```

--          1) indexed based on interface id, this table
contains the lport E.164 address
--          and the lport type - b-channel or sw56
--          2) indexed based on interface id, this table
contains valid caller ids
--
isdnAddrTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF IsdnAddrEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of E.164 address entries."
    ::= { isdnaddr 1 }

isdnAddrEntry OBJECT-TYPE
    SYNTAX      IsdnAddrEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "Information about a single local
E.164 address in the table.
        Setting this variable to 0 removes
the entry."
    INDEX      { isdnAddrIf }
    ::= { isdnAddrTable 1 }

IsdnAddrEntry ::=
    SEQUENCE {
        isdnAddrIf
            INTEGER,
        isdnAddr
            OCTET STRING,
        isdnChanType
            INTEGER
    }

isdnAddrIf OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The interface id of the logical
port in question"
    ::= { isdnAddrEntry 1 }

```

```

isdnAddr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "ISDN address. The actual E164
number. For example,
        ISDN address 15086922600 is
stored as string 15086922600.
        Setting this value to a null
string removes this entry."
    ::= { isdnAddrEntry 2 }

isdnChanType OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        " type of logical port 0 => isdn
b-channel,
        1 => sw56 "
    ::= { isdnAddrEntry 3}

isdnCallerIDTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF IsdnCallerIDEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of valid caller ids "
    ::= { isdnaddr 2 }

isdnCallerIDEntry OBJECT-TYPE
    SYNTAX      IsdnCallerIDEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "Information about a single valid
caller id."
    INDEX      { isdnCallerIDIf, isdnCallerIDAddr
}
    ::= { isdnCallerIDTable 1 }

IsdnCallerIDEntry ::=
    SEQUENCE {

```

```

        isdnCallerIDIf
            INTEGER,
        isdnCallerIDAddr
            OCTET STRING,
        isdnCallerAdminStatus
            INTEGER
    }

isdnCallerIDIf OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The interface id of the logical
port in question"
        ::= { isdnCallerIDEntry 1 }

isdnCallerIDAddr OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "ISDN address. The actual E164
number. For example,
        ISDN address 15086922600 is
stored as string 15086922600."
        ::= { isdnCallerIDEntry 2 }

isdnCallerAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        remove (0),
        add (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "administration status"
        ::= { isdnCallerIDEntry 3 }

--
--      DVC group
--      The DVC group consists of one or more tables:
--      1) DVC ckt group table

```

```

--      In addition to this, protocol specific tables
can be added here if seen fit.
--      Although this is not aesthetically pleasing,
it seems the most practical
--      way to allow for protocol specific differences
without getting embroiled
--      in too much academic discussion.

--      DVC CKT GRP THINGS:
--      -----

dvcCktGrpTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF DvcCktGrpEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of DVC Circuit Group
entries defined in a card"
        ::= { dvccktgrp 1 }

dvcCktGrpEntry OBJECT-TYPE
    SYNTAX      DvcCktGrpEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A DVC Circuit Group entry
contains information about a DVC
        Circuit Group"
        INDEX    { dvcCktGrpNodeId,
dvcCktGrpSlotId, dvcCktGrpId }
        ::= { dvcCktGrpTable 1 }

DvcCktGrpEntry ::=
    SEQUENCE {
        dvcCktGrpNodeId      INTEGER,
        dvcCktGrpSlotId      INTEGER,
        dvcCktGrpId          INTEGER,
        dvcCktGrpAdminStatus INTEGER,
        dvcCktGrpMaxDvcs     INTEGER,
        dvcCktGrpActiveDvcCount INTEGER,
        dvcCktGrpDialedE164Addr OCTET
STRING,
        dvcCktGrpPPPOption  INTEGER,
        dvcCktGrpAuthDomainId INTEGER,
        dvcCktGrpBaseIpAddr IpAddress,

```

INTEGER,	dvcCktGrpIngressLpportProtocol			dvcCktGrpId	OBJECT-TYPE	
	dvcCktGrpAuthAdminStatus	INTEGER,		SYNTAX		INTEGER
	dvcCktGrpEgressBeginDlci	INTEGER,		ACCESS		read-write
	dvcCktGrpEgressNodeId	INTEGER,		STATUS		mandatory
	dvcCktGrpEgressSlotId	INTEGER,		DESCRIPTION		
	dvcCktGrpEgressIfNum	INTEGER,				"Id of the DVC Ckt
	dvcCktGrpPriority	INTEGER,		Grp; unique within a map"		
	dvcCktGrpCir	INTEGER,		::= {dvcCktGrpEntry 3}		
	dvcCktGrpBc	INTEGER,				
	dvcCktGrpBe	INTEGER,		dvcCktGrpAdminStatus	OBJECT-TYPE	
	dvcCktGrpOde	INTEGER,		SYNTAX		INTEGER {
	dvcCktGrpChanType	INTEGER,				add (1),
	dvcCktXlatFlag	INTEGER,				idle(2),
	dvcCktAtmInCells	Counter,				remove(3)
	dvcCktAtmOutCells	Counter,				}
	dvcCktAtmInDiscardedClp0Cells			ACCESS		read-write
Counter,				STATUS		mandatory
	dvcCktAtmInDiscardedClp1Cells			DESCRIPTION		
Counter,						"Admin Status of the
	dvcCktAtmPCR	INTEGER,		DVC Circuit Group"		
	dvcCktAtmSCR	INTEGER,		::= {dvcCktGrpEntry 4}		
	dvcCktAtmMBS	INTEGER,				
	dvcCktGrpActiveDvcs	OCTET		dvcCktGrpMaxDvcs	OBJECT-TYPE	
STRING,				SYNTAX		INTEGER
	dvcCktGrpValidateCaller	INTEGER		ACCESS		read-write
				STATUS		mandatory
				DESCRIPTION		
	dvcCktGrpNodeId	OBJECT-TYPE				"Maximum number of
	SYNTAX	INTEGER		live DVCs allowed for this Circuit Group"		
	ACCESS	read-write		::= {dvcCktGrpEntry 5}		
	STATUS	mandatory				
	DESCRIPTION			dvcCktGrpActiveDvcCount	OBJECT-TYPE	
		"Node Id in which		SYNTAX		INTEGER
this variable resides"				ACCESS		read-only
::= {dvcCktGrpEntry 1}				STATUS		mandatory
	dvcCktGrpSlotId	OBJECT-TYPE		DESCRIPTION		
	SYNTAX	INTEGER				"Actual number of live
	ACCESS	read-write		DVCs in this Circuit Group"		
	STATUS	mandatory		::= {dvcCktGrpEntry 6}		
	DESCRIPTION					
		"Slot Id in which		dvcCktGrpDialedE164Addr	OBJECT-TYPE	
this DVC Circuit Group resides"				SYNTAX		OCTET STRING
::= {dvcCktGrpEntry 2}				ACCESS		read-write

STATUS	mandatory
DESCRIPTION	"Dialed E164 address
of the DVC Circuit Group"	
::= {dvcCktGrpEntry 7}	

dvcCktGrpPPPOption	OBJECT-TYPE
SYNTAX	INTEGER {
	pap-only (1),
	chap-only (2),
	pap-and-chap (3)
	}
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"PPP authentication options."
::= {dvcCktGrpEntry 8}	

dvcCktGrpAuthDomainId	OBJECT-TYPE
SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Authentication Domain ID for this
lport."	
::= {dvcCktGrpEntry 9}	

dvcCktGrpBaseIpAddress	OBJECT-TYPE
SYNTAX	IpAddress
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Base Ip address for
this circuit group"	
::= {dvcCktGrpEntry 10}	

dvcCktGrpIngressLportProtocol	OBJECT-TYPE
SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Ingress lport
protocol for this circuit group"	
::= {dvcCktGrpEntry 11}	

dvcCktGrpAuthAdminStatus	OBJECT-TYPE
SYNTAX	INTEGER {
	auth-enabled (1),
	auth_disabled (2)
	}
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Authentication enabled for this
port, yes or no."	
::= {dvcCktGrpEntry 12}	

dvcCktGrpEgressBeginDlci	OBJECT-TYPE
SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Egress beginning DLCI for this
circuit group: if either this is 0,	
implies use any. This variable is	
a overloaded with a 16 bit VPI/VCI for	
ATM support"	
::= {dvcCktGrpEntry 13}	

dvcCktGrpEgressNodeId	OBJECT-TYPE
SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Egress node id for
this circuit group"	
::= {dvcCktGrpEntry 14}	

dvcCktGrpEgressSlotId	OBJECT-TYPE
SYNTAX	INTEGER
ACCESS	read-write
STATUS	mandatory
DESCRIPTION	"Egress slot id for
this circuit group"	
::= {dvcCktGrpEntry 15}	

dvcCktGrpEgressIfNum	OBJECT-TYPE
SYNTAX	INTEGER
ACCESS	read-write

```

STATUS          mandatory
DESCRIPTION
Interface Number for this circuit group"
::= {dvcCktGrpEntry 16}

dvcCktGrpPriority OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Circuit priority (1
through 3) for each DVC in this circuit group"
        ::= {dvcCktGrpEntry 17}

dvcCktGrpCir      OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "CIR for each DVC in
this circuit group"
        ::= {dvcCktGrpEntry 18}

dvcCktGrpBc      OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Bc for each DVC in
this circuit group"
        ::= {dvcCktGrpEntry 19}

dvcCktGrpBe      OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Be for each DVC in
this circuit group"
        ::= {dvcCktGrpEntry 20}

dvcCktGrpOde      OBJECT-TYPE
    SYNTAX      INTEGER {
        off (0),

```

```

        on (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "ODE for each DVC in
this circuit group"
        ::= {dvcCktGrpEntry 21}

dvcCktGrpChanType OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        " type of logical port 0 => isdn
b-channel,
        1 => isdn sw56 "
        ::= { dvcCktGrpEntry 22}

dvcCktXlatFlag OBJECT-TYPE
    SYNTAX      INTEGER {
        no-translation (0),
        rfc1483 (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "0 if RFC1490 or no translation; 1 if
RFC1483 translation."
        ::= { dvcCktGrpEntry 23 }

dvcCktAtmInCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM cells received
on a VC (VPC or VCC). "
        ::= { dvcCktGrpEntry 24 }

dvcCktAtmOutCells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM cells
transmitted on a VC (VPC or VCC).."

```

```

        ::= { dvcCktGrpEntry 25 }

dvcCktAtmInDiscardedClp0Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM CLP0 cells
received and discarded on a VC (VPC or VCC).."
    ::= { dvcCktGrpEntry 26 }

dvcCktAtmInDiscardedClp1Cells OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The Number of ATM CLP1 cells
received and discarded on a VC (VPC or VCC).."
    ::= { dvcCktGrpEntry 27 }

dvcCktAtmPCR OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "The Peak Cell Rate measured in
cells/second at which
cells are transmitted for this
circuit."
    ::= { dvcCktGrpEntry 28 }

dvcCktAtmSCR OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "The Sustainable Cell Rate is the
average transmission rate
in cells per second for this
circuit. It must be less than or
or equal to the Peak Cell Rate."
    ::= { dvcCktGrpEntry 29 }

dvcCktAtmMBS OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory

```

```

DESCRIPTION
    "The Maximum Burst size determines
the maximum number of cells
that can be transmitted at the
peak cell rate."
    ::= { dvcCktGrpEntry 30 }

dvcCktGrpActiveDvcs OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "This is a (6 + m *
12) octet BINARY string where:
m is the number of
live DVCs in this circuit group ( m >= 0).
The first 2 bytes is
the DVC Circuit Group id.
The second 2 bytes is
the length of this string including
the circuit group id.
Byte #5 is the length
of data for each DVC.
Byte #6 is number of
live DVCs described in this string.
Byte #7 through Byte
#18 describe the first DVC,
Byte #19 through Byte
#30 describe the second DVC and so on..
Each Live DVC is
described in the following format:
Ingress
Node, Ingress Ifnum, Ingress DLCI, Egress DLCI
Note that Byte 5 is
used to accommodate future expansion to
include other data.
Hence, always add to the end of this tuple,
not to the middle.
"
    ::= { dvcCktGrpEntry 31 }

dvcCktGrpValidateCaller OBJECT-TYPE
    SYNTAX      INTEGER {
        validateCaller (1),
        dontValidateCaller (2)
    }

```

```

        }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION "Does this cktgrp require callerid
screening?"
        ::= { dvcCktGrpEntry 32 }

--
--
variables related to DVC go here
--
-----
--

isdnAuthenCallerIDTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF
IsdnAuthenCallerIDEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of Authentic caller ids
and the DVC circuit groups they are allowed to access"
        ::= { dvcprotocustom 1 }

isdnAuthenCallerIDEntry OBJECT-TYPE
    SYNTAX      IsdnAuthenCallerIDEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "Information about a single
authentic caller id."
    INDEX      { isdnSlotId, isdnDvcCktGrpId,
isdnAuthenCallerIDAddr }
        ::= { isdnAuthenCallerIDTable 1 }

IsdnAuthenCallerIDEntry ::=
    SEQUENCE {
        isdnSlotId
            INTEGER,
        isdnDvcCktGrpId
            INTEGER,
        isdnAuthenCallerIDAddr

```

```

            OCTET STRING,
            isdnAuthenCallerAdminStatus
            INTEGER
        }

isdnSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "slot id"
        ::= { isdnAuthenCallerIDEntry 1 }

isdnDvcCktGrpId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The DVC Circuit Group Id that this caller
is allowed to access"
        ::= { isdnAuthenCallerIDEntry 2 }

isdnAuthenCallerIDAddr OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(1..16))
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "ISDN address. The actual E164 number. For
example,
                                ISDN address 15086922600 is
stored as null-terminated
                                string 15086922600.This string
has a maximum size of
                                16 bytes."
        ::= { isdnAuthenCallerIDEntry 3 }

isdnAuthenCallerAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        add (1),
        remove (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "administration status"

```



```

        ::= { isdnAuthenCallerIDEntry 4 }

-- The Service Name Binding Group
--
-- The variables that are relevant to a Service Name
Binding Table
--

namebindingTable OBJECT-TYPE
    SYNTAX SEQUENCE OF NamebindingEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A table of name bindings to a set
of logical ports."
    ::= { namebinding 1 }

namebindingEntry OBJECT-TYPE
    SYNTAX NamebindingEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The name binding entry contains
objects relative to a
        name binding."
    INDEX { nameType, nameName, namePrimary }
    ::= { namebindingTable 1 }

NamebindingEntry ::=
    SEQUENCE {
        nameType
            INTEGER,
        nameName
            OCTET STRING,
        namePrimary
            INTEGER,
        nameIfIndex
            INTEGER,
        nameNodeId
            INTEGER,
        nameStatus
            INTEGER,
        nameResilientLMIBackupIfIndex
            INTEGER,

```

```

        nameResilientLMISwitchoverMode
            INTEGER,
        nameResilientLMIForceSwitchover
            INTEGER,
        nameResilientLMIOperStatus
            INTEGER,
        nameResilientLMIMasterSlaveMode
            INTEGER
    }

nameType OBJECT-TYPE
    SYNTAX INTEGER {
        uniniladdr(1), -- this is a
logical address for frame relay
        e164(2), -- this is an E.164
address (UNUSED)
        nsap(3), -- this is an NSAP
address (UNUSED)
        sni(4) -- this is
an SNI SMDS address (UNUSED)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The name type."
    ::= { namebindingEntry 1 }

nameName OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "A name of the type indicated by
nameType."
    ::= { namebindingEntry 2 }

namePrimary OBJECT-TYPE
    SYNTAX INTEGER {
        primary(1), -- a
primary backup
        backup(2), -- a
backup binding
        resilientLMI (3)-- automatic
resilient LMI preferred and backup bindings
    }

```

```

ACCESS read-write
STATUS mandatory
DESCRIPTION
    "The current binding type for this
entry. If resilient LMI
    is selected, only interfaces
enabled as resilient LMI
    interfaces can be selected for
the nameIfIndex and
    nameResilientLMIBackupIfIndex."
::= { namebindingEntry 3 }

```

```

nameIfIndex OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "The interface number of the
logical port for this binding.
    This is the preferred interface
binding when namePrimary
    equals resilientLMI."
::= { namebindingEntry 4 }

```

```

nameNodeId OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "The identifier number of the node
for this binding (UNUSED)."
```

```

::= { namebindingEntry 5 }

```

```

nameStatus OBJECT-TYPE
SYNTAX INTEGER {
    active(1), -- binding is active
    invalid(2) -- binding is invalid
}
and is deleted
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "The status of the binding."
::= { namebindingEntry 6 }

```

```

nameResilientLMIBackupIfIndex OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "The interface number of the
backup logical port binding
    for this name. This object is
only used when namePrimary
    equals resilientLMI."
::= { namebindingEntry 7 }

```

```

nameResilientLMISwitchoverMode OBJECT-TYPE
SYNTAX INTEGER {
    fullRevertive(1), -- revert to
primary binding when primary is up
    semiRevertive(2), -- remain on
backup binding when primary is up
    manualOnly (3) -- don't switch
to other binding unless manually forced
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "The mode of operation for
automatic bindings when an interface
    changes up/down state. This
object is only used when namePrimary
    equals resilientLMI and
nameResilientLMIMasterSlaveMode equals 'master'."
DEFVAL { fullRevertive }
::= { namebindingEntry 8 }

```

```

nameResilientLMIForceSwitchover OBJECT-TYPE
SYNTAX INTEGER {
    switchover (1),
    noop (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "When the value is set to 'noop',
no action is taken, otherwise when
    the value is set to 'switchover';
the current binding will

```

```

        be switched to the other binding
(i.e., primary to backup, or
        backup to primary). This object
is only used when namePrimary
        equals resilientLMI. When read,
the value 'noop' is returned."
        ::= { namebindingEntry 9 }

nameResilientLMIOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        none (1),
        preferred (2),
        backup (3)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The operational state of the
current binding. This object is
        only used when namePrimary equals
resilientLMI."
        ::= { namebindingEntry 10 }

nameResilientLMIMasterSlaveMode OBJECT-TYPE
    SYNTAX INTEGER {
        master(1),
        slave(2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The mode of operation for
resilient LMI bindings.
        The 'master' pair of bindings
represents 2 interfaces that are
        attached to 2 'slave' interface
bindings. The master controls
        the switchover operation defined
by nameResilientLMISwitchoverMode.
        This object is only used when
namePrimary equals resilientLMI."
    DEFVAL { master }
    ::= { namebindingEntry 11 }

-- The SVC Address Group

```

```

--
-- The tables that are relevant to managing SVC addresses
and prefixes
-- in a Cascade network.
--
--
-- SVC Node Prefix Table
--
svcNodePrefixTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SvcNodePrefixEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A table of prefixes associated
with this node."
        ::= { svcaddress 1 }

svcNodePrefixEntry OBJECT-TYPE
    SYNTAX SvcNodePrefixEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The node prefix entry contains
objects relevant to SVC prefixes
        associated with the node. Note
that the index variable,
        svcNodePrefixPrefix is a variable
length octet string and as
        such is encoded with the octet
string length per RFC1212,
        section 4.1.6."
    INDEX { svcNodePrefixPrefix }
    ::= { svcNodePrefixTable 1 }

SvcNodePrefixEntry ::=
    SEQUENCE {
        svcNodePrefixPrefix
            OCTET STRING,
        svcNodePrefixNumBits
            INTEGER,
        svcNodePrefixNmbPlan
            INTEGER,
        svcNodePrefixAdminStatus

```

```

        INTEGER,
        svcNodePrefixAttributes
        INTEGER,
        svcNodePrefixCugStat
        OCTET STRING,
        svcNodePrefixOrgScope
        INTEGER,
        svcNodePrefixOSPFAreaID
        IPAddress,
        svcNodePrefixAdminCost
        INTEGER
    }

svcNodePrefixPrefix OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(1..20))
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A prefix associated with this
        node.  E.164 prefixes are coded as
        1-15 ASCII octets with no leading
        padding required.  X.121 prefixes
        are coded as 1-14 ASCII octets
        with no leading padding required.
        ATM endsystem prefixes are coded
        as 1-20 binary octets.  Unused
        bits in the last octet must be
        set to 0."
    ::= { svcNodePrefixEntry 1 }

svcNodePrefixNumBits OBJECT-TYPE
    SYNTAX INTEGER (1..160)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of valid bits
        associated with this entry's prefix object.
        By default, this value will be 8
        times the prefix object's octet
        string length.  This value must
        be consistent with the number of
        octets specified in the node
        prefix."
    ::= { svcNodePrefixEntry 2 }

```

```

svcNodePrefixNmbPlan OBJECT-TYPE
    SYNTAX INTEGER {
        e164 (1),
        atm-endsystem (2),
        unknown (4),
        x121 (8)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The numbering plan corresponding
        to this entry's prefix object."
    ::= { svcNodePrefixEntry 3 }

svcNodePrefixAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        configured (1), -- this entry has
        been configured by NMS
        invalid (2),      -- this
        entry shall be deleted
        dynamic (3)       -- this
        entry was dynamically created
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The status of this entry."
    ::= { svcNodePrefixEntry 4 }

svcNodePrefixAttributes OBJECT-TYPE
    SYNTAX INTEGER (0..33554431)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object supports a bitwise
        encoding of attributes and
        capabilities associated with this node
        prefix.

        The defined values are bit-wise
        encoded as follows:

        2^1      (2)-
        Route determination
        2^2      (4)-
        Source address validation

```

ILMI address registration	2^3	(8)-	intra-site (5), site-plus-one (6), org-minus-one (7), intra-org (8), org-plus-one (9), community-minus-one (10), intra-community (11), community-plus-one (12), regional (13), inter-regional (14), inter-global (15)
OSPF area summary	2^7	(128)-	
Internal management"	2^8	(256)-	
::= { svcNodePrefixEntry 5 }			
svcNodePrefixCugStat OBJECT-TYPE			
SYNTAX OCTET STRING			
ACCESS read-only			
STATUS mandatory			
DESCRIPTION			}
"This object encodes the CUG			ACCESS read-write
status for this			STATUS mandatory
particular row. The encoding			DESCRIPTION
scheme is as follows:			"The organizational scope
			corresponding to this entry's prefix object."
			DEFVAL { inter-global }
			::= { svcNodePrefixEntry 7 }
	E - Error		
	OA - Outgoing Access		svcNodePrefixOSPFAreaID OBJECT-TYPE
	IA - Incoming Access		SYNTAX IPAddress
	# - CUG Identifier		ACCESS read-write
	0 - Outgoing Calls		STATUS mandatory
Barred			DESCRIPTION
	I - Incoming Calls		"Applicable only when the
Barred			svcNodePrefixAttributes for this row sets
	P - Preferential CUG		the 2^7 (128) bit. In such a
			case, this object represents the OSPF
following output:	Order is important. The		area ID for which this node
			prefix is a summary."
	E OA 1 I 10 P		::= { svcNodePrefixEntry 8 }
Identifier 1,	means Error, Outgoing Access, CUG		svcNodePrefixAdminCost OBJECT-TYPE
	Incoming Access, CUG Identifier		SYNTAX INTEGER (0..65535)
10, Preferential"			ACCESS read-write
::= { svcNodePrefixEntry 6 }			STATUS mandatory
			DESCRIPTION
svcNodePrefixOrgScope OBJECT-TYPE			"The administrative cost associated with
SYNTAX INTEGER {			this node prefix."
local (1),			::= { svcNodePrefixEntry 9 }
local-plus-one (2),			
local-plus-two (3),			--
site-minus-one (4),			-- SVC Prefix Table

```

--
svcPrefixTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SvcPrefixEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A table of SVC address prefixes
        associated with ports on this node."
    ::= { svcaddress 2 }

svcPrefixEntry OBJECT-TYPE
    SYNTAX SvcPrefixEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The prefix entry contains objects
        relevant to SVC prefixes
        associated with this port. Note
        that the index variable,
        svcPrefixPrefix is a variable
        length octet string and as
        such is encoded with the octet
        string length per RFC1212,
        section 4.1.6."
    INDEX { svcPrefixIfIndex, svcPrefixPrefix }
    ::= { svcPrefixTable 1 }

SvcPrefixEntry ::=
    SEQUENCE {
        svcPrefixIfIndex
            Index,
        svcPrefixPrefix
            OCTET STRING,
        svcPrefixNumBits
            INTEGER,
        svcPrefixNmbPlan
            INTEGER,
        svcPrefixAdminCost
            INTEGER,
        svcPrefixLocalGatewayAddress
            OCTET STRING,
        svcPrefixLocalGatewayNmbPlan
            INTEGER,
        svcPrefixRemoteGatewayAddress
            OCTET STRING,
        svcPrefixRemoteGatewayNmbPlan
            INTEGER,
        svcPrefixAdminStatus
            INTEGER,
        svcPrefixAttributes
            INTEGER,
        svcPrefixCugStat
            OCTET STRING,
        svcPrefixOrgScope
            INTEGER
    }

svcPrefixIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The interface value of the
        corresponding MIB-II ifEntry."
    ::= { svcPrefixEntry 1 }

svcPrefixPrefix OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(1..20))
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A prefix associated with this
        port. E.164 prefixes are coded as
        1-15 ASCII octets with no leading
        padding required. X.121 prefixes
        are coded as 1-14 ASCII octets
        with no leading padding required.
        ATM endsystem prefixes are coded
        as 1-20 binary octets. Unused
        bits in the last octet must be
        set to 0.

        For ATM DCE ports, only, atm-
        endsystem prefixes with length 104 bits
        (13 octets) and all E.164
        prefixes are eligible for ILMI address
        registration."
    ::= { svcPrefixEntry 2 }

```

```

svcPrefixNumBits OBJECT-TYPE
    SYNTAX INTEGER (0..160)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of valid bits
associated with this entry's prefix object.
        By default, this value will be 8
times the prefix object's octet
        string length. This value must
be consistent with the number of octets
        specified in the prefix. The
value 0 presents a special case and may
        only be set when the prefix,
itself, is a single octet of value 0. A
        0-length prefix on this port
signifies a default route to the switch's
        routing function."
 ::= { svcPrefixEntry 3 }

```

```

svcPrefixNmbPlan OBJECT-TYPE
    SYNTAX INTEGER {
        e164 (1),
        atm-endsystem (2),
        unknown (4),
        x121 (8)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The numbering plan corresponding
to this entry's prefix object."
 ::= { svcPrefixEntry 4 }

```

```

svcPrefixAdminCost OBJECT-TYPE
    SYNTAX INTEGER (0..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The administrative cost
associated with this prefix."
 ::= { svcPrefixEntry 5 }

```

```

svcPrefixLocalGatewayAddress OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(0..20))

```

```

ACCESS read-write
STATUS mandatory
DESCRIPTION
    "This object is only relevant for
ports connecting this network to
        another network and is used to
replace the calling party number
        when egress address translation
is configured to the appropriate mode.
        E.164 addresses are coded as 1-15
ASCII octets  Atm-endsystem addresses
        are coded as 20 octet binary
addresses.  A 0 length octet string will
        invalidate this object."
 ::= { svcPrefixEntry 6 }

```

```

svcPrefixLocalGatewayNmbPlan OBJECT-TYPE
    SYNTAX INTEGER{
        e164 (1),
        atm-endsystem (2),
        unknown (4)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The numbering plan corresponding
to this entry's local gateway address
        object."
 ::= { svcPrefixEntry 7 }

```

```

svcPrefixRemoteGatewayAddress OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(0..20))
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is only relevant for
ports connecting this network to
        another network and is used to
replace the calling party number
        when egress address translation
is configured to the appropriate mode.
        E.164 addresses are coded as 1-15
ASCII octets  Atm-endsystem addresses
        are coded as 20 octet binary
addresses.  A 0 length octet string will

```

```

        invalidate this object."
 ::= { svcPrefixEntry 8 }

svcPrefixRemoteGatewayNmbPlan OBJECT-TYPE
    SYNTAX INTEGER{
        e164 (1),
        atm-endsystem (2),
        unknown (4)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The numbering plan corresponding
to this entry's remote gateway address
        object."
 ::= { svcPrefixEntry 9 }

svcPrefixAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        configured (1), -- this entry has
been configured by NMS
        invalid (2),      -- this
entry shall be deleted
        dynamic (3)       -- this
entry created via peer device (ATM UNI DTE, only)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The status of this entry."
 ::= { svcPrefixEntry 10 }

svcPrefixAttributes OBJECT-TYPE
    SYNTAX INTEGER (0..32767)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object supports a bitwise
encoding of attributes and
        capabilities associated with this prefix.

        The defined values are bit-wise
encoded as follows:

determination

```

2^1 (2)- Route

```

address validation
address registration
Termination
Future Use"
 ::= { svcPrefixEntry 11 }

svcPrefixCugStat OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object encodes the CUG
status for this
scheme is as follows:

E - Error
A - Ambiguous
OA - Outgoing Access
IA - Incoming Access
# - CUG Identifier
0 - Outgoing Calls
I - Incoming Calls
P - Preferential CUG

Order is important. The
following output:

E OA | 1 I | 10 P

means Error, Outgoing Access, CUG
Identifier 1,
Incoming Access, CUG Identifier
10, Preferential"
 ::= { svcPrefixEntry 12 }

svcPrefixOrgScope OBJECT-TYPE
    SYNTAX INTEGER {
        local (1),

```



```

        local-plus-one (2),
        local-plus-two (3),
        site-minus-one (4),
        intra-site (5),
        site-plus-one (6),
        org-minus-one (7),
        intra-org (8),
        org-plus-one (9),
        community-minus-one (10),
        intra-community (11),
        community-plus-one (12),
        regional (13),
        inter-regional (14),
        inter-global (15)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The organizational scope
        corresponding to this entry's prefix object."
    DEFVAL { inter-global }
    ::= { svcPrefixEntry 13 }

--
--   SVC Addr Table
--

svcAddrTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SvcAddrEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A table of SVC addresses
        associated with with ports on this node."
    ::= { svcaddress 3 }

svcAddrEntry OBJECT-TYPE
    SYNTAX SvcAddrEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The address entry contains
        objects relevant to SVC addresses
        associated with this port. Note
        that the index variable,"

```

```

        svcAddrAddress is a variable
        length octet string and as
        such is encoded with the octet
        string length per RFC1212,
        section 4.1.6."
    INDEX { svcAddrIfIndex, svcAddrAddress }
    ::= { svcAddrTable 1 }

SvcAddrEntry ::=
    SEQUENCE {
        svcAddrIfIndex
            Index,
        svcAddrAddress
            OCTET STRING,
        svcAddrNmbPlan
            INTEGER,
        svcAddrAdminStatus
            INTEGER,
        svcAddrAdminCost
            INTEGER,
        svcAddrAttributes
            INTEGER,
        svcAddrCugStat
            OCTET STRING,
        svcAddrPvcConnId
            INTEGER,
        svcAddrOrgScope
            INTEGER
    }

svcAddrIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The interface value of the
        corresponding MIB-II ifEntry."
    ::= { svcAddrEntry 1 }

svcAddrAddress OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(1..20))
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

"An address associated with this port. E.164 addresses are coded as 1-15 ASCII octets. X.121 addresses are coded as 1-14 ASCII octets. ATM-Endsystem addresses are coded as 20 binary octets."

::= { svcAddrEntry 2 }

svcAddrNmbPlan OBJECT-TYPE

SYNTAX INTEGER {

e164 (1),
atm-endsystem (2),
unknown (4),
x121 (8)

}

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The numbering plan corresponding to this entry's address object."

::= { svcAddrEntry 3 }

svcAddrAdminStatus OBJECT-TYPE

SYNTAX INTEGER {

configured (1), -- this entry has

been configured by NMS

invalid (2), -- this

entry shall be deleted

dynamic (3) -- this

entry created by peer device (ATM UNI DCE, only)

}

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The status of this entry."

::= { svcAddrEntry 4 }

svcAddrAdminCost OBJECT-TYPE

SYNTAX INTEGER (0..65535)

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The administrative cost associated with this address."

::= { svcAddrEntry 5 }

svcAddrAttributes OBJECT-TYPE

SYNTAX INTEGER (0..32767)

ACCESS read-write

STATUS mandatory

DESCRIPTION

"This object supports a bitwise encoding of attributes and capabilities associated with this address.

The defined values are as

follows:

termination of SVC	2^0	(1)- PVC
determination	2^1	(2)- Route
address validation	2^2	(4)- Source
termination of SVC	2^4	(16)- PVP
Termination	2^5	(32)- CUG
Future Use"	2^6	(64)- CUG

::= { svcAddrEntry 6 }

svcAddrCugStat OBJECT-TYPE

SYNTAX OCTET STRING

ACCESS read-only

STATUS mandatory

DESCRIPTION

"This object encodes the CUG status for this particular row. The encoding scheme is as follows:

E - Error
OA - Outgoing Access
IA - Incoming Access
- CUG Identifier
O - Outgoing Calls

I - Incoming Calls

Barred

Barred

P - Preferential CUG
Order is important. The
following output:
E OA | 1 I | 10 P
means Error, Outgoing Access, CUG
Identifier 1, Incoming Access, CUG Identifier
10, Preferential"
::= { svcAddrEntry 7 }
svcAddrPvcConnId OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"This object specifies the
connection ID associated
with this address. It is
applicable only if either
of but not both of the PVC
termination or PVP termination
attributes are set. It is
interpreted as a 32-bit
integer with VPI and VCI/DLCI
fields as follows:
bit 31 16 150
|-----|---
VCI/DLCI	VPI
For ATM PVC/PVP termination, a
VPI of 0 and VCI of 0
indicate that the switch may
select any VPI/VCI, as
appropriate. For PVP
termination, the VCI must be
coded as 0.

For Frame Relay PVC termination,
the VPI must be coded
as 0. A DLCI of 0 indicates that
the switch may
select any DLCI, as appropriate."
::= { svcAddrEntry 8 }
svcAddrOrgScope OBJECT-TYPE
SYNTAX INTEGER {
local (1),
local-plus-one (2),
local-plus-two (3),
site-minus-one (4),
intra-site (5),
site-plus-one (6),
org-minus-one (7),
intra-org (8),
org-plus-one (9),
community-minus-one (10),
intra-community (11),
community-plus-one (12),
regional (13),
inter-regional (14),
inter-global (15)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The organizational scope
corresponding to this entry's address object."
DEFVAL { inter-global }
::= { svcAddrEntry 9 }
--
-- SVC ATM User Part Table
--
svcAtmDteUserPartTable OBJECT-TYPE
SYNTAX SEQUENCE OF SvcAtmDteUserPartEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
"A table of partial SVC addresses
associated with ports on this node,

```

relevant only to ATM DTE ports
for use in ILMI address registration."
 ::= { svcaddress 4 }

svcAtmDteUserPartEntry OBJECT-TYPE
    SYNTAX SvcAtmDteUserPartEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The user part entry contains
objects relevant to partial SVC addresses
associated with ATM DTE ports on
this node."
    INDEX { svcAtmDteUserPartIfIndex,
svcAtmDteUserPartUserPart }
    ::= { svcAtmDteUserPartTable 1 }

SvcAtmDteUserPartEntry ::=
    SEQUENCE {
        svcAtmDteUserPartIfIndex
            Index,
        svcAtmDteUserPartUserPart
            OCTET STRING,
        svcAtmDteUserPartAdminStatus
            INTEGER
    }

svcAtmDteUserPartIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The interface value of the
corresponding MIB-II ifEntry."
    ::= { svcAtmDteUserPartEntry 1 }

svcAtmDteUserPartUserPart OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(7))
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A partial ATM endsystem address
associated with this ATM DTE port.
It will be combined with ATM
endsystem prefixes received from the

```

```

peer DCE to form a full ATM
endsystem address. This object is coded
as 7 binary octets."
 ::= { svcAtmDteUserPartEntry 2 }

svcAtmDteUserPartAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        configured (1), -- this entry has
been configured by NMS
        invalid (2) -- this
entry shall be deleted
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The status of this entry."
    ::= { svcAtmDteUserPartEntry 3 }

--
-- SVC Network ID Table
--

svcNetworkIdTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SvcNetworkIdEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A table of Network IDs associated
with this port."
    ::= { svcaddress 5 }

svcNetworkIdEntry OBJECT-TYPE
    SYNTAX SvcNetworkIdEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The network ID entry contains
objects relevant to SVC network
IDs associated with the port.
Note that the index variable
svcNetworkIdNetworkId is a
variable length octet string and as
such is encoded with the octet
string length per RFC1212,

```

```

        section 4.1.6."
INDEX { svcNetworkIdIfIndex,
svcNetworkIdNetworkId }
 ::= { svcNetworkIdTable 1 }

SvcNetworkIdEntry ::=
SEQUENCE {
    svcNetworkIdIfIndex
        Index,
    svcNetworkIdNetworkId
        OCTET STRING,
    svcNetworkIdNmbPlan
        INTEGER,
    svcNetworkIdAdminStatus
        INTEGER,
    svcNetworkIdAdminCost
        INTEGER,
    svcNetworkIdAttributes
        INTEGER
}

svcNetworkIdIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The interface value of the
        corresponding MIB-II ifEntry."
    ::= { svcNetworkIdEntry 1 }

svcNetworkIdNetworkId OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(1..8))
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A network ID associated with this
        port.  ATM CIC IDs are coded
        as 3-4 ASCII octets.  FR CIC IDs
        are coded as up to 8 ASCII
        octets.  FR DNIC IDs are coded as
        4 ASCII octets.  In all
        cases, no leading padding is
        required."
    ::= { svcNetworkIdEntry 2 }

```

```

svcNetworkIdNmbPlan OBJECT-TYPE
    SYNTAX INTEGER {
        cic (16),
        dnic (32)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The numbering plan corresponding
        to this entry's network ID object."
    ::= { svcNetworkIdEntry 3 }

svcNetworkIdAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        configured (1), -- this entry has
        been configured by NMS
        invalid (2)      -- this
        entry shall be deleted
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The status of this entry."
    ::= { svcNetworkIdEntry 4 }

svcNetworkIdAdminCost OBJECT-TYPE
    SYNTAX INTEGER (0..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The administrative cost
        associated with this network ID."
    ::= { svcNetworkIdEntry 5 }

svcNetworkIdAttributes OBJECT-TYPE
    SYNTAX INTEGER (0..524287)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object supports a bitwise
        encoding of attributes and
        capabilities associated with this network
        ID."

```

The defined values are bit-wise encoded as follows:

determination	2^1	(2)- Route
validation	2^2	(4)- TNS
default to identify adjacent (also used for billing)	2^17 (131,072)-	Route network
default for insertion	2^18 (262,144)-	TNS

where TNS is the source Transit Network Selection.

If bit 2^17 is set, bit 2^1 must also be set.

If bit 2^18 is set, bit 2^2 must also be set."

```
 ::= { svcNetworkIdEntry 6 }
```

```
--
-- The SVC Management Group
--
-- The tables that are relevant to managing ATM SVC's in
-- a Cascade network.
--
--
-- SVC Configuration Table
--
svcConfigTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SvcConfigEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION  "A table of SVC configuration
parameters associated with logical ports.
                The number of entries is given by
the value of ifNumber in MIB-II."
    ::= { svcmgt 1 }
```

svcConfigEntry OBJECT-TYPE

```
SYNTAX      SvcConfigEntry
ACCESS      not-accessible
STATUS      mandatory
DESCRIPTION  "The SVC configuration entry
contains objects relevant to SVC
operation on a logical port."
INDEX      { svcConfigIfIndex }
 ::= { svcConfigTable 1 }
```

```
SvcConfigEntry ::=
SEQUENCE {
    svcConfigIfIndex
        Index,
    svcConfigCgPtyPresentationMode
        INTEGER,
    svcConfigCgPtyInsertionMode
        INTEGER,
    svcConfigCgPtyInsertionAddress
        OCTET STRING,
    svcConfigCgPtyInsertionNmbPlan
        INTEGER,
    svcConfigCgPtyScreenMode
        INTEGER,
    svcConfigEgressAddrXlateMode
        INTEGER,
    svcConfigIngressAddrXlateMode
        INTEGER,
    svcConfigCugEnable
        INTEGER,
    svcConfigSecScrIngressMode
        INTEGER,
    svcConfigSecScrIngressDefaultScreen
        INTEGER,
    svcConfigSecScrEgressMode
        INTEGER,
    svcConfigSecScrEgressDefaultScreen
        INTEGER,
    svcConfigSvcFailureLogReset
        INTEGER,
    svcConfigSvcFailureTrapThreshold
        INTEGER,
    svcConfigNumSvcFailures
        INTEGER,
```

svcConfigLoadBalanceEligibilityDuration	INTEGER,	svcPctLportBwQoS4	INTEGER,
svcConfigVpiVpciMappingType	INTEGER,	svcConfigMaxCalls	INTEGER,
svcConfigVpiVpciMappingOffset	INTEGER,	svcConfigMaxPmpCalls	INTEGER,
svcConfigProxyAdminStatus	INTEGER,	svcConfigMaxPtyPerCall	INTEGER,
svcConfigProxyPSANodeId	INTEGER,	svcConfigDefaultCugType	INTEGER,
svcConfigProxyPSAIfNum	INTEGER,	svcConfigDefaultCugInterlockCode	OCTET STRING,
svcConfigTransitNetScreenMode	INTEGER,	svcConfigDefaultCugIncomingAccess	INTEGER,
svcConfigTransitNetPresentMode	INTEGER,	svcConfigDefaultCugOutgoingAccess	INTEGER,
svcConfigCktPriority	INTEGER,	svcConfigOutAvailBwQoS1	INTEGER,
svcConfigRcktPriority	INTEGER,	svcConfigOutAvailBwQoS2	INTEGER,
svcConfigP2pRtPriority	INTEGER,	svcConfigOutAvailBwQoS3	INTEGER,
svcConfigMaxPcrQoS1	INTEGER,	svcConfigOutAvailBwQoS4	INTEGER,
svcConfigMaxPcrOrCirQoS2	INTEGER,	svcConfigInAvailBwQoS1	INTEGER,
svcConfigMaxScrOrBcQoS2	INTEGER,	svcConfigInAvailBwQoS2	INTEGER,
svcConfigMaxMbsOrBeQoS2	INTEGER,	svcConfigInAvailBwQoS3	INTEGER,
svcConfigMaxPcrOrCirQoS3	INTEGER,	svcConfigInAvailBwQoS4	INTEGER,
svcConfigMaxScrOrBcQoS3	INTEGER,	svcConfigOutAllocBwQoS1	INTEGER,
svcConfigMaxMbsOrBeQoS3	INTEGER,	svcConfigOutAllocBwQoS2	INTEGER,
svcConfigMaxMcrQoS4	INTEGER,	svcConfigOutAllocBwQoS3	INTEGER,
svcPctLportBwQoS1	INTEGER,	svcConfigOutAllocBwQoS4	INTEGER,
svcPctLportBwQoS2	INTEGER,	svcConfigInAllocBwQoS1	INTEGER,
svcPctLportBwQoS3	INTEGER,	svcConfigInAllocBwQoS2	INTEGER,
		svcConfigInAllocBwQoS3	

```

        INTEGER,
        svcConfigInAllocBwQoS4
        INTEGER,
        svcConfigRestartOption
        INTEGER
    }

svcConfigIfIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The ifIndex value of the
        corresponding ifEntry."
        ::= { svcConfigEntry 1 }

svcConfigCgPtyPresentationMode OBJECT-TYPE
    SYNTAX      INTEGER {
        user (1),      -- use
        signalled presentation indicator
        never (2),      --
        override signalled presentation and never present
        always (3)      --
        override signalled presentation and always present
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This object controls the
        circumstances under which the calling party
        number shall be presented at the
        egress port of the network."
        ::= { svcConfigEntry 2 }

svcConfigCgPtyInsertionMode OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled (1),
        insert (2),      -- insert when absent
        replace (3)      -- insert/replace
    }
    always
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

```

        "This object determines whether a
        statically configured address
        shall be inserted in the calling
        party address IE for calls entering
        the network at this port."
        ::= { svcConfigEntry 3 }

svcConfigCgPtyInsertionAddress OBJECT-TYPE
    SYNTAX      OCTET STRING (SIZE(0..20))
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The calling party address to use
        in conjunction with the calling
        party insertion function. E.164
        addresses are coded as 1-15 ASCII
        octets. X.121 addresses are
        coded as 1-14 ASCII octets.
        Atm-endsystem addresses are coded
        as 20 binary octets. A
        0 length octet string will NULL
        the address."
        ::= { svcConfigEntry 4 }

svcConfigCgPtyInsertionNmbPlan OBJECT-TYPE
    SYNTAX      INTEGER {
        e164 (1),
        atm-endsystem (2),
        unknown (4),
        x121 (8)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The numbering plan corresponding
        to this entry's calling party
        insertion address object."
        ::= { svcConfigEntry 5 }

svcConfigCgPtyScreenMode OBJECT-TYPE
    SYNTAX      INTEGER {
        node-prefix (1),
        port-prefix (2),
        node-prefix-or-port-
        prefix (3),

```



```

        address (4),
        node-prefix-or-address
(5),
        port-prefix-or-address
(6),
        node-prefix-or-port-
prefix-or-address (7),
        disabled (255)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
    "The type of screening to perform
on the calling party number for
calls entering the network at
this port. Screening will be conducted
by performing a bit-wise (for
prefixes) or byte-wise (for addresses)
comparison of the calling party
number with the appropriate prefix or
address database(s), as
configured."
    ::= { svcConfigEntry 6 }

svcConfigEgressAddrXlateMode OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled (1),
        tunnel-when-called-
party-matches-prefix (2),
        replace-when-called-
party-matches-prefix (3),
        translate-e164-native-
to-nsap (4),
        translate-e164-nsap-
to-native (5)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
    "This object determines the type
of address translation, if any
to occur for calls exiting the
network at this port.

```

The tunnelling mode will screen the called address against the prefixes configured for this port. If no match is found, no action is taken. If a remote gateway address is configured for the matching prefix entry, the called party address will be tunnelled as a called subaddress and the configured remote gateway address will be inserted as the called party address. If a local gateway address is configured for the matching prefix entry, the calling party address, if present, will be tunnelled as a calling subaddress and the configured local gateway address, if present, will be inserted as the calling party.

The replacement mode will operate as does the tunnelling mode, except the original called and calling party addresses will be discarded.

The two translation modes are used for address interworking between networks using E.164 ATM Endsystem addresses and native ISDN E.164 addresses."

```

    ::= { svcConfigEntry 7 }

```

```

svcConfigIngressAddrXlateMode OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled (1),
        tunnel(2),
        translate-e164-native-
to-nsap (4),
        translate-e164-nsap-
to-native (5)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
    "This object determines the type
of address translation, if any

```

to occur for calls entering the network at this port.

The tunnelling mode reverses the actions of egress tunnelling. If a called subaddress is present, it will replace the called party address, which will be discarded. If a calling subaddress is present, it will replace the calling party address, which will be discarded.

The two translation modes are used for address interworking between networks using E.164 ATM Endsystem addresses and native ISDN E.164 addresses."

```
 ::= { svcConfigEntry 8 }
```

```
svcConfigCugEnable OBJECT-TYPE
    SYNTAX  INTEGER {
        disable (1),
        terminate(2),---
        formerly enable (2)
        signal(3)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Enable/disable CUG processing at
this port"
    DEFVAL { terminate }
    ::= { svcConfigEntry 9 }
```

```
svcConfigSecScrIngressMode OBJECT-TYPE
    SYNTAX  INTEGER {
        all-screens(1),    -- Security
        screening enabled.
        default-screen(2) -- Security
        screening disabled.
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "This object determines whether the
ingress screening is enabled at this
```

```
        port."
    DEFVAL {default-screen}
    ::= {svcConfigEntry 10}

svcConfigSecScrIngressDefaultScreen OBJECT-TYPE
    SYNTAX  INTEGER {
        pass (1),    -- Pass all incoming
calls.
        block (2) -- Block all incoming
calls.
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "This object determines whether all
incoming calls at this port should be
passed or blocked. This setting is
superseded by the security screens
assigned at this port if the screen mode
is set to all screens."
    DEFVAL {pass}
    ::= {svcConfigEntry 11}

svcConfigSecScrEgressMode OBJECT-TYPE
    SYNTAX  INTEGER {
        all-screens (1),    -- Security
        screening enabled.
        default-screen (2) -- Security
        screening disabled.
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "This object determines whether the egress
security screening is enabled
at this port."
    DEFVAL {default-screen}
    ::= {svcConfigEntry 12}

svcConfigSecScrEgressDefaultScreen OBJECT-TYPE
    SYNTAX  INTEGER {
        pass (1),    --Pass all outgoing
calls.
        block (2) --Block all outgoing
calls.
```

```

    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object determines whether all
        outgoing calls at this port should be
        passed or blocked. This setting is
        superseded by the security screens
        assign at this port if the screen mode is
        set to all screens."
    DEFVAL {pass}
    ::= {svcConfigEntry 13}

svcConfigSvcFailureLogReset OBJECT-TYPE
    SYNTAX INTEGER {
        invalid (1),-- always returned for
get
        reset (2)-- reset the SVC failure
log
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object, when set to reset (2), will
        clear the SVC failure
        log in the switch."
    ::= {svcConfigEntry 14}

svcConfigSvcFailureTrapThreshold OBJECT-TYPE
    SYNTAX INTEGER (0..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The threshold cross alarm value for SVC
        failure traps in the
        current 15 minute counting period.
        When the internal SVC failure
        counter crosses this threshold, a
        trap will be generated. The
        internal counter is reset every 15
        minutes."
    ::= {svcConfigEntry 15}

svcConfigNumSvcFailures OBJECT-TYPE
    SYNTAX INTEGER

```

```

    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The total number of SVC failures on this
        port, as defined by
        RELEASE, ADD PARTY REJECT or DROP
        PARTY PDU's received or
        transmitted with abnormal cause
        codes."
    ::= {svcConfigEntry 16}

svcConfigLoadBalanceEligibilityDuration OBJECT-TYPE
    SYNTAX INTEGER (0..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The minimum duration for an SVC, in
        seconds, before it
        becomes eligible for load
        balancing. The distinguished
        value, 0, indicates no load
        balancing for SVC's originating
        at this interface."
    DEFVAL { 3600 }
    ::= {svcConfigEntry 17}

svcConfigVpiVpciMappingType OBJECT-TYPE
    SYNTAX INTEGER {
        equal (1),-- vpi = vpci
        positiveOffset (2),-- vpi = vpci +
offset
        negativeOffset (3),-- vpi = vpci -
offset
        table (4)-- vpi = table(vpci)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "VPCI to VPI Mapping Type. Given a VPCI,
        calculate
        the VPI"
    DEFVAL { equal }
    ::= {svcConfigEntry 18}

svcConfigVpiVpciMappingOffset OBJECT-TYPE

```

```

SYNTAX INTEGER (0..4095)
ACCESS read-write
STATUS mandatory
DESCRIPTION
    "VPCI to VPI offset."
    DEFVAL { 0 }
    ::= {svcConfigEntry 19}

svcConfigProxyAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        proxy-agent (2),
        proxy-client (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Proxy signaling administrative status
        disabled - no proxy capabilities
        proxy-agent - DCE UNI port only -
        lport acts as a
        agent.
        - signaling is
        peer PSA"
        network proxy
        proxy-client - DCE UNI port only
        performed by a
        DEFVAL { disabled }
        ::= {svcConfigEntry 20}

svcConfigProxyPSANodeId OBJECT-TYPE
    SYNTAX INTEGER (0..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Node ID of the peer PSA - 0 equals local
        node."
        DEFVAL { 0 }
        ::= {svcConfigEntry 21}

svcConfigProxyPSAIfNum OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION

```

```

        "Interface number of the peer PSA - 0
        equals local If num."
        DEFVAL { 0 }
        ::= {svcConfigEntry 22}

svcConfigTransitNetScreenMode OBJECT-TYPE
    SYNTAX INTEGER {
        ignore (1),
        accept (2),
        validate (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Screening of SVC transit network
        selection signaled on this
        ingress port. Selecting 'ignore'
        essentially deletes the
        signaled TNS. The 'accept' and
        'validate' selections enable
        and disable screening of the signaled
        TNS, respectively."
        DEFVAL { validate }
        ::= {svcConfigEntry 23}

svcConfigTransitNetPresentMode OBJECT-TYPE
    SYNTAX INTEGER {
        never (1),
        signaled-TNS-only (2),
        signaled-or-default-TNS (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Controls presentation signaling of SVC
        transit network
        selection at this egress port."
        DEFVAL { never }
        ::= {svcConfigEntry 24}

svcConfigCktPriority OBJECT-TYPE
    SYNTAX INTEGER (1..3)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION

```

"The transfer/discard priority level for this circuit in the ingress direction. Affects SVCs originating on this logical port."

```

DEFVAL { 2 }
::= { svcConfigEntry 25 }

```

svcConfigRcktPriority OBJECT-TYPE
 SYNTAX INTEGER (1..3)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The transfer/discard priority level for this circuit in the egress direction. Affects SVCs originating on this logical port."

```

DEFVAL { 2 }
::= { svcConfigEntry 26 }

```

svcConfigP2pRtPriority OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The routing priority levels of the point to point circuits depending on the circuits ingress QoS class. Affects SVCs originating on this logical port. The routing priority level is a 8 bit number where the 3-bit bumping priority is contained in bits 0-2 and the 4-bit bandwidth priority is contained in bits 3-6."

```

-----
|Byte4      | Byte1|
-----
31          231570
Byte1 - Routing priority level of
QoS1

```

Byte2 - Routing priority level of QoS2
 Byte3 - Routing priority level of QoS3
 Byte4 - Routing priority level of QoS4.

Default value is hex is 0x65656565"

```

DEFVAL { 1701143909 }
::= { svcConfigEntry 27 }

```

svcConfigMaxPcrQoS1 OBJECT-TYPE
 SYNTAX INTEGER (0..2147483647)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The maximum PCR, in cells per second, that may be signaled for a CBR ATM SVC. The distinguished value, (2^31-1), is used to indicate that this parameter is unbounded."

```

DEFVAL { 2147483647 }
::= { svcConfigEntry 28 }

```

svcConfigMaxPcrOrCirQoS2 OBJECT-TYPE
 SYNTAX INTEGER (0..2147483647)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The maximum PCR, in cells per second, that may be signaled for a VBR-RT ATM SVC, or the maximum CIR, in bits, that may be signaled for a VFR-RT frame relay SVC. The distinguished value, (2^31-1), is used to indicate that this parameter is unbounded."

```

DEFVAL { 2147483647 }
::= { svcConfigEntry 29 }

```

svcConfigMaxScrOrBcQoS2 OBJECT-TYPE
 SYNTAX INTEGER (0..2147483647)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"The maximum SCR, in cells per second, that may be signaled for a VBR-RT ATM SVC,
or the maximum Bc, in bits, that may be signaled for a VFR-RT frame relay SVC.

The distinguished value, ($2^{31}-1$), is used to indicate that

this parameter is unbounded."

DEFVAL { 2147483647 }

::= { svcConfigEntry 30 }

svcConfigMaxMbsOrBeQoS2 OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum MBS, in cells, that may be signaled for a VBR-RT ATM SVC,
or the maximum Be, in bits, that may be signaled for a VFR-RT frame relay SVC.

The distinguished value, ($2^{31}-1$), is used to indicate that this

parameter is unbounded."

DEFVAL { 2147483647 }

::= { svcConfigEntry 31 }

svcConfigMaxPcrOrCirQoS3 OBJECT-TYPE

SYNTAX INTEGER (0..2147483647)

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum PCR, in cells per second, that may be signaled for a VBR-NRT ATM SVC,
or the maximum CIR, in bits, that may be signaled for a VFR-NRT frame relay SVC.

The distinguished value, ($2^{31}-1$), is used to indicate that this parameter is unbounded."

DEFVAL { 2147483647 }

::= { svcConfigEntry 32 }

svcConfigMaxScrOrBcQoS3 OBJECT-TYPE

SYNTAX INTEGER (0..2147483647)

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum SCR, in cells per second, that may be signaled for a VBR-NRT ATM SVC,
or the maximum Bc, in bits, that may be signaled for a VFR-RT frame relay SVC.

The distinguished value, ($2^{31}-1$), is used to indicate that this parameter

is unbounded."

DEFVAL { 2147483647 }

::= { svcConfigEntry 33 }

svcConfigMaxMbsOrBeQoS3 OBJECT-TYPE

SYNTAX INTEGER (0..2147483647)

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum MBS, in cells, that may be signaled for a VBR-NRT ATM SVC,
or the maximum Be, in bits, that may be signaled for a VFR-NRT frame relay SVC.

The distinguished value, ($2^{31}-1$), is used to indicate that this parameter

is unbounded."

DEFVAL { 2147483647 }

::= { svcConfigEntry 34 }

svcConfigMaxMcrQoS4 OBJECT-TYPE

SYNTAX INTEGER (0..2147483647)

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum MCR, in cells per second, that may be signaled for an ABR ATM SVC.

The distinguished value, ($2^{31}-1$), is used to indicate that this parameter is unbounded."

DEFVAL { 2147483647 }

::= { svcConfigEntry 35 }

svcPctLportBwQoS1 OBJECT-TYPE

SYNTAX INTEGER (0..100)

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The maximum percent of CBR bandwidth available to SVCs on this lport."

```

        DEFVAL { 100 }
        ::= { svcConfigEntry 36 }

svcPctLportBwQoS2 OBJECT-TYPE
    SYNTAX      INTEGER (0..100)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The maximum percent of VBR-RT/
        VFR-RT bandwidth available to SVCs
        on this lport."
    DEFVAL { 100 }
    ::= { svcConfigEntry 37 }

svcPctLportBwQoS3 OBJECT-TYPE
    SYNTAX      INTEGER (0..100)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The maximum percent of VBR-NRT/
        VFR-NRT bandwidth available to SVCs
        on this lport."
    DEFVAL { 100 }
    ::= { svcConfigEntry 38 }

svcPctLportBwQoS4 OBJECT-TYPE
    SYNTAX      INTEGER (0..100)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The maximum percent of UBR/ABR/
        UFR bandwidth available to SVCs
        on this lport."
    DEFVAL { 100 }
    ::= { svcConfigEntry 39 }

svcConfigMaxCalls OBJECT-TYPE
    SYNTAX INTEGER (0..16777215)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The maximum number of SVCs
        allowed on this interface."
    DEFVAL { 16777215 }
    ::= { svcConfigEntry 40 }

```

```

svcConfigMaxPmpCalls OBJECT-TYPE
    SYNTAX INTEGER (0..16777215)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The maximum number of Point-to-
        Multipoint SVCs allowed on this interface."
    DEFVAL { 16777215 }
    ::= { svcConfigEntry 41 }

svcConfigMaxPtyPerCall OBJECT-TYPE
    SYNTAX INTEGER (0..16777215)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The maximum number of parties
        allowed per Point-to-Multipoint SVC on this
        interface."
    DEFVAL { 16777215 }
    ::= { svcConfigEntry 42 }

svcConfigDefaultCugType OBJECT-TYPE
    SYNTAX INTEGER {
        none (1),           -- default
        e164 (2),           -- default
        dnric (3),          -- default
        aesa (4),           -- default
    }
    CUG not in use
    CUG is of type E.164
    CUG is of type DNIC
    CUG is NSAP-based
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The type of default CUG
        configured on the lport."
    DEFVAL { none }
    ::= { svcConfigEntry 43 }

svcConfigDefaultCugInterlockCode OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(1..24))
    ACCESS read-write
    STATUS mandatory

```

DESCRIPTION

"The Interlock Code for the default CUG configured on the lport. E.164 and DNIC interlock codes are typically 13 numerical digits encoded as T.50 (ASCII) characters. AESA interlock codes are typically 24 binary octets where the first 20 resemble an AESA."

::= { svcConfigEntry 44 }

svcConfigDefaultCugIncomingAccess OBJECT-TYPE

SYNTAX INTEGER {

disabled (1),

enabled (2)

}

ACCESS read-write

STATUS mandatory

DESCRIPTION

"When a default CUG is provisioned, this object determines whether the lport is allowed to receive calls from outside the default CUG."

DEFVAL { disabled }

::= { svcConfigEntry 45 }

svcConfigDefaultCugOutgoingAccess OBJECT-TYPE

SYNTAX INTEGER {

disabled (1),

enabled (2)

}

ACCESS read-write

STATUS mandatory

DESCRIPTION

"When a default CUG is provisioned, this object determines whether the lport is allowed to place calls outside of the default CUG."

DEFVAL { disabled }

::= { svcConfigEntry 46 }

svcConfigOutAvailBwQoS1 OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The virtual outgoing CBR bandwidth available to ATM SVCs, in cells per second on this logical port. "

::= { svcConfigEntry 47 }

svcConfigOutAvailBwQoS2 OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The virtual outgoing VBR-RT bandwidth available to ATM SVCs, in cells per second, or VFR-RT bandwidth available to FR SVCs, in bits per second, on this logical port. "

::= { svcConfigEntry 48 }

svcConfigOutAvailBwQoS3 OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The virtual outgoing VBR-NRT bandwidth available to ATM SVCs, in cells per second, or VFR-NRT bandwidth available to FR SVCs, in bits per second, on this logical port. "

::= { svcConfigEntry 49 }

svcConfigOutAvailBwQoS4 OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

"The virtual outgoing UBR/ABR bandwidth available to ATM SVCs, in cells per second, or UFR bandwidth available to FR SVCs, in bits per second, on this logical port. "

::= { svcConfigEntry 50 }

svcConfigInAvailBwQoS1 OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION
 "The virtual incoming CBR
 bandwidth available to ATM SVCs, in cells per
 second on this logical port. "
 ::= { svcConfigEntry 51 }

svcConfigInAvailBwQoS2 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The virtual incoming VBR-RT
 bandwidth available to ATM SVCs, in cells per
 second, or VFR-RT bandwidth
 available to FR SVCs, in bits per second,
 on this logical port. "
 ::= { svcConfigEntry 52 }

svcConfigInAvailBwQoS3 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The virtual incoming VBR-NRT
 bandwidth available to ATM SVCs, in cells per
 second, or VFR-NRT bandwidth
 available to FR SVCs, in bits per second,
 on this logical port. "
 ::= { svcConfigEntry 53 }

svcConfigInAvailBwQoS4 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The virtual incoming UBR/ABR
 bandwidth available to ATM SVCs, in cells per
 second, or UFR bandwidth
 available to FR SVCs, in bits per second,
 on this logical port. "
 ::= { svcConfigEntry 54 }

svcConfigOutAllocBwQoS1 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only

STATUS mandatory
 DESCRIPTION
 "The virtual outgoing CBR
 bandwidth allocated to ATM SVCs, in cells per
 second on this logical port. "
 ::= { svcConfigEntry 55 }

svcConfigOutAllocBwQoS2 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The virtual outgoing VBR-RT
 bandwidth allocated to ATM SVCs, in cells per
 second, or VFR-RT bandwidth
 allocated to FR SVCs, in bits per second,
 on this logical port. "
 ::= { svcConfigEntry 56 }

svcConfigOutAllocBwQoS3 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The virtual outgoing VBR-NRT
 bandwidth allocated to ATM SVCs, in cells per
 second, or VFR-NRT bandwidth
 allocated to FR SVCs, in bits per second,
 on this logical port. "
 ::= { svcConfigEntry 57 }

svcConfigOutAllocBwQoS4 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The virtual outgoing UBR/ABR
 bandwidth allocated to ATM SVCs, in cells per
 second, or UFR bandwidth
 allocated to FR SVCs, in bits per second,
 on this logical port. "
 ::= { svcConfigEntry 58 }

svcConfigInAllocBwQoS1 OBJECT-TYPE
 SYNTAX INTEGER

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "The virtual incoming CBR
bandwidth allocated to ATM SVCs, in cells per
    second on this logical port. "
    ::= { svcConfigEntry 59 }

svcConfigInAllocBwQoS2 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The virtual incoming VBR-RT
bandwidth allocated to ATM SVCs, in cells per
    second, or VFR-RT bandwidth
allocated to FR SVCs, in bits per second,
    on this logical port. "
    ::= { svcConfigEntry 60 }

svcConfigInAllocBwQoS3 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The virtual incoming VBR-NRT
bandwidth allocated to ATM SVCs, in cells per
    second, or VFR-NRT bandwidth
allocated to FR SVCs, in bits per second,
    on this logical port. "
    ::= { svcConfigEntry 61 }

svcConfigInAllocBwQoS4 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The virtual incoming UBR/ABR
bandwidth allocated to ATM SVCs, in cells per
    second, or UFR bandwidth
allocated to FR SVCs, in bits per second,
    on this logical port. "
    ::= { svcConfigEntry 62 }

svcConfigRestartOption OBJECT-TYPE

```

```

SYNTAX      INTEGER {
                disabled (1),
                enabled (2)
            }
ACCESS      read-write
STATUS      mandatory
DESCRIPTION
    "When enabled, the switch will
send the layer 3 RESTART
    message each time the layer2
connect is established.
    Although the user is not required
to do so, it is recommended
    that when this object is set to
enabled on an ATM interface,
    the svcAtmConfigSigHoldoffTime
object be set to 0, thereby
    disabling the signaling holdoff
mechanism."
    DEFVAL { disabled }
    ::= { svcConfigEntry 63 }

--
--      SVC ATM Configuration Table
--

svcAtmConfigTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SvcAtmConfigEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A table of ATM signalling
parameters associated with ATM logical
    ports. The maximum number of
entries is given by the value of
    ifNumber in MIB-II."
    ::= { svcmgt 2 }

svcAtmConfigEntry OBJECT-TYPE
    SYNTAX      SvcAtmConfigEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The SVC ATM configuration entry
contains objects relevant to

```

the configuration and monitoring
of ATM signalling on an ATM
logical port."
INDEX { svcAtmConfigIfIndex }
::= { svcAtmConfigTable 1 }

SvcAtmConfigEntry ::=
SEQUENCE {
svcAtmConfigIfIndex
Index,
svcAtmConfigSigAdminStatus
INTEGER,
svcAtmConfigSigOperStatus
INTEGER,
svcAtmConfigQ93bMaxRestart
INTEGER,
svcAtmConfigQ93bMaxStatEnq
INTEGER,
svcAtmConfigQ93bT303
INTEGER,
svcAtmConfigQ93bT308
INTEGER,
svcAtmConfigQ93bT309
INTEGER,
svcAtmConfigQ93bT310
INTEGER,
svcAtmConfigQ93bT313
INTEGER,
svcAtmConfigQ93bT316
INTEGER,
svcAtmConfigQ93bT322
INTEGER,
svcAtmConfigQ93bT398
INTEGER,
svcAtmConfigQ93bT399
INTEGER,
svcAtmConfigQ93bTotalConns
Counter,
svcAtmConfigQ93bActiveConns
Counter,
svcAtmConfigQ93bLastCauseTx
INTEGER,
svcAtmConfigQ93bLastCauseRx
INTEGER,
svcAtmConfigQ93bNumSetupPduTx

Counter,
svcAtmConfigQ93bNumSetupPduRx
Counter,
svcAtmConfigQ93bNumCallProcPduTx
Counter,
svcAtmConfigQ93bNumCallProcPduRx
Counter,
svcAtmConfigQ93bNumConnectPduTx
Counter,
svcAtmConfigQ93bNumConnectPduRx
Counter,
svcAtmConfigQ93bNumConnectAckPduTx
Counter,
svcAtmConfigQ93bNumConnectAckPduRx
Counter,
svcAtmConfigQ93bNumReleasePduTx
Counter,
svcAtmConfigQ93bNumReleasePduRx
Counter,

svcAtmConfigQ93bNumReleaseCmplTx
Counter,

svcAtmConfigQ93bNumReleaseCmplRx
Counter,
Counter,
svcAtmConfigQ93bNumAddPtyPduTx
Counter,
svcAtmConfigQ93bNumAddPtyPduRx
Counter,
svcAtmConfigQ93bNumAddPtyAckPduTx
Counter,
svcAtmConfigQ93bNumAddPtyAckPduRx
Counter,
svcAtmConfigQ93bNumAddPtyRejPduTx
Counter,
svcAtmConfigQ93bNumAddPtyRejPduRx
Counter,
svcAtmConfigQ93bNumDropPtyPduTx
Counter,
svcAtmConfigQ93bNumDropPtyPduRx
Counter,
svcAtmConfigQ93bNumDropPtyAckPduTx
Counter,
svcAtmConfigQ93bNumDropPtyAckPduRx
Counter,

svcAtmConfigQ93bNumStatusEnqPduTx
Counter,
svcAtmConfigQ93bNumStatusEnqPduRx
Counter,
svcAtmConfigQ93bNumStatusPduTx
Counter,
svcAtmConfigQ93bNumStatusPduRx
Counter,
svcAtmConfigQ93bNumRestartPduTx
Counter,
svcAtmConfigQ93bNumRestartPduRx
Counter,
svcAtmConfigQ93bNumRestartAckPduTx
Counter,
svcAtmConfigQ93bNumRestartAckPduRx
Counter,
svcAtmConfigQSaalMaxCC
INTEGER,
svcAtmConfigQSaalMaxPD
INTEGER,
svcAtmConfigQSaalMaxStat
INTEGER,
svcAtmConfigQSaalTPoll
INTEGER,
svcAtmConfigQSaalTKeepalive
INTEGER,
svcAtmConfigQSaalTNoResponse
INTEGER,
svcAtmConfigQSaalTCC
INTEGER,
svcAtmConfigQSaalTIdle
INTEGER,
svcAtmConfigQSaalNumDiscardTx
Counter,
svcAtmConfigQSaalNumDiscardRx
Counter,
svcAtmConfigQSaalNumErrorTx
Counter,
svcAtmConfigQSaalNumErrorRx
Counter,
svcAtmConfigQSaalNumBgnPduTx
Counter,
svcAtmConfigQSaalNumBgnPduRx
Counter,
svcAtmConfigQSaalNumBgakPduTx

Counter,
svcAtmConfigQSaalNumBgakPduRx
Counter,
svcAtmConfigQSaalNumBgrejPduTx
Counter,
svcAtmConfigQSaalNumBgrejPduRx
Counter,
svcAtmConfigQSaalNumEndPduTx
Counter,
svcAtmConfigQSaalNumEndPduRx
Counter,
svcAtmConfigQSaalNumEndakPduTx
Counter,
svcAtmConfigQSaalNumEndakPduRx
Counter,
svcAtmConfigQSaalNumRsPduTx
Counter,
svcAtmConfigQSaalNumRsPduRx
Counter,
svcAtmConfigQSaalNumRsakPduTx
Counter,
svcAtmConfigQSaalNumRsakPduRx
Counter,
svcAtmConfigQSaalNumErPduTx
Counter,
svcAtmConfigQSaalNumErPduRx
Counter,
svcAtmConfigQSaalNumErakPduTx
Counter,
svcAtmConfigQSaalNumErakPduRx
Counter,
svcAtmConfigQSaalNumSdPduTx
Counter,
svcAtmConfigQSaalNumSdPduRx
Counter,
svcAtmConfigQSaalNumPollPduTx
Counter,
svcAtmConfigQSaalNumPollPduRx
Counter,
svcAtmConfigQSaalNumStatPduTx
Counter,
svcAtmConfigQSaalNumStatPduRx
Counter,
svcAtmConfigQSaalNumUstatPduTx
Counter,

```

    svcAtmConfigQSaalNumUstatPduRx
        Counter,
    svcAtmConfigQSaalNumUdPduTx
        Counter,
    svcAtmConfigQSaalNumUdPduRx
        Counter,
    svcAtmConfigQSaalNumMdPduTx
        Counter,
    svcAtmConfigQSaalNumMdPduRx
        Counter,
    svcAtmConfigQSaalNumOctetsTx
        Counter,
    svcAtmConfigQSaalNumOctetsRx
        Counter,
    svcAtmConfigVpiStartVp
        INTEGER,
    svcAtmConfigVpiStopVp
        INTEGER,
    svcAtmConfigVpiStart
        INTEGER,
    svcAtmConfigVpiStop
        INTEGER,
    svcAtmConfigVciStart
        INTEGER,
    svcAtmConfigVciStop
        INTEGER,
    svcAtmConfigQSaalWindowSize
        INTEGER,
    svcAtmConfigSvcCdvT
        INTEGER,
    svcAtmConfigQSaalTxWindowDepth
        Counter,
    svcAtmConfigQ93bNumNotifyPduTx
        Counter,
    svcAtmConfigQ93bNumNotifyPduRx
        Counter,
    svcAtmConfigQ93bNumProgressPduTx
        Counter,
    svcAtmConfigQ93bNumProgressPduRx
        Counter,
    svcAtmConfigQ93bNumAlertingPduTx
        Counter,
    svcAtmConfigQ93bNumAlertingPduRx
        Counter,

```

```

    svcAtmConfigQ93bNumPtyAlertingPduTx
        Counter,
    svcAtmConfigQ93bNumPtyAlertingPduRx
        Counter,
    svcAtmConfigQ93bT301
        INTEGER,
    svcAtmConfigQ93bT397
        INTEGER,
    svcAtmConfigAal5FrameDiscardStatus
        INTEGER,
    svcAtmConfigSigHoldoffTime
        INTEGER,
    svcAtmConfigDefaultMcr
        INTEGER
}

svcAtmConfigIfIndex OBJECT-TYPE
    SYNTAX      Index
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The ifIndex value of the
        corresponding ifEntry."
    ::= { svcAtmConfigEntry 1 }

svcAtmConfigSigAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        enabled (1),
        disabled (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The configured state of the ATM
        signalling function for this port."
    ::= { svcAtmConfigEntry 2 }

svcAtmConfigSigOperStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        down (1),
        connecting (2),
        up (3)
    }
}

```

```

ACCESS      read-only
STATUS      mandatory
DESCRIPTION
    "The operational status of the
signalling function on this port."
    ::= { svcAtmConfigEntry 3 }

svcAtmConfigQ93bMaxRestart OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The maximum number of
unacknowledged restarts to send before
        declaring a signalling failure."
        ::= { svcAtmConfigEntry 4 }

svcAtmConfigQ93bMaxStatEnq OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The maximum number of
unacknowledged status enquiries to send
        before issuing a restart."
        ::= { svcAtmConfigEntry 5 }

svcAtmConfigQ93bT303 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Protocol Timer T303, specified in
milliseconds."
        ::= { svcAtmConfigEntry 6 }

svcAtmConfigQ93bT308 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Protocol Timer T308, specified in
milliseconds."
        ::= { svcAtmConfigEntry 7 }

```

```

svcAtmConfigQ93bT309 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Protocol Timer T309, specified in
milliseconds."
        ::= { svcAtmConfigEntry 8 }

svcAtmConfigQ93bT310 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Protocol Timer T310, specified in
milliseconds."
        ::= { svcAtmConfigEntry 9 }

svcAtmConfigQ93bT313 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Protocol Timer T313, specified in
milliseconds."
        ::= { svcAtmConfigEntry 10 }

svcAtmConfigQ93bT316 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Protocol Timer T316, specified in
milliseconds."
        ::= { svcAtmConfigEntry 11 }

svcAtmConfigQ93bT322 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Protocol Timer T322, specified in
milliseconds."
        ::= { svcAtmConfigEntry 12 }

```

```

svcAtmConfigQ93bT398 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Protocol Timer T398, specified in
milliseconds."
    ::= { svcAtmConfigEntry 13 }

```

```

svcAtmConfigQ93bT399 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION  "Protocol Timer T399, specified in
milliseconds."
    ::= { svcAtmConfigEntry 14 }

```

```

svcAtmConfigQ93bTotalConns OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The total number of SVC's
established on this port."
    ::= { svcAtmConfigEntry 15 }

```

```

svcAtmConfigQ93bActiveConns OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The number of SVC's present on
this port."
    ::= { svcAtmConfigEntry 16 }

```

```

svcAtmConfigQ93bLastCauseTx OBJECT-TYPE
    SYNTAX      INTEGER {
        unalloc-nmb          (1), --
unallocated (unassigned) number
        no-route-transnet(2), -- no
route to transit network
        no-route-dest        (3), -- no
route to destination
    }

```

```

        vcc-unacceptable-30(10), -- UNI
3.0: VPCI/VCI unacceptable
        normal-call-clr-31(16), -- UNI
3.1: normal call clearing
        user-busy            (17), --
user busy
        no-user-response(18), -- no user
response
        call-reject          (21), --
call rejected
        nmb-changed          (22), --
number changed
        call-reject-clir(23), -- user
rejects all calls with CLIR
        dest-out-of-order(27), --
destination out of order
        invalid-nmb-format(28), -- invalid
number format
        response-stat-enq(30), --
response to STATUS ENQUIRY
        normal-unspecified(31), -- normal
unspecified
        req-vcc-unavailable(35), --
requested VPCI/VCI unavailable
        vcc-fail-31          (36), --
UNI 3.1: VPCI/VCI assignment failure
        rate-unavail-31 (37), -- UNI
3.1: user cell rate unavailable
        network-out-of-order(38), --
network out of order
        temp-fail            (41), --
Temporary failure
        access-info-discard(43), -- access
info discarded
        no-vcc-available(45), -- no
VPCI/VCI unavailable
        resources-unavailable(47), --
resources unavailable, unspecified
        qos-unavailable (49), -- Quality
of Service unavailable
        rate-unavailable-30(51), -- UNI
3.0: user cell rate unavailable
        b-cap-not-authorized(57), -- bearer
capability not authorized

```

capability not available b-cap-unavailable(58), -- bearer
 or option unavailable service-unavailable(63), -- Service
 bearer capability not implemented b-cap-not-implemented(65), --
 unsupported comb. of traffic parameters combination-unsupported (73), --
 3.1: AAL parameteres cannot be supported aal-params-un supp-31(78), -- UNI
 invalid call reference invalid-call-reference(81), --
 identified channel does not exist no-channel (82), --
 incompatible destination dest-incompatible(88), --
 invalid endpoint reference invalid-endpoint-ref(89), --
 transit network selection invalid-transit-net(91), -- invalid
 many add party requests too-many-add-pty-req(92), -- too
 3.0:AAL parameteres cannot be supported aal-params-un supp-30(93), -- UNI
 mandatory info element is missing info-element-missing(96), --
 type not implemented msg-type-not-imp(97), -- message
 element not implemented info-element-not-imp(99), -- info
 invalid info element invalid-info-element(100), --
 type not compatible with call st message-not-compatible(101), -- msg
 recovery on timer expire timer-recovery (102), --
 incorrect message length invalid-message-len(104), --
 protocol error, unspecified protocol-error (111), --
 info el content error (non-std) optional-element-error(127), -- opt
 pnni no-route-next-node(128), -- pnni
 dtl-not-my-node (160) --

```

    }
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The last transmitted cause code
    for this port."
    ::= { svcAtmConfigEntry 17 }

    svcAtmConfigQ93bLastCauseRx OBJECT-TYPE
        SYNTAX      INTEGER {
            unalloc-nmb (1), --
            unallocated (unassigned) number
            no-route-transnet(2), -- no
            route to transit network
            no-route-dest (3), -- no
            route to destination
            vcc-unacceptable-30(10), -- UNI
            3.0: VPCI/VCI unacceptable
            normal-call-clr-31(16), -- UNI
            3.1: normal call clearing
            user-busy (17), --
            user busy
            no-user-response(18), -- no user
            response
            call-reject (21), --
            call rejected
            nmb-changed (22), --
            number changed
            call-reject-clir(23), -- user
            rejects all calls with CLIR
            dest-out-of-order(27), --
            destination out of order
            invalid-nmb-format(28), -- invalid
            number format
            response-stat-enq(30), --
            response to STATUS ENQUIRY
            normal-unspecified(31), -- normal
            unspecified
            req-vcc-unavailable(35), --
            requested VPCI/VCI unavailable
            vcc-fail-31 (36), --
            UNI 3.1: VPCI/VCI assignment failure
            rate-unavail-31 (37), -- UNI
            3.1: user cell rate unavailable
  
```


network out of order	network-out-of-order(38),--
Temporary failure	temp-fail (41),--
info discarded	access-info-discard(43),-- access
VPCI/VCI unavailable	no-vcc-available(45), -- no
resources unavailable, unspecified	resources-unavailable(47),--
of Service unavailable	qos-unavailable (49), -- Quality
3.0: user cell rate unavailable	rate-unavailable-30(51),-- UNI
capability not authorized	b-cap-not-authorized(57),-- bearer
capability not available	b-cap-unavailable(58), -- bearer
or option unavailable	service-unavailable(63),-- Service
bearer capability not implemented	b-cap-not-implemented(65),--
unsupported comb. of traffic parameters	combination-unsupported (73),--
3.1: AAL parameteres cannot be supported	aal-params-un supp-31(78),-- UNI
invalid call reference	invalid-call-reference(81),--
identified channel does not exist	no-channel (82),--
incompatible destination	dest-incompatible(88), --
invalid endpoint reference	invalid-endpoint-ref(89),--
transit network selection	invalid-transit-net(91),-- invalid
many add party requests	too-many-add-pty-req(92),-- too
3.0:AAL parameteres cannot be supported	aal-params-un supp-30(93),-- UNI
mandatory info element is missing	info-element-missing(96),--
type not implemented	msg-type-not-imp(97), -- message

element not implemented	info-element-not-imp(99),-- info
invalid info element	invalid-info-element(100),--
type not compatible with call st	message-not-compatible(101),-- msg
recovery on timer expire	timer-recovery (102),--
incorrect message length	invalid-message-len(104),--
protocol error, unspecified	protocol-error (111),--
info el content error (non-std)	optional-element-error(127),-- opt
pnni	no-route-next-node(128),-- pnni
	dtl-not-my-node (160) --
	}
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The last received cause code for
this port."	
	::= { svcAtmConfigEntry 18 }
svcAtmConfigQ93bNumSetupPduTx	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of setup PDU's
transmitted on this port."	
	::= { svcAtmConfigEntry 19 }
svcAtmConfigQ93bNumSetupPduRx	OBJECT-TYPE
SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of setup PDU's
received on this port."	
	::= { svcAtmConfigEntry 20 }
svcAtmConfigQ93bNumCallProcPduTx	OBJECT-TYPE
SYNTAX	Counter

ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of call proceeding PDU's transmitted on this port."
	::= { svcAtmConfigEntry 21 }

svcAtmConfigQ93bNumCallProcPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of call proceeding PDU's received on this port."
	::= { svcAtmConfigEntry 22 }

svcAtmConfigQ93bNumConnectPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of connect PDU's transmitted on this port."
	::= { svcAtmConfigEntry 23 }

svcAtmConfigQ93bNumConnectPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of connect PDU's received on this port."
	::= { svcAtmConfigEntry 24 }

svcAtmConfigQ93bNumConnectAckPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of connect ack PDU's transmitted on this port."
	::= { svcAtmConfigEntry 25 }

svcAtmConfigQ93bNumConnectAckPduRx OBJECT-TYPE

SYNTAX	Counter
--------	---------

ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of connect ack PDU's received on this port."
	::= { svcAtmConfigEntry 26 }

svcAtmConfigQ93bNumReleasePduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of release PDU's transmitted on this port."
	::= { svcAtmConfigEntry 27 }

svcAtmConfigQ93bNumReleasePduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of release PDU's received on this port."
	::= { svcAtmConfigEntry 28 }

svcAtmConfigQ93bNumReleaseCmplTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of release complete PDU's transmitted on this port."
	::= { svcAtmConfigEntry 29 }

svcAtmConfigQ93bNumReleaseCmplRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of release complete PDU's received on this port."
	::= { svcAtmConfigEntry 30 }

svcAtmConfigQ93bNumAddPtyPduTx OBJECT-TYPE

SYNTAX	Counter
--------	---------

ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of add party PDU's
transmitted on this port."
::= { svcAtmConfigEntry 31 }

svcAtmConfigQ93bNumAddPtyPduRx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of add party PDU's
received on this port."
::= { svcAtmConfigEntry 32 }

svcAtmConfigQ93bNumAddPtyAckPduTx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of add party
acknowledge PDU's transmitted on this port."
::= { svcAtmConfigEntry 33 }

svcAtmConfigQ93bNumAddPtyAckPduRx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of add party
acknowledge PDU's received on this port."
::= { svcAtmConfigEntry 34 }

svcAtmConfigQ93bNumAddPtyRejPduTx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of add party reject
PDU's transmitted on this port."
::= { svcAtmConfigEntry 35 }

svcAtmConfigQ93bNumAddPtyRejPduRx OBJECT-TYPE
SYNTAX Counter

ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of add party reject
PDU's received on this port."
::= { svcAtmConfigEntry 36 }

svcAtmConfigQ93bNumDropPtyPduTx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of drop party PDU's
transmitted on this port."
::= { svcAtmConfigEntry 37 }

svcAtmConfigQ93bNumDropPtyPduRx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of drop party PDU's
received on this port."
::= { svcAtmConfigEntry 38 }

svcAtmConfigQ93bNumDropPtyAckPduTx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of drop party
acknowledge PDU's transmitted on this port."
::= { svcAtmConfigEntry 39 }

svcAtmConfigQ93bNumDropPtyAckPduRx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
"The number of drop party
acknowledge PDU's received on this port."
::= { svcAtmConfigEntry 40 }

svcAtmConfigQ93bNumStatusEnqPduTx OBJECT-TYPE
SYNTAX Counter

ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of status enquiry
 PDU's transmitted on this port."
 ::= { svcAtmConfigEntry 41 }

svcAtmConfigQ93bNumStatusEnqPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of status enquiry
 PDU's received on this port."
 ::= { svcAtmConfigEntry 42 }

svcAtmConfigQ93bNumStatusPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of status PDU's
 transmitted on this port."
 ::= { svcAtmConfigEntry 43 }

svcAtmConfigQ93bNumStatusPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of status PDU's
 received on this port."
 ::= { svcAtmConfigEntry 44 }

svcAtmConfigQ93bNumRestartPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of restart PDU's
 transmitted on this port."
 ::= { svcAtmConfigEntry 45 }

svcAtmConfigQ93bNumRestartPduRx OBJECT-TYPE
 SYNTAX Counter

ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of restart PDU's
 received on this port."
 ::= { svcAtmConfigEntry 46 }

svcAtmConfigQ93bNumRestartAckPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of restart acknowledge
 PDU's transmitted on this port."
 ::= { svcAtmConfigEntry 47 }

svcAtmConfigQ93bNumRestartAckPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of restart acknowledge
 PDU's received on this port."
 ::= { svcAtmConfigEntry 48 }

svcAtmConfigQSaalMaxCC OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The maximum number of
 unacknowledged transmitted control PDU's
 before declaring a loss of
 connection."
 ::= { svcAtmConfigEntry 49 }

svcAtmConfigQSaalMaxPD OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The maximum number of PDU's
 transmitted before a POLL PDU is
 transmitted."
 ::= { svcAtmConfigEntry 50 }

```

svcAtmConfigQSaalMaxStat OBJECT-TYPE
    SYNTAX      INTEGER (1..67)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The maximum number of list
elements in a STAT PDU."
    ::= { svcAtmConfigEntry 51 }

svcAtmConfigQSaalTPoll OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The protocol timer corresponding
to the polling function,
        specified in milliseconds."
    ::= { svcAtmConfigEntry 52 }

svcAtmConfigQSaalTKeepalive OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The protocol timer corresponding
to the keepalive function,
        specified in milliseconds."
    ::= { svcAtmConfigEntry 53 }

svcAtmConfigQSaalTNoResponse OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The protocol timer corresponding
to the response timeout function,
        specified in milliseconds."
    ::= { svcAtmConfigEntry 54 }

svcAtmConfigQSaalTCC OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

```

        "The protocol timer corresponding
to the transmission of
        control PDU's, specified in
milliseconds."
    ::= { svcAtmConfigEntry 55 }

svcAtmConfigQSaalTIdle OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The protocol timer corresponding
to the idle function for
        UNI 3.1, only, specified in
milliseconds."
    ::= { svcAtmConfigEntry 56 }

svcAtmConfigQSaalNumDiscardTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of QSaal transmit
discards on this port."
    ::= { svcAtmConfigEntry 57 }

svcAtmConfigQSaalNumDiscardRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of QSaal receive
discards on this port."
    ::= { svcAtmConfigEntry 58 }

svcAtmConfigQSaalNumErrorTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The number of QSaal transmit
errors on this port."
    ::= { svcAtmConfigEntry 59 }

svcAtmConfigQSaalNumErrorRx OBJECT-TYPE

```

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of QSaal receive errors on this port."
	::= { svcAtmConfigEntry 60 }

svcAtmConfigQSaalNumBgnPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of begin PDU's transmitted on this port."
	::= { svcAtmConfigEntry 61 }

svcAtmConfigQSaalNumBgnPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of begin PDU's received on this port."
	::= { svcAtmConfigEntry 62 }

svcAtmConfigQSaalNumBgakPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of begin acknowledge PDU's transmitted on this port."
	::= { svcAtmConfigEntry 63 }

svcAtmConfigQSaalNumBgakPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of begin acknowledge PDU's received on this port."
	::= { svcAtmConfigEntry 64 }

svcAtmConfigQSaalNumBgrejPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of begin reject PDU's transmitted on this port."
	::= { svcAtmConfigEntry 65 }

svcAtmConfigQSaalNumBgrejPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of begin reject PDU's received on this port."
	::= { svcAtmConfigEntry 66 }

svcAtmConfigQSaalNumEndPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of end PDU's transmitted on this port."
	::= { svcAtmConfigEntry 67 }

svcAtmConfigQSaalNumEndPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of end PDU's received on this port."
	::= { svcAtmConfigEntry 68 }

svcAtmConfigQSaalNumEndakPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of end acknowledge PDU's transmitted on this port."
	::= { svcAtmConfigEntry 69 }

svcAtmConfigQSaalNumEndakPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of end acknowledge PDU's received on this port."
	::= { svcAtmConfigEntry 70 }

svcAtmConfigQSaalNumRsPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of resynchronization PDU's transmitted on this port."
	::= { svcAtmConfigEntry 71 }

svcAtmConfigQSaalNumRsPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of resynchronization PDU's received on this port."
	::= { svcAtmConfigEntry 72 }

svcAtmConfigQSaalNumRsakPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of resynchronization acknowledge PDU's transmitted on this port."
	::= { svcAtmConfigEntry 73 }

svcAtmConfigQSaalNumRsakPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of resynchronization acknowledge PDU's received on this port."
	::= { svcAtmConfigEntry 74 }

svcAtmConfigQSaalNumErPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of error recovery PDU's transmitted on this port."
	::= { svcAtmConfigEntry 75 }

svcAtmConfigQSaalNumErPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of error recovery PDU's received on this port."
	::= { svcAtmConfigEntry 76 }

svcAtmConfigQSaalNumErakPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of error recovery acknowledge PDU's transmitted on this port."
	::= { svcAtmConfigEntry 77 }

svcAtmConfigQSaalNumErakPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of error recovery acknowledge PDU's received on this port."
	::= { svcAtmConfigEntry 78 }

svcAtmConfigQSaalNumSdPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of sequenced data PDU's transmitted on this port."
	::= { svcAtmConfigEntry 79 }

svcAtmConfigQSaalNumSdPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of sequenced data PDU's received on this port."
	::= { svcAtmConfigEntry 80 }

svcAtmConfigQSaalNumPollPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of poll PDU's transmitted on this port."
	::= { svcAtmConfigEntry 81 }

svcAtmConfigQSaalNumPollPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of poll PDU's received on this port."
	::= { svcAtmConfigEntry 82 }

svcAtmConfigQSaalNumStatPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of status PDU's transmitted on this port."
	::= { svcAtmConfigEntry 83 }

svcAtmConfigQSaalNumStatPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of status PDU's received on this port."
	::= { svcAtmConfigEntry 84 }

svcAtmConfigQSaalNumUstatPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of unsolicited status PDU's transmitted on this port."
	::= { svcAtmConfigEntry 85 }

svcAtmConfigQSaalNumUstatPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of unsolicited status PDU's received on this port."
	::= { svcAtmConfigEntry 86 }

svcAtmConfigQSaalNumUdPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of unnumbered user data PDU's transmitted on this port."
	::= { svcAtmConfigEntry 87 }

svcAtmConfigQSaalNumUdPduRx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of unnumbered user data PDU's received on this port."
	::= { svcAtmConfigEntry 88 }

svcAtmConfigQSaalNumMdPduTx OBJECT-TYPE

SYNTAX	Counter
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"The number of unnumbered management data PDU's transmitted on this port."
	::= { svcAtmConfigEntry 89 }

svcAtmConfigQSaalNumMdPduRx OBJECT-TYPE

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The number of unnumbered management data PDU's received on this port."
::= { svcAtmConfigEntry 90 }

svcAtmConfigQSaalNumOctetsTx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The number of octets sent on the signalling channel."
::= { svcAtmConfigEntry 91 }

svcAtmConfigQSaalNumOctetsRx OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The number of octets received from the signalling channel."
::= { svcAtmConfigEntry 92 }

svcAtmConfigVpiStartVp OBJECT-TYPE
SYNTAX INTEGER (0..4095)
ACCESS read-write
STATUS mandatory
DESCRIPTION "Starting VPI value for SVP range. Must be less than or equal to svcAtmConfigVpiStopVp. This object is used in conjunction with the svcAtmConfigVpiStopVp object. Values of 0 for both objects invalidates the range checks."
::= { svcAtmConfigEntry 93 }

svcAtmConfigVpiStopVp OBJECT-TYPE
SYNTAX INTEGER (0..4095)
ACCESS read-write
STATUS mandatory
DESCRIPTION

"Ending VPI value for SVP range. Must be greater than or equal to svcAtmConfigVpiStartVp. This object is used in conjunction with the svcAtmConfigVpiStartVp object. Values of 0 for both objects invalidates the range checks."
::= { svcAtmConfigEntry 94 }

svcAtmConfigVpiStart OBJECT-TYPE
SYNTAX INTEGER (0..4095)
ACCESS read-write
STATUS mandatory
DESCRIPTION "Starting VPI value for SVC range. Must be less than or equal to svcAtmConfigVpiStop. This object is used in conjunction with the svcAtmConfigVpiStop, svcAtmConfigVciStart and svcAtmConfigVciStop objects. Values of 0 for all objects invalidates the range checks"
::= { svcAtmConfigEntry 95 }

svcAtmConfigVpiStop OBJECT-TYPE
SYNTAX INTEGER (0..4095)
ACCESS read-write
STATUS mandatory
DESCRIPTION "Ending VPI value for SVC range. Must be greater than or equal to svcAtmConfigVpiStart. This object is used in conjunction with the svcAtmConfigVpiStart, svcAtmConfigVciStart and svcAtmConfigVciStop objects. Values of 0 for all objects invalidates the range checks."
::= { svcAtmConfigEntry 96 }

svcAtmConfigVciStart OBJECT-TYPE
SYNTAX INTEGER (32..65535)
ACCESS read-write
STATUS mandatory

DESCRIPTION
 "Starting VCI value for SVC range. Must be less than or equal to svcAtmConfigVciStop. This object is used in conjunction with the svcAtmConfigVpiStart, svcAtmConfigVpiStop and svcAtmConfigVciStop objects. Values of 0 for all objects invalidates the range checks."
 ::= { svcAtmConfigEntry 97 }

svcAtmConfigVciStop OBJECT-TYPE
 SYNTAX INTEGER (32..65535)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Ending VCI value for SVC range. Must be greater than of equal to svcAtmConfigVciStart. This object is used in conjunction with the svcAtmConfigVpiStart, svcAtmConfigVpiStop and svcAtmConfigVciStart objects. Values of 0 for all objects invalidates the range checks."
 ::= { svcAtmConfigEntry 98 }

svcAtmConfigQSaalWindowSize OBJECT-TYPE
 SYNTAX INTEGER (1..4095)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The window size for Q.SAAL."
 DEFVAL { 32 }
 ::= { svcAtmConfigEntry 99 }

svcAtmConfigSvcCdvt OBJECT-TYPE
 SYNTAX INTEGER (1..16777215)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The default cell delay variation tolerance, in microseconds,

to be used by the UPC at this port for originating or terminating SVC's. Higher values will result in a less restrictive UPC."

DEFVAL { 600 }
 ::= { svcAtmConfigEntry 100 }

svcAtmConfigQSaalTxWindowDepth OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The current depth of the Q.SAAL transmit window. This number represents the number of outstanding unacknowledged SD PDUs."
 ::= { svcAtmConfigEntry 101 }

svcAtmConfigQ93bNumNotifyPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of notify PDU's transmitted on this port."
 ::= { svcAtmConfigEntry 102 }

svcAtmConfigQ93bNumNotifyPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of notify PDU's received on this port."
 ::= { svcAtmConfigEntry 103 }

svcAtmConfigQ93bNumProgressPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of progress PDU's transmitted on this port."
 ::= { svcAtmConfigEntry 104 }

svcAtmConfigQ93bNumProgressPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of progress PDU's
 received on this port."
 ::= { svcAtmConfigEntry 105 }

svcAtmConfigQ93bNumAlertingPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of alerting PDU's
 transmitted on this port."
 ::= { svcAtmConfigEntry 106 }

svcAtmConfigQ93bNumAlertingPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of alerting PDU's
 received on this port."
 ::= { svcAtmConfigEntry 107 }

svcAtmConfigQ93bNumPtyAlertingPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of party alerting
 PDU's transmitted on this port."
 ::= { svcAtmConfigEntry 108 }

svcAtmConfigQ93bNumPtyAlertingPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The number of party alerting
 PDU's received on this port."
 ::= { svcAtmConfigEntry 109 }

svcAtmConfigQ93bT301 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Protocol Timer T301, specified in
 milliseconds."
 ::= { svcAtmConfigEntry 110 }

svcAtmConfigQ93bT397 OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Protocol Timer T397, specified in
 milliseconds."
 ::= { svcAtmConfigEntry 111 }

svcAtmConfigAal5FrameDiscardStatus OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Indicates whether to perform EPD
 on SVCs on this port.
 If set EPD is performed on AAL5
 signalled circuits."
 ::= { svcAtmConfigEntry 112 }

svcAtmConfigSigHoldoffTime OBJECT-TYPE
 SYNTAX INTEGER (0..255)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "After signaling is disabled due to pport
 admin down,
 lport admin down, or pport LOS/OOF
 condition, wait
 this many seconds before allowing
 signaling to come
 back up. This will force a SAAL Failure
 to be processed

by the peer device. This feature accommodates certain CPE that don't respond to the SAAL Reset condition.

Although the user is not required to do so, it is recommended that when this object is set to a non-zero value, the svcConfigRestartOption object be set to disabled, thereby disabling the initiation of restart at SSCOP establishment."

```
DEFVAL { 35 }
 ::= { svcAtmConfigEntry 113 }
```

svcAtmConfigDefaultMcr OBJECT-TYPE
SYNTAX INTEGER (0..16777215)
ACCESS read-write
STATUS mandatory
DESCRIPTION

"The default MCR, in cells per second, to be used for both directions of ABR calls when no MCR has been signaled.

Also, an MCR value used in a UBR+ service to set the equivalent bandwidth of all UBR calls originating on this lport."
DEFVAL { 100 }
 ::= { svcAtmConfigEntry 114 }

```
--
-- The SVC Screen Table for Security Screening.
--
```

screenTable OBJECT-TYPE
SYNTAX SEQUENCE OF ScreenTableEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
"A table of configuration parameters associated with a screen."
 ::= { svcmgt 3}

screenTableEntry OBJECT-TYPE
SYNTAX ScreenTableEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
"The screen table entry contains objects relevant to the screen parameters"
INDEX {secScrLport, secScrScrID}
 ::= { screenTable 1 }

```
ScreenTableEntry ::=
    SEQUENCE {
        secScrLport
            Index,
        secScrScrID
            INTEGER,
        secScrCgPtyType
            INTEGER,
        secScrCgPty
            OCTET STRING,
        secScrCdPtyType
            INTEGER,
        secScrCdPty
            OCTET STRING,
        secScrCgPtySubAddrType
            INTEGER,
        secScrCgPtySubAddr
            OCTET STRING,
        secScrCdPtySubAddrType
            INTEGER,
        secScrCdPtySubAddr
            OCTET STRING,
        secScrDirection
            INTEGER,
        secScrType
            INTEGER,
        secScrAdminState
            INTEGER
    }
```

secScrLport OBJECT-TYPE
SYNTAX Index
ACCESS read-only
STATUS mandatory

```

        DESCRIPTION
            "The ifIndex value of the
corresponding ifEntry."
        ::= { screenTableEntry 1 }

secScrScrID OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The screen index to access the
screens applied at a port. The maximum number
        of screens applied to a port is
limited to 16."
        ::= { screenTableEntry 2 }

secScrCgPtyType OBJECT-TYPE
    SYNTAX      INTEGER {
        disable (1),          -- Cg Pty
        screening disabled.
        addressing format.    atm-endsystem (2),-- AESA
        addressing format.    e164 (4),          -- E.164
        addressing format.    x121 (8)          -- X.121
        addressing format.
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This object specifies the
addressing format. Supported addressing formats
        are AESA, E.164, and X.121. The
screening can be disabled by setting it to
        disable."
    DEFVAL {disable}
    ::= { screenTableEntry 3 }

secScrCgPty OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This object specifies the calling
party address to be used by the security

```

```

        screen for matching."
        ::= { screenTableEntry 4 }

secScrCdPtyType OBJECT-TYPE
    SYNTAX      INTEGER {
        disable (1),          -- Cd Pty
        screening disabled.
        addressing format.    atm-endsystem (2), -- AESA
        addressing format.    e164 (4),          -- E.164
        addressing format.    x121 (8)          -- X.121
        addressing format.
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This object specifies the addressing
format. Supported addressing formats
        are AESA, E.164, and X.121. The screening
can be disabled by setting it to
        disable."
    DEFVAL {disable}
    ::= { screenTableEntry 5 }

secScrCdPty OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "This object specifies the called party
address to be used by the security
        screen for matching."
        ::= { screenTableEntry 6 }

secScrCgPtySubAddrType OBJECT-TYPE
    SYNTAX      INTEGER {
        disable (1),          --
        Disabled.
        addressing format.    atm-endsystem (2)-- AESA
        addressing format.
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION

```

```

        "This object enables/disables the
calling party subaddress screening. Supported
        addressing format is AESA."
        DEFVAL {disable}
        ::= { screenTableEntry 7 }

secScrCgPtySubAddr      OBJECT-TYPE
    SYNTAX  OCTET STRING
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "This object specifies the calling party
subaddress to be used by the security
        screen for matching."
        ::= { screenTableEntry 8 }

secScrCdPtySubAddrType OBJECT-TYPE
    SYNTAX  INTEGER {
        disable (1),          -- Disabled.
        atm-endsystem (2)-- AESA
    }
    ADDRESSING format.
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "This object enables/disables the
called party subaddress screening. Supported
        addressing format is AESA."
        DEFVAL {disable}
        ::= { screenTableEntry 9 }

secScrCdPtySubAddr      OBJECT-TYPE
    SYNTAX  OCTET STRING
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "This object specifies the called party
subaddress to be used by the security
        screen for matching."
        ::= { screenTableEntry 10 }

secScrDirectionOBJECT-TYPE
    SYNTAX  INTEGER {
        ingress (1),-- incoming call
screen.

```

```

        egress      (2)      --
outgoing call screen.
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "This object specifies the
direction of the screen."
    DEFVAL {ingress}
    ::= {screenTableEntry 11}

secScrType OBJECT-TYPE
    SYNTAX  INTEGER {
        pass (1),    -- screen is a pass
screen.
        block (2)    -- screen is a block
screen.
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "This object specifies the action
to be taken on the call if it meets the matching
        criteria."
    DEFVAL {pass}
    ::= { screenTableEntry 12 }

secScrAdminState OBJECT-TYPE
    SYNTAX  INTEGER {
        invalid (0),-- Screen not valid.
        active (1),    -- Screen
activated.
        inactive (2)    -- Screen
inactivated.
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "This object determines if the
screen information is valid to use. This should
        be the last object to be set to
active, while all the screen pertaining information
        is updated. And it should be set
to inactive when the screen is to be ignored for

```

```

        decision making purpose. It should
be set to 'delete' once the screen is deleted."
        DEFVAL {invalid}
        ::= {screenTableEntry 13}

--
-- SVC - Virtual Path Channel Identifier Table
--

svcVpciTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SvcVpciEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A table of VPCIs associated with ports on
this node."
    ::= { svcmgt 4 }

svcVpciEntry OBJECT-TYPE
    SYNTAX SvcVpciEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The VPCI entry contains objects relevant
to VPCIs
        associated with this port."
    INDEX { svcVpciIfIndex, svcVpciVpci }
    ::= { svcVpciTable 1 }

SvcVpciEntry ::=
    SEQUENCE {
        svcVpciIfIndex
            Index,
        svcVpciVpci
            INTEGER,
        svcVpciVpi
            INTEGER,
        svcVpciTargetNodeId
            INTEGER,
        svcVpciTargetInterface
            INTEGER,
        svcVpciVciAssignmentPolicy
            INTEGER,
        svcVpciRowStatus

```

```

        INTEGER
    }

svcVpciIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The interface value of the corresponding
MIB-II ifEntry."
    ::= { svcVpciEntry 1 }

svcVpciVpci OBJECT-TYPE
    SYNTAX INTEGER (0..65534)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "VPCI is an abstract 16 bit value which is
used to identify
        the connection resources
associated with an interface. The
        value 65535 is reserved for
internal use"
    ::= { svcVpciEntry 2 }

svcVpciVpi OBJECT-TYPE
    SYNTAX INTEGER (0..4095)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Actual value specified here is used in
the ATM Cell
        Header. At an NNI interface VPI
is 12-Bits and at the
        UNI the VPI is 8 Bits. The value
of VPI which can
        be selected is limited to the VPI
range specified at the lport.
        Range of VCIs which may be allocated for
this VPI is
        specified in svcVciStart &
svcVciStop."
    DEFVAL { 0 }
    ::= { svcVpciEntry 3 }

```

```

svcVpciTargetNodeId OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "If a signalling entity signals on behalf
of other          interfaces then those target node
ID must be        explicitly identified.  A node ID
of 0              means local node."
    DEFVAL { 0 }
    ::= { svcVpciEntry 4 }

svcVpciTargetInterface OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "If a signalling entity signals on behalf
of other          interfaces then those target
interface must be explicitly identified.  A target
interface of 0    means local interface."
    DEFVAL { 0 }
    ::= { svcVpciEntry 5 }

svcVpciVciAssignmentPolicy OBJECT-TYPE
    SYNTAX INTEGER {
        all (1), -- assign all VCIs for this VPCI;
        none (2), -- assign none of the VCIs for
this VPCI;
        even (3), -- assign all even VCIs from the
VCI range;
        odd (4), -- assign all odd VCIs from the
VCI range;
        unspecified (5) -- higher level protocol
will decide the policy;
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION

```

```

        "This object defines the assignment rule
which must be
        observed by the signalling entity
such as UNI or
        BISUP - Signalling."
    DEFVAL { all }
    ::= { svcVpciEntry 6 }

svcVpciRowStatus OBJECT-TYPE
    SYNTAX INTEGER {
        unknown (1), -- Row status has not been
set yet;
        active (2), -- Row is active;
        inactive (3), -- Row has been created, but
is inactive;
        delete (4) -- Row is to be removed
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Status of row in VPCI table."
    DEFVAL { unknown }
    ::= { svcVpciEntry 7 }

--
--      SVC Frame Relay Configuration Table
--

svcFrConfigTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SvcFrConfigEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A table of Frame Relay SVC
signalling parameters associated with
        FR logical ports.  The maximum
number of entries is given by the
        value of ifNumber in MIB-II."
    ::= { svcmgt 5 }

svcFrConfigEntry OBJECT-TYPE
    SYNTAX      SvcFrConfigEntry
    ACCESS      not-accessible
    STATUS      mandatory

```


DESCRIPTION
 "The SVC Frame Relay configuration entry contains objects relevant to the configuration and monitoring of Frame Relay SVC signalling on an ATM logical port."
 INDEX { svcFrConfigIfIndex }
 ::= { svcFrConfigTable 1 }

SvcFrConfigEntry ::= SEQUENCE {
 svcFrConfigIfIndex
 Index,
 svcFrConfigCIR
 INTEGER,
 svcFrConfigRCIR
 INTEGER,
 svcFrConfigBc
 INTEGER,
 svcFrConfigRBc
 INTEGER,
 svcFrConfigBe
 INTEGER,
 svcFrConfigRBe
 INTEGER,
 svcFrConfigMaxFrameSize
 INTEGER,
 svcFrConfigRMaxFrameSize
 INTEGER,
 svcFrConfigOCIRCircuit
 INTEGER,
 svcFrConfigQoS
 INTEGER,
 svcFrConfigRQoS
 INTEGER,
 svcFrConfigOde
 INTEGER,
 svcFrConfigRde
 INTEGER,
 svcFrDlciStart
 INTEGER,
 svcFrDlciStop
 INTEGER,
 svcFrConfigT303
 INTEGER,

svcFrConfigT305
 INTEGER,
 svcFrConfigT308
 INTEGER,
 svcFrConfigT310
 INTEGER,
 svcFrConfigT316
 INTEGER,
 svcFrConfigT317
 INTEGER,
 svcFrConfigQ922N200
 INTEGER,
 svcFrConfigQ922N201
 INTEGER,
 svcFrConfigQ922T200
 INTEGER,
 svcFrConfigQ922T203
 INTEGER,
 svcFrConfigQ922WindowSize
 INTEGER,
 svcFrConfigTotalConns
 Counter,
 svcFrConfigActiveConns
 Counter,
 svcFrConfigLastCauseTx
 INTEGER,
 svcFrConfigLastCauseRx
 INTEGER,
 svcFrConfigNumSetupPduTx
 Counter,
 svcFrConfigNumSetupPduRx
 Counter,
 svcFrConfigNumCallProcPduTx
 Counter,
 svcFrConfigNumCallProcPduRx
 Counter,
 svcFrConfigNumConnectPduTx
 Counter,
 svcFrConfigNumConnectPduRx
 Counter,
 svcFrConfigNumDisconnPduTx
 Counter,
 svcFrConfigNumDisconnPduRx
 Counter,
 svcFrConfigNumReleasePduTx

```

Counter,
svcFrConfigNumReleasePduRx
Counter,
svcFrConfigNumReleaseCmpltpduTx
Counter,
svcFrConfigNumReleaseCmpltpduRx
Counter,
svcFrConfigNumStatusEnqpduTx
Counter,
svcFrConfigNumStatusEnqpduRx
Counter,
svcFrConfigNumStatusPduTx
Counter,
svcFrConfigNumStatusPduRx
Counter,
svcFrConfigNumRestartPduTx
Counter,
svcFrConfigNumRestartPduRx
Counter,
svcFrConfigNumRestartAckPduTx
Counter,
svcFrConfigNumRestartAckPduRx
Counter,
svcFrConfigRestartState
INTEGER,
svcFrConfigQ922NumSabmePduTx
Counter,
svcFrConfigQ922NumSabmePduRx
Counter,
svcFrConfigQ922NumUaPduTx
Counter,
svcFrConfigQ922NumUaPduRx
Counter,
svcFrConfigQ922NumDmPduTx
Counter,
svcFrConfigQ922NumDmPduRx
Counter,
svcFrConfigQ922NumDiscPduTx
Counter,
svcFrConfigQ922NumDiscPduRx
Counter,
svcFrConfigQ922NumRrPduTx
Counter,
svcFrConfigQ922NumRrPduRx
Counter,

```

```

svcFrConfigQ922NumRnrPduTx
Counter,
svcFrConfigQ922NumRnrPduRx
Counter,
svcFrConfigQ922NumRejPduTx
Counter,
svcFrConfigQ922NumRejPduRx
Counter,
svcFrConfigQ922NumIPduTx
Counter,
svcFrConfigQ922NumIPduRx
Counter,
svcFrConfigQ922NumFrmrPduTx
Counter,
svcFrConfigQ922NumFrmrPduRx
Counter,
svcFrConfigQ922NumOctetsTx
Counter,
svcFrConfigQ922NumOctetsRx
Counter

```

```

}

```

svcFrConfigIfIndex OBJECT-TYPE

```

SYNTAX      Index
ACCESS      read-only
STATUS      mandatory
DESCRIPTION

```

```

"The ifIndex value of the
corresponding ifEntry."
 ::= { svcFrConfigEntry 1 }

```

svcFrConfigCIR OBJECT-TYPE

```

SYNTAX      INTEGER (0..2047000000)
ACCESS      read-write
STATUS      mandatory
DESCRIPTION

```

```

"The value of this object is equal
to the committed information
rate (CIR, measured in bits per
second) in the ingress direction.
It is used for an SVC when the
value has not been specified in the
signaled parameters of an SVC
SETUP message received on this
logical port."

```

```

DEFVAL { 0 }
::= { svcFrConfigEntry 2 }

svcFrConfigRCIR OBJECT-TYPE
    SYNTAX      INTEGER (0..2047000000)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The value of this object is equal
to the committed information
        rate (CIR, measured in bits per
second) in the egress direction.
        It is used for an SVC when the
value has not been specified in the
        signaled parameters of an SVC
SETUP message received on this
        logical port."
    DEFVAL { 0 }
    ::= { svcFrConfigEntry 3 }

svcFrConfigBc OBJECT-TYPE
    SYNTAX      INTEGER (0..2147483632)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The value of this object is equal
to the committed burst size
        (Bc, measured in bits) in the
ingress direction. It is
        used for an SVC when the value has
not been specified in the
        signaled parameters of an SVC
SETUP message received on this
        logical port."
    DEFVAL { 0 }
    ::= { svcFrConfigEntry 4 }

svcFrConfigRBc OBJECT-TYPE
    SYNTAX      INTEGER (0..2147483632)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The value of this object is equal
to the committed burst size

```

```

        (Bc, measured in bits) in the
egress direction. It is
        used for an SVC when the value has
not been specified in the
        signaled parameters of an SVC
SETUP message received on this
        logical port."
    DEFVAL { 0 }
    ::= { svcFrConfigEntry 5 }

svcFrConfigBe OBJECT-TYPE
    SYNTAX      INTEGER (0..2147483632)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The value of this object is equal
to the excess burst size
        (Be, measured in bits) in the
ingress direction. It is
        used for an SVC when the value has
not been specified in the
        signaled parameters of an SVC
SETUP message received on this
        logical port."
    DEFVAL { 0 }
    ::= { svcFrConfigEntry 6 }

svcFrConfigRBe OBJECT-TYPE
    SYNTAX      INTEGER (0..2147483632)
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The value of this object is equal
to the excess burst size
        (Be, measured in bits) in the
egress direction. It is
        used for an SVC when the value has
not been specified in the
        signaled parameters of an SVC
SETUP message received on this
        logical port."
    DEFVAL { 0 }
    ::= { svcFrConfigEntry 7 }

svcFrConfigMaxFrameSize OBJECT-TYPE

```

```

SYNTAX      INTEGER (0..8192)
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The value of this object is equal
to the max frame mode
              information field size (FMIF,
measured in bytes) in the
              ingress direction. It is used
for an SVC when the value has
              not been specified in the
signaled parameters of an SVC SETUP
              message received on this logical
port."

```

```

DEFVAL { 8192 }
::= { svcFrConfigEntry 8 }

```

svcFrConfigRMaxFrameSize OBJECT-TYPE

```

SYNTAX      INTEGER (0..8192)
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The value of this object is equal
to the max frame mode
              information field size (FMIF,
measured in bytes) in the
              egress direction. It is used for
an SVC when the value has
              not been specified in the
signaled parameters of an SVC SETUP
              message received on this logical
port."

```

```

DEFVAL { 8192 }
::= { svcFrConfigEntry 9 }

```

svcFrConfig0CIRCircuit OBJECT-TYPE

```

SYNTAX      INTEGER {
              none (0),    -- Neither direction
is 0 CIR
              fwd  (1),    -- Only the forward
direction is 0 CIR
              rev  (2),    -- Only the reverse
direction is 0 CIR
              both (3)     -- Both forward and
reverse are 0 CIR

```

```

}
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "Controls the interpretation of
the traffic parameters
              for 0 CIR Frame Relay circuits. 0
CIR circuits make use
              of CIR and rCIR in routing but
not in frame coloring.
              Affects Frame Relay SVCs
originating on this logical port."
DEFVAL { none }
::= { svcFrConfigEntry 10 }

```

svcFrConfigQoS OBJECT-TYPE

```

SYNTAX INTEGER {
              cfr  (1),
              vfr-rt (2),
              vfr-nrt (3),
              ufr  (4),
              unspecified (5)
}
ACCESS      read-write
STATUS      mandatory
DESCRIPTION  "The Quality of Service of the
Frame Relay Circuit
              in the ingress direction.
Affects Frame Relay SVCs originating on
              this logical port."
DEFVAL { vfr-nrt }
::= { svcFrConfigEntry 11 }

```

svcFrConfigRQoS OBJECT-TYPE

```

SYNTAX INTEGER {
              cfr  (1),
              vfr-rt (2),
              vfr-nrt (3),
              ufr  (4),
              unspecified (5)
}
ACCESS      read-write
STATUS      mandatory
DESCRIPTION

```

```

Frame Relay Circuit
    "The Quality of Service of the
    in the egress direction. Affects
    Frame Relay SVCs originating on
    this logical port."
    DEFVAL { vfr-nrt }
    ::= { svcFrConfigEntry 12 }

svcFrConfig0de OBJECT-TYPE
    SYNTAX      INTEGER {
        off (0),
        on (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Enable/disable graceful discard
        for Frame Relay SVCs in the
        ingress direction on this logical
        port."
    DEFVAL { on }
    ::= { svcFrConfigEntry 13 }

svcFrConfigR0de OBJECT-TYPE
    SYNTAX      INTEGER {
        off (0),
        on (1)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Enable/disable graceful discard
        for Frame Relay SVCs in the
        egress direction on this logical
        port."
    DEFVAL { on }
    ::= { svcFrConfigEntry 14 }

svcFrDlciStart OBJECT-TYPE
    SYNTAX INTEGER (16..1006)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION "The lowest DLCI to be allocated
    for FR SVCs, unless otherwise
    allocated to a PVC."

```

```

    DEFVAL { 16 }
    ::= { svcFrConfigEntry 15 }

svcFrDlciStop OBJECT-TYPE
    SYNTAX INTEGER (16..1006)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION "The highest DLCI to be allocated
    for FR SVCs, unless otherwise
    allocated to a PVC. Must
    be greater than or equal to svcFrDlciStart."
    DEFVAL { 1006 }
    ::= { svcFrConfigEntry 16 }

svcFrConfigT303 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "Protocol timer Q.933/T303,
    expressed in milliseconds."
    DEFVAL { 4000 }
    ::= { svcFrConfigEntry 17 }

svcFrConfigT305 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "Protocol timer Q.933/T305,
    expressed in milliseconds."
    DEFVAL { 30000 }
    ::= { svcFrConfigEntry 18 }

svcFrConfigT308 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION "Protocol timer Q.933/T308,
    expressed in milliseconds."
    DEFVAL { 4000 }
    ::= { svcFrConfigEntry 19 }

svcFrConfigT310 OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-write
    STATUS      mandatory

```

DESCRIPTION "Protocol timer Q.933/T310,
expressed in milliseconds."
DEFVAL { 10000 }
::= { svcFrConfigEntry 20 }

svcFrConfigT316 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "Protocol timer Q.933/T316,
expressed in milliseconds."
DEFVAL { 120000 }
::= { svcFrConfigEntry 21 }

svcFrConfigT317 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "Protocol timer Q.933/T317,
expressed in milliseconds."
DEFVAL { 60000 }
::= { svcFrConfigEntry 22 }

svcFrConfigQ922N200 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "Protocol counter Q.922/N200. The
number of times to retry T200"
DEFVAL { 3 }
::= { svcFrConfigEntry 23 }

svcFrConfigQ922N201 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "Protocol counter Q.922/N201. The
maximum number of octets in an I frame"
DEFVAL { 260 }
::= { svcFrConfigEntry 24 }

svcFrConfigQ922T200 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write

STATUS mandatory
DESCRIPTION "Protocol timer Q.922/T200."
DEFVAL { 1500 }
::= { svcFrConfigEntry 25 }

svcFrConfigQ922T203 OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "Protocol timer Q.922/T203."
DEFVAL { 30000 }
::= { svcFrConfigEntry 26 }

svcFrConfigQ922WindowSize OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION "The receive window size used by
Q.922."
DEFVAL { 7 }
::= { svcFrConfigEntry 27 }

svcFrConfigTotalConns OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The number of active Frame Relay
SVCs seen on this interface since
the card booted."
::= { svcFrConfigEntry 28 }

svcFrConfigActiveConns OBJECT-TYPE
SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION "The number of active Frame Relay
SVCs currently on this interface."
::= { svcFrConfigEntry 29 }

svcFrConfigLastCauseTx OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION "The last transmitted cause code
seen on this interface."

```

        ::= { svcFrConfigEntry 30 }

svcFrConfigLastCauseRx OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The last received cause code seen
on this interface."
    ::= { svcFrConfigEntry 31 }

svcFrConfigNumSetupPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted SETUP
messages on this interface."
    ::= { svcFrConfigEntry 32 }

svcFrConfigNumSetupPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received SETUP
messages on this interface."
    ::= { svcFrConfigEntry 33 }

svcFrConfigNumCallProcPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted CALL
PROCEEDING messages on this interface."
    ::= { svcFrConfigEntry 34 }

svcFrConfigNumCallProcPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received CALL
PROCEEDING messages on this interface."
    ::= { svcFrConfigEntry 35 }

svcFrConfigNumConnectPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only

```

```

    STATUS      mandatory
    DESCRIPTION "The number of transmitted CONNECT
messages on this interface."
    ::= { svcFrConfigEntry 36 }

svcFrConfigNumConnectPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received CONNECT
messages on this interface."
    ::= { svcFrConfigEntry 37 }

svcFrConfigNumDisconnPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted
DISCONNECT messages on this interface."
    ::= { svcFrConfigEntry 38 }

svcFrConfigNumDisconnPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received DISCONNECT
messages on this interface."
    ::= { svcFrConfigEntry 39 }

svcFrConfigNumReleasePduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted RELEASE
messages on this interface."
    ::= { svcFrConfigEntry 40 }

svcFrConfigNumReleasePduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received RELEASE
messages on this interface."
    ::= { svcFrConfigEntry 41 }

```

svcFrConfigNumReleaseCmplTxDuTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of transmitted RELEASE
 CMPLT messages on this interface."
 ::= { svcFrConfigEntry 42 }

svcFrConfigNumReleaseCmplTxDuRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of received RELEASE
 CMPLT messages on this interface."
 ::= { svcFrConfigEntry 43 }

svcFrConfigNumStatusEnqPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of transmitted STATUS
 ENQ messages on this interface."
 ::= { svcFrConfigEntry 44 }

svcFrConfigNumStatusEnqPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of received STATUS ENQ
 messages on this interface."
 ::= { svcFrConfigEntry 45 }

svcFrConfigNumStatusPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of transmitted STATUS
 messages on this interface."
 ::= { svcFrConfigEntry 46 }

svcFrConfigNumStatusPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory

 DESCRIPTION "The number of received STATUS
 messages on this interface."
 ::= { svcFrConfigEntry 47 }

svcFrConfigNumRestartPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of transmitted RESTART
 messages on this interface."
 ::= { svcFrConfigEntry 48 }

svcFrConfigNumRestartPduRx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of received RESTART
 messages on this interface."
 ::= { svcFrConfigEntry 49 }

svcFrConfigNumRestartAckPduTx OBJECT-TYPE
 SYNTAX Counter
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of transmitted RESTART
 ACK messages on this interface."
 ::= { svcFrConfigEntry 50 }

svcFrConfigNumRestartAckPduRx OBJECT-TYPE
 SYNTAX Counter ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The number of received RESTART
 ACK messages on this interface."
 ::= { svcFrConfigEntry 51 }

svcFrConfigRestartState OBJECT-TYPE
 SYNTAX INTEGER {
 null (1),
 restartRequest (2),
 restart (3)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION "The global restart state for this
 interface."


```

        ::= { svcFrConfigEntry 52 }

svcFrConfigQ922NumSabmePduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted Q.922
SABME messages on this interface."
    ::= { svcFrConfigEntry 53 }

svcFrConfigQ922NumSabmePduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received Q.922
SABME messages on this interface."
    ::= { svcFrConfigEntry 54 }

svcFrConfigQ922NumUaPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted Q.922
UA messages on this interface."
    ::= { svcFrConfigEntry 55 }

svcFrConfigQ922NumUaPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received Q.922 UA
messages on this interface."
    ::= { svcFrConfigEntry 56 }

svcFrConfigQ922NumDmPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted Q.922
DM messages on this interface."
    ::= { svcFrConfigEntry 57 }

svcFrConfigQ922NumDmPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only

```

```

    STATUS      mandatory
    DESCRIPTION "The number of received Q.922 DM
messages on this interface."
    ::= { svcFrConfigEntry 58 }

svcFrConfigQ922NumDiscPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted Q.922
DISC messages on this interface."
    ::= { svcFrConfigEntry 59 }

svcFrConfigQ922NumDiscPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received Q.922 DISC
messages on this interface."
    ::= { svcFrConfigEntry 60 }

svcFrConfigQ922NumRrPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted Q.922
RR messages on this interface."
    ::= { svcFrConfigEntry 61 }

svcFrConfigQ922NumRrPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received Q.922 RR
messages on this interface."
    ::= { svcFrConfigEntry 62 }

svcFrConfigQ922NumRnrPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted Q.922
RNR messages on this interface."
    ::= { svcFrConfigEntry 63 }

```

```

svcFrConfigQ922NumRnrPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received Q.922 RNR
messages on this interface."
    ::= { svcFrConfigEntry 64 }

svcFrConfigQ922NumRejPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted Q.922
REJ messages on this interface."
    ::= { svcFrConfigEntry 65 }

svcFrConfigQ922NumRejPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received Q.922 REJ
messages on this interface."
    ::= { svcFrConfigEntry 66 }

svcFrConfigQ922NumIPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of transmitted Q.922 I
messages on this interface."
    ::= { svcFrConfigEntry 67 }

svcFrConfigQ922NumIPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received Q.922 I
messages on this interface."
    ::= { svcFrConfigEntry 68 }

svcFrConfigQ922NumFrmrPduTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory

```

```

    DESCRIPTION "The number of transmitted Q.922
FRMR messages on this interface."
    ::= { svcFrConfigEntry 69 }

svcFrConfigQ922NumFrmrPduRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of received Q.922 FRMR
messages on this interface."
    ::= { svcFrConfigEntry 70 }

svcFrConfigQ922NumOctetsTx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of octets transmitted
on the LAPF channel on this interface."
    ::= { svcFrConfigEntry 71 }

svcFrConfigQ922NumOctetsRx OBJECT-TYPE
    SYNTAX      Counter
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION "The number of octets received on
the LAPF channel on this interface."
    ::= { svcFrConfigEntry 72 }

--
-- The SVC CUG Group
--
-- The tables that are relevant to managing Closed User
Groups in a Cascade network.
--
-- CUG Table
--

closedUserGroupTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF ClosedUserGroupEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION

```

```

        "A list of all Closed User Groups
active an a
        particular node"
        ::= { svccug 1 }

closedUserGroupEntry OBJECT-TYPE
    SYNTAX      ClosedUserGroupEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The CUG entry contains all
information for a
        particular CUG"
    INDEX      { cugIdentifier }
    ::= { closedUserGroupTable 1 }

ClosedUserGroupEntry ::=
    SEQUENCE {
        cugIdentifier
            INTEGER,
        cugAdminStatus
            INTEGER,
        cugNumMembers
            INTEGER
    }

cugIdentifier OBJECT-TYPE
    SYNTAX      INTEGER (1..65535)
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Global CUG Identifier"
    ::= { closedUserGroupEntry 1 }

cugAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        configured (1),
        invalid (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The administrative status of this
entry"
    DEFVAL { configured }

```

```

        ::= { closedUserGroupEntry 2 }

cugNumMembers OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Number of members in CUG"
    ::= { closedUserGroupEntry 3 }

--
--      CUG Member Table
--

cugMemberTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CugMemberEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of all CUG Members"
    ::= { svccug 2 }

cugMemberEntry OBJECT-TYPE
    SYNTAX      CugMemberEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The member entry contains all
information for a
        particular member"
    INDEX      { cugMemberIndex }
    ::= { cugMemberTable 1 }

CugMemberEntry ::=
    SEQUENCE {
        cugMemberIndex
            INTEGER,
        cugMemberRule
            OCTET STRING,
        cugMemberAdminStatus
            INTEGER,
        cugMemberNmbPlan
            INTEGER,
        cugMemberOutgoingAccess
            INTEGER,

```

```

        cugMemberIncomingAccess
            INTEGER,
        cugMemberNumCugs
            INTEGER
    }

cugMemberIndex OBJECT-TYPE
    SYNTAX      INTEGER (1..65535)
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Global Member Index"
        ::= { cugMemberEntry 1 }

cugMemberRule OBJECT-TYPE
    SYNTAX      OCTET STRING
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Member Rule. Once the
administrative status has
changed to configured, then this
object CANNOT be changed
to a different value. If the rule
must change after
the row has become configured,
then the whole row must
be deleted and re-created with the
new value."
        ::= { cugMemberEntry 2 }

cugMemberAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        configured (1),
        invalid (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The administrative status of this
entry"
        DEFVAL { configured }
        ::= { cugMemberEntry 3 }

cugMemberNmbPlan OBJECT-TYPE

```

```

    SYNTAX      INTEGER {
        e164 (1),
        atm-endsystem (2),
        unknown (3),
        x121 (4)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The numbering plan corresponding
to this entry. Once
changed to configured,
then this object CANNOT be changed
to a different
value. If the numbering plan must
change after
the row has become configured,
then the whole row must
be deleted and re-created with the
new value."
        DEFVAL { unknown }
        ::= { cugMemberEntry 4 }

cugMemberOutgoingAccess OBJECT-TYPE
    SYNTAX      INTEGER {
        no (1),
        yes (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Outgoing access attribute"
        DEFVAL { no }
        ::= { cugMemberEntry 5 }

cugMemberIncomingAccess OBJECT-TYPE
    SYNTAX      INTEGER {
        no (1),
        yes (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Incoming access attribute"

```

```

DEFVAL { no }
::= { cugMemberEntry 6 }

cugMemberNumCugs OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Number of CUGs member to which
member belongs"
        ::= { cugMemberEntry 7 }

--
--      CUG Member to CUG association Table
--

cugMemberCugListTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF CugMemberCugListEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of all CUG Members"
        ::= { svccug 3 }

cugMemberCugListEntry OBJECT-TYPE
    SYNTAX      CugMemberCugListEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The member entry contains all
information for a
        particular member"
        INDEX      { mcMemberIndex, mcCugIdentifier }
        ::= { cugMemberCugListTable 1 }

CugMemberCugListEntry ::=
    SEQUENCE {
        mcMemberIndex
            INTEGER,
        mcCugIdentifier
            INTEGER,
        mcAdminStatus
            INTEGER,
        mcIncomingCallsBarred
            INTEGER,
        mcOutgoingCallsBarred
            INTEGER,
        mcPreferentialCug
            INTEGER
    }

mcMemberIndex OBJECT-TYPE
    SYNTAX      INTEGER (0..65535)
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Member Rule Index"
        ::= { cugMemberCugListEntry 1 }

mcCugIdentifier OBJECT-TYPE
    SYNTAX      INTEGER (0..65535)
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Global CUG Identifier"
        ::= { cugMemberCugListEntry 2 }

mcAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        configured (1),
        invalid (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "The administrative status of this
entry"
        DEFVAL { configured }
        ::= { cugMemberCugListEntry 3 }

mcIncomingCallsBarred OBJECT-TYPE
    SYNTAX      INTEGER {
        no (1),
        yes (2)
    }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Incoming calls barred attribute"
        DEFVAL { no }

```

```

        ::= { cugMemberCugListEntry 4 }

mcOutgoingCallsBarred OBJECT-TYPE
    SYNTAX      INTEGER {
                    no (1),
                    yes (2)
                }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Outgoing calls barred attribute"
    DEFVAL { no }
    ::= { cugMemberCugListEntry 5 }

mcPreferentialCug OBJECT-TYPE
    SYNTAX      INTEGER {
                    no (1),
                    yes (2)
                }
    ACCESS      read-write
    STATUS      mandatory
    DESCRIPTION
        "Preferential CUG attribute. Will
be used with
        signaling support"
    DEFVAL { no }
    ::= { cugMemberCugListEntry 6 }

--
-- The Software Group
--
-- The variables that describe the software running on a
particular card.
--

swTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SwEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "A list of swEntry's. The number
of entries is given by the value of

```

```

        swCardNumber"
        ::= { software 1 }

swEntry OBJECT-TYPE
    SYNTAX      SwEntry
    ACCESS      not-accessible
    STATUS      mandatory
    DESCRIPTION
        "The software entry contains
objects describing the software
cards."
    INDEX      { swLogicalSlotId,
swRedundState }
    ::= { swTable 1 }

SwEntry ::=
    SEQUENCE {
        swLogicalSlotId
            INTEGER,
        swRedundState
            INTEGER,
        swRevision
            DisplayString,
        swBuildID
            DisplayString,
        swBuildDate
            DisplayString,
        swBuildDescription
            DisplayString,
        swCopyrightNotice
            DisplayString,
        swCapabilityMask
            INTEGER,
        swFeatureMask
            INTEGER,
        swPatchMask
            INTEGER,
        swBuildUserId
            DisplayString,
        swBuildView
            DisplayString,
        swBuildConfigSpec
            DisplayString
    }

```

```

swLogicalSlotId OBJECT-TYPE
    SYNTAX      INTEGER
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The logical slot number of this
card. This is used as an index for
the swTable. In redundant
configurations, this can be the physical
slot number of either redundant
card. In non redundant
configurations, this is the same
as cardPhysicalSlotId."
    ::= { swEntry 1}

```

```

swRedundState OBJECT-TYPE
    SYNTAX          INTEGER {
                                active (1),
                                standby (2)
                            }
    ACCESS           read-only
    STATUS           mandatory
    DESCRIPTION      "The current redundancy state of
this card."
    ::= { swEntry 2 }

```

```

swRevision OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "The software revision number in
        the form (major.minor.maint.patch)
        where major == the major release
        number
               minor == the minor release
        number
               maint == a maintenance
        release based on major.minor
               patch == a patch release
        based on major.minor.maint"
        ::= { swEntry 3 }

```

swBuildID OBJECT-TYPE

SYNTAX	DisplayString
ACCESS	read-only
STATUS	mandatory
DESCRIPTION	"An identifier which uniquely identifies the software image within the scope of the release. The build ID is generated automatically through the build process and assigned to the software image during the final load generation."
	::= { swEntry 4 }

```
swBuildDate OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION  "The date on which the software
image was generated."
    ::= { swEntry 5 }
```

```
swBuildDescription OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "A general description of the
release."
    ::= { swEntry 6 }
```

```
swCopyrightNotice OBJECT-TYPE
    SYNTAX      DisplayString
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Legalese describing the
        Copyrights covering this software
        image."
    ::= { swEntry 7 }
```

swCapabilityMask	OBJECT-TYPE
SYNTAX	INTEGER
ACCESS	read-only
STATUS	mandatory

DESCRIPTION
 "A 32-bit integer which bitmaps optional or additional features supported by this software release. For use by the NMS in determining capabilities of the software. The significance of this bitmap varies by release. For Cascade internal use."
 ::= { swEntry 8 }

swFeatureMask OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "A 32-bit integer which bitmaps optional or additional features supported by this software release. For use by the NMS in determining capabilities of the software. The significance of this bitmap varies by release. For Cascade internal use."
 ::= { swEntry 9 }

swPatchMask OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "A 32-bit integer which bitmaps incremental patches which have been applied to the software release. The significance of this bitmap varies by release. For Cascade internal use."
 ::= { swEntry 10 }

swBuildUserId OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

"The user ID of the person responsible for generating the software image. For Cascade internal use."
 ::= { swEntry 11 }

swBuildView OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Source control information for image generation. For Cascade internal use."
 ::= { swEntry 12 }

swBuildConfigSpec OBJECT-TYPE
 SYNTAX DisplayString
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Source control information for image generation. For Cascade internal use."
 ::= { swEntry 13 }

-- Cascade Performance Monitoring MIBs

 -- These branches consist of MIB data required for performance monitoring that are not supported in the standard DS1, DS3, or SONET MIBs. These MIBs consist of separate DS1, DS3, and SONET branches, all off if the cascadepm branch.

 -- DS1 Performance Monitoring Delta MIB

 -- This MIB consists of delta objects that supplement the standard DS1 MIB to support DS1 Performance Monitoring. These supplements include:
 --
 -- o ANSI T1.231 Support - increased set of counters, and thresholds.


```

--
-- Consists of the following tables
-- The Configuration Table
-- Current Table
-- Interval Table
-- Total Table
-- Current Threshold Table (15 minutes)
-- Day Threshold Table (24 hours)
-- DS1 PM Delta Configuration Table

ds1pmConfigTable OBJECT-TYPE
    SYNTAX SEQUENCE OF Ds1pmConfigEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The DS1 PM Configuration table."
    ::= { ds1pm 1 }

ds1pmConfigEntry OBJECT-TYPE
    SYNTAX Ds1pmConfigEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "An entry in the DS1 PM Configuration
table."
    INDEX { ds1pmConfigInterfaceIndex }
    ::= { ds1pmConfigTable 1 }

Ds1pmConfigEntry ::=
    SEQUENCE {
        ds1pmConfigInterfaceIndex
            INTEGER,
        ds1pmConfigValidTotals
            INTEGER,
        ds1pmConfigResetCurrent
            INTEGER,
        ds1pmConfigResetInterval
            INTEGER,
        ds1pmConfigResetTotal
            INTEGER,
        ds1pmConfigThresholdCrossingEnable
            INTEGER,
        ds1pmConfigAlarmSoakTime
            INTEGER,
        ds1pmConfigAlarmClearTime
            INTEGER
    }

ds1pmConfigInterfaceIndex OBJECT-TYPE
    SYNTAX INTEGER (1..'7fffffff'h)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object is the identifier of an
Inter-
face on a managed device. If there is an
ifEn-
try that is directly associated with this
and
only this interface, it should have the
same value as ifIndex. Otherwise, the
value
exceeds ifNumber, and is a unique
identifier
following this rule: inside interfaces
(e.g.,
equipment side) with even numbers and
outside
interfaces (e.g., network side) with
odd
numbers."
    ::= { ds1pmConfigEntry 1 }

ds1pmConfigValidTotals OBJECT-TYPE
    SYNTAX INTEGER (0..2)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The number of previous total intervals
for which
valid data was collected. The value will
be 2
unless the interface was brought on-line
within

```

will the last 2 days, in which case the value
 intervals be the number of complete 24 hour
 the since interface has been online."
 ::= { ds1pmConfigEntry 2 }

ds1pmConfigResetCurrent OBJECT-TYPE
 SYNTAX INTEGER {
 noReset (1),
 resetCurrent (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Reset the current accumulation registers
 to 0."
 ::= { ds1pmConfigEntry 3 }

ds1pmConfigResetInterval OBJECT-TYPE
 SYNTAX INTEGER (0..31)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Reset the interval accumulation registers
 to 0. The interval number of the interval to be
 cleared is given. A selection of 0 clears the entire interval
 table."
 ::= { ds1pmConfigEntry 4 }

ds1pmConfigResetTotal OBJECT-TYPE
 SYNTAX INTEGER (0..3)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Reset the total accumulation registers
 to 0. The interval number of the interval to be cleared is
 given. A selection of 0 clears the entire total
 table."

::= { ds1pmConfigEntry 5 }

ds1pmConfigThresholdCrossingEnable OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Enable or disabled the detection and
 emission of threshold
 crossing alarms."
 ::= { ds1pmConfigEntry 6 }

ds1pmConfigAlarmSoakTime OBJECT-TYPE
 SYNTAX INTEGER (0..65535)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This is the soak time for configurable
 alarms. An alarm of this type must persist for this period
 before it is declared. The time is specified in
 milliseconds units."
 ::= { ds1pmConfigEntry 7 }

ds1pmConfigAlarmClearTime OBJECT-TYPE
 SYNTAX INTEGER (0..65535)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This is the soak time for configurable
 alarms. An alarm of this type must remain clear for this
 period before it is declared to be cleared. The time is
 specified in milliseconds units."
 ::= { ds1pmConfigEntry 8 }

-- The DS1 PM Delta Current Table

```
-- The table contains various statistics being
-- collected for the current 15 minute interval.
```

```
ds1pmCurrentTable OBJECT-TYPE
    SYNTAX SEQUENCE OF Ds1pmCurrentEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The DS1 PM Current table."
    ::= { ds1pm 2 }
```

```
ds1pmCurrentEntry OBJECT-TYPE
    SYNTAX Ds1pmCurrentEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "An entry in the DS1 PM Current table."
    INDEX { ds1pmCurrentInterfaceIndex }
    ::= { ds1pmCurrentTable 1 }
```

```
Ds1pmCurrentEntry ::=
    SEQUENCE {
        ds1pmCurrentInterfaceIndex
            INTEGER,
        ds1pmCurrentInvalid
            INTEGER,
        ds1pmCurrentSESL
            Gauge,
        ds1pmCurrentLOSSL
            Gauge,
        ds1pmCurrentESAP
            Gauge,
        ds1pmCurrentAISSP
            Gauge,
        ds1pmCurrentFCP
            Gauge,
        ds1pmCurrentESAPFE
            Gauge,
        ds1pmCurrentFCPFE
            Gauge,
        ds1pmCurrentG826EB
            Gauge,
        ds1pmCurrentG826ES
            Gauge,
```

```
ds1pmCurrentG826SES
    Gauge,
ds1pmCurrentG826BBE
    Gauge,
ds1pmCurrentG826ESR
    INTEGER,
ds1pmCurrentG826SESR
    INTEGER,
ds1pmCurrentG826BBER
    INTEGER
```

```
}
```

```
ds1pmCurrentInterfaceIndex OBJECT-TYPE
    SYNTAX INTEGER (1..'7fffffff'h)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The index value which uniquely identifies
the
        interface to which this entry is applica-
        ble. The interface identified by a
particular
        value of this index is the same
interface as
        identified by the same value as a
ansi231LineIndex
        object instance."
    ::= { ds1pmCurrentEntry 1 }
```

```
ds1pmCurrentInvalid OBJECT-TYPE
    SYNTAX INTEGER {
        data_invalid (1),
        data_valid (2)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current data invalid indicator."
    ::= { ds1pmCurrentEntry 2 }
```

```
ds1pmCurrentSESL OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
```

```

DESCRIPTION
    "Current line severely errored seconds
count."
    ::= { ds1pmCurrentEntry 3 }

ds1pmCurrentLOSSL OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current line loss of signal seconds
count."
    ::= { ds1pmCurrentEntry 4 }

ds1pmCurrentESAP OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current path errored seconds type A
count."
    ::= { ds1pmCurrentEntry 5 }

ds1pmCurrentAISSP OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current path AIS seconds count."
    ::= { ds1pmCurrentEntry 6 }

ds1pmCurrentFCP OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current path failure count."
    ::= { ds1pmCurrentEntry 7 }

ds1pmCurrentESAPFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "Current far end path errored seconds type
A count."
    ::= { ds1pmCurrentEntry 8 }

ds1pmCurrentFCPFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far end path failure count."
    ::= { ds1pmCurrentEntry 9 }

ds1pmCurrentG826EB OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Errored Block
Count."
    ::= { ds1pmCurrentEntry 10 }

ds1pmCurrentG826ES OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Errored Seconds
Count."
    ::= { ds1pmCurrentEntry 11 }

ds1pmCurrentG826SES OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Severely Errored
Seconds Count."
    ::= { ds1pmCurrentEntry 12 }

ds1pmCurrentG826BBE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "Current E1 ITU G.826 Background Block
Errors Count."
        ::= { ds1pmCurrentEntry 13 }

ds1pmCurrentG826ESR OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Errored Seconds
Ratio X 1000000."
        ::= { ds1pmCurrentEntry 14 }

ds1pmCurrentG826SESR OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Severely Errored
Seconds Ratio X 1000000."
        ::= { ds1pmCurrentEntry 15 }

ds1pmCurrentG826BBER OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Current E1 ITU G.826 Background Block
Errors Ratio X 1000000."
        ::= { ds1pmCurrentEntry 16 }

-- The DS1 PM Delta Interval Table

-- This table consists of entries that store history data
for the last
-- 96 15 minute intervals

ds1pmIntervalTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF Ds1pmIntervalEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "The DS1 PM Interval table."
        ::= { ds1pm 3 }

```

```

ds1pmIntervalEntry OBJECT-TYPE
    SYNTAX  Ds1pmIntervalEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "An entry in the DS1 PM Interval table."
    INDEX   { ds1pmIntervalInterfaceIndex,
ds1pmIntervalNumber }
    ::= { ds1pmIntervalTable 1 }

Ds1pmIntervalEntry ::=
    SEQUENCE {
        ds1pmIntervalInterfaceIndex
            INTEGER,
        ds1pmIntervalNumber
            INTEGER,
        ds1pmIntervalsESL
            Gauge,
        ds1pmIntervalLOSSL
            Gauge,
        ds1pmIntervalESAP
            Gauge,
        ds1pmIntervalAISSP
            Gauge,
        ds1pmIntervalFCP
            Gauge,
        ds1pmIntervalESAPFE
            Gauge,
        ds1pmIntervalFCPFE
            Gauge,
        ds1pmIntervalG826EB
            Gauge,
        ds1pmIntervalG826ES
            Gauge,
        ds1pmIntervalG826SES
            Gauge,
        ds1pmIntervalG826BBE
            Gauge
    }

ds1pmIntervalInterfaceIndex OBJECT-TYPE
    SYNTAX  INTEGER (1..'7fffffff'h)
    ACCESS  read-only

```

```

STATUS mandatory
DESCRIPTION
    "The index value which uniquely identifies
the
    interface to which this entry is applica-
particular ble. The interface identified by a
    value of this index is the same
interface as identified by the same value as a
ds1pmLineIndex object instance."
    ::= { ds1pmIntervalEntry 1 }

ds1pmIntervalNumber OBJECT-TYPE
    SYNTAX INTEGER (1..96)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "."
    ::= { ds1pmIntervalEntry 2 }

ds1pmIntervalSESL OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval line severely errored seconds
count."
    ::= { ds1pmIntervalEntry 3 }

ds1pmIntervalLOSSL OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval loss of signal seconds count."
    ::= {ds1pmIntervalEntry 4 }

ds1pmIntervalESAP OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "Interval path errored seconds type A
count."
    ::= { ds1pmIntervalEntry 5 }

ds1pmIntervalAISSP OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval path AIS seconds count."
    ::= { ds1pmIntervalEntry 6}

ds1pmIntervalFCP OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval path failure count."
    ::= { ds1pmIntervalEntry 7 }

ds1pmIntervalESAPFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval far end path errored seconds
type A count."
    ::= { ds1pmIntervalEntry 8}

ds1pmIntervalFCPFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval far end path failure count."
    ::= { ds1pmIntervalEntry 9 }

ds1pmIntervalG826EB OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval E1 ITU G.826 Errored Block
Count."
    ::= { ds1pmIntervalEntry 10 }

```

```

ds1pmIntervalG826ES OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval E1 ITU G.826 Errored Seconds
Count."
    ::= { ds1pmIntervalEntry 11 }

ds1pmIntervalG826SES OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval E1 ITU G.826 Severely Errored
Seconds Count."
    ::= { ds1pmIntervalEntry 12 }

ds1pmIntervalG826BBE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval E1 ITU G.826 Background Block
Errors Count."
    ::= { ds1pmIntervalEntry 13 }

-- The DS1 PM Delta Total Table

-- This table contains 24 hour history registers for the
last three days, current
-- previous, and recent

ds1pmTotalTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF Ds1pmTotalEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "The DS1 PM total table."
    ::= { ds1pm 4 }

ds1pmTotalEntry OBJECT-TYPE

```

```

SYNTAX  Ds1pmTotalEntry
ACCESS  not-accessible
STATUS  mandatory
DESCRIPTION
    "An entry in the DS1 PM total table."
INDEX   { ds1pmTotalInterfaceIndex,
ds1pmTotalIntervalNumber }
    ::= { ds1pmTotalTable 1 }

Ds1pmTotalEntry ::=
    SEQUENCE {
        ds1pmTotalInterfaceIndex
            INTEGER,
        ds1pmTotalIntervalNumber
            INTEGER,
        ds1pmTotalStatus
            INTEGER,
        ds1pmTotalCVL
            Gauge,
        ds1pmTotalESL
            Gauge,
        ds1pmTotalSESL
            Gauge,
        ds1pmTotalLOSSL
            Gauge,
        ds1pmTotalCVP
            Gauge,
        ds1pmTotalESP
            Gauge,
        ds1pmTotalESAP
            Gauge,
        ds1pmTotalESBP
            Gauge,
        ds1pmTotalSESP
            Gauge,
        ds1pmTotalSASP
            Gauge,
        ds1pmTotalAISSP
            Gauge,
        ds1pmTotalCSSP
            Gauge,
        ds1pmTotalUASP
            Gauge,
        ds1pmTotalFCP
            Gauge,

```

```

ds1pmTotalESLFE
    Gauge,
ds1pmTotalCVPFE
    Gauge,
ds1pmTotalESPFE
    Gauge,
ds1pmTotalESAPFE
    Gauge,
ds1pmTotalESBPFE
    Gauge,
ds1pmTotalSESPFE
    Gauge,
ds1pmTotalSEFSPFE
    Gauge,
ds1pmTotalCSSPFE
    Gauge,
ds1pmTotalUASPFE
    Gauge,
ds1pmTotalFCPFE
    Gauge,
    ds1pmTotalG826EB
        Gauge,
    ds1pmTotalG826ES
        Gauge,
    ds1pmTotalG826SES
        Gauge,
    ds1pmTotalG826BBE
        Gauge
}

ds1pmTotalInterfaceIndex OBJECT-TYPE
    SYNTAX  INTEGER (1..'7fffffff'h)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The index value which uniquely identifies
the
        interface to which this entry is applica-
particular
        ble. The interface identified by a
interface as
        value of this index is the same
        identified by the same value as a
ds1pmLineIndex
        object instance."

```

```

::= {    ds1pmTotalEntry 1 }

ds1pmTotalIntervalNumber OBJECT-TYPE
    SYNTAX  INTEGER (1..2)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "."
    ::= {    ds1pmTotalEntry 2 }

ds1pmTotalStatus OBJECT-TYPE
    SYNTAX  INTEGER {
                                dataInvalid (1),
                                dataValid (2)
                            }
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Identifies the validity of the total
table data ."
    ::= {    ds1pmTotalEntry 3 }

ds1pmTotalCVL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 4 }

ds1pmTotalESL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 5 }

ds1pmTotalSESL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        ""

```



```

        ::= {    ds1pmTotalEntry 6 }

ds1pmTotalLOSSL OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Total line loss of signal seconds count."
    ::= {ds1pmTotalEntry 7 }

ds1pmTotalCVP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 8 }

ds1pmTotalESP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 9 }

ds1pmTotalESAP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Total path errored seconds type A count."
    ::= {    ds1pmTotalEntry 10 }

ds1pmTotalESBP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 11 }

ds1pmTotalSESP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only

```

```

    STATUS      mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 12 }

ds1pmTotalSASP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 13 }

ds1pmTotalAISSP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Total path AIS seconds count."
    ::= {    ds1pmTotalEntry 14 }

ds1pmTotalCSSP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 15 }

ds1pmTotalUASP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        ""
    ::= {    ds1pmTotalEntry 16 }

ds1pmTotalFCP OBJECT-TYPE
    SYNTAX      Gauge
    ACCESS      read-only
    STATUS      mandatory
    DESCRIPTION
        "Total path failure count."
    ::= {    ds1pmTotalEntry 17 }

```

ds1pmTotalESLFE OBJECT-TYPE	DESCRIPTION
SYNTAX Gauge	""
ACCESS read-only	::= { ds1pmTotalEntry 23 }
STATUS mandatory	
DESCRIPTION	ds1pmTotalSEFSPFE OBJECT-TYPE
""	SYNTAX Gauge
::= { ds1pmTotalEntry 18 }	ACCESS read-only
	STATUS mandatory
	DESCRIPTION
	""
	::= { ds1pmTotalEntry 24 }
ds1pmTotalCVPFE OBJECT-TYPE	
SYNTAX Gauge	
ACCESS read-only	
STATUS mandatory	
DESCRIPTION	ds1pmTotalCSSPFE OBJECT-TYPE
""	SYNTAX Gauge
::= { ds1pmTotalEntry 19 }	ACCESS read-only
	STATUS mandatory
	DESCRIPTION
	""
	::= { ds1pmTotalEntry 25 }
ds1pmTotalESPFE OBJECT-TYPE	
SYNTAX Gauge	
ACCESS read-only	
STATUS mandatory	
DESCRIPTION	ds1pmTotalUASPFE OBJECT-TYPE
""	SYNTAX Gauge
::= { ds1pmTotalEntry 20 }	ACCESS read-only
	STATUS mandatory
	DESCRIPTION
	""
	::= { ds1pmTotalEntry 26 }
ds1pmTotalESAPFE OBJECT-TYPE	
SYNTAX Gauge	
ACCESS read-only	
STATUS mandatory	
DESCRIPTION	ds1pmTotalFCPFE OBJECT-TYPE
"Total far end path errored seconds type A	SYNTAX Gauge
count."	ACCESS read-only
::= { ds1pmTotalEntry 21 }	STATUS mandatory
	DESCRIPTION
	"Total far end path failure count."
	::= { ds1pmTotalEntry 27 }
ds1pmTotalESBPFE OBJECT-TYPE	
SYNTAX Gauge	
ACCESS read-only	
STATUS mandatory	
DESCRIPTION	ds1pmTotalG826EB OBJECT-TYPE
""	SYNTAX Gauge
::= { ds1pmTotalEntry 22 }	ACCESS read-only
	STATUS mandatory
	DESCRIPTION
	"Total E1 ITU G.826 Errored Block Count."
	::= { ds1pmTotalEntry 28 }
ds1pmTotalSESPFE OBJECT-TYPE	
SYNTAX Gauge	
ACCESS read-only	
STATUS mandatory	ds1pmTotalG826ES OBJECT-TYPE

```

SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Total E1 ITU G.826 Errored Seconds
Count."
    ::= { ds1pmTotalEntry 29 }

ds1pmTotalG826SES OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total E1 ITU G.826 Severely Errored
Seconds Count."
    ::= { ds1pmTotalEntry 30 }

ds1pmTotalG826BBE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total E1 ITU G.826 Background Block
Errors Count."
    ::= { ds1pmTotalEntry 31 }

-- The DS1 PM Current Threshold Table

-- This table contains 15 minute (current) threshold
values used
-- in performance parameter thresholding defined by ANSI
T1.231

ds1pmCurrentThresholdTable OBJECT-TYPE
    SYNTAX SEQUENCE OF Ds1pmCurrentThresholdEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The DS1 PM CurrentThreshold table."
    ::= { ds1pm 5 }

ds1pmCurrentThresholdEntry OBJECT-TYPE
    SYNTAX Ds1pmCurrentThresholdEntry

```

```

ACCESS not-accessible
STATUS mandatory
DESCRIPTION
    "An entry in the DS1 PM Threshold table."
INDEX { ds1pmCurrentThresholdInterfaceIndex }
    ::= { ds1pmCurrentThresholdTable 1 }

Ds1pmCurrentThresholdEntry ::=
    SEQUENCE {
        ds1pmCurrentThresholdInterfaceIndex
            INTEGER,
        ds1pmThreshESLCurrent
            INTEGER,
        ds1pmThreshCVPCurrent
            INTEGER,
        ds1pmThreshESPCurrent
            INTEGER,
        ds1pmThreshSESPCurrent
            INTEGER,
        ds1pmThreshSASPCurrent
            INTEGER,
        ds1pmThreshCSSPCurrent
            INTEGER,
        ds1pmThreshUASPCurrent
            INTEGER
    }

ds1pmCurrentThresholdInterfaceIndex OBJECT-TYPE
    SYNTAX INTEGER (1..'7fffffff'h)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The index value which uniquely identifies
the
        interface to which this entry is applica-
particular ble. The interface identified by a
value of this index is the same
interface as identified by the same value as a
ds1pmLineIndex object instance."
    ::= { ds1pmCurrentThresholdEntry 1 }

ds1pmThreshESLCurrent OBJECT-TYPE

```

```

SYNTAX  INTEGER (1..900)
ACCESS  read-write
STATUS  mandatory
DESCRIPTION
    "Line errored seconds 15 Minute (current)
threshold."
    ::= { ds1pmCurrentThresholdEntry 2 }

ds1pmThreshCVPCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..16383)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path code violations 15 Minute (current)
threshold."
        ::= { ds1pmCurrentThresholdEntry 3 }

ds1pmThreshESPCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..900)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path errored seconds 15 Minute (current)
threshold."
        ::= { ds1pmCurrentThresholdEntry 4 }

ds1pmThreshSESPCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..63)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path severely errored seconds 15 Minute
(current) threshold."
        ::= { ds1pmCurrentThresholdEntry 5 }

ds1pmThreshSASPCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..63)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path SEF/AIS seconds 15 Minute (current)
threshold."
        ::= { ds1pmCurrentThresholdEntry 6 }

ds1pmThreshCSSPCurrent OBJECT-TYPE

```

```

SYNTAX  INTEGER (1..63)
ACCESS  read-write
STATUS  mandatory
DESCRIPTION
    "Path controlled slip seconds 15 Minute
(current) threshold."
    ::= { ds1pmCurrentThresholdEntry 7 }

ds1pmThreshUASPCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..63)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path unavailable seconds 15 Minute
(current) threshold."
        ::= { ds1pmCurrentThresholdEntry 8 }

-- The DS1 PM Day Threshold Table

-- This table contains 15 minute (current), and 24 hour
threshold values used
-- in performance parameter thresholding defined by ANSI
T1.231

ds1pmDayTresholdTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF Ds1pmDayTresholdEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "The DS1 PM DayTreshold table."
        ::= { ds1pm 6 }

ds1pmDayTresholdEntry OBJECT-TYPE
    SYNTAX  Ds1pmDayTresholdEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "An entry in the DS1 PM DayTreshold
table."
    INDEX   { ds1pmDayTresholdInterfaceIndex }
    ::= { ds1pmDayTresholdTable 1 }

Ds1pmDayTresholdEntry ::=

```

```

SEQUENCE {
    ds1pmDayTresholdInterfaceIndex
        INTEGER,
    ds1pmThreshESLDay
        INTEGER,
    ds1pmThreshCVPDay
        INTEGER,
    ds1pmThreshESPDDay
        INTEGER,
    ds1pmThreshSESPDay
        INTEGER,
    ds1pmThreshSASPDDay
        INTEGER,
    ds1pmThreshCSSPDDay
        INTEGER,
    ds1pmThreshUASPDDay
        INTEGER
}

ds1pmDayTresholdInterfaceIndex OBJECT-TYPE
    SYNTAX  INTEGER (1..'7fffffff'h)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The index value which uniquely identifies
the
        interface to which this entry is applica-
particular
        ble. The interface identified by a
        value of this index is the same
interface as
        identified by the same value as a
ds1pmLineIndex
        object instance."
        ::= { ds1pmDayTresholdEntry 1 }

ds1pmThreshESLDay OBJECT-TYPE
    SYNTAX  INTEGER (1..65535)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Line errored seconds 24 Hour (day)
threshold."
        ::= { ds1pmDayTresholdEntry 2 }

```

```

ds1pmThreshCVPDay OBJECT-TYPE
    SYNTAX  INTEGER (1..1048575)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path code violations 24 Hour (day)
threshold."
        ::= { ds1pmDayTresholdEntry 3 }

ds1pmThreshESPDDay OBJECT-TYPE
    SYNTAX  INTEGER (1..65535)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path errored seconds 24 Hour (day)
threshold."
        ::= { ds1pmDayTresholdEntry 4 }

ds1pmThreshSESPDay OBJECT-TYPE
    SYNTAX  INTEGER (1..4095)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path severely errored seconds 24 Hour
(day) threshold."
        ::= { ds1pmDayTresholdEntry 5 }

ds1pmThreshSASPDDay OBJECT-TYPE
    SYNTAX  INTEGER (1..4095)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path SEF/AIS seconds 24 Hour (day)
threshold."
        ::= { ds1pmDayTresholdEntry 6 }

ds1pmThreshCSSPDDay OBJECT-TYPE
    SYNTAX  INTEGER (1..4095)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path controlled slip seconds 24 Hour
(day) threshold."
        ::= { ds1pmDayTresholdEntry 7 }

```

```

ds1pmThreshUASPDDay OBJECT-TYPE
    SYNTAX  INTEGER (1..4095)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Path unavailable seconds 24 Hour (day)
threshold."
    ::= { ds1pmDayTresholdEntry 8 }

--
-- The cascadepm.ds3SuppMIB(2) branch is defined in the
Cascade DS3 Supplemental MIB.
-- Cascade DS3 Supplemental MIB which defines DS3/E3 PM
branch is located
-- in cascadeds3.mib2 file in the same sub-directory as
cascade.mib.
--

-- This MIB consists of delta objects that supplement the
standard SONET MIB to
-- support SONET Performance Monitoring.  These
supplements include:
--
--   o ANSI T1.231 Support - increased set of counters,
thresholds, total
--       24 hour counters, valid interval flags for
current, 15 minute interval,
--       and 24 hour interval totals.
--

-- Consists of the following tables

-- The Configuration Table
-- Current Table
-- Interval Table
-- Total Table
-- Threshold Table

-- SONET PM Delta Configuration Table

sonetpmConfigTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SonetpmConfigEntry
    ACCESS  not-accessible

```

```

STATUS  mandatory
DESCRIPTION

    "The SONET PM Configuration table."

    ::= { sonetpm 1 }

sonetpmConfigEntry OBJECT-TYPE
    SYNTAX  SonetpmConfigEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "An entry in the SONET PM Configuration
table."
    INDEX   { sonetpmConfigInterfaceIndex }
    ::= { sonetpmConfigTable 1 }

SonetpmConfigEntry ::=
    SEQUENCE {
        sonetpmConfigInterfaceIndex
            INTEGER,
        sonetpmConfigValidTotals
            INTEGER,
        sonetpmConfigResetCurrent
            INTEGER,
        sonetpmConfigResetInterval
            INTEGER,
        sonetpmConfigResetTotal
            INTEGER,
        sonetpmConfigThresholdCrossingEnable
            INTEGER,
        sonetpmConfigSESThresholdSet
            INTEGER,
        sonetpmConfigAlarmSoakTime
            INTEGER,
        sonetpmConfigAlarmClearTime
            INTEGER,
        sonetpmPathTraceEnabled
            INTEGER,
        sonetpmPathTraceLength
            INTEGER,
        sonetpmPathTraceTxMessage
            OCTET STRING,
        sonetpmPathTraceRxCurr

```

```

        OCTET STRING,
        sonetpmPathTraceRxPrev
        OCTET STRING,
        sonetpmSlotId
        INTEGER,
        sonetpmPortId
        INTEGER,
        sonetpmAdminType
        INTEGER,
        sonetpmNumLport
        INTEGER,
        sonetpmDataRate
        INTEGER,
        sonetpmCardType
        INTEGER,
        sonetpmXmitClock
        INTEGER,
        sonetpmAdminStatus
        INTEGER,
        sonetpmOperStatus
        INTEGER,
        sonetpmLinkDownReason
        INTEGER,
        sonetpmCellScramble
        INTEGER,
        sonetpmInCells
        Counter,
        sonetpmInErrorCells
        Counter,
        sonetpmOutCells
        Counter,
        sonetpmOutDiscardsCells
        Counter,
        sonetpmHECMode
        INTEGER,
        sonetpmIdleCellType
        INTEGER
    }

```

```

sonetpmConfigInterfaceIndex OBJECT-TYPE
    SYNTAX  INTEGER (1..'7fffffff'h)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

Inter-        "This object is the identifier of an
ifEn-        face on a managed device.  If there is an
and          try that is directly associated with this
value       only this interface, it should have the
identifier  same value as ifIndex.  Otherwise, the
(e.g.,      exceeds ifNumber, and is a unique
outside    following this rule: inside interfaces
odd        equipment side) with even numbers and
           interfaces (e.g., network side) with
           numbers."
           ::= { sonetpmConfigEntry 1 }

```

```

sonetpmConfigValidTotals OBJECT-TYPE
    SYNTAX  INTEGER (0..3)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The number of previous total intervals
for which   valid data was collected. The value will
be 3        unless the interface was brought on-line
within      the last 3 days, in which case the value
will        be the number of complete 24 hour
intervals   the since interface has been online."
           ::= { sonetpmConfigEntry 2 }

```

```

sonetpmConfigResetCurrent OBJECT-TYPE
    SYNTAX  INTEGER {
        noReset (1),
        resetCurrent (2)
    }

```

```

ACCESS read-write
STATUS mandatory
DESCRIPTION
    "Reset the Current accumulation registers
to 0."
    ::= { sonetpmConfigEntry 3 }

sonetpmConfigResetInterval OBJECT-TYPE
    SYNTAX INTEGER (0..96)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Reset the Interval accumulation registers
to 0. The
        number of the interval to be cleared is
given. A
        selection of 0 clears the entire interval
table."
    ::= { sonetpmConfigEntry 4 }

sonetpmConfigResetTotal OBJECT-TYPE
    SYNTAX INTEGER (0..3)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Reset the Total accumulation registers to
0. The interval
        number of the interval to be cleared is
given. A
        selection of 0 clears the entire total
table."
    ::= { sonetpmConfigEntry 5 }

sonetpmConfigThresholdCrossingEnable OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Enable or disabled the detection and
emission of threshold

```

```

        crossing alerts."
    ::= { sonetpmConfigEntry 6 }

sonetpmConfigSESThresholdSet OBJECT-TYPE
    SYNTAX INTEGER {
        other (1),
        bellcore_tr_nwt_253_1991 (2),
        ansi_t1231_1993 (3),
        itu_g826_1995 (4)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "SES and UAS threshold settings. The
setting determines
        which standard is used for SES and UAS
thresholds.

        bellcore_tr_nwt_253_1991 -
            refers to Bellcore TR-NWT-000253, 1991
or ANSI
            T1M1.3/93-005R2,1993
        ansi_t1231_1993 -
            refers to ANSI T1.231, 1993 or Bellcore
GR-253-CORE,
            Issue 2, 1995
        itu_g826_1995 -
            refers to ITU recommendation G.826,
1995"
    ::= { sonetpmConfigEntry 7 }

sonetpmConfigAlarmSoakTime OBJECT-TYPE
    SYNTAX INTEGER (0..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This is the soak time for configurable
alarms. An alarm
        of this type must persist for this period
before it is
        declared. The time is specified in
milliseconds units."
    ::= { sonetpmConfigEntry 8 }

sonetpmConfigAlarmClearTime OBJECT-TYPE

```


SYNTAX INTEGER (0..65535)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This is the soak time for configurable
 alarms. An alarm
 of this type must remain clear for this
 period before it is
 declared to be cleared. The time is
 specified in
 milliseconds units."
 ::= { sonetpmConfigEntry 9 }

sonetpmPathTraceEnabled OBJECT-TYPE
 SYNTAX INTEGER {
 no(1),
 yes(2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Enable or disable SONET Path
 Tracing, as specified in
 Bellcore GR-253-CORE
 6.2.3.2.2.A."
 ::= { sonetpmConfigEntry 10 }

sonetpmPathTraceLength OBJECT-TYPE
 SYNTAX INTEGER {
 sixty-four-bytes(2),
 sixteen-bytes(1)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The length of the Path Trace
 Message, including any
 padding, CRC-7, CR/LF. Must be
 sixty-four-bytes
 for SONET."
 ::= { sonetpmConfigEntry 11 }

sonetpmPathTraceTxMessage OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-write

STATUS mandatory
 DESCRIPTION
 "The STS Path Trace message to be
 transmitted for this port.
 For SONET, must be a case
 sensitive, ASCII string, of
 length 64 bytes, CR/LF
 terminated, and padded with NULLs.
 SDH can use either this 64 byte
 message or an E.164 message,
 which is 16 bytes in length,
 including a CRC-7. For E.164
 messages, only enter 15 bytes,
 the CRC-7 will be calculated."
 ::= { sonetpmConfigEntry 12 }

sonetpmPathTraceRxCurr OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The STS Path Trace message being
 received at the present time."
 ::= { sonetpmConfigEntry 13 }

sonetpmPathTraceRxPrev OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The previous STS Path Trace
 message"
 ::= { sonetpmConfigEntry 14 }

sonetpmSlotId OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "The slot number of the
 corresponding physical channel."
 ::= { sonetpmConfigEntry 15 }

sonetpmPortId OBJECT-TYPE

```

        SYNTAX INTEGER
        ACCESS read-only
        STATUS mandatory
        DESCRIPTION
            "The port number of this channel
on the board."
        ::= { sonetpmConfigEntry 16 }

sonetpmAdminType OBJECT-TYPE
    SYNTAX INTEGER {
        bio1_4_16 (44),          -- Garnet
        BIO1 4 PHY sub-cards 16 ports
        bio1_oc3_4 (45),        -- Garnet
        BIO1 OC3 PHY sub-card 4 ports
        bio1_oc12_1 (46),       -- Garnet
        BIO1 OC12 PHY sub-card 1 port
        bio1_oc12x4 (47),       -- Garnet BIO1
        OC12x4 PHY sub-card 1 port 4 channels
        bio1_oc48_1 (48)       -- Garnet BIO1
        OC48 PHY sub-card 1 port
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The defined type of the board
which the physical channel is on."
    ::= { sonetpmConfigEntry 17 }

sonetpmNumLport OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The number of logical ports on
the physical channel."
    ::= { sonetpmConfigEntry 18 }

sonetpmDataRate OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "An estimate of the physical
channels's data rate in bits

```

```

        per second. The data rate is based
on N56/N64 and DSO usage."
        ::= { sonetpmConfigEntry 19 }

sonetpmCardType OBJECT-TYPE
    SYNTAX INTEGER {
        bio1_4_16 (44),          -- Garnet
        BIO1 4 PHY sub-cards 16 ports
        bio1_oc3_4 (45),        -- Garnet
        BIO1 OC3 PHY sub-card 4 ports
        bio1_oc12_1 (46),       -- Garnet
        BIO1 OC12 PHY sub-card 1 port
        bio1_oc12x4 (47),       -- Garnet BIO1
        OC12x4 PHY sub-card 1 port 4 channels
        bio1_oc48_1 (48)       -- Garnet BIO1
        OC48 PHY sub-card 1 port
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The actual type of the physical
interface."
    ::= { sonetpmConfigEntry 20 }

sonetpmXmitClock OBJECT-TYPE
    SYNTAX INTEGER {
        loopTimed (1),
        internal (2),
        external (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The transmit clock source."
    ::= { sonetpmConfigEntry 21 }

sonetpmAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up (1),
        down (2),
        testing (3),
        invalid (255)
    }
    ACCESS read-write
    STATUS mandatory

```

```

DESCRIPTION
    "The desired state of the physical
sonetpmnel."
    ::= { sonetpmConfigEntry 22 }

sonetpmOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up (1),
        down (2),
        testing (3)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The current state of the physical
channel."
    ::= { sonetpmConfigEntry 23 }

sonetpmLinkDownReason OBJECT-TYPE
    SYNTAX INTEGER {
        none (0),
        red-alarm (1),
        yellow-alarm (2),
        blue-alarm (4),
        carrier-loss (8),
        looped-back (16),
        ber-threshold (64),
        signal-label-mismatch (128),
        loss-of-signal (256),
        loss-of-frame (512),
        loss-of-cell-delineation (1024),
        line-AIS (2048),
        path-AIS (4096),
        loss-of-pointer (8192),
        line-RFI (16384),
        path-RFI (32768),
        signal-label-undefined (65536),
        idle (131072),
        equipment-mismatch (262144),
        admin-down (524288)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

```

        "Reason why the link is down. The
blue-alarm is equivalent
        to the Alarm Indication Signal
(AIS) failure."
        ::= { sonetpmConfigEntry 24 }

sonetpmCellScramble OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled(2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Configured ATM cell payload
scrambling."
    ::= { sonetpmConfigEntry 25 }

sonetpmInCells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The total number of cells
received"
    ::= { sonetpmConfigEntry 26 }

sonetpmInErrorCells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The total number of cells
received with error"
    ::= { sonetpmConfigEntry 27 }

sonetpmOutCells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The total number of cells
transmitted"
    ::= { sonetpmConfigEntry 28 }

```

```
sonetpmOutDiscardsCells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The total number of outbound cell
discarded due to
congestion."
    ::= { sonetpmConfigEntry 29 }
```

```
sonetpmHECMode OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Configured ATM HEC single bit
error correction routine."
    ::= { sonetpmConfigEntry 30 }
```

```
sonetpmIdleCellType OBJECT-TYPE
    SYNTAX INTEGER {
        atmforum (1),
        itu (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The setting determines the type
of Idle/unassigned cell
transmitted by the interface.
    1 -- ATM Forum    CLP=0,
payload=6A
    2 -- ITU          CLP=1,
payload=6A"
    ::= { sonetpmConfigEntry 31 }
```

-- The SONET PM Delta Current Table

-- The table contains various statistics being
-- collected for the current 15 minute interval.

```
sonetpmCurrentTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SonetpmCurrentEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The SONET PM Current table."
    ::= { sonetpm 2 }
```

```
sonetpmCurrentEntry OBJECT-TYPE

    SYNTAX SonetpmCurrentEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "An entry in the SONET PM Current table."
    INDEX { sonetpmCurrentInterfaceIndex }
    ::= { sonetpmCurrentTable 1 }
```

```
SonetpmCurrentEntry ::=
    SEQUENCE {
        sonetpmCurrentInterfaceIndex
            INTEGER,
        sonetpmCurrentInvalid
            INTEGER,
        sonetpmCurrentCVLFE
            Gauge,
        sonetpmCurrentAISSL
            Gauge,
        sonetpmCurrentCVPFE
            Gauge,
        sonetpmCurrentFCL
            Gauge,
        sonetpmCurrentFCLFE
            Gauge,
        sonetpmCurrentFCP
            Gauge,
        sonetpmCurrentFCPFE
            Gauge,
        sonetpmCurrentPSCL
            Gauge,
        sonetpmCurrentESBS
            Gauge,
        sonetpmCurrentESBL
            Gauge,
        sonetpmCurrentESBP
```

```

        Gauge,
sonetpmCurrentPSDL
        INTEGER,
sonetpmCurrentESAS
        Gauge,
sonetpmCurrentESAL
        Gauge,
sonetpmCurrentESAP
        Gauge,
sonetpmCurrentESALFE
        Gauge,
sonetpmCurrentESAPFE
        Gauge,
sonetpmCurrentESLFE
        Gauge,
sonetpmCurrentESPFE
        Gauge,
sonetpmCurrentESBLFE
        Gauge,
sonetpmCurrentESBPFE
        Gauge,
sonetpmCurrentLOSSS
        Gauge,
sonetpmCurrentSESLFE
        Gauge,
sonetpmCurrentSESPFE
        Gauge,
sonetpmCurrentUASLFE
        Gauge,
sonetpmCurrentUASPFE
        Gauge,
sonetpmCurrentAISSLFE
        Gauge,
sonetpmCurrentALSP
        Gauge,
sonetpmCurrentALSPFE
        Gauge
    }

sonetpmCurrentInterfaceIndex OBJECT-TYPE
    SYNTAX  INTEGER (1..'7fffffff'h)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

        "The index value which uniquely identifies
the
        interface to which this entry is applica-
        ble. The interface identified by a
particular
        value of this index is the same
interface as
        identified by the same value as a
ansi231LineIndex
        object instance."
        ::= { sonetpmCurrentEntry 1 }

sonetpmCurrentInvalid OBJECT-TYPE
    SYNTAX  INTEGER {
                                data_invalid (1),
                                data_valid (2)
                                }
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Current data invalid indicator."
        ::= { sonetpmCurrentEntry 2 }

sonetpmCurrentCVLFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Current far-end FEBE-L. FEBE-L is sent
by
        the far-end to indicate line BIP errors
        have been detected at the far-end
receiver."
        ::= { sonetpmCurrentEntry 3 }

sonetpmCurrentAISSL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Current line AIS defect seconds count. A
        second in which AIS-L has been detected."
        ::= { sonetpmCurrentEntry 4 }

```

```
sonetpmCurrentCVPFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end FEBE-P count. FEBE-P is
sent
        by the far-end to indicate path BIP
errors
        have been detected at the far-end
receiver."
    ::= { sonetpmCurrentEntry 5 }
```

```
sonetpmCurrentFCL OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current line failure count. Count of
AIS-L
        failure events."
    ::= { sonetpmCurrentEntry 6 }
```

```
sonetpmCurrentFCLFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end line failure count.
Count of
        RFI-L events."
    ::= { sonetpmCurrentEntry 7 }
```

```
sonetpmCurrentFCP OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current path failure count. Count of
LOP-P or
        AIS-P events."
    ::= { sonetpmCurrentEntry 8 }
```

```
sonetpmCurrentFCPFE OBJECT-TYPE
    SYNTAX Gauge
```

```
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end path failure count.
Count of
        RFI-P events."
    ::= { sonetpmCurrentEntry 9 }
```

```
sonetpmCurrentPSCL OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current Automatic Protection Switching
event
        count."
    ::= { sonetpmCurrentEntry 10 }
```

```
sonetpmCurrentESBS OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current ESB-S count. An ESB-S second is
one in
        which two or more section BIP errors
occurred and
        no SEF or LOS condition was detected."
    ::= { sonetpmCurrentEntry 11 }
```

```
sonetpmCurrentESBL OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current ESB-L count. An ESB-L second is
one in
        which two or more line BIP errors
occurred and
        no AIS-L occurred."
    ::= { sonetpmCurrentEntry 12 }
```

```
sonetpmCurrentESBP OBJECT-TYPE
    SYNTAX Gauge
```

ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Current ESB-P count. An ESB-P second is
 one in which two or more path BIP errors
 occurred and no AIS-P or LOP occurred."
 ::= { sonetpmCurrentEntry 13 }

sonetpmCurrentPSDL OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Current Automatic Protection Switching
 duration. The number of seconds a protection line
 is in service due to protection switch events
 or the number of seconds a working line is out-
 of-service due to protection switch events."
 ::= { sonetpmCurrentEntry 14 }

sonetpmCurrentESAS OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Current Errored Second type A Section
 count. An ESA-S second is one in which one
 section BIP error occurred and no SEF or LOS
 condition was detected."
 ::= { sonetpmCurrentEntry 15 }

sonetpmCurrentESAL OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

"Current Errored Second type A line count.
 An ESA-L second is one in which one line BIP error
 occurred and no AIS condition was detected."
 ::= { sonetpmCurrentEntry 16 }

sonetpmCurrentESAP OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Current Errored Second type A path count.
 An ESA-P second is one in which one path BIP error
 occurred and no AIS or LOP-P condition was
 detected."
 ::= { sonetpmCurrentEntry 17 }

sonetpmCurrentESALFE OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Current far-end Errored Second type A
 line count. An ESA-LFE second is one in which one
 far-end line BIP error occurred and no RDI-L condition was
 detected."
 ::= { sonetpmCurrentEntry 18 }

sonetpmCurrentESAPFE OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Current far-end Errored Second type A
 path count. An ESA-PFE second is one in which one
 far-end path BIP error occurred and no RDI-P condition was
 detected."
 ::= { sonetpmCurrentEntry 19 }

sonetpmCurrentESLFE OBJECT-TYPE

SYNTAX Gauge

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current far-end Errored Second line
count. An ES-LFE second
is one in which one or more far-end line
BIP errors
occurred or one or more RDI-L conditions
were detected."

::= { sonetpmCurrentEntry 20 }

sonetpmCurrentESPFE OBJECT-TYPE

SYNTAX Gauge

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current far-end Errored Second path
count. An ES-PFE second
is one in which one or more far-end path
BIP errors
occurred or one or more RDI-P conditions
were detected."

::= { sonetpmCurrentEntry 21 }

sonetpmCurrentESBLFE OBJECT-TYPE

SYNTAX Gauge

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current far-end Errored Second type B
line count. An ESB-LFE
second is one in which two or more far-
end line BIP errors
occurred and the far-end line BIP errors
were less than the
SES threshold x and no RDI-L conditions
were detected."

::= { sonetpmCurrentEntry 22 }

sonetpmCurrentESBPFE OBJECT-TYPE

SYNTAX Gauge

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current far-end Errored Second type B
Path count. An ESB-PFE
second is one in which two or more far-
end path BIP errors
occurred and the far-end path BIP errors
were less than the
SES threshold x and no RDI-P conditions
were detected."

::= { sonetpmCurrentEntry 23 }

sonetpmCurrentLOSSS OBJECT-TYPE

SYNTAX Gauge

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current Loss Of Signal Second count. A
LOSS-S second is one
in which one or more LOS Section
conditions were detected."

::= { sonetpmCurrentEntry 24 }

sonetpmCurrentSESLFE OBJECT-TYPE

SYNTAX Gauge

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current far-end Severely Errored Second
line count.
A SES-LFE second is one in which the far-
end line
BIP errors exceed the SES threshold x or
RDI-L conditions
were detected."

::= { sonetpmCurrentEntry 25 }

sonetpmCurrentSESPFE OBJECT-TYPE

SYNTAX Gauge

ACCESS read-only

STATUS mandatory

DESCRIPTION

"Current far-end Severely Errored Second
path count."

end path A SES-PFE second is one in which the far-
RDI-P conditions BIP errors exceed the SES threshold x or
 were detected."
 ::= { sonetpmCurrentEntry 26 }

sonetpmCurrentUASLFE OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
 "Current far-end UnAvailable Second line
count.
 A far-end line unavailable second begins
at the onset
 of 10 consecutive far-end SES-L seconds."
 ::= { sonetpmCurrentEntry 27 }

sonetpmCurrentUASPFE OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
 "Current far-end UnAvailable Second path
count.
 A far-end path unavailable second begins
at the onset
 of 10 consecutive far-end SES-P seconds."
 ::= { sonetpmCurrentEntry 28 }

sonetpmCurrentAISSLFE OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
 "Current far-end line Alarm Indication
Signal count.
 A second in which one or more RDI-L
conditions were
 detected."
 ::= { sonetpmCurrentEntry 29 }

sonetpmCurrentALSP OBJECT-TYPE
SYNTAX Gauge

ACCESS read-only
STATUS mandatory
DESCRIPTION
 "Current AIS or Loss of Pointer path
defect seconds count.
 A second in which one or more AIS-P or
LOP path
 conditions were detected."
 ::= { sonetpmCurrentEntry 30 }

sonetpmCurrentALSPFE OBJECT-TYPE
SYNTAX Gauge
ACCESS read-only
STATUS mandatory
DESCRIPTION
 "Current far-end AIS or Loss Of Pointer
path defect
 seconds count. A second in which one or
more RDI path
 conditions were detected."
 ::= { sonetpmCurrentEntry 31 }

-- The SONET PM Delta Interval Table
-- This table consists of entries that store history data
for 96
-- 15-minute intervals

sonetpmIntervalTable OBJECT-TYPE
SYNTAX SEQUENCE OF SonetpmIntervalEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
 "The SONET PM Interval table."
 ::= { sonetpm 3 }

sonetpmIntervalEntry OBJECT-TYPE
SYNTAX SonetpmIntervalEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
 "An entry in the SONET PM Interval table."
INDEX { sonetpmIntervalInterfaceIndex,
sonetpmIntervalNumber }
 ::= { sonetpmIntervalTable 1 }

```

SonetpmIntervalEntry ::=
    SEQUENCE {
        sonetpmIntervalInterfaceIndex
            INTEGER,
        sonetpmIntervalNumber
            INTEGER,
        sonetpmIntervalInvalid
            INTEGER,
        sonetpmIntervalCVLFE
            Gauge,
        sonetpmIntervalAISSL
            Gauge,
        sonetpmIntervalCVPFE
            Gauge,
        sonetpmIntervalFCL
            Gauge,
        sonetpmIntervalFCLFE
            Gauge,
        sonetpmIntervalFCP
            Gauge,
        sonetpmIntervalFCPFE
            Gauge,
        sonetpmIntervalPSCL
            Gauge,
        sonetpmIntervalESBS
            Gauge,
        sonetpmIntervalESBL
            Gauge,
        sonetpmIntervalESBP
            Gauge,
        sonetpmIntervalPSDL
            INTEGER,
        sonetpmIntervalESAS
            Gauge,
        sonetpmIntervalESAL
            Gauge,
        sonetpmIntervalESAP
            Gauge,
        sonetpmIntervalESALFE
            Gauge,
        sonetpmIntervalESAPFE
            Gauge,
        sonetpmIntervalESLFE
            Gauge,
        sonetpmIntervalESPFE

```

```

        Gauge,
        sonetpmIntervalESBLFE
            Gauge,
        sonetpmIntervalESBPFE
            Gauge,
        sonetpmIntervalLOSSS
            Gauge,
        sonetpmIntervalSESLFE
            Gauge,
        sonetpmIntervalSESPFE
            Gauge,
        sonetpmIntervalUASLFE
            Gauge,
        sonetpmIntervalUASPFE
            Gauge,
        sonetpmIntervalAISSLFE
            Gauge,
        sonetpmIntervalALSP
            Gauge,
        sonetpmIntervalALSPFE
            Gauge
    }

```

```

sonetpmIntervalInterfaceIndex OBJECT-TYPE
    SYNTAX  INTEGER (1..'7fffffff'h)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The index value which uniquely identifies
the
        interface to which this entry is
applicable."
    ::= { sonetpmIntervalEntry 1 }

sonetpmIntervalNumber OBJECT-TYPE
    SYNTAX  INTEGER (1..96)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "The interval index."
    ::= { sonetpmIntervalEntry 2 }

sonetpmIntervalInvalid OBJECT-TYPE
    SYNTAX  INTEGER {

```

```

        data_invalid (1),
        data_valid (2)
    }
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval data invalid status."
::= { sonetpmIntervalEntry 3 }

sonetpmIntervalCVLFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval far-end FEVE-L count."
    ::= { sonetpmIntervalEntry 4 }

sonetpmIntervalAISSL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval line AIS defect seconds count."
    ::= { sonetpmIntervalEntry 5 }

sonetpmIntervalCVPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval far-end path FEVE count."
    ::= { sonetpmIntervalEntry 6 }

sonetpmIntervalFCL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval line failure count."
    ::= { sonetpmIntervalEntry 7 }

sonetpmIntervalFCLFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only

```

```

STATUS    mandatory
DESCRIPTION
    "Interval far-end line failure, RFI-L,
count."
    ::= { sonetpmIntervalEntry 8 }

sonetpmIntervalFCP OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval path failure, LOP-P or AIS-P,
count."
    ::= { sonetpmIntervalEntry 9 }

sonetpmIntervalFCPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval far-end path failure, RFI-P,
count."
    ::= { sonetpmIntervalEntry 10 }

sonetpmIntervalPSCL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval Automatic Protection Switching
event
        count."
    ::= { sonetpmIntervalEntry 11 }

sonetpmIntervalESBS OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval ESB-S count."
    ::= { sonetpmIntervalEntry 12 }

sonetpmIntervalESBL OBJECT-TYPE
    SYNTAX  Gauge

```

```

ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval ESB-L count."
::= { sonetpmIntervalEntry 13 }

sonetpmIntervalESBP OBJECT-TYPE
SYNTAX    Gauge
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval ESB-P count."
::= { sonetpmIntervalEntry 14 }

sonetpmIntervalPSDL OBJECT-TYPE
SYNTAX    INTEGER
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval Automatic Protection Switch
duration."
::= { sonetpmIntervalEntry 15 }

sonetpmIntervalESAS OBJECT-TYPE
SYNTAX    Gauge
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval Errored Second type A Section
count.
section
condition
    An ESA-S second is one in which one
    BIP error occurred and no SEF or LOS
    was detected."
::= { sonetpmIntervalEntry 16 }

sonetpmIntervalESAL OBJECT-TYPE
SYNTAX    Gauge
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval Errored Second type A line
count.  An ESA-L
occurred
    second is one in which one line BIP error

```

```

        and no AIS condition was detected."
::= { sonetpmIntervalEntry 17 }

sonetpmIntervalESAP OBJECT-TYPE
SYNTAX    Gauge
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval Errored Second type A path
count.  An ESA-P
occurred
    second is one in which one path BIP error
    and no AIS or LOP-P condition was
detected."
::= { sonetpmIntervalEntry 18 }

sonetpmIntervalESALFE OBJECT-TYPE
SYNTAX    Gauge
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval far-end Errored Second type A
line count.
far-end line BIP
    An ESA-LFE second is one in which one
    error occurred and no RDI-L condition was
detected."
::= { sonetpmIntervalEntry 19 }

sonetpmIntervalESAPFE OBJECT-TYPE
SYNTAX    Gauge
ACCESS    read-only
STATUS    mandatory
DESCRIPTION
    "Interval far-end Errored Second type A
path count.
far-end path BIP
    An ESA-PFE second is one in which one
    error occurred and no RDI-P condition was
detected."
::= { sonetpmIntervalEntry 20 }

sonetpmIntervalESLFE OBJECT-TYPE
SYNTAX    Gauge
ACCESS    read-only

```

```

        STATUS mandatory
        DESCRIPTION
            "Interval far-end Errored Second line
count. An ES-LFE second
            is one in which one or more far-end line
BIP errors
            occurred or one or more RDI-L conditions
were detected."
        ::= { sonetpmIntervalEntry 21 }

sonetpmIntervalESPFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval far-end Errored Second path
count. An ES-PFE second
            is one in which one or more far-end path
BIP errors
            occurred or one or more RDI-P conditions
were detected."
        ::= { sonetpmIntervalEntry 22 }

sonetpmIntervalESBLFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval far-end Errored Second type B
line count. An ESB-LFE
            second is one in which two or more far-
end line BIP errors
            occurred and the far-end line BIP errors
were less than the
            SES threshold x and no RDI-L conditions
were detected."
        ::= { sonetpmIntervalEntry 23 }

sonetpmIntervalESBPFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval far-end Errored Second type B
Path count. An ESB-PFE

```

```

        second is one in which two or more far-
end path BIP errors
            occurred and the far-end path BIP errors
were less than the
            SES threshold x and no RDI-P conditions
were detected."
        ::= { sonetpmIntervalEntry 24 }

sonetpmIntervalLOSSS OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval Loss Of Signal Second count. A
LOSS-S second is one
            in which one or more LOS Section
conditions were detected."
        ::= { sonetpmIntervalEntry 25 }

sonetpmIntervalSESLFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval far-end Severely Errored Second
line count.
            A SES-LFE second is one in which the far-
end line
            BIP errors exceed the SES threshold x or
RDI-L conditions
            were detected."
        ::= { sonetpmIntervalEntry 26 }

sonetpmIntervalSESPFE OBJECT-TYPE
    SYNTAX Gauge
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Interval far-end Severely Errored Second
path count.
            A SES-PFE second is one in which the far-
end path
            BIP errors exceed the SES threshold x or
RDI-P conditions
            were detected."

```

```

        ::= { sonetpmIntervalEntry 27 }

sonetpmIntervalUASLFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval far-end UnAvailable Second line
count.
        A far-end line unavailable second begins
at the onset
        of 10 consecutive far-end SES-L seconds."
    ::= { sonetpmIntervalEntry 28 }

sonetpmIntervalUASPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval far-end UnAvailable Second path
count.
        A far-end path unavailable second begins
at the onset
        of 10 consecutive far-end SES-P seconds."
    ::= { sonetpmIntervalEntry 29 }

sonetpmIntervalAISSLFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval far-end line Alarm Indication
Signal count.
        A second in which one or more RDI-L
conditions were
        detected."
    ::= { sonetpmIntervalEntry 30 }

sonetpmIntervalALSP OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval AIS or Loss of Pointer path
defect seconds count.

```

```

        A second in which one or more AIS-P or
LOP path
        conditions were detected."
    ::= { sonetpmIntervalEntry 31 }

sonetpmIntervalALSPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Interval far-end AIS or Loss Of Pointer
path defect
        seconds count. A second in which one or
more RDI path
        conditions were detected."
    ::= { sonetpmIntervalEntry 32 }

-- The SONET PM Delta Total Table

-- This table contains 24 hour history registers for the
last three
-- days: current, previous, and recent

sonetpmTotalTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SonetpmTotalEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "The SONET PM total table."
    ::= { sonetpm 4 }

sonetpmTotalEntry OBJECT-TYPE
    SYNTAX  SonetpmTotalEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "An entry in the SONET PM total table."
    INDEX   { sonetpmTotalInterfaceIndex,
sonetpmTotalIntervalNumber }
    ::= { sonetpmTotalTable 1 }

SonetpmTotalEntry ::=
    SEQUENCE {

```

sonetpmTotalInterfaceIndex
INTEGER,
sonetpmTotalIntervalNumber
INTEGER,
sonetpmTotalIntervalInvalid
INTEGER,
sonetpmTotalESS
Gauge,
sonetpmTotalSESS
Gauge,
sonetpmTotalSEFSS
Gauge,
sonetpmTotalCVS
Gauge,
sonetpmTotalESL
Gauge,
sonetpmTotalSESL
Gauge,
sonetpmTotalCVL
Gauge,
sonetpmTotalUASL
Gauge,
sonetpmTotalESP
Gauge,
sonetpmTotalSESP
Gauge,
sonetpmTotalCVP
Gauge,
sonetpmTotalUASP
Gauge,
sonetpmTotalCVLFE
Gauge,
sonetpmTotalAISSL
Gauge,
sonetpmTotalCVPFE
Gauge,
sonetpmTotalFCL
Gauge,
sonetpmTotalFCLFE
Gauge,
sonetpmTotalFCP
Gauge,
sonetpmTotalFCPFE
Gauge,
sonetpmTotalPSCL

Gauge,
sonetpmTotalESBS
Gauge,
sonetpmTotalESBL
Gauge,
sonetpmTotalESBP
Gauge,
sonetpmTotalPSDL
INTEGER,
sonetpmTotalESAS
Gauge,
sonetpmTotalESAL
Gauge,
sonetpmTotalESAP
Gauge,
sonetpmTotalESALFE
Gauge,
sonetpmTotalESAPFE
Gauge,
sonetpmTotalESLFE
Gauge,
sonetpmTotalESPFE
Gauge,
sonetpmTotalESBLFE
Gauge,
sonetpmTotalESBPFE
Gauge,
sonetpmTotalLOSSS
Gauge,
sonetpmTotalSESLFE
Gauge,
sonetpmTotalSESPFE
Gauge,
sonetpmTotalUASLFE
Gauge,
sonetpmTotalUASPFE
Gauge,
sonetpmTotalAISSLFE
Gauge,
sonetpmTotalALSP
Gauge,
sonetpmTotalALSPFE
Gauge
}

sonetpmTotalInterfaceIndex OBJECT-TYPE	STATUS mandatory
SYNTAX INTEGER (1..'7fffffff'h)	DESCRIPTION
ACCESS read-only	"Total SES-S count. An SES-S second is
STATUS mandatory	one
DESCRIPTION	in which the section BIP errors exceed
"The index value which uniquely identifies	the
the	SES threshold x, SEF has occurred, or LOS
interface to which this entry is applica-	has
ble."	occurred."
::= { sonetpmTotalEntry 1 }	::= { sonetpmTotalEntry 5 }
sonetpmTotalIntervalNumber OBJECT-TYPE	sonetpmTotalSEFSS OBJECT-TYPE
SYNTAX INTEGER (1..3)	SYNTAX Gauge
ACCESS read-only	ACCESS read-only
STATUS mandatory	STATUS mandatory
DESCRIPTION	DESCRIPTION
"Total table index."	"Total SEFS-S events. An SEFS-S event is
::= { sonetpmTotalEntry 2 }	one in which SEF (an SEF is declared when
sonetpmTotalIntervalInvalid OBJECT-TYPE	4 contiguous frames have invalid frame
SYNTAX INTEGER {	alignment words, an out-of-frame
data_invalid (1),	condition)."
data_valid (2)	::= { sonetpmTotalEntry 6 }
}	sonetpmTotalCVS OBJECT-TYPE
ACCESS read-only	SYNTAX Gauge
STATUS mandatory	ACCESS read-only
DESCRIPTION	STATUS mandatory
"Interval data invalid status."	DESCRIPTION
::= { sonetpmTotalEntry 3 }	"Total CV-S events. CV-S count is the
sonetpmTotalESS OBJECT-TYPE	count of
SYNTAX Gauge	section BIP errors detected."
ACCESS read-only	::= { sonetpmTotalEntry 7 }
STATUS mandatory	sonetpmTotalESL OBJECT-TYPE
DESCRIPTION	SYNTAX Gauge
"Total ES-S count. An ES-S second is one	ACCESS read-only
in which section BIP errors are present,	STATUS mandatory
SEF has occurred, or LOS has occurred."	DESCRIPTION
::= { sonetpmTotalEntry 4 }	"Total ES-L count. An ES-L second is one
sonetpmTotalSESS OBJECT-TYPE	in
SYNTAX Gauge	which line BIP errors are present, or
ACCESS read-only	AIS-L
	has occurred."
	::= { sonetpmTotalEntry 8 }

sonetpmTotalSESL OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Total SES-L count. An SES-L second is
 one in which the line BIP errors exceed the
 line SES threshold x, or AIS-L has
 occurred."
 ::= { sonetpmTotalEntry 9 }

sonetpmTotalCVL OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Total CV-L count. CV-L count is the
 count of line BIP errors."
 ::= { sonetpmTotalEntry 10 }

sonetpmTotalUASL OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Total UAS-L seconds count. A line
 unavailable second begins at the onset of 10
 consecutive SES-L seconds."
 ::= { sonetpmTotalEntry 11 }

sonetpmTotalESP OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Total ES-P seconds. An ES-P second is
 one in which path BIP errors are present, LOP-P
 has

occurred, or AIS-P has occurred."
 ::= { sonetpmTotalEntry 12 }

sonetpmTotalSESP OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Total SES-P seconds count. An SES-P
 second is one in which the path BIP errors exceed
 the path SES threshold x, AIS-P has occurred,
 or LOP-P has occurred."
 ::= { sonetpmTotalEntry 13 }

sonetpmTotalCVP OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Total CV-P count. CV-P count is the
 number of path BIP errors."
 ::= { sonetpmTotalEntry 14 }

sonetpmTotalUASP OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Total UAS-P seconds count. A path
 unavailable second begins at the onset of 10
 consecutive SES-P seconds."
 ::= { sonetpmTotalEntry 15 }

sonetpmTotalCVLFE OBJECT-TYPE
 SYNTAX Gauge
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

```

        "Total far-end FEBE-L count.  FEBE-L is
        described under Current table."
    ::= { sonetpmTotalEntry 16 }

sonetpmTotalAISSL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total AISS-L count.  AISS-L is described
        under Current table."
    ::= { sonetpmTotalEntry 17 }

sonetpmTotalCVPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end FEBE-P count.  FEBE-P is
        described under Current table."
    ::= { sonetpmTotalEntry 18 }

sonetpmTotalFCL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total line failure count.  Described
        under
            Current table."
    ::= { sonetpmTotalEntry 19 }

sonetpmTotalFCLFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end failure count.  Described
        under
            Current table."
    ::= { sonetpmTotalEntry 20 }

sonetpmTotalFCP OBJECT-TYPE

```

```

    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total path failure count.  Described
        under
            Current table."
    ::= { sonetpmTotalEntry 21 }

sonetpmTotalFCPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end path failure count.
        Described
            under Current table."
    ::= { sonetpmTotalEntry 22 }

sonetpmTotalPSCL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total Automatic Protection Switching
        event
            count."
    ::= { sonetpmTotalEntry 23 }

sonetpmTotalESBS OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total ESB-S count.  Described under
        Current
            table."
    ::= { sonetpmTotalEntry 24 }

sonetpmTotalESBL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

```

Current      "Total ESB-L count.  Described under
              table."
              ::= { sonetpmTotalEntry 25 }

sonetpmTotalESBP OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total ESB-P count.  Described under
Current      table."
              ::= { sonetpmTotalEntry 26 }

sonetpmTotalPSDL OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total Automatic Protection Switching
duration."
              ::= { sonetpmTotalEntry 27 }

sonetpmTotalESAS OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total Errored Second type A Section
count.
section
condition
        An ESA-S second is one in which one
        BIP error occurred and no SEF or LOS
        was detected."
              ::= { sonetpmTotalEntry 28 }

sonetpmTotalESAL OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total Errored Second type A line count.
An ESA-L

```

```

second is one in which one line BIP error
occurred
        and no AIS condition was detected."
        ::= { sonetpmTotalEntry 29 }

sonetpmTotalESAP OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total Errored Second type A path count.
An ESA-P
        second is one in which one path BIP error
occurred
        and no AIS or LOP-P condition was
detected."
        ::= { sonetpmTotalEntry 30 }

sonetpmTotalESALFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end Errored Second type A line
count.
        An ESA-LFE second is one in which one
far-end line BIP
        error occurred and no RDI-L condition was
detected."
        ::= { sonetpmTotalEntry 31 }

sonetpmTotalESAPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end Errored Second type A path
count.
        An ESA-PFE second is one in which one
far-end path BIP
        error occurred and no RDI-P condition was
detected."
        ::= { sonetpmTotalEntry 32 }

sonetpmTotalESLFE OBJECT-TYPE

```

```

SYNTAX   Gauge
ACCESS   read-only
STATUS   mandatory
DESCRIPTION
        "Total far-end Errored Second line count.
An ES-LFE second
        is one in which one or more far-end line
BIP errors
        occurred or one or more RDI-L conditions
were detected."
        ::= { sonetpmTotalEntry 33 }

sonetpmTotalESPFEE OBJECT-TYPE
    SYNTAX   Gauge
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "Total far-end Errored Second path count.
An ES-PFE second
        is one in which one or more far-end path
BIP errors
        occurred or one or more RDI-P conditions
were detected."
        ::= { sonetpmTotalEntry 34 }

sonetpmTotalESBLFE OBJECT-TYPE
    SYNTAX   Gauge
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "Total far-end Errored Second type B line
count. An ESB-LFE
        second is one in which two or more far-
end line BIP errors
        occurred and the far-end line BIP errors
were less than the
        SES threshold x and no RDI-L conditions
were detected."
        ::= { sonetpmTotalEntry 35 }

sonetpmTotalESBPFE OBJECT-TYPE
    SYNTAX   Gauge
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION

```

```

        "Total far-end Errored Second type B Path
count. An ESB-PFE
        second is one in which two or more far-
end path BIP errors
        occurred and the far-end path BIP errors
were less than the
        SES threshold x and no RDI-P conditions
were detected."
        ::= { sonetpmTotalEntry 36 }

sonetpmTotalLOSSS OBJECT-TYPE
    SYNTAX   Gauge
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "Total Loss Of Signal Second count. A
LOSS-S second is one
        in which one or more LOS Section
conditions were detected."
        ::= { sonetpmTotalEntry 37 }

sonetpmTotalSESLFE OBJECT-TYPE
    SYNTAX   Gauge
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "Total far-end Severely Errored Second
line count.
        A SES-LFE second is one in which the far-
end line
        BIP errors exceed the SES threshold x or
RDI-L conditions
        were detected."
        ::= { sonetpmTotalEntry 38 }

sonetpmTotalSESPFE OBJECT-TYPE
    SYNTAX   Gauge
    ACCESS   read-only
    STATUS   mandatory
    DESCRIPTION
        "Total far-end Severely Errored Second
path count.
        A SES-PFE second is one in which the far-
end path

```

```

        BIP errors exceed the SES threshold x or
RDI-P conditions
        were detected."
        ::= { sonetpmTotalEntry 39 }

sonetpmTotalUASLFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end UnAvailable Second line
count.
        A far-end line unavailable second begins
at the onset
        of 10 consecutive far-end SES-L seconds."
        ::= { sonetpmTotalEntry 40 }

sonetpmTotalUASPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end UnAvailable Second path
count.
        A far-end path unavailable second begins
at the onset
        of 10 consecutive far-end SES-P seconds."
        ::= { sonetpmTotalEntry 41 }

sonetpmTotalAISSLFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end line Alarm Indication
Signal count.
        A second in which one or more RDI-L
conditions were
        detected."
        ::= { sonetpmTotalEntry 42 }

sonetpmTotalALSP OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory

```

```

DESCRIPTION
    "Total AIS or Loss of Pointer path defect
seconds count.
    A second in which one or more AIS-P or
LOP path
    conditions were detected."
    ::= { sonetpmTotalEntry 43 }

sonetpmTotalALSPFE OBJECT-TYPE
    SYNTAX  Gauge
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Total far-end AIS or Loss Of Pointer path
defect
seconds count. A second in which one or
more RDI path
    conditions were detected."
    ::= { sonetpmTotalEntry 44 }

-- The SONET PM Threshold Table

-- This table contains 15 minute (current), and 24 hour
threshold values used
-- in performance parameter thresholding defined by ANSI
T1.231

sonetpmThresholdTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SonetpmThresholdEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "The SONET PM Threshold table."
    ::= { sonetpm 5 }

sonetpmThresholdEntry OBJECT-TYPE
    SYNTAX  SonetpmThresholdEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "An entry in the SONET PM Threshold
table."
    INDEX   { sonetpmThresholdInterfaceIndex }
    ::= { sonetpmThresholdTable 1 }

```

```

SonetpmThresholdEntry ::=
    SEQUENCE {
        sonetpmThresholdInterfaceIndex
            INTEGER,
        sonetpmThreshCVSCurrent
            INTEGER,
        sonetpmThreshCVSDay
            INTEGER,

        sonetpmThreshESSCurrent
            INTEGER,
        sonetpmThreshESSDay
            INTEGER,
        sonetpmThreshSESSCurrent
            INTEGER,
        sonetpmThreshSESSDay
            INTEGER,
        sonetpmThreshCVLCCurrent
            INTEGER,
        sonetpmThreshCVLDay
            INTEGER,
        sonetpmThreshESLCurrent
            INTEGER,
        sonetpmThreshESLDay
            INTEGER,
        sonetpmThreshSESLCurrent
            INTEGER,
        sonetpmThreshSESLDay
            INTEGER,
        sonetpmThreshUASLCurrent
            INTEGER,
        sonetpmThreshUASLDay
            INTEGER,
        sonetpmThreshCVPCurrent
            INTEGER,
        sonetpmThreshCVPDay
            INTEGER,
        sonetpmThreshESPCurrent
            INTEGER,
        sonetpmThreshESPDay
            INTEGER,
        sonetpmThreshSESPCurrent
            INTEGER,
        sonetpmThreshSESPDay
            INTEGER,

```

```

sonetpmThreshUASPCurrent
    INTEGER,
sonetpmThreshUASPCDay
    INTEGER,
sonetpmThreshCVLFECurrent
    INTEGER,
sonetpmThreshCVLFEDay
    INTEGER,
sonetpmThreshESLFECurrent
    INTEGER,
sonetpmThreshESLFEDay
    INTEGER,
sonetpmThreshSESLFECurrent
    INTEGER,
sonetpmThreshSESLFEDay
    INTEGER,
sonetpmThreshUASLFECurrent
    INTEGER,
sonetpmThreshUASLFEDay
    INTEGER,
sonetpmThreshCVPFECurrent
    INTEGER,
sonetpmThreshCVPFEDay
    INTEGER,
sonetpmThreshESPFECurrent
    INTEGER,
sonetpmThreshESPFEDay
    INTEGER,
sonetpmThreshSESPFECurrent
    INTEGER,
sonetpmThreshSESPFEDay
    INTEGER,
sonetpmThreshUASPFECurrent
    INTEGER,
sonetpmThreshUASPFEDay
    INTEGER

```

```

    }

```

```

sonetpmThresholdInterfaceIndex OBJECT-TYPE
    SYNTAX  INTEGER (1..'7fffffff'h)
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION

```

"The index value which uniquely identifies

the

```

        interface to which this entry is applica-
        ble. "
 ::= { sonetpmThresholdEntry 1 }

sonetpmThreshCVSCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..16383)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Current section CV threshold."
 ::= { sonetpmThresholdEntry 2 }

sonetpmThreshCVSDay OBJECT-TYPE
    SYNTAX  INTEGER (1..1048575)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Day total section CV threshold."
 ::= { sonetpmThresholdEntry 3 }

sonetpmThreshESSCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..900)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Current section ES threshold."
 ::= { sonetpmThresholdEntry 4 }

sonetpmThreshESSDay OBJECT-TYPE
    SYNTAX  INTEGER (1..65535)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Day total ES threshold."
 ::= { sonetpmThresholdEntry 5 }

sonetpmThreshSESSCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..63)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Current section SES threshold."
 ::= { sonetpmThresholdEntry 6 }

```

```

sonetpmThreshSESSDay OBJECT-TYPE
    SYNTAX  INTEGER (1..4095)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Day total SES threshold."
 ::= { sonetpmThresholdEntry 7 }

sonetpmThreshCVLCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..16383)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Current line CV threshold."
 ::= { sonetpmThresholdEntry 8 }

sonetpmThreshCVLDay OBJECT-TYPE
    SYNTAX  INTEGER (1..1048575)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Day total line CV threshold."
 ::= { sonetpmThresholdEntry 9 }

sonetpmThreshESLCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..900)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Current line ES threshold."
 ::= { sonetpmThresholdEntry 10 }

sonetpmThreshESLDay OBJECT-TYPE
    SYNTAX  INTEGER (1..65535)
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "Day total line ES threshold."
 ::= { sonetpmThresholdEntry 11 }

sonetpmThreshSESLCurrent OBJECT-TYPE
    SYNTAX  INTEGER (1..63)
    ACCESS  read-write

```

```

STATUS    mandatory
DESCRIPTION
    "Current line SES threshold."
::= { sonetpmThresholdEntry 12 }

sonetpmThreshSESLDay OBJECT-TYPE
SYNTAX    INTEGER (1..4095)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Day total line SES threshold."

::= { sonetpmThresholdEntry 13 }

sonetpmThreshUASLCurrent OBJECT-TYPE
SYNTAX    INTEGER (1..63)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Current line UAS threshold."
::= { sonetpmThresholdEntry 14 }

sonetpmThreshUASLDay OBJECT-TYPE
SYNTAX    INTEGER (1..4095)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Day total line UAS threshold."
::= { sonetpmThresholdEntry 15 }

sonetpmThreshCVPCurrent OBJECT-TYPE
SYNTAX    INTEGER (1..16383)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Current path CV threshold."
::= { sonetpmThresholdEntry 16 }

sonetpmThreshCVPDay OBJECT-TYPE
SYNTAX    INTEGER (1..1048575)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Day total path CV threshold."

```

```

::= { sonetpmThresholdEntry 17 }

sonetpmThreshESPCurrent OBJECT-TYPE
SYNTAX    INTEGER (1..900)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Current path ES threshold."
::= { sonetpmThresholdEntry 18 }

sonetpmThreshESPDay OBJECT-TYPE
SYNTAX    INTEGER (1..65535)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Day total path ES threshold."

::= { sonetpmThresholdEntry 19 }

sonetpmThreshSESPCurrent OBJECT-TYPE
SYNTAX    INTEGER (1..63)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Current path SES threshold."
::= { sonetpmThresholdEntry 20 }

sonetpmThreshSESPDay OBJECT-TYPE
SYNTAX    INTEGER (1..4095)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Day total path SES threshold."
::= { sonetpmThresholdEntry 21 }

sonetpmThreshUASPCurrent OBJECT-TYPE
SYNTAX    INTEGER (1..63)
ACCESS    read-write
STATUS    mandatory
DESCRIPTION
    "Current path UAS threshold."
::= { sonetpmThresholdEntry 22 }

sonetpmThreshUASPCurrent OBJECT-TYPE
SYNTAX    INTEGER (1..4095)

```



```

ACCESS read-write
STATUS mandatory
DESCRIPTION
    "Day total path UAS threshold."
::= { sonetpmThresholdEntry 23 }

sonetpmThreshCVLFECcurrent OBJECT-TYPE
    SYNTAX INTEGER (1..16383)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end line CV threshold. The
threshold
        value is shared with the near-end
OID"
    ::= { sonetpmThresholdEntry 24 }

sonetpmThreshCVLFEFDay OBJECT-TYPE
    SYNTAX INTEGER (1..1048575)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Day total far-end line CV threshold. The
threshold
        value is shared with the near-end OID"
    ::= { sonetpmThresholdEntry 25 }

sonetpmThreshESLFECurrent OBJECT-TYPE
    SYNTAX INTEGER (1..900)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end line ES threshold. The
threshold
        value is shared with the near-end OID"
    ::= { sonetpmThresholdEntry 26 }

sonetpmThreshESLFEFDay OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Day total far-end line ES threshold. The
threshold
        value is shared with the near-end OID"

```

```

::= { sonetpmThresholdEntry 27 }

sonetpmThreshSESLFECurrent OBJECT-TYPE
    SYNTAX INTEGER (1..63)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end line SES threshold. The
threshold
        value is shared with the near-end OID"
    ::= { sonetpmThresholdEntry 28 }

sonetpmThreshSESLFEFDay OBJECT-TYPE
    SYNTAX INTEGER (1..4095)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Day total far-end line SES threshold. The
threshold
        value is shared with the near-end OID"
    ::= { sonetpmThresholdEntry 29 }

sonetpmThreshUASLFECurrent OBJECT-TYPE
    SYNTAX INTEGER (1..63)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end line UAS threshold. The
threshold
        value is shared with the near-end OID"
    ::= { sonetpmThresholdEntry 30 }

sonetpmThreshUASLFEFDay OBJECT-TYPE
    SYNTAX INTEGER (1..4095)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Day total far-end line UAS threshold. The
threshold
        value is shared with the near-end OID"
    ::= { sonetpmThresholdEntry 31 }

sonetpmThreshCVPFECurrent OBJECT-TYPE
    SYNTAX INTEGER (1..16383)
    ACCESS read-only

```

```

STATUS mandatory
DESCRIPTION
    "Current far-end path CV threshold. The
thereshold
    value is shared with the near-end OID"
    ::= { sonetpmThresholdEntry 32 }

sonetpmThreshCVPFEDay OBJECT-TYPE
    SYNTAX INTEGER (1..1048575)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Day total far-end path CV threshold. The
thereshold
        value is shared with the near-end OID"
        ::= { sonetpmThresholdEntry 33 }

sonetpmThreshESPFECurrent OBJECT-TYPE
    SYNTAX INTEGER (1..900)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end path ES threshold. The
thereshold
        value is shared with the near-end OID"
        ::= { sonetpmThresholdEntry 34 }

sonetpmThreshESPFEDay OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Day total far-end path ES threshold. The
thereshold
        value is shared with the near-end OID"
        ::= { sonetpmThresholdEntry 35 }

sonetpmThreshSESPFECurrent OBJECT-TYPE
    SYNTAX INTEGER (1..63)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end path SES threshold. The
thereshold
        value is shared with the near-end OID"

```

```

    ::= { sonetpmThresholdEntry 36 }

sonetpmThreshSESPFEDay OBJECT-TYPE
    SYNTAX INTEGER (1..4095)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Day total far-end path SES threshold. The
thereshold
        value is shared with the near-end OID"
        ::= { sonetpmThresholdEntry 37 }

sonetpmThreshUASPFECCurrent OBJECT-TYPE
    SYNTAX INTEGER (1..63)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current far-end path UAS threshold. The
thereshold
        value is shared with the near-end OID"
        ::= { sonetpmThresholdEntry 38 }

sonetpmThreshUASPFEDay OBJECT-TYPE
    SYNTAX INTEGER (1..4095)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Day total far-end path UAS threshold. The
thereshold
        value is shared with the near-end OID"
        ::= { sonetpmThresholdEntry 39 }

-- The ATM Accounting Group
--
-- Global objects, Lport-based objects, and Ckt-based
objects

atmacctControl OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        pvcentabled (2),
        svcenabled (3),
        enabled (4)
    }
    ACCESS read-write

```

	STATUS mandatory DESCRIPTION
capability to enable or disable	"This object defines the usage-based ATM accounting at the switch level.
is disabled	The possible values are: disabled - Usage measurement
is enabled for PVCs only	pvcenabled - Usage measurement
is enabled for SVCs only	svcenabled - Usage measurement
is enabled for PVCs and SVCs	enabled - Usage measurement
	When the value of this object is a value other than 'disabled', the value of a logical port's accounting capability objects will take precedence.
'disabled', it overrides	When the value of this object is all logical ports' accounting capability objects and accounting is disabled across the entire switch.
is 'disabled'.	The default value of this object is 'disabled'.
'administrative' state	This object is considered to be to of the ATM accounting system on the switch, whereas the object atmacctOperState is the corresponding operational state."
	::= { atmacct 1 }
atmacctASAddressPri OBJECT-TYPE	
	SYNTAX IPAddress
	ACCESS read-write

	STATUS mandatory DESCRIPTION
Accounting Server	"The IP Address of the primary that is servicing ATM accounting for this switch."
	::= { atmacct 2 }
atmacctSwASCommsFailures OBJECT-TYPE	
	SYNTAX Counter
	ACCESS read-write
	STATUS mandatory
	DESCRIPTION
	"The number of times that communication from the switch to the ATM Accounting Server has failed during the current day. A failure signifies failure of a file transfer operation to the Accounting Server."
	::= { atmacct 3 }
atmacctPvcAggrPeriod OBJECT-TYPE	
	SYNTAX INTEGER
	ACCESS read-write
	STATUS mandatory
	DESCRIPTION
interval over which PVC	"This object defines the recording usage measurements are taken and transferred to the Adjunct Processor (Accounting Server), as defined by Bellcore
	GR-1110-CORE.
minute increments. The minimum	Acceptable values represent 15- value is 1 (15 minutes). The maximum value is 96 (24 hours).
	The default value is 4 (1 hour)."
	::= { atmacct 4 }
atmacctPvcCurAggrPeriodStart OBJECT-TYPE	
	SYNTAX TimeTicks

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "The start-time (GMT) of the
current ATM PVC recording
    interval."
    ::= { atmacct 5 }

atmacctPvcCurAggrPeriodEnd OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The end-time (GMT) of the current
ATM PVC recording
        interval."
        ::= { atmacct 6 }

atmacctCollectionPeriod OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object defines how often the
switch snapshots the state
        of all ATM PVCs and SVCs to stable
storage.

        Acceptable values represent 5-
minute increments. The minimum
        value is 0 (no snapshots). The
maximum value is 12 (1 hour).

        The default value is 1 (5
minutes)."
```

```

    ::= { atmacct 7 }
```

```

atmacctSvcUsageRecCreated OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of the number of new SVCs
for which usage records were
```

```

        created during the current rate
period."
    ::= { atmacct 8 }

atmacctSvcTotalUsageRecCreated OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Count of the number of new SVCs
for which usage records were
        created during the current day."
    ::= { atmacct 9 }

atmacctPvcUsageRecCreated OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object reports the number of
PVC usage records that
        were created at the end of the
previous recording interval.
        This counter indicates the number
of PVCs for which usage
        measurement was enabled during the
last recording interval."
    ::= { atmacct 10 }

atmacctUsageRecCrFailures OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Total number of usage records
that could not be created
        during the current day."
    ::= { atmacct 11 }

atmacctUsageRecSent OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
```

"Total number of usage records that have been transferred to the ATM Accounting Server during the current day."
 ::= { atmacct 12 }

atmacctAdminAction OBJECT-TYPE
 SYNTAX INTEGER {
 invalid (1),
 forceUpload (2),
 resetBWstats (3)
 }

ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This object defines a set of administrative actions that can be performed by the ATM Accounting System.

forceUpload - Forces an upload of any queued ATM usage data to the ATM Accounting Server.
 resetBWstats - Reset the AS Communications Bandwidth tracking statistics to zero.

This object always returns invalid(1) when read.

"
 ::= { atmacct 13 }

atmacctOamCellCounting OBJECT-TYPE
 SYNTAX INTEGER {
 dontcount (1),
 includeintotal (2)
 }

ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This object controls the recording of OAM cell when PVC

and/or SVC usage measurement is enabled.

Possible values are:

dontcount = Don't count OAM cells at all
 includeintotal = Include OAM cell counts in total cell counts (Required by Bellcore GR-1110)

The default value of this object is includeintotal(2).

Note: this object is read-only unless PVC billing is disabled at the global level."

::= { atmacct 14 }

atmacctSvcCbrCellCounting OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 intraenabled (3)
 }

ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This object is used to enable or disable CBR SVC cell counting when CBR Recording is enabled.

For Intra-network CBR SVCs, the switch will record CBR cell counts for the SVC if and only if the parameter is set to intraenabled(3) and CBR Recording is enabled (at the switch and logical port level).

This parameter will also support CBR cell-counting for inter-network SVCs in the future.

The default value of this object is intraenabled(3)."

```

::= { atmacct 15 }

atmacctSvcAbrRecording OBJECT-TYPE
    SYNTAX INTEGER {
        disabled      (1),
        intraenabled (3)
    }

    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to enable or
        disable the recording of
        ATM ABR SVCs.

        For Intra-network ABR SVCs, the
        switch will generate
        usage data for the SVC if and only
        if the parameter is set
        to intraenabled(3) and the
        corresponding logical port ABR
        Recording parameter is set to
        enabled or study.

        This parameter also support ABR
        inter-network SVCs in the future.

        The default value of this object
        is intraenabled(3)."
```

```

::= { atmacct 16 }

atmacctSvcCbrRecording OBJECT-TYPE
    SYNTAX INTEGER {
        disabled      (1),
        intraenabled (3)
    }

    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to enable or
        disable the recording of
        ATM CBR SVCs.
```

For Intra-network CBR SVCs, the switch will generate usage data for the SVC if and only if the parameter is set to intraenabled(3) and the corresponding logical port CBR Recording parameter is set to enabled or study.

This parameter also support CBR inter-network SVCs in the future.

The default value of this object is intraenabled(3)."

```

::= { atmacct 17 }

atmacctSvcUbrRecording OBJECT-TYPE
    SYNTAX INTEGER {
        disabled      (1),
        intraenabled (3)
    }

    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to enable or
        disable the recording of
        ATM UBR SVCs.

        For Intra-network UBR SVCs, the
        switch will generate
        usage data for the SVC if and only
        if the parameter is set
        to intraenabled(3) and the
        corresponding logical port UBR
        Recording parameter is set to
        enabled or study.

        This parameter also support UBR
        inter-network SVCs in the future.

        The default value of this object
        is intraenabled(3)."
```

```

::= { atmacct 18 }
```


objects, indexed by logical port
 identifier."
 ::= { atmact 24 }

atmacctLportEntry OBJECT-TYPE
 SYNTAX AtmacctLportEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION
 "An atmacctLportEntry contains a
 set of lport-related
 ATM Accounting System managable
 objects, indexed by logical
 port identifier."
 INDEX { atmacctLportIfIndex }
 ::= { atmacctLportTable 1 }

AtmacctLportEntry ::=
 SEQUENCE {
 atmacctLportIfIndex
 Index,
 atmacctLportSvcControl
 INTEGER,
 atmacctLportSvcPtPtRecording
 INTEGER,
 atmacctLportSvcPtMPtRecording
 INTEGER,
 atmacctLportSvcDefaultAddress
 OCTET STRING,
 atmacctLportSvcIntraAbrRecording
 INTEGER,
 atmacctLportSvcIntraCbrRecording
 INTEGER,
 atmacctLportSvcIntraUbrRecording
 INTEGER,
 atmacctLportSvcIntraVbrRecording
 INTEGER,
 atmacctLportSvcUnsuccRecording
 INTEGER,
 atmacctLportSvcSubAddressRecording
 INTEGER,
 atmacctLportPvcCarrierId
 INTEGER,
 atmacctLportPvcParamRecording
 INTEGER,

atmacctLportSvcDefaultAddressType
 INTEGER

}

atmacctLportIfIndex OBJECT-TYPE
 SYNTAX Index
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "Index: logical-port identifier."
 ::= { atmacctLportEntry 1 }

atmacctLportSvcControl OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2),
 enabled-study (3)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object defines the ability
 to enable and disable ATM
 SVC accounting on this logical
 port. When the value of
 atmacctControl is 'enabled', the
 value of this object will
 take precedence. When the value
 of atmacctControl is
 'disabled', the value of this
 object will be overridden and
 ATM SVC accounting will be
 disabled. When set to
 enabled-study and atmacctControl is
 enabled billing will
 be enabled and the performance
 study bit shall be set in
 the billing records so that the
 record will be saved for
 performance monitoring.
 The default value of this object
 is 'disabled'.
 "
 ::= { atmacctLportEntry 2 }

atmacctlportSvcPtPtRecording OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 originating (2),
 terminating (3),
 enabled (4)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or
 disable the recording of
 usage information for Point to
 Point ATM SVCs that originate
 or terminate on this port.
 disabled = Usage measurement
 will not be performed for
 SVC calls on
 this port.
 originating = Usage data is
 generated only for calls that
 originate on
 this port.
 terminating = Usage data is
 generated only for calls that
 terminate on
 this port.
 enabled = Usage
 measurement will be performed at both
 originating and
 terminating ends of all calls
 on this port.
 The default value of this object
 is enabled(4).
 When set to a value other than
 disabled(1), unsuccessful ATM
 SVC calls will be recorded
 according to the value of the
 atmacctlportUnsuccSvcRecording
 object. Otherwise

unsuccessful calls will not be
 recorded."
 ::= { atmacctlportEntry 3 }
 atmacctlportSvcPtMPtRecording OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 originating (2),
 terminating (3),
 enabled (4)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or
 disable the recording of
 usage information for Point to
 Multi-Point ATM SVCs that
 originate or terminate on this
 port.
 disabled = Usage measurement
 will not be performed for
 SVC calls on
 this port.
 originating = Usage data is
 generated only for calls that
 originate on
 this port.
 terminating = Usage data is
 generated only for calls that
 terminate on
 this port.
 enabled = Usage
 measurement will be performed at both
 originating and
 terminating ends of all calls
 on this port.
 The default value of this object
 is terminating(3)
 When set to a value other than
 disabled(1), unsuccessful

ATM SVC calls will be recorded according to the value of the `atmacctlportUnsuccSvcRecording` object. Otherwise unsuccessful calls will not be recorded."

```
 ::= { atmacctlportEntry 4 }
```

`atmacctlportSvcDefaultAddress` OBJECT-TYPE
 SYNTAX OCTET STRING(SIZE(1..20))
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object defines a Default Billing Address for ATM SVCs which originate at this lport. Note that this address may be different from the Default UNI Address defined for Calling Party Insertion.

The Default address for the port must be recorded at the switch whenever:
 1) no Calling Party Number is present, or
 2) the Calling Party Number fails screening or is invalid, or
 3) the Calling Party Number is different from the default address."

```
 ::= { atmacctlportEntry 5 }
```

`atmacctlportSvcIntraAbrRecording` OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2),
 study (3)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or disable the recording of

Intranetwork ATM ABR SVCs at the UNI. The switch will generate usage data for the SVC only if the parameter is set to enabled(2) or study(3). If this parameter is set to study, usage data that is generated is marked as 'study', per Bellcore GR-1110-CORE.

This parameter does not apply to ABR recording for inter-network SVCs.

The default value of this object is enabled(2)."

```
 ::= { atmacctlportEntry 6 }
```

`atmacctlportSvcIntraCbrRecording` OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2),
 study (3)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or disable the recording of Intranetwork ATM CBR SVCs at the UNI. The switch will generate usage data for the SVC only if the parameter is set to enabled(2) or study(3). If this parameter is set to study, usage data that is generated is marked as 'study', per Bellcore GR-1110-CORE.

This parameter does not apply to CBR recording for inter-network SVCs.

The default value of this object is enabled(2)."

```

::= { atmacctLportEntry 7 }

atmacctLportSvcIntraUbrRecording OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled  (2),
        study    (3)
    }

    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to enable or
        disable the recording of
        Intranetwork ATM UBR SVCs at the
        UNI. The switch will
        generate usage data for the SVC
        only if the parameter
        is set to enabled(2) or study(3).
        If this parameter is set to study,
        usage data that is
        generated is marked as 'study',
        per Bellcore GR-1110-CORE.

        This parameter does not apply to
        UBR recording for
        inter-network SVCs.

        The default value of this object
        is enabled(2)."
```

```

::= { atmacctLportEntry 8 }

atmacctLportSvcIntraVbrRecording OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled  (2),
        study    (3)
    }

    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to enable or
        disable the recording of
```

Intranetwork ATM VBR SVCs at the UNI. The switch will generate usage data for the SVC only if the parameter is set to enabled(2) or study(3). If this parameter is set to study, usage data that is generated is marked as 'study', per Bellcore GR-1110-CORE.

This parameter does not apply to VBR recording for inter-network SVCs.

The default value of this object is enabled(2)."

```

::= { atmacctLportEntry 9 }

atmacctLportSvcUnsuccRecording OBJECT-TYPE
    SYNTAX INTEGER {
        disabled      (1),
        originating   (2),
        terminating    (3),
        enabled        (4)
    }

    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to enable or
        disable the recording of
        usage information for unsuccessful
        ATM SVCs that originate
        or terminate on this port. Note
        that this parameter governs
        recording for both point-to-point
        and point-to-multipoint
        SVCs.

        disabled      = Usage data will not
        be generated for
        unsuccessful
        calls on this port.

        originating = Usage data is
        generated for all unsuccessful
```

calls that
 originated on this port. This
 value can only
 be set for UNI ports.
 terminating = Usage data is
 generated for all unsuccessful
 calls that
 terminated on this port.
 enabled = Usage data is
 generated for all unsuccessful
 calls that
 originated or terminated on this
 port. This
 value can only be set for UNI ports.

The default value of this object
 is enabled(4) at the UNI
 and disabled(1) at the network
 interface.

The acceptable values of this
 object on a network interface
 are disabled(1) or
 terminating(3)."
 ::= { atmactLportEntry 10 }

atmacctLportSvcSubAddressRecording OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 callingParty (2),
 calledParty (3),
 enabled (4)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used to enable or
 disable the recording of
 the Sub-addresses in ATM SVC
 accounting records at the UNI.

disabled = Do not records Sub-
 addresses
 callingParty = Record the Calling
 Party Sub-address when

present in a
 call
 calledParty = Record the Called
 Party Sub-address when
 present in a
 call
 enabled = Record both
 sub-addresses when present

The default value of this object is
 disabled(1)."
 ::= { atmactLportEntry 11 }

atmacctLportPvcCarrierId OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is a 5 digit decimal
 number that is used to
 identify the interconnected
 carrier associated with ATM PVCs
 at a network interface (B-ICI).

Note: this object is read-only if
 PVCs are provisioned on
 the specified port."
 ::= { atmactLportEntry 12 }

atmacctLportPvcParamRecording OBJECT-TYPE
 SYNTAX INTEGER {
 disabled (1),
 enabled (2)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object controls the
 recording of ATM PVC parameters
 when usage measurement is enabled
 for this port. When set
 to enabled(2), all of the
 following parameters (if defined
 for the circuit) will be recorded
 in the usage data for

each PVC:

Rates (CLP=0) and (CLP=0+1)	Ingress Peak Cell
Rates (CLP=0) and (CLP=0+1)	Ingress Sustained Cell
(CLP=0) and (CLP=0+1)	Ingress QoS Class
Rates (CLP=0) and (CLP=0+1)	Egress Peak Cell Rates
	Egress Sustained Cell
	Egress QoS Class

This object is defined at the user (UNI) and network interfaces (B-ICI and NNI).

The default value of this object is disabled(1).

Note: this object is read-only if PVCs are provisioned on the specified port."
 ::= { atmactLportEntry 13 }

atmacctLportSvcDefaultAddressType OBJECT-TYPE
 SYNTAX INTEGER {

e164 (1),
 atm-endsystem (2),
 unknown (4),
 useCPIaddress (5)
 }

ACCESS read-write
 STATUS mandatory
 DESCRIPTION

"This object identifies the type of ATM address that is to be used as the default billing address for SVCs originating on this logical port. The octet string comprising this address is given by parameter atmactLportSvcDefaultAddress.

Note: if the value of this parameter is useCPIaddress (5),

the switch will use the Calling Party Insertion address (object svcConfigCgPtyInsertionAddress) defined for this logical port as the default billing address. In this case, the value of atmactLportSvcDefaultAddress has no meaning, and should be set to null."
 ::= { atmactLportEntry 14 }

atmacctCktTable OBJECT-TYPE
 SYNTAX SEQUENCE OF AtmacctCktEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION

"A table of ckt-related ATM Accounting System manageable objects, indexed by source logical port id and source DLCI (concatenated VPI:VCI)."
 ::= { atmact 25 }

atmacctCktEntry OBJECT-TYPE
 SYNTAX AtmacctCktEntry
 ACCESS not-accessible
 STATUS mandatory
 DESCRIPTION

"An atmactCktEntry contains a set of ckt-related ATM Accounting System manageable objects, indexed by source logical port id and source DLCI (concatenated VPI:VCI)."
 INDEX { atmactCktSrcIfIndex,
 atmactCktSrcDlci }
 ::= { atmactCktTable 1 }

AtmacctCktEntry ::= SEQUENCE {
 atmactCktSrcIfIndex
 Index,
 atmactCktSrcDlci
 INTEGER,
 atmactCktControl

```

        INTEGER,
        atmacctCktUsageMeasurement
        INTEGER,
        atmacctCktChargeablePartyId
        OCTET STRING,
        atmacctCktSendNew
        INTEGER,
        atmacctCktCreationTime
        INTEGER
    }

atmacctCktSrcIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Index: source logical-port
        identifier."
    ::= { atmacctCktEntry 1 }

atmacctCktSrcDlci OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Index: source DLCI (concatenated
        VPI:VCI)."
    ::= { atmacctCktEntry 2 }

atmacctCktControl OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        enabled (2),
        study (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to enable or
        disable ATM PVC recording
        for accounting purposes.

        disabled = The PVC will not be
        recorded at this interface

```

```

        enabled = The PVC will be
        recorded at this interface
        study = The PVC will be
        recorded and marked as study
        (as defined by
        Bellcore GR-1110-CORE)

        This object is defined at the user
        (UNI) and network
        interfaces (B-ICI and NNI).

        The default value of this object
        is enabled(2) at the UNI
        and enabled(2) at the network
        interface."
    ::= { atmacctCktEntry 3 }

atmacctCktUsageMeasurement OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        egress (2),
        ingress (3),
        enabled (4)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object is used to enable or
        disable the recording of
        usage counts (e.g., cell or frame
        counts) for an ATM PVC.

        disabled = No usage counts are
        generated for this circuit
        egress = Egress usage counts are
        generated, where egress
        refers to data sent
        to the user (on a UNI) or to
        the network (on a
        network interface).
        ingress = Ingress usage counts
        are generated, where ingress
        refers to data
        received from the user (on a UNI)

```

or from the network
(on a network interface).
enabled = Both ingress and egress
counts are generated

Note: usage records are not
generated if PVC Recording
(atmacctCktControl) is disabled.

This object is defined at the user
(UNI) and network
interfaces (B-ICI and NNI).

The default value of this object
is disabled(1) at the UNI
and disabled(1) at the network
interface.

Note: this object is read-only
after initial provisioning
of the circuit."
::= { atmacctCktEntry 4 }

atmacctCktChargeablePartyId OBJECT-TYPE
SYNTAX OCTET STRING(SIZE(1..16))
ACCESS read-write
STATUS mandatory
DESCRIPTION
"This object defines a 1 to 16
digit decimal chargeable
party for this ATM PVC, per
Bellcore GR-1110-CORE.

Note: this object is read-only
after initial provisioning
of the circuit."
::= { atmacctCktEntry 5 }

atmacctCktSendNew OBJECT-TYPE
SYNTAX INTEGER {
invalid (1),
forceSend (2)
}
ACCESS read-write
STATUS mandatory

DESCRIPTION
"This object provides an interface
for the Accounting Server
to request the NEW usage data
record for the corresponding
circuit. Upon read, this object
always returns invalid(1)."
::= { atmacctCktEntry 6 }

atmacctCktCreationTime OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"This object represents the time
(UCT, seconds since
Jan. 1, 1970) that the circuit was
created. Once created,
this object is read-only, since it
is used for correlating
accounting records for the
circuit."
::= { atmacctCktEntry 7 }

atmacctStressTestRate OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The rate (calls/sec/IOM) of
simulated SVCs, for stress
testing the accounting components
on the IOMs and SP.

This object is for internal
debugging purposes, and is
read-only in release versions."
::= { atmacct 26 }

atmacctASAddressSec OBJECT-TYPE
SYNTAX IPAddress
ACCESS read-write
STATUS mandatory
DESCRIPTION

```

        "The IP Address of the secondary
Accounting Processor that
        is servicing ATM accounting for
this switch."
        ::= { atmacct 27 }

atmacctASControl OBJECT-TYPE
    SYNTAX INTEGER {
        primary (1),
        secondary (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This object controls which
configured ATM Accounting
        Accounting Server address is to be
used for transferring
        usage data."
        ::= { atmacct 28 }

atmacctOperState OBJECT-TYPE
    SYNTAX INTEGER {
        disabled (1),
        pvcentabled (2),
        svcenabled (3),
        enabled (4)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object corresponds to the
operational state of the ATM
        Accounting system on the switch.

        The possible values are:
        disabled - Usage measurement
is disabled
        pvcentabled - Usage measurement
is enabled for PVCs only
        svcenabled - Usage measurement
is enabled for SVCs only
        enabled - Usage measurement
is enabled for PVCs and SVCs

```

```

        This object is considered to be
the 'operational' state
        of the ATM Accounting system on
the switch, whereas the object
        atmacctControl is the
corresponding 'administrative' state."
        ::= { atmacct 29 }

atmacctASCommsState OBJECT-TYPE
    SYNTAX INTEGER {
        red (1),
        yellow (2),
        green (3)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object identifies the
current state of communications
        to the ATM Accounting Server.

        Possible values are:

        red - File transfers have
repeatedly failed, and all
        switch resources for
storing additional accounting
        data have been
exhausted. The operational state of
        ATM accounting for
the switch has been downgraded
        to DISABLED.
        yellow - File transfers are
experiencing significant
        failures. Several
unsuccessful attempts have
        been made to
transport the file at the head of the
        queue. New data is
continuing to be generated,
        and queued up. The
operational state of ATM
        Accounting has not
been downgraded yet.

```



```

green - File transfers are not
experiencing significant
failures. Any
accounting data queued during
failure periods has
been successfully transported
to the Accounting
Server."
::= { atmacct 30 }

```

```

atmacctLastBWResetTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The last time (GMT) that the AS
Communications Bandwidth
tracking statistics were reset to
zero."
::= { atmacct 31 }

```

```

atmacctASAddress OBJECT-TYPE
    SYNTAX IpAddress
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The IP Address of Accounting
Server being used"
::= { atmacct 32 }
-- cascatm branch
-- atmckt group
-- ctlCktTable

```

```

ctlCktTable OBJECT-TYPE
    SYNTAX SEQUENCE OF CtlCktEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "ATM Control Circuit table."
::= { atmckt 1 }

```

```

ctlCktEntry OBJECT-TYPE
    SYNTAX CtlCktEntry
    ACCESS not-accessible
    STATUS mandatory

```

```

DESCRIPTION
    "ATM Control Circuit Entry"
INDEX { ctlCktifIndex, ctlCktVpi, ctlCktVci }
::= { ctlCktTable 1 }

CtlCktEntry ::=
    SEQUENCE {
        ctlCktifIndex
            INTEGER,
        ctlCktVpi
            INTEGER,
        ctlCktVci
            INTEGER,
        ctlCktType
            INTEGER,
        ctlCktInCells
            Counter,
        ctlCktOutCells
            Counter,
        ctlCktInDiscardedClp0Cells
            Counter,
        ctlCktInDiscardedClp1Cells
            Counter,
        ctlCktInPassedClp0Cells
            Counter,
        ctlCktInPassedClp1Cells
            Counter,
        ctlCktInTaggedCells
            Counter,
        ctlCktOutClp0Cells
            Counter,
        ctlCktOutClp1Cells
            Counter,
        ctlCktOutOAMClp0Cells
            Counter,
        ctlCktOutOAMClp1Cells
            Counter,
        ctlCktEffectiveBW
            INTEGER,
        ctlCktStatus
            INTEGER
    }

ctlCktifIndex OBJECT-TYPE
    SYNTAX INTEGER (0..4095)

```

```

ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Interface on which control channel
exists"
    ::= { ctlCktEntry 1 }

ctlCktVpi OBJECT-TYPE
    SYNTAX INTEGER (0..4095)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "VPI of control channel"
    ::= { ctlCktEntry 2 }

ctlCktVci OBJECT-TYPE
    SYNTAX INTEGER (32..65535)
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "VCI of control channel"
    ::= { ctlCktEntry 3 }

ctlCktType OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(1),
        ilmi(2),
        signalling(3),
        oam(4),
        trunk(5),
        pnni(6)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Type of channel"
    ::= { ctlCktEntry 4 }

ctlCktInCells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM cells received"
    ::= { ctlCktEntry 5 }

```

```

ctlCktOutCells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM cells transmitted"
    ::= { ctlCktEntry 6 }

ctlCktInDiscardedClp0Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM CLP 0 cells received
and discarded"
    ::= { ctlCktEntry 7 }

ctlCktInDiscardedClp1Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM CLP 1 cells received
and discarded"
    ::= { ctlCktEntry 8 }

ctlCktInPassedClp0Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM CLP 0 cells received
and passed UPC "
    ::= { ctlCktEntry 9 }

ctlCktInPassedClp1Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM CLP 1 cells received
and passed UPC"
    ::= { ctlCktEntry 10 }

```

```

ctlCktInTaggedCells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM cells received and"
    ::= { ctlCktEntry 11 }

```

```

ctlCktOutClp0Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM CLP 0 cells
transmitted"
    ::= { ctlCktEntry 12 }

```

```

ctlCktOutClp1Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM CLP 1 cells
transmitted"
    ::= { ctlCktEntry 13 }

```

```

ctlCktOutOAMClp0Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM OAM CLP 0 cells
transmitted"
    ::= { ctlCktEntry 14 }

```

```

ctlCktOutOAMClp1Cells OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The Number of ATM OAM CLP 1 cells
transmitted"
    ::= { ctlCktEntry 15 }

```

```

ctlCktEffectiveBW OBJECT-TYPE

```

```

SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Effective BW of circuit in bytes"
    ::= { ctlCktEntry 16 }

```

```

ctlCktStatus OBJECT-TYPE
    SYNTAX INTEGER {
        active(1),
        inactive(2)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Current status of channel"
    ::= { ctlCktEntry 17 }

```

```

-- The cascfltsrv Group
--
-- The following Mib objects are only used by the
FaultServer

```

```

fltsrvSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        critical(1),
        major(2),
        minor(3),
        warning(4),
        info (5),
        cleared(6)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This is the severity that the alarm is being
changed to."
    ::= { cascfltsrv 1 }

```

```

fltsrvComponentID OBJECT-TYPE
    SYNTAX OCTET STRING
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

"This is the component ID for the componenet that the alarm transition applies to. The format of this string is :
 <switch IP>-<card number>-<Pport>-<Channel>-<Lport>-<Circuit>

This should enable the receiver to identify the specific object that is effected by this alarm."
 ::= { cascfltsrv 2 }

fltsrvAlarmText OBJECT-TYPE
 SYNTAX OCTET STRING
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

"This is a text string that describes the alarm condition.
 It is assumed that the severity field will identify whether an alarm condition is opened or closed. An example of a alarm text may be Logical Port Down. A severity value of normal would mean that this condition had been cleared."
 ::= { cascfltsrv 3 }

fltsrvStatus OBJECT-TYPE
 SYNTAX INTEGER {
 restart(1),
 failure(2),
 message(3),
 catastrophe(4)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

"The status from a fault server process:
 restart - a process restarted (either due to a user request or a general failure within the process)

failure - a process failed several restart attempts.
 catastrophe - the entire fault server is stopping
 message - information message from the process

"
 ::= { cascfltsrv 4 }

fltsrvProcess OBJECT-TYPE
 SYNTAX INTEGER {

faultFeed(1),
 trapForward(2),
 reliableTrap(3),
 trapSave(4),
 eventMap(5),
 alarmMap(6),
 alarmRules(7),
 alarmForward(8),
 controller(9),
 faultServer(10)
 }
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION

"
 The FaultServer process that generated a message:

faultFeed - The process responsible for listening for traps.
 trapForward - The process responsible for forwarding traps to another NMS.
 reliableTraps - The process responsible for requesting resends from a switch agent.
 trapSave - The process responsible for mapping traps to events and saving traps to the database.
 eventMap - The process responsible for mapping events to

```

alarms and saving events to
the database.
    alarmMap      - The process responsible for
saving Alarms to
                    database.
    alarmRule     - The process that evaluates
alarms against
                    the FS rule set.
    alarmForward  - The process that forwards
alarms to another NMS.
    controller    - The Fault Server Executive
process.
    faultServer   - one or more unspecified
Fault Server processes.

```

```

"
::= { cascfltsrv 5 }

```

```

--      The Traps Group
--
--      Definitions for Cascade Frame Relay Specific
Traps.
--

```

```

nodeBoardInserted TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportType,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a board
has been inserted into
        the indicated slot."
    ::= 1

```

```

nodeBoardPulled TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportType,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a board
has been pulled out from
        the indicated slot."

```

```

::= 2

```

```

nodeBoardMismatch TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportType,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
actual board type on the
        indicated slot is inconsistent
with what is configured
        from pport level checking.
        NOTE: should use the new trap,
cardTypeMismatch since
        it does card level checking."
    ::= 3

```

```

nodePsAStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodePsAStatus, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
power supply #1 has changed state
        (toggled between up and down
states)."
    ::= 4

```

```

nodePsBStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodePsBStatus, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
power supply #2 has changed state
        (toggled between up and down
states)."
    ::= 5

```

```

nodeFanStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeFanIndex, nodeFanStatus,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION

```

```

has changed state      "This trap indicates that a fan
                        (toggled between up and down
states)."
                        ::= 6

nodeSwDownloadComplete TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeSwFilename, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
software download was complete."
        ::= 7

nodeSwDownloadFailed TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeSwFilename, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
software download failed."
        ::= 8

nodePrDownloadComplete TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodePrFilename, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a PRAM
download was complete."
        ::= 9

nodePrDownloadFailed TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodePrFilename, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a PRAM
download failed."
        ::= 10

nodeTracefull TRAP-TYPE
    ENTERPRISE cascfr

```

```

    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the node
trace table was full and
has been copied to a TFTP buffer
awaiting to be xfered to the
NMS."
        ::= 11

nodeDiagLogfull TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
diagnostic log table was full
and has been copied to a TFTP
buffer awaiting to be xfered to
the NMS."
        ::= 12

nodeFlashMemErr TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
checksum or CRC-32 error occurred
in Flash."
        ::= 13

nodePramErr TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
checksum error or battery problem
occurred in PRAM."
        ::= 14

nodeRamErr TRAP-TYPE
    ENTERPRISE cascfr

```

```

        VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that an I/O
error occurred in DRAM or
SRAM."
        ::= 15

nodeInternalErr TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a fatal
internal hardware or software
error encountered and system needs
to be re-booted."
        ::= 16

pportStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
pportOperStatus, pportLinkDownReason,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
indicated physical port has
changed state."
        ::= 17

lportCongests TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportCongestRate,
lportSlotId, lportPportId, lportId,
nodeTrapSeverity,
nodeTrapSequenceNumber, lportCustomerID, lportPrivateNet
}
    DESCRIPTION
        "This trap indicates that the rate
of entering severely and
absolutely congested state on the
indicated logical port
has exceeded the threshold."
        ::= 18

```

```

trkStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId, lportTrkStatus,
lportPrivateNet,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
trunk associated with the
indicated logical port has changed
state."
        ::= 19

cktDlciStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktSrcIfIndex, cktSrcDlci,
cktOperStatus, cktFailReason,
cktFailNode, cktFailPort, lportSlotId,
lportPportId, lportId,
cktCustomerID, cktPrivateNet,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
user-to-user PVC state has been
changed for this virtual circuit.
It has either been created
or invalidated, or has toggled
between the active and inactive
states."
        ::= 20

cktDlciReroute TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktSrcIfIndex, cktSrcDlci,
lportSlotId, lportPportId, lportId,
nodeTrapSeverity,
nodeTrapSequenceNumber, cktCustomerID, cktPrivateNet }
    DESCRIPTION
        "This trap indicates that a PVC
has been re-routed."
        ::= 21

```

```

pportInterfaceMismatch TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
pportAdminInterface, pportInterface,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates the actual
physical interface is
different than the configured
physical interface."
        ::= 22

lportErrorExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, ifInErrors,
lportSlotId, lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber, cktCustomerID, cktPrivateNet }
    DESCRIPTION
        "This trap indicates the frame
errors per minute on this
lport exceeded the threshold."
        ::= 23

nodeErrorReport TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeDiagNonFatalSource,
nodeDiagNonFatalTime, nodeDiagNonFatalErrMajor,
nodeDiagNonFatalErrMinor, nodeDiagNonFatalStr,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "A component in the switch
discovered a non-fatal error
condition."
        ::= 24

cktGrpStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardCktGroupTrap,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION

```

```

        "Circuits on interfaces go up or
down."
        ::= 25

nodeUserLogin TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeConsoleIndex, nodeUserName,
nodeUserFrom, nodeConsoleUptime,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "An user has logged in STDx
through either serial console or telnet."
        ::= 26

nodeUserLogout TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeConsoleIndex, nodeUserName,
nodeUserFrom, nodeConsoleUptime,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "An user has logged out."
        ::= 27

cardUp TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that an
intelligent card has transitioned
to an ACTIVE state."
        ::= 28

cardDown TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that an
intelligent card has transitioned
to a NON-ACTIVE state."

```



```

::= 29

lnkStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId, lportLinkStatus,
                lportCustomerID, lportPrivateNet,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the link
status (Link protocol)
                associated with the indicated
logical port has changed state."
        ::= 30

lnkSmdsHbpNaTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that non-Ack
count for SMDS DXI heartbeat
                poll exceeds the threshold. The
non-Ack count is reset every
                15 minutes."
        ::= 31

lnkSmdsDiscardTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that Total
Discard packet count for SMDS
                packet exceeds the threshold. (
This trap has not been implemented
                in this release yet )."
        ::= 32

cardRedundSwitchOver TRAP-TYPE
    ENTERPRISE cascfr

```

```

VARIABLES { cardPhysicalSlotId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the card
in the specified slot has shot its
                active partner and has become the
active card of the pair."
        ::= 33

cardErrorReport TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardDiagNonFatalSource,
cardDiagNonFatalTime, cardDiagNonFatalErrMajor,
                cardDiagNonFatalErrMinor,
cardDiagNonFatalStr, cardPhysicalSlotId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "The specified card discovered a
non-fatal error condition."
        ::= 34

svcSetup TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktSrcIfIndex, cktSrcDlci,
cktSvcCallingParty,
                cktSvcCalledParty,
                nodeTrapSeverity,
nodeTrapSequenceNumber, lportSlotId, lportPportId,
lportId,
                cktCustomerID, cktPrivateNet
}
    DESCRIPTION
        "This trap is generated by the
ingress switch whenever a Frame
                Relay Svc is setup or cleared.
cktStatus indicates whether it is
                a setup or a clearing."
        ::= 35

svcClearing TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }

```

```

        DESCRIPTION
            "Reserved for Frame Relay SVC."
        ::= 36

svcFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktSvcCallingParty,
        cktSvcCalledParty, cktSvcCause,
            nodeTrapSeverity,
        nodeTrapSequenceNumber, cktCustomerID, cktPrivateNet }
    DESCRIPTION
        "This trap is generated by the
        ingress switch whenever a Frame Relay
        svc setup fails. cktSvcCause
        contains the cause number."
    ::= 37

trkBAttempt TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
        lportPportId, lportId,
            nodeTrapSeverity,
        nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that an
        attempt to establish the backup
        trunk associated with the
        indicated logical port is being
        made."
    ::= 38

trkBFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
        lportPportId, lportId,
            lportBuFailReason,
            nodeTrapSeverity,
        nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
        primary trunk associated
        with the indicated logical port
        has not been backed

```

```

        up or the backup trunk associated
        with the indicated
        logical port has not been
        restored. The reason for
        failure is provided. The
        lportBuFailReason indicates
        the trunk type as follows:

        lportBuFailReason      Trunk Type
        buTrkNotDef             primary
        buTrkNotEstab           backup

        ::= 39

trkBReleased TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
        lportPportId, lportId,
            nodeTrapSeverity,
        nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
        backup trunk associated with the
        indicated logical port has been
        released."
    ::= 40

pportDS0LoopUpChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
        pportDS0LoopUpStatus,
            nodeTrapSeverity,
        nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates one or more
        DS0's have gone into
        loopback.pportDS0LoopUpStatus reports the
        DS0's that have
        gone into loopback."
    ::= 41

pportDS0LoopDownChange TRAP-TYPE
    ENTERPRISE cascfr

```

```

        VARIABLES { pportSlotId, pportId,
pportDS0LoopDownStatus,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
                "This trap indicates one or more
DS0's have gone out of
                loopback.pportDS0LoopDownStatus reports
the DS0's that have
                gone out of loopback."
                ::= 42

```

```

lportISDNCallRej TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                lportISDNSourceAddr,
lportISDNDestAddr,
                lportISDNCallRejCause,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
                "This trap indicates that a call
has been rejected due
                either the inability to
authenticate the call or lack of
                B-channel pool resources."
                ::= 43

```

```

pportdsx3LoopChange TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
pportdsx3LoopStatus,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
                "This trap indicates when the DS3
or E3 has changed its current
                loopback state."
                ::= 44

```

```

pportds1LoopChange TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
pportds1LoopStatus,

```

```

                nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
                "This trap indicates when the DS1
has changed its current
                loopback state."
                ::= 45

```

```

pportExtClockBackup TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
pportSetClkBkup,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
                "This trap indicates that a pport
has lost the external clock
                source and is switching over to
the backup clock selected."
                ::= 46

```

```

pportExtClockRestore TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
                "This trap indicates that external
clock is recovered and the
                pport will switch back to external
clock."
                ::= 47

```

```

pportExtClkCapabilityMismatch TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
                "This trap indicates the port on
this card (and the card
                itself) is not capable of running
external clock."

```

```

::= 48

nodeFileTransferReport TRAP-TYPE
    ENTERPRISE cascade
    VARIABLES { nodeFileTransferRequest,
nodeFileTransferStatus,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Reporting the outcome of a previous file
transfer request.
                nodeFileTransferRequest specifies the
request and
                nodeFileTransferStatus gives the
outcome."
::= 49

nodeBillingUsageRecOvflWarning TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBillingService,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Warning that a usage record
counter-value overflow condition
                has occurred while aggregating
usage data recently collected
                from one or more IOPs. An overflow
condition exists when an
                attempt was made to update a usage
record counter, but such an
                update would have overflowed the
counter. In this case, the
                usage record is closed and a new
one is opened, if there is
                sufficient space in the service's
aggregated usage data store.
        "
::= 50

nodeBillingUsageRecCrFailed TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBillingService,
                nodeTrapSeverity,
nodeTrapSequenceNumber }

```

```

DESCRIPTION
    "Notification that a usage record
could not be created."
::= 51

nodeBillingStateChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBillingService, nodeBilling,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that billing has
been enabled or disabled on the
                switch. This trap is generated at
switch boot or when the
                value of the nodeBilling object is
modified."
::= 52

lportBillingStateChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBillingService, lportBilling,
lportIfIndex,
                lportSlotId, lportPportId,
lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber,
                lportCustomerID,
lportPrivateNet }
    DESCRIPTION
        "Notification that billing has
been enabled or disabled on a
                particular logical port. This
trap is generated the value of
                the lportBilling is modified for a
particular port; this trap
                IS NOT generated when the global
nodeBilling is modified or
                when at switch boot."
::= 53

nodeBillingSwAPCommsFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBillingAPAddress,

```

```

        nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "
            Notification that switch to
Accounting Server communication
            has failed and that a usage file
transfer has failed to
            complete.
            "
        ::= 54

svcAtmFailedCall TRAP-TYPE
    ENTERPRISE cascsvc
    VARIABLES { svcAtmConfigIfIndex,
svcAtmConfigQ93bLastCauseTx, svcAtmConfigQ93bLastCauseRx,
        nodeTrapSeverity,
nodeTrapSequenceNumber, lportSlotId, lportPportId,
lportId,
        cktCustomerID, cktPrivateNet
    }
    DESCRIPTION
        "Notification that one or more ATM
SVC's has failed for abnormal reasons on
        this lport."
    ::= 55

svcAtmSigStatusChange TRAP-TYPE
    ENTERPRISE cascsvc
    VARIABLES { svcAtmConfigIfIndex,
svcAtmConfigSigOperStatus,
        nodeTrapSeverity,
nodeTrapSequenceNumber,
        lportSlotId, lportPportId,
lportId,
        cktCustomerID, cktPrivateNet
    }
    DESCRIPTION
        "Notification that the status of
the ATM signalling function
        has changed on the port."
    ::= 56

lportCBRLineDataError TRAP-TYPE
    ENTERPRISE cascfr

```

```

        VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        lportStarvation,
lportRecOverflow, lportLossOfCellSequence,
lportLossOfStructurePointer,
        nodeTrapSeverity,
nodeTrapSequenceNumber, lportCustomerID, lportPrivateNet }
        DESCRIPTION
            "This trap indicates the error
state of the CBR lport."
        ::= 57

clkSourceSwitch TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
pportCbrCurrentClockMode,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the CBR
port switched its clock method."
    ::= 58

clkSourceFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
nodeRefclockActiveSrc,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
clock generation unit switched
        between holdover mode and
synchronization to reference clock."
    ::= 59

lportSmdsSip3SaNotFoundTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION

```

```

        "This trap indicates that the
number of Sa Not Found
        violations exceeded the specified
SmDs pdu violation
        threshold for the logical port.
        "
        ::= 60

```

```

lportSmDsSip3SaDaOnSamePortTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
number of Sa Da On Same Port
        violations exceeded the specified
SmDs pdu violation
        threshold for the logical port.
        "
        ::= 61

```

```

lportSmDsSip3DstGaNotFoundTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
number of Dst Ga Not Found
        violations exceeded the specified
SmDs pdu violation
        threshold for the logical port.
        "
        ::= 62

```

```

lportSmDsSip3DstIaScrnFailTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION

```

```

        "This trap indicates that the
number of Dst Ia Scrn Fail
        violations exceeded the specified
SmDs pdu violation
        threshold for the logical port.
        "
        ::= 63

```

```

lportSmDsSip3SaValFailTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
number of Sa Val Fail
        violations exceeded the specified
SmDs pdu violation
        threshold for the logical port.
        "
        ::= 64

```

```

lportSmDsSip3DstIaNotFoundTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
number of Dst Ia Not Found
        violations exceeded the specified
SmDs pdu violation
        threshold for the logical port.
        "
        ::= 65

```

```

lportSmDsSip3SrcIaScrnFailTca TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION

```

"This trap indicates that the
number of Src Ia Scrn Fail
violations exceeded the specified
Smds pdu violation
threshold for the logical port.
"

::= 66

lportSmdsSip3DstGaScrnFailTca TRAP-TYPE
ENTERPRISE cascfr
VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION

"This trap indicates that the
number of Dst Ga Scrn Fail
violations exceeded the specified
Smds pdu violation
threshold for the logical port.
"

::= 67

lportSmdsDxi2LinkIdInvalidTca TRAP-TYPE
ENTERPRISE cascfr
VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION

"This trap indicates that the
number of Link Id Invalid
violations exceeded the specified
Smds pdu violation
threshold for the logical port.
"

::= 68

nodePrimarySyncReferenceChange TRAP-TYPE
ENTERPRISE cascfr
VARIABLES {
nodePrimarySyncRefOperationalState,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION

"Notification that the Primary
Synchronization Reference
operational state has changed."
::= 69

nodeSecondarySyncReferenceChange TRAP-TYPE
ENTERPRISE cascfr
VARIABLES {
nodeSecondarySyncRefOperationalState,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION

"Notification that the Secondary
Synchronization Reference
operational state has changed."
::= 70

nodeExternalClockAChange TRAP-TYPE
ENTERPRISE cascfr
VARIABLES {
nodeExternalClockAOperationalState,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION

"Notification that the External
Reference Clock A
operational state has changed."
::= 71

nodeExternalClockBChange TRAP-TYPE
ENTERPRISE cascfr
VARIABLES {
nodeExternalClockBOperationalState,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION

"Notification that the External
Reference Clock B
operational state has changed."
::= 72

nodePortReferenceAChange TRAP-TYPE
ENTERPRISE cascfr
VARIABLES { nodePortClockAOperationalState,

```

        nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "Notification that the Port
Reference Clock A
            operational state has changed."
            ::= 73

nodePortReferenceBChange TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { nodePortClockBOperationalState,
            nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "Notification that the Port
Reference Clock B
            operational state has changed."
            ::= 74

pportDS0InitiateLpbkFailure TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
            nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that the DS0
requested to be
            set into far end loopback has failed to do
so."
            ::= 75

pportDS0InitiateLpbkSuccess TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
            nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that the DS0
requested to be
            set into far end loopback has succeeded."
            ::= 76

lportPPPNegotiationFail TRAP-TYPE

```

```

        ENTERPRISE cascfr
        VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
            lportPPPNegotiationFailCode,
            nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that PPP
Negotiations has failed."
            ::= 77

cktAtmStatusChange TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { cktSrcIfIndex, cktAtmVPI,
            cktAtmVCI, cktOperStatus, cktFailReason, cktFailNode,
            cktFailPort,
            nodeTrapSeverity,
nodeTrapSequenceNumber, lportSlotId, lportPportId,
lportId,
            cktCustomerID, cktPrivateNet
        }
        DESCRIPTION
            "This trap indicates that the
user-to-user ATM PVC state has been
            changed for this virtual circuit.
It has either been created
            or invalidated, or has toggled
between the active and inactive
            states."
            ::= 78

cktAtmReroute TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { cktSrcIfIndex, cktAtmVPI,
            cktAtmVCI,
            nodeTrapSeverity,
nodeTrapSequenceNumber, lportSlotId, lportPportId,
lportId,
            cktCustomerID, cktPrivateNet
        }
        DESCRIPTION
            "This trap indicates that an ATM
PVC has been re-routed."
            ::= 79

```



```

cardTransmitClockStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardTransmitClockStatus,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates the IOM
transmit clock synchronization status has changed."
        ::= 80

cardSystemPrimaryClockStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardSystemPrimaryClockStatus,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the IOM
system primary clock reference status has changed.
        On the BIO it indicates that the
BIO has detected a Timing Module 1 clock reference
change."
        ::= 81

cardSystemSecondaryClockStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardSystemSecondaryClockStatus,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the IOM
system primary clock reference status has changed.
        On the BIO it indicates that the
BIO has detected a Timing Module 2 clock reference
change."
        ::= 82

nodeBillingUsageDataReplnFailWarning TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBillingService,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION

```

```

        "Warning that the billing system
manager on the active
of the usage data
        CP+ failed to write the contents
store on the redundant CP+."
        ::= 83

nodeBillingUsageDataRecoveryFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBillingService,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that the billing
system manager on the
active CP+ failed to recover the
contents of the usage
data store on boot."
        ::= 84

nodeBillingUsageDataDiscardedOnBoot TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBillingService,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that the billing
system manager on the
active CP+ discarded the usage
data recovered on boot
because they are too old.
Currently, if the data that
are recovered are older than 24
hours, they are
discarded."
        ::= 85

lportAuthenticationFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                lportAuthFailReason,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION

```

```

        "This trap indicates a user
authentication failure."
        ::= 86

lportMPBundleFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        lportMultilinkProtocolFailReason,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates a PPP
Multilink Protocol Bundle failure."
        ::= 87

lportBAPCallFailureStatus TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        lportBandwidthAllocProtocolCallFailReason,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates a PPP
Bandwidth Allocation Protocol
        connection failure. It is the
Call-Status-Code (Q.931 cause
        code) sent from the calling
system."
        ::= 88

lportISDNPPPNegotiationFail TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        lportISDNSourceAddr, lportISDNDestAddr,
        lportPPPNegotiationFailCode,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that ISDN/PPP
Negotiations has failed."

```

```

        ::= 89

lportISDNAuthenticationFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        lportISDNSourceAddr, lportISDNDestAddr,
        lportAuthFailReason,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates a user ISDN
authentication failure."
        ::= 90

lportISDNMPBundleFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        lportISDNSourceAddr, lportISDNDestAddr,
        lportMultilinkProtocolFailReason,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates a ISDN/PPP
Multilink Protocol Bundle
        failure."
        ::= 91

lportISDNBAPCallFailureStatus TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        lportISDNSourceAddr, lportISDNDestAddr,
        lportBandwidthAllocProtocolCallFailReason,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates an ISDN/PPP
Bandwidth Allocation Protocol

```

connection failure. It is the
Call-Status-Code (Q.931 cause
code) sent from the calling
system."

::= 92

isdnCallerRejected TRAP-TYPE
ENTERPRISE cascfr
VARIABLES { lportIfIndex, lportSlotId,
isdnCallerIDAddr,

dvcCktGrpDialedE164Addr,
nodeTrapSeverity,
nodeTrapSequenceNumber, lportPportId, lportId }
DESCRIPTION

"This trap represents a call from
a caller
who is not authorized to access
the circuit group."
::= 93

cugAddrMaxCugsExceeded TRAP-TYPE
ENTERPRISE cascsvc
VARIABLES { svcAddrAddress,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION
"Indicates a run-time
configuration error on the
number of CUGs allowed per
address."

::= 94

cugPrefixMaxCugsExceeded TRAP-TYPE
ENTERPRISE cascsvc
VARIABLES { svcPrefixPrefix,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION
"Indicates a run-time
configuration error on the
number of CUGs allowed per
prefix."

::= 95

cugNodePrefixMaxCugsExceeded TRAP-TYPE
ENTERPRISE cascsvc
VARIABLES { svcNodePrefixPrefix,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION
"Indicates a run-time
configuration error on the
number of CUGs allowed per node
prefix."

::= 96

chands1LoopChange TRAP-TYPE
ENTERPRISE cascfr
VARIABLES { chanSlotId, chanPortId, chanId,
chands1NearEndLoopConfig,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION
"This trap indicates when the DS1
has changed its current
loopback state."

::= 97

nodeBillingCallRecordSendFailure TRAP-TYPE
ENTERPRISE cascfr
VARIABLES { nodeBillingService,
nodeTrapSeverity,
nodeTrapSequenceNumber }
DESCRIPTION
"Notification that switch to Accounting Server
communication
has failed and that a usage file transfer has
failed to
complete."
::= 98

lportNtmSevereCongestStatusChange TRAP-TYPE
ENTERPRISE cascfr
VARIABLES { lportIfIndex,
lportSevereCongestStatus,
nodeTrapSeverity,
nodeTrapSequenceNumber,
lportSlotId, lportPportId,
lportId,

```

        lportCustomerID,
lportPrivateNet }
        DESCRIPTION
            "This trap indicates that there is
a change of congestion status
            on a logical port on an IOM."
        ::= 99

cktNdcThreshCrossAlarmClp0 TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { cktNdcIfIndex, cktNdcSrcDlci,
cktNdcInDiscardClp0Cells,
            cktNdcInDiscardClp0CellThresh,
            nodeTrapSeverity,
nodeTrapSequenceNumber,
            lportSlotId, lportPportId,
lportId,
            cktCustomerID, cktPrivateNet
}
        DESCRIPTION
            "This trap is a Network Data
Collection Threshold Crossing Alarm
            for the number of CLP0 cells
discarded in a PVC on an IOM.
            It is generated not more than
once within the 15-minute NDC
            measurement interval."
        ::= 100

cktNdcThreshCrossAlarmClp01 TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { cktNdcIfIndex, cktNdcSrcDlci,
cktNdcInDiscardClp01Cells,
            cktNdcInDiscardClp01CellThresh,
            nodeTrapSeverity,
nodeTrapSequenceNumber,
            lportSlotId, lportPportId,
lportId,
            cktCustomerID, cktPrivateNet
}
        DESCRIPTION
            "This trap is a Network Data
Collection Threshold Crossing Alarm

```

```

            for the number of CLP0+1 cells
discarded in a PVC on an IOM.
            It is generated not more than
once within the 15-minute NDC
            measurement interval."
        ::= 101

nodeAuthenticationFailure TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { nodeAuthLoginUser, nodeAuthFailReason,
            nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates a user console login
authentication
            failure."
        ::= 102

atmacctStateChange TRAP-TYPE
        ENTERPRISE cascatm
        VARIABLES { atmacctControl, nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "Notification that ATM accounting
has been enabled or disabled
            on the switch. This trap is
generated at switch boot or when
            the value of the atmacctControl
object is modified."
        ::= 103

atmacctSwAPCommsFailure TRAP-TYPE
        ENTERPRISE cascatm
        VARIABLES { atmacctASAddressPri,
atmacctASAddressSec,
            atmacctASControl,
atmacctSwASCommsFailures,
            nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "Notification that switch to ATM
Accounting Server
            communication has failed and that
a usage file transfer has
            failed to complete."

```

```

        ::= 104

atmacctUsageRecCrFailed TRAP-TYPE
    ENTERPRISE cascattm
    VARIABLES { atmacctUsageRecCrFailures,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that an ATM usage
record could not be created."
        ::= 105

atmacctLportStateChange TRAP-TYPE
    ENTERPRISE cascattm
    VARIABLES { atmacctLportSvcControl,
atmacctLportIfIndex,
                nodeTrapSeverity,
nodeTrapSequenceNumber,
                lportSlotId, lportPportId,
lportId }
    DESCRIPTION
        "Notification that accounting has
been enabled or disabled on a
particular logical port. This
trap is generated the value of
the atmacctLportControl is
modified for a particular port;
this trap IS NOT generated when
the global atmacctControl is
modified or at switch boot."
        ::= 106

chands1AlarmStateChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { chanSlotId, chanPortId, chanId,
chanLinkDownReason,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates when the DS1
has changed its current
alarm state."
        ::= 107

pportDs1ESFDataLinkStatusChange TRAP-TYPE

```

```

    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
pportESFDataLinkStatus,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
status of the DS1 ESF Data Link
(FDL) has changed"
        ::= 108

pportPerfMontCA TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
pportPMTcaId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
threshold crossing was detected
on the performance parameter identified
by the threshold
table ID given, along with the slot and
pport number"
        ::= 109

cardTypeMismatch TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardAdminType, cardOperType,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the NMS
view of the cardtype
does not match the one from HW
installation."
        ::= 110

nodeBulkSwAPCommsFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeBulkStatsCollectorAddress,
nodeBulkSwAPCommsFailures,
                nodeTrapSeverity,
nodeTrapSequenceNumber }

```

```

DESCRIPTION
    "Notification that switch to ATM
Bulk Statistics Adjunct
    Processor communication has failed
and that a data file
    transfer has failed to complete."
    ::= 111

atmacctOperStateChange TRAP-TYPE
    ENTERPRISE cascasm
    VARIABLES { atmacctControl, atmacctOperState,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that the operational
state of the ATM accounting
        system on the switch has changed.
This trap is generated upon
        entering the non-operational state
due to critical failure of
        communications to the ATM
Accounting Server. It is also
        generated upon recovery of this
critical condition.

        This trap is not generated upon
change of the atmacctOperState
        object in conjunction with an
operator change of the
        atmacctControl object."
    ::= 112

nodePsCStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodePsCStatus, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
power supply #3 has changed state
        (toggled between up and down
states)."
    ::= 113

nodePsMismatchTrap TRAP-TYPE
    ENTERPRISE cascfr

```

```

VARIABLES { nodeAdminStatus, nodeOperatingStatus,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "THIS OID IS OBSOLETE.
        This trap indicates that there is a
mismatch in the number of
        power supplies as expected by the user and
as actually found
        in the switch."
    ::= 114

atmacctASCommsStateChange TRAP-TYPE
    ENTERPRISE cascasm
    VARIABLES { atmacctASControl,
atmacctASAddressPri,
atmacctASAddressSec,
atmacctASCommsState,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
state of communications to
        the ATM Accounting Server has
changed."
    ::= 115

cktMultipntAtmStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktLeafSrcIfIndex, cktLeafAtmVPI,
cktLeafAtmVCI, cktLeafEndpointIndex,
cktLeafOperStatus,
cktLeafFailReason, cktLeafFailNode, cktLeafFailPort,
nodeTrapSeverity,
nodeTrapSequenceNumber,
lportSlotId, lportPportId,
lportId,
cktCustomerID, cktPrivateNet
}
    DESCRIPTION
        "This trap indicates that the
point-to-multipoint ATM PVC state has
        been changed."
    ::= 116

```

```

nodeTimeOfDayInvalid TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
    "Notification that the time-of-day clock on
the switch is
invalid or has not been configured. This trap
is generated
only at CP or SP boot-time."
    ::= 117

```

```

pportAPSSwitchingEvent TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
pportAPSprotectionLineState,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
    "This trap indicates that a
protection switching event has
just taken place and the
protection line is now in the
indicated state."
    ::= 118

```

```

pportAPSworkingLineRestored TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
    "This trap indicates that the
specified working line
pport has resumed carrying user
traffic. This may be
due to an auto switch condition
that has cleared or
due to a problem detected on the
protection line."
    ::= 119

```

```

pportAPSmodeMismatch TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,

```

```

nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
    "This trap indicates that a mode
mismatch has been
detected based on this pport's APS
configuration and
the received K2 byte. This
happens when one LTE is
configured for 1+1 APS and the
other for 1:n APS. The
LTE configured for 1:n will fall
back to 1+1 mode."
    ::= 120

```

```

pportAPSprotectionLineFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
    "This trap indicates that the
protection line is now
in a failed state. APS switchover
to protection is
now inhibited. If the protection
line was carrying
user traffic, it is switched back
to the working line."
    ::= 121

```

```

pportAPSprotectionLineRestored TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
    "This trap indicates that the
protection line is now
in an operational state. APS
switchover to protection
is now possible."
    ::= 122

```

```

pportAPSprotectionByteFailure TRAP-TYPE

```

```

        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
                    nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that the
protection line has declared
            a protection byte failure. This
happens when a protection
            byte defect or inconsistent K1
byte is received and the
            condition persists for 2.5
seconds. APS switchover to
            protection is inhibited. If the
protection line was carrying
            user traffic, it is switched back
to the working line."
            ::= 123

pportAPSFarEndProtectionLineFailure TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
                    nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that a far
end protection line failure
            has been declared. This happens
when the received K1 byte
            indicates SF on the protection
line and the condition persists
            for 2.5 seconds."
            ::= 124

pportAPSFarEndProtectionLineCleared TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
                    nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that the far
end protection line failure
            has cleared. This happens after
10sec. without an indication

```

```

            of SF on the protection line in
the received K1 byte."
            ::= 125

pportAPSSchannelMismatchDetected TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
                    nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that a
channel mismatch has been detected
            between the channel indicated in
the received K2 byte and the
            channel indicated in the
transmitted K1 byte. Mismatches
            do not apply to the 1+1
unidirectional case. This trap may be
            sent as part of the normal course
of performing a switchover."
            ::= 126

pportAPSconfigStatusChange TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { pportSlotId, pportId,
                    pportAPSPairedSlotId,
                    pportAPSPairedPportId,
                    pportAPSconfigStatus,
                    nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that the APS
configuration status has
            changed. When the
pportAPSconfigStatus is indicated as invalid,
            the user should check
pportAPSadminDir, pportAPSlineType,
            pportAPSrevertiveMode, and
pportAPSwtrPeriod for a mismatched
            configuration between the two
pports."
            ::= 127

nodeNtpServerError TRAP-TYPE
        ENTERPRISE cascfr

```



```

        VARIABLES { cardNtpPeerAddr, nodeTime,
                    nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that a time
server fails to respond
            and no other time server is available.
If the error occurs on
            powerup it shall be reported as
critical; otherwise
            it shall be reported as a warning."
        ::= 128

nodeNtpTimeChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTime,nodeNtpOffset,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the time
on the switch has
            changed spanning a second
boundary."
        ::= 129

fltSrvAlarmTrap TRAP-TYPE
    ENTERPRISE cascfltSrv
    VARIABLES { fltSrvSeverity, fltSrvComponentID,
fltSrvAlarmText }
    DESCRIPTION
        "This trap is generated by the fault server
when an alarm is
            opened or closed."
        ::= 130

pportAPSdirectionModeMismatch TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
direction mode mismatch has been
            detected on the indicated pport
(the indicated pport is an

```

```

        APS protection line pport). This
happens when one LTE is
            configured for Unidirectional and
the other for Bidirectional
            mode."
        ::= 131

fracctStateChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { fracctControl, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that FR accounting
has been enabled or disabled
            on the switch. This trap is
generated at switch boot or when
            the value of the fracctControl
object is modified."
        ::= 132

fracctSwASCommsFailure TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { fracctASAddressPri,
fracctASAddressSec,
                fracctASControl,
fracctSwASCommsFailures,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that switch to FR
Accounting Server
            communication has failed and that
a usage file transfer has
            failed to complete."
        ::= 133

fracctUsageRecCrFailed TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { fracctUsageRecCrFailures,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that an FR usage
record could not be created."
        ::= 134

```

```

fracctLportStateChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { fracctLportSvcOrigControl,
fracctLportSvcTermControl,
                                fracctLportIfIndex,
nodeTrapSeverity,
                                nodeTrapSequenceNumber,
                                lportSlotId, lportPportId,
lportId }
    DESCRIPTION
        "Notification that SVC accounting
has been enabled or disabled on a
        particular logical port. This
trap is generated the value of
        the fracctLportControl is modified
for a particular port;
        this trap IS NOT generated when
the global fracctControl is
        modified or at switch boot."
        ::= 135

fracctOperStateChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { fracctControl, fracctOperState,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "Notification that the operational
state of the FR accounting
        system on the switch has changed.
This trap is generated upon
        entering the non-operational state
due to critical failure of
        communications to the FR
Accounting Server. It is also
        generated upon recovery of this
critical condition.

        This trap is not generated upon
change of the fracctOperState
        object in conjunction with an
operator change of the
        fracctControl object."
        ::= 136

```

```

fracctASCommsStateChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { fracctASControl,
fracctASAddressPri,
                                fracctASAddressSec,
fracctASCommsState,
                                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
state of communications to
        the FR Accounting Server has
changed."
        ::= 137

lportIlmiStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportIlmiOperStatus,
nodeTrapSeverity,
nodeTrapSequenceNumber,
                                lportSlotId, lportPportId,
lportId,
                                lportCustomerID,
lportPrivateNet }
    DESCRIPTION
        "Notification that the status of
the ATM ILMI function
        has changed on the port."
        ::= 138

bundleStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId, lportTrkStatus,
lportDataRate, lportVAvailbw, lportBundleId, lportPrivateNet,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
Bundled trunk associated with the
        indicated logical port has changed
state. Also the Bandwidth for the

```

```

        super lport and bundle Id of the member
        lport are reported."
        ::= 139

nodePsDcPowerAStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodePsDcPowerAStatus,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that N+1 DC
48V power supply A has changed state
        (toggled between up and down
states)."
        ::= 140

nodePsDcPowerBStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodePsDcPowerBStatus,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that N+1 DC
48V power supply B has changed state
        (toggled between up and down
states)."
        ::= 141

cktDlciOamStorm TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktSrcIfIndex, cktSrcDlci,
nodeTrapSeverity,
nodeTrapSequenceNumber,
lportSlotId, lportPportId, lportId,
cktCustomerID, cktPrivateNet
}
    DESCRIPTION
        "This trap indicates that the oam speed on
this frame
        relay circuit has exceeded the
threshold (set to
        10 cells per 10ms or 1000cps)."
        ::= 142

cktAtmOamStorm TRAP-TYPE
    ENTERPRISE cascfr

```

```

    VARIABLES { cktSrcIfIndex, cktAtmVPI, cktAtmVCI,
nodeTrapSeverity,
nodeTrapSequenceNumber,
lportSlotId, lportPportId, lportId,
cktCustomerID, cktPrivateNet
}
    DESCRIPTION
        "This trap indicates that the oam speed on
this atm
        circuit has exceeded the threshold
(set to 10 cells per
        10ms or 1000cps)."
        ::= 143

cardATMTCA TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId, cardATMTcaId,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
threshold crossing was detected
        on the ATM TCA identified by the
threshold
        table ID given, along with the slot
number"
        ::= 144

pportATMTCA TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
pportATMTcaId,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
threshold crossing was detected
        on the lport ATM TCA identified by the
threshold
        table ID given, along with the slot and
pport number"
        ::= 145

sonetpmPathTraceMsgChange TRAP-TYPE
    ENTERPRISE cascadepm
    VARIABLES { pportSlotId, pportId,

```

```

        nodeTrapSeverity,
nodeTrapSequenceNumber }
        DESCRIPTION
            "This trap indicates that the
SONET/SDH Path Trace Message
            has changed."
        ::= 146

spATMTCA TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId, spATMTcaId,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a threshold
crossing was detected
        on the sp ATM TCA identified by the
threshold
        table ID given, along with the switching
port number"
        ::= 147

lportLCPOpen TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that PPP LCP has
entered the OPEN state
        on the specified port."
        ::= 148

lportLCPCloseEchoRqstTimeout TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that PPP LCP has
entered the CLOSED
        state on the specified port as
the result of an Echo Request
        timeout."

```

```

        ::= 149

-- Adding placeholder for ::=150 (lportLCPERLoopback)

cktAtmOamStormCleared TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktSrcIfIndex, cktAtmVPI, cktAtmVCI,
nodeTrapSeverity,
        nodeTrapSequenceNumber,
lportSlotId, lportPportId, lportId,
        cktCustomerID, cktPrivateNet }
    DESCRIPTION
        "This trap indicates that the OAM
cell rate on this ATM
        circuit has dropped down to acceptable
levels after having
        previously exceeded the threshold (set to
10 cells per
        10ms or 1000cps)."
        ::= 151

subcardStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardLogicalSlotId,
subcardPhysicalSubSlotId,
        subcardOperType,
subcardOperStatus,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a
subcard has transitioned
        to the state indicated by
subcardOperStatus."
        ::= 152

subcardSwitchover TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardLogicalSlotId,
subcardPhysicalSubSlotId,
        subcardOperType,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION

```

```

        "This trap indicates that a
subcard has switched over
        to the redundant subcard. The
subcardPhysicalSublotId is
        now the active subcard in the
redundant configuration"
        ::= 153

atmacctASwitchOver TRAP-TYPE
    ENTERPRISE cascsm
    VARIABLES { atmacctASAddress,
nodeTrapSeverity, nodeTrapSequenceNumber}
    DESCRIPTION
        "This trap is generated when the
switch automatically changes
        the Accounter Server it is
sending Atm billing data as a
        result of a communication failure
with the current
        Accounting Server."
        ::= 154

fracctASwitchOver TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { fracctASAddress, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap is generated when the
switch automatically changes
        the Accounter Server it is
sending Frame Relay billing data
        as a result of a communication
failure with the
        current Accounting Server."
        ::= 155

cardFrameMemoryExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardFrameMemoryUtil,
        nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates the the
percentage of frame memory

```

```

        utilization on this card exceeded
the threshold."
        ::= 156

lportInLongErrExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportInLongErrors,
lportSlotId, lportPportId, lportId,
        nodeTrapSeverity,
nodeTrapSequenceNumber,
        lportCustomerID,
lportPrivateNet }
    DESCRIPTION
        "This trap indicates the long
frame errors per minute on this
        lport exceeded the threshold."
        ::= 157

lportInCRCErrExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportInCRCErrors,
lportSlotId, lportPportId, lportId,
        nodeTrapSeverity,
nodeTrapSequenceNumber,
        lportCustomerID,
lportPrivateNet }
    DESCRIPTION
        "This trap indicates the CRC
errors per minute on this
        lport exceeded the threshold."
        ::= 158

lportInOverrunErrExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex,
lportInOverrunErrors, lportSlotId, lportPportId, lportId,
        nodeTrapSeverity,
nodeTrapSequenceNumber,
        lportCustomerID,
lportPrivateNet }
    DESCRIPTION
        "This trap indicates the overrun
errors per minute on this
        lport exceeded the threshold."
        ::= 159

```

```

lportInFrameErrExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportInFrameErrors,
lportSlotId, lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber,
                lportCustomerId,
lportPrivateNet }
    DESCRIPTION
        "This trap indicates the octet
errors per minute on this
        lport exceeded the threshold."
        ::= 160

lportInAbortErrExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { lportIfIndex, lportInAbortErrors,
lportSlotId, lportPportId, lportId,
                nodeTrapSeverity,
nodeTrapSequenceNumber,
                lportCustomerId,
lportPrivateNet }
    DESCRIPTION
        "This trap indicates the abort
errors per minute on this
        lport exceeded the threshold."
        ::= 161

cardInvalidPvcBTUsExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardInvalidPvcBTUs,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates the BTUs
discarded per minute on this
        card due to invalid VCID exceeded
the threshold."
        ::= 162

cardIncompleteFramesFromBusExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr

```

```

    VARIABLES { cardPhysicalSlotId,
cardIncompleteFramesFromBus,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates the Frames
discarded per minute on this
        card due to lost BTUs exceeded the
threshold."
        ::= 163

cardBTUsBusErrorExceedThreshold TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardBTUsBusErrors,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates the BTUs
discarded per minute on this
        card due to bus errors exceeded
the threshold."
        ::= 164

cardBTUsNoResourceExceed TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardBTUsNoResource,
                nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates the BTUs
discarded per minute on this
        card due to no resources exceeded
the threshold."
        ::= 165

nameResilientLMIOperStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTime, nameName, namePrimary,
nameIfIndex,
                nameResilientLMIBackupIfIndex,
nameResilientLMIOperStatus,
nodeTrapSeverity,
nodeTrapSequenceNumber}

```

```

        DESCRIPTION
        "This trap indicates that the
resilient LMI status
        associated with the indicated
name and logical ports has
        changed state."
        ::= 166

lportResilientLMIOperStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTime, lportIfIndex,
lportSlotId, lportPportId, lportId,
        lportPrivateNet, lportCustomerID,
lportResilientLmiOperStatus,
        nodeTrapSeverity,
nodeTrapSequenceNumber}
    DESCRIPTION
        "This trap indicates that the
resilient LMI status
        associated with the indicated
logical port has changed
        state."
        ::= 167

pportStatusChangeNonZeroEnum TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { pportSlotId, pportId,
pportOperStatus,
        pportLinkDownReasonNonZeroEnum,
        nodeTrapSeverity, nodeTrapSequenceNumber
}
    DESCRIPTION
        "This trap indicates that the
indicated
        physical port has changed state."
        ::= 168

chands1AlarmStateChangeNonZeroEnum TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { chanSlotId, chanPortId, chanId,
        chanLinkDownReasonNonZeroEnum,
        nodeTrapSeverity, nodeTrapSequenceNumber
}
    DESCRIPTION

```

```

        "This trap indicates when the DS1
has changed its current
        alarm state."
        ::= 169

cktDlciStatusChangeNonZeroEnum TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktSrcIfIndex, cktSrcDlci,
cktOperStatusNonZeroEnum,
        cktFailReasonNonZeroEnum,
        cktFailNode, cktFailPort, lportSlotId,
lportPportId, lportId,
        cktCustomerID, cktPrivateNet,
        nodeTrapSeverity, nodeTrapSequenceNumber
}
    DESCRIPTION
        "This trap indicates that the
user-to-user PVC state has been
        changed for this virtual circuit.
It has either been created
        or invalidated, or has toggled
between the active and inactive
        states."
        ::= 170

cktAtmStatusChangeNonZeroEnum TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cktSrcIfIndex, cktAtmVPI,
cktAtmVCI,
        cktOperStatusNonZeroEnum,
        cktFailReasonNonZeroEnum,
        cktFailNode, cktFailPort,
        nodeTrapSeverity, nodeTrapSequenceNumber
}
    DESCRIPTION
        "This trap indicates that the
user-to-user ATM PVC state
        has been changed for this virtual circuit.
It has either
        been created or invalidated, or has
toggled between the
        active and inactive states."
        ::= 171

trkBFailureNonZeroEnum TRAP-TYPE

```

```

        ENTERPRISE cascfr
        VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                lportBuFailReasonNonZeroEnum,
                nodeTrapSeverity, nodeTrapSequenceNumber
}

        DESCRIPTION
                "This trap is the same as
trkBFailure except that it only
                has nonzero enum variables

        This trap indicates that the primary trunk
associated
                with the indicated logical port
has not been backed
                up or the backup trunk associated
with the indicated
                logical port has not been
restored. The reason for
                failure is provided. The
lportBuFailReason indicates
                the trunk type as follows:

                lportBuFailReason    Trunk Type
                buTrkNotDef           primary
trunk
                buTrkNotEstab        backup
trunk"

        ::= 172

trkStatusChangeNonZeroEnum TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                lportTrkStatusNonZeroEnum,
                lportPrivateNet,
                nodeTrapSeverity, nodeTrapSequenceNumber
}

        DESCRIPTION
                "This trap indicates that the
trunk associated with the
                indicated logical port has changed
state."

        ::= 173

```

```

bundleStatusChangeNonZeroEnum TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { lportIfIndex, lportSlotId,
lportPportId, lportId,
                lportTrkStatusNonZeroEnum,
lportDataRate, lportVAvailbw,
                lportBundleId, lportPrivateNet,
                nodeTrapSeverity,
                nodeTrapSequenceNumber }

        DESCRIPTION
                "This trap indicates that the
Bundled trunk associated with the
                indicated logical port has changed
state. Also the Bandwidth for the
                super lport and bundle Id of the member
lport are reported."

        ::= 174

cktMultipntAtmStatusChangeNonZeroEnum TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { cktLeafSrcIfIndex, cktLeafAtmVPI,
cktLeafAtmVCI,
                cktLeafEndpointIndex,
cktLeafOperStatusNonZeroEnum,
                cktLeafFailReasonNonZeroEnum,
                cktLeafFailNode, cktLeafFailPort,
                nodeTrapSeverity,
                nodeTrapSequenceNumber }

        DESCRIPTION
                "This trap indicates that the
point-to-multipoint ATM PVC
                state has been changed."

        ::= 175

cktRedirSwitchover TRAP-TYPE
        ENTERPRISE cascfr
        VARIABLES { cktSrcIfIndex, cktSrcDlci,
cktRedirSWOVLstAction,
                nodeTrapSeverity,
                nodeTrapSequenceNumber,
                lportSlotId, lportPportId, lportId,
                cktCustomerID,
                cktPrivateNet}

        DESCRIPTION

```



```

        "This trap indicates that the redirect PVC
has been switched over."
        ::= 176

nodeRapidUpgradeInitiated TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a rapid
upgrade has begun on this node."
        ::= 177

cardRapidUpgradeComplete TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a rapid
upgrade has completed successfully on
the card."
        ::= 178

cardRapidUpgradeFailed TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { cardPhysicalSlotId,
cardRapidUpgradeFailReason, nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a rapid
upgrade has failed on this card."
        ::= 179

nodePsExtPowerStatusChange TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { nodePwrExternalStatus,
nodeTrapSeverity, nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that the
external power supply has changed state
(states)."
        (toggled between up and down
states)."
        ::= 180

nodeRapidUpgradeComplete TRAP-TYPE

```

```

ENTERPRISE cascfr
    VARIABLES { nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a rapid upgrade
has completed on this node."
        ::= 181

chanPMTCA TRAP-TYPE
    ENTERPRISE cascfr
    VARIABLES { chanSlotId, chanPortId, chanId,
pportPMTcaId,
nodeTrapSeverity,
nodeTrapSequenceNumber }
    DESCRIPTION
        "This trap indicates that a threshold
crossing was detected
on the performance parameter identified
by the threshold
table ID given, along with the slot,
pport and channel number"
        ::= 183

-----
-- Fault Server Specific Traps
-----

fltssrvStatusTrap TRAP-TYPE
    ENTERPRISE cascfltssrv
    VARIABLES { fltssrvStatus, fltssrvSeverity,
fltssrvProcess }
    DESCRIPTION
        "This trap is generated by the fault
server when one of its
processes fails or re-starts."
        ::= 1

-----
-----
-----
-- snatlAdminEntry
----
-- This table supplies parameters for each discrete
connection which ----

```

```
-- exists in the Frad.
----
-----
-----
-----
-----
-----
```

```
snatlAdminTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnatlAdminEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "This table consists of configuration
parameters
        for each link between an SDLC address on an
Lport and
        an LLC2 connection over Frame
Relay"
    ::= { snatl 1 }
```

```
snatlAdminEntry OBJECT-TYPE
    SYNTAX SnatlAdminEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A list of link parameters"
    INDEX { snatlAdminLport, snatlAdminSdlcAddress
}
    ::= { snatlAdminTable 1 }
```

```
SnatlAdminEntry ::= SEQUENCE
{
    snatlAdminLport          Index,
    snatlAdminSdlcAddress    Index,
    snatlAdminEnable         INTEGER,
    snatlAdminSourceMac      OCTET STRING,
    snatlAdminDestMac        OCTET STRING,
    snatlAdminSourceSap      INTEGER,
    snatlAdminDestSap        INTEGER,
    snatlAdminMaxDataSize    INTEGER,
    snatlAdminEncapsulationType  INTEGER,
    snatlAdminNodeType       INTEGER,
    snatlAdminActivationMode  INTEGER,
    snatlAdminIdBlkNum        OCTET STRING,
    snatlAdminFlowControlEnableINTEGER,
```

```
snatlAdminFlowControlInboundINTEGER,
snatlAdminFlowControlOutboundINTEGER,
snatlAdminDlci             INTEGER,
snatlAdminActivateWaitSec  INTEGER,
snatlAdminActivateRetries  INTEGER
}
```

```
snatlAdminLport OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The logical port number on which
the SDLC link resides."
    ::= { snatlAdminEntry 1 }
```

```
snatlAdminSdlcAddress OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The SDLC address on this particular link"
    ::= { snatlAdminEntry 2 }
```

```
snatlAdminEnable OBJECT-TYPE
    SYNTAX INTEGER
    {
        disabled      (1),
        enabled        (2),
        deleted        (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Controls the link station sessions. Disable
and delete
        cause an orderly session
disconnect sequence, where delete
        will delete this table."
    DEFVAL { disabled }
    ::= { snatlAdminEntry 3 }
```

```
snatlAdminSourceMac OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(6))
    ACCESS read-write
```

STATUS mandatory
DESCRIPTION
"The source MAC address used with the RFC1490 encapsulation header when bridge/BAN format is used."
::= { snatAdminEntry 4 }

snatAdminDestMac OBJECT-TYPE
SYNTAX OCTET STRING (SIZE(6))
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The destination MAC address used with the RFC1490 encapsulation header when bridge/BAN format is used"
::= { snatAdminEntry 5 }

snatAdminSourceSap OBJECT-TYPE
SYNTAX INTEGER (0..254)
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The source SAP address used with the RFC1490 encapsulation header "
DEFVAL { 4 }
::= { snatAdminEntry 6 }

snatAdminDestSap OBJECT-TYPE
SYNTAX INTEGER (0..254)
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The destination SAP address used with the RFC1490 encapsulation header"
DEFVAL { 4 }
::= { snatAdminEntry 7 }

snatAdminMaxDataSize OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION

passed on
a
active
been
from
"The maximum information message size to be this link. This value will initially be set to configured value. The value when the link is will reflect the actual value which may have derived from other configuration limits, or a runtime operation such as XID negotiation."
DEFVAL { 512 }
::= { snatAdminEntry 8 }

snatAdminEncapsulationType OBJECT-TYPE
SYNTAX INTEGER
{
routed (1),
bridged (2)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"RFC1490 encapsulation type to use."
DEFVAL { routed }
::= { snatAdminEntry 9 }

snatAdminNodeType OBJECT-TYPE
SYNTAX INTEGER
{
pu1 (1),
pu2 (2),
pu21 (3),
pu4 (4)
}
ACCESS read-write
STATUS mandatory
DESCRIPTION
"A value describing the Node Type used on this link.
Certain actions when setting up a connection require this parameter to be set."
DEFVAL { pu2 }
::= { snatAdminEntry 10 }

```

snatlAdminActivationMode OBJECT-TYPE
    SYNTAX INTEGER
    {
        remote_act    (0),
        local_sdlc(1),
        local_llc2(2),
        local_both    (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This value controls the activation mode for
the link.
Default to local_sdlc. A value of
0x01 will cause the
SDLC link to be activated locally.
A value of 0x02
will cause the LLC2 link to be
activated
locally. These values may be or'd
together. If a value
of zero is specified, it implies
that the link will
rely on remote activation"

    DEFVAL { local_sdlc }
    ::= { snatlAdminEntry 11 }

snatlAdminIdBlkNum OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(4))
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The IDBLOCK and IDNUM values used in XID
negotiation, the
first three nibbles are IDBLK,
the other 5 are IDNUM
-----
| 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
-----
\IDBLK  /\IDNUM      /
-----"
    ::= { snatlAdminEntry 12 }

```

```

snatlAdminFlowControlEnable OBJECT-TYPE
    SYNTAX INTEGER
    {
        disabled    (0),
        enabled      (1)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""
    DEFVAL { enabled }
    ::= { snatlAdminEntry 13 }

snatlAdminFlowControlInbound OBJECT-TYPE
    SYNTAX INTEGER
    {
        disabled    (0),
        enabled      (1)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""
    DEFVAL { enabled }
    ::= { snatlAdminEntry 14 }

snatlAdminFlowControlOutbound OBJECT-TYPE
    SYNTAX INTEGER
    {
        disabled    (0),
        enabled      (1)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        ""
    DEFVAL { enabled }
    ::= { snatlAdminEntry 15 }

snatlAdminDlci OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION

```

```

        "The DLCI on which the corresponding LLC2 link
resides"
        ::= { snatlAdminEntry 16 }

snatlAdminActivateWaitSec OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The amount of seconds between attempts to
activate
        the corresponding LLC2/SDLC links"
    DEFVAL { 300 }
    ::= { snatlAdminEntry 17 }

snatlAdminActivateRetries OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of times activation of the
corresponding
        LLC2/SDLC links are attempted"
    DEFVAL { 10 }
    ::= { snatlAdminEntry 18 }

-----
-----
-----
-----
-- snatlOperEntry
----
-- This table supplies parameters for each discrete
connection which ----
-- exists in the Frad.
----
-----
-----
-----
-----

snatlOperTable OBJECT-TYPE

```

```

SYNTAX SEQUENCE OF SnatlOperEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
    "This table consists of Operational parameters
    for each link between an SDLC address on an
Lport and an
        LLC2 connection over Frame Relay"
    ::= { snatl 2 }

snatlOperEntry OBJECT-TYPE
    SYNTAX SnatlOperEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A list of link parameters"
    INDEX { snatlAdminLport, snatlAdminSdlcAddress
}
    ::= { snatlOperTable 1 }

SnatlOperEntry ::= SEQUENCE
{
    snatlOperConnectionStatus      INTEGER,
    snatlOperCreateTime            TimeTicks,
    snatlOperStateChangeTime       TimeTicks,
    snatlOperFailCode1             INTEGER,
    snatlOperFailCode2            INTEGER,
    snatlOperRetriesLeft           INTEGER
}

snatlOperConnectionStatus OBJECT-TYPE
    SYNTAX INTEGER
    {
        inact          (1),
        pendingactive  (2),
        active         (3),
        pendinginact   (4)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This parameter reflects the actual status of
the
        link. The enabled state differs from active in
that

```

```

the other in-box components might be in an
enabled
state, but the end station might not be
active, for
example a remote controller may be powered
off. The
active state is achieved when the link
protocol is
in a state where information frames can be
passed."
::= { snatlOperEntry 1 }

snatlOperCreateTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The time at which the mandatory link was
enabled. This
value is taken from the system clock and is
implementation
defined."
    ::= { snatlOperEntry 2 }

snatlOperStateChangeTime OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The time at which the connection status field
last
changed. The value is taken from the system
clock."
    ::= { snatlOperEntry 3 }

snatlOperFailCode1 OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Indicates reason why a link failed to
activate"
    ::= { snatlOperEntry 4 }

snatlOperFailCode2 OBJECT-TYPE

```

```

SYNTAX INTEGER
ACCESS read-only
STATUS mandatory
DESCRIPTION
    "Further failure information"
    ::= { snatlOperEntry 5 }

snatlOperRetriesLeft OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The amount of times left that activation
of the SDLC/
LLC2 linkstations will be
attempted"
    ::= { snatlOperEntry 6 }

-----
-----
-----
-----
-- snasdlcPortTable
-- This entry augments the sdlc port configuration
parameters with --
-- some implementation specific items.
--
-----
-----
-----

snasdlcPortTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnasdlcPortEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "This table is for parameters that were not
included
in RFC1747"
    ::= { snasdlc 1 }

snasdlcPortEntry OBJECT-TYPE

```

```

SYNTAX SnasdlcPortEntry
ACCESS not-accessible
STATUS mandatory
DESCRIPTION
    "A table entry for additional SDLC parameters.
This
    table is parallel to the SDLC port. They are
both
    indexed on lport Interface Index"
INDEX { snasdlcPortLportIfIndex }
 ::= { snasdlcPortTable 1 }

SnasdlcPortEntry ::= SEQUENCE
{
    snasdlcPortLportIfIndex          Index,
    snasdlcPortMaxRcvBtu              INTEGER,
    snasdlcPortIdleTimer              TimeTicks,
    snasdlcPortIdleTimerRetryINTEGER,
    snasdlcPortNpRcvTimer             TimeTicks,
    snasdlcPortNpRcvTimerRetryINTEGER,
    snasdlcPortWriteTimer             TimeTicks,
    snasdlcPortWriteTimerRetryINTEGER,
    snasdlcPortPriFdplx               INTEGER,
    snasdlcPortSecFdplx               INTEGER,
    snasdlcPortUseRej                 INTEGER,
    snasdlcPortMaxXidSize              INTEGER,
    snasdlcPortMaxRetryCount          INTEGER,
    snasdlcPortResetStats             INTEGER
}

snasdlcPortLportIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The ifIndex value of the
corresponding ifEntry."
    ::= { snasdlcPortEntry 1 }

snasdlcPortMaxRcvBtu OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION

```

```

        "The absolute maximum Receive BTU
per message unit allowed.
        This sort of figure is described in various
other mib entries.
        The value here is intended as a cap which may
override
        other configuration entries. The value should
be initialized
        to the maximum value for the SDLC link.
Dynamic alterations
        to this field will take effect on subsequently
created SDLC
        ports"
    DEFVAL { 560 }
    ::= { snasdlcPortEntry 2 }

snasdlcPortIdleTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This timer is used as a 'watch-dog' for a
completely inactive
        line. Idle means that nothing
(not even invalid frame data)
        has been received. The timer is
specified in milliseconds."
    DEFVAL { 10000 }
    ::= { snasdlcPortEntry 3 }

snasdlcPortIdleTimerRetry OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Number of times to re-run the
snasdlcPortIdleTimer before
        failure. This is used in
conjunction with snasdlcPortIdleTimer
        to provide the overall idle
timeout period. This is
        recommended to be longer than
either the snasdlcPortNpRcvTimer
        or the snasdlcLsContactTimer and
snasdlcLsDiscTimer. A value

```

```

        of 65535 is used to indicate an
unlimited retry count. A
        value of 1 indicates that an
outage should be generated
        after the first timer expiry. "
    DEFVAL { 10 }
    ::= { snasdlcPortEntry 4 }

snasdlcPortNpRcvTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "In Secondary SDLC mode, the non-productive
receive timeout
        corresponds to the time allowed
for receipt of a valid frame
        from the primary. This is usually
set in conjunction with the
        retry limit to give a long timeout
before outage (such as about
        30s). In SDLC primary mode, this
timer is used to produce an
        outage when a secondary station
produces continuous frames
        without setting the F-bit. The
timer is specified in
        milliseconds. "
    DEFVAL { 30000 }
    ::= { snasdlcPortEntry 5 }

snasdlcPortNpRcvTimerRetry OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Non-productive receive retry limit is used in
conjunction with
        the timeout value to provide the
overall time before an outage
        message is issued. A value of
65535 is used to indicate an
        unlimited retry count. A value of
1 indicates that an

```

```

        outage should be generated after
the first timer expiry. "
    DEFVAL { 10 }
    ::= { snasdlcPortEntry 6 }

snasdlcPortWriteTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The Write timeout corresponds to the maximum
time that it
        takes SDLC to transmit a complete
frame. This is usually set
        in conjunction with the retry
limit to give a long timeout
        before outage of about 30s. The
timer is specified in
        milliseconds. "
    DEFVAL { 30000 }
    ::= { snasdlcPortEntry 7 }

snasdlcPortWriteTimerRetry OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The Write timeout retry limit is used in
conjunction with the
        timeout value to provide the
overall time before an outage
        message is issued. A value of
65535 is used to indicate an
        unlimited retry count. A value of
1 indicates that an outage
        should be generated after the
first timer expiry."
    DEFVAL { 5 }
    ::= { snasdlcPortEntry 8 }

snasdlcPortPriFdplx OBJECT-TYPE
    SYNTAX INTEGER
    {
        true (1),
        false (0)
    }

```



```

    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Specifies whether the primary linkstation is
full duplex"
    DEFVAL { true }
    ::= { snasdlcPortEntry 9 }

snasdlcPortSecFdplx OBJECT-TYPE
    SYNTAX INTEGER
    {
        true (1),
        false (0)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Specifies whether the secondary LS is to be
full duplex"
    DEFVAL { true }
    ::= { snasdlcPortEntry 10 }

snasdlcPortUseRej OBJECT-TYPE
    SYNTAX INTEGER
    {
        allow (1),
        disallow (2)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This specifies if the remote SDLC
implementation can
receive an REJ frame. This allows
for differences in
the way the remote expects to be
notified of missing
or bad frames. The effects of
changing this parameter
will happen in subsequently
created SDLC ports
(SdlcPortAdminTable - rfc 1747)."
    DEFVAL { allow }
    ::= { snasdlcPortEntry 11 }

```

```

snasdlcPortMaxXidSize OBJECT-TYPE
    SYNTAX INTEGER (1..256)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Maximum size of an XID that will be sent or
received on this
link. This field is present to
help minimize buffer usage."
    DEFVAL { 256 }
    ::= { snasdlcPortEntry 12 }

snasdlcPortMaxRetryCount OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "Maximum number of times that a frame or group
of frames may be
retransmitted on this port before
a problem is diagnosed."
    DEFVAL { 5 }
    ::= { snasdlcPortEntry 13 }

snasdlcPortResetStats OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This is a mechanism to allow the operator to
reset the
SDLC Port statistics. Any write to this field
will cause
the statistics to be reset."
    ::= { snasdlcPortEntry 15 }

-----
-----
-----
-----
-- snasdlcLsTable

```

```

-- This entry augments the sdlc LS configuration
parameters with      --
-- some implementation specific items.
--
-----
-----
-----
-----

snasdlcLsTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnasdlcLsEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "This table is for special tuning parameters
which
        are not included in RFC 1747 for SDLC. These
parameters
        allow certain features to be enabled and
disabled and
        certain parameters to be tuned.
This is to accommodate
        certain variations which occur in
implementations of
        SDLC across various vendors and products."
    ::= { snasdlc 2 }

snasdlcLsEntry OBJECT-TYPE
    SYNTAX SnasdlcLsEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A table entry for additional SDLC parameters.
This
        table is parallel to the SDLC Link Station.
They are both
        indexed on lport Interface Index, and SDLC
Address"
    INDEX { snasdlcLsLportIfIndex, snasdlcLsAddress }
    ::= { snasdlcLsTable 1 }

SnasdlcLsEntry ::= SEQUENCE
{
    snasdlcLsLportIfIndex      Index,
    snasdlcLsAddress          Index,

```

```

    snasdlcLsContactTimer      TimeTicks,
    snasdlcLsContactTimerRetryINTEGER,
    snasdlcLsContactTimer2      TimeTicks,
    snasdlcLsContactTimerRetry2INTEGER,
    snasdlcLsDiscTimer          TimeTicks,
    snasdlcLsDiscTimerRetry      INTEGER,
    snasdlcLsNvePollTimer        TimeTicks,
    snasdlcLsNvePollTimerRetryINTEGER,
    snasdlcLsNvePollTimer2      TimeTicks,
    snasdlcLsNvePollTimerRetry2INTEGER,
    snasdlcLsNoRespTimer        TimeTicks,
    snasdlcLsNoRespTimerRetryINTEGER,
    snasdlcLsRemBusyTimer        TimeTicks,
    snasdlcLsRemBusyTimerRetryINTEGER,
    snasdlcLsRrTimer            TimeTicks,
    snasdlcLsPollFrame          INTEGER,
    snasdlcLsPollOnIFrame        INTEGER,
    snasdlcLsResetStats          INTEGER,
    snasdlcLsRole                INTEGER
}

snasdlcLsLportIfIndex OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The ifIndex value of the
corresponding ifEntry."
    ::= { snasdlcLsEntry 1 }

snasdlcLsAddress OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The address of the Link station."
    ::= { snasdlcLsEntry 2 }

snasdlcLsContactTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The Contact timeout value corresponds to the
timeout required

```

before a SNRM or XID is retransmitted in the event of non-acknowledgement (used for primary SDLC only). This value must be greater than the no_response (T1) timeout value no_resp_timer described below. The timer is specified in milliseconds. This timer is also used for special

pre-activation polling. "
 DEFVAL { 5000 }
 ::= { snasdlcLsEntry 3 }

snasdlcLsContactTimerRetry OBJECT-TYPE
 SYNTAX INTEGER (1..65535)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The Contact timer retry limit value corresponds to the number of times transmission and retransmission of a contact frame (such as SNRM) is allowed using the normal poll timer before SDLC switches to using the slow poll timer. A value of 65535 is used to indicate an unlimited retry count. A value of 1 indicates that the switch to the slow poll should be made after the first timer expiry. "

DEFVAL { 5 }
 ::= { snasdlcLsEntry 4 }

snasdlcLsContactTimer2 OBJECT-TYPE
 SYNTAX TimeTicks
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Slow poll contact timer in milliseconds. When the contact timer retry count expires, SDLC continues to poll using this

timer. This prevents leased (multi-drop) links from being flooded by poll frames for absent stations. "

DEFVAL { 12000 }
 ::= { snasdlcLsEntry 5 }

snasdlcLsContactTimerRetry2 OBJECT-TYPE
 SYNTAX INTEGER (1..65535)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The slow poll contact timer retry limit value corresponds to the number of times transmission and retransmission of a contact frame (such as SNRM) is allowed on the slow cycle before an outage message is sent. A value of 65535 is used to indicate an unlimited retry count. A value of 1 indicates that an outage should be generated after the first slow poll timer expiry."

DEFVAL { 65535 }
 ::= { snasdlcLsEntry 6 }

snasdlcLsDiscTimer OBJECT-TYPE
 SYNTAX TimeTicks
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The Disconnect timeout value corresponds to the timeout

required before a DISC is retransmitted in the event of non-acknowledgement (used for primary SDLC only). The timer is specified in milliseconds."

DEFVAL { 2000 }
 ::= { snasdlcLsEntry 7 }

snasdlcLsDiscTimerRetry OBJECT-TYPE
 SYNTAX INTEGER (1..65535)

ACCESS read-write
STATUS mandatory
DESCRIPTION
"The Disconnect timer retry limit value corresponds to the number of times transmission and retransmission of a DISC is allowed. A value of 65535 is used to indicate an unlimited retry count. A value of 1 indicates that an outage should be generated after the first timer expiry."

DEFVAL { 5 }
::= { snasdlcLsEntry 8 }

snasdlcLsNvePollTimer OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The Negative poll timeout value corresponds to the timeout required before an adjacent secondary station (which has previously been removed from the polling list - because it has not been responding) is re-inserted into the polling list. The timer is specified in milliseconds although its value should be set so that it runs for seconds."

DEFVAL { 400 }
::= { snasdlcLsEntry 9 }

snasdlcLsNvePollTimerRetry OBJECT-TYPE
SYNTAX INTEGER (1..65535)
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The Negative poll timer retry limit value corresponds to the number of times a station is removed from the polling list on

the normal poll timer before SDLC switches to using the slow poll timer. A value of 65535 is used to indicate an unlimited retry count. A value of 1 indicates that the switch to the slow poll should be made after the first timer expiry."

DEFVAL { 5 }
::= { snasdlcLsEntry 10 }

snasdlcLsNvePollTimer2 OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The slow negative poll timer in milliseconds. When the negative poll timer retry count expires, SDLC continues to poll using this timer. This prevents leased (multi-drop) links from being flooded by poll frames for idle stations."

DEFVAL { 1000 }
::= { snasdlcLsEntry 11 }

snasdlcLsNvePollTimerRetry2 OBJECT-TYPE
SYNTAX INTEGER (1..65535)
ACCESS read-write
STATUS mandatory
DESCRIPTION
"The slow negative poll timer retry limit value corresponds to the number of times a station is removed from the polling list on the slow poll cycle before an outage message is sent. This value is normally set to 65535 for infinite retry."

DEFVAL { 65535 }
::= { snasdlcLsEntry 12 }

snasdlcLsNoRespTimer OBJECT-TYPE
SYNTAX TimeTicks

```

ACCESS read-write
STATUS mandatory
DESCRIPTION
    "The no response (or T1) timeout value
corresponds to the
        maximum time a primary station
waits (after having sent a frame
        with a poll bit) for a response
frame before trying to poll
        another station. This timer is
restarted when a frame without
        the F-bit is received and stopped
only when a frame with an
        F-bit is received. The timeout
should be set to a value not
        less than twice the transmission
time for the longest I-frame
        plus adjacent station frame
processing time. The timer is
        specified in milliseconds."
    DEFVAL { 30000 }
    ::= { snasdlcLsEntry 13 }

snasdlcLsNoRespTimerRetry OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The no response timer retry limit value
corresponds to the
        number of times an adjacent
secondary station is seen to fail
        to respond before the primary
sends an outage message. A value
        of 65535 is used to indicate an
unlimited retry count. A value
        of 1 indicates that an outage
should be generated after the
        first timer expiry."
    DEFVAL { 2 }
    ::= { snasdlcLsEntry 14 }

snasdlcLsRemBusyTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-write

```

```

STATUS mandatory
DESCRIPTION
    "The Remote busy timeout value corresponds to
the time allowed
        for an adjacent secondary station
to be in an RNR condition.
        This is used in conjunction with
the retry limit value to
        provide the overall time before an
outage message is sent. The
        timer is specified in
milliseconds."
    DEFVAL { 5000 }
    ::= { snasdlcLsEntry 15 }

snasdlcLsRemBusyTimerRetry OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The Remote busy retry limit value is used in
conjunction with
        the timeout value to provide the
overall timeout before an
        outage message is sent. A value
of 65535 is used to indicate
        an unlimited retry count. A value
of 1 indicates that an
        outage should be generated after
the first timer expiry."
    DEFVAL { 2 }
    ::= { snasdlcLsEntry 16 }

snasdlcLsRrTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The RR Turn-around timer is expressed in
milliseconds. It is
        the time that SDLC waits before
turning the poll bit around
        when it has no work to do. This
field is useful when a very

```

fast turn around causes hardware problems on the link. It can also be used to optimize link usage since it is often the case that the high level software will generate data in response to the data contained in an I-frame carrying the poll bit; the pause allows the data to be received and processed by SDLC."

```
DEFVAL { 10 }
::= { snasdlcLsEntry 17 }
```

snasdlcLsPollFrame OBJECT-TYPE

SYNTAX INTEGER

{

```
    xid (191),
    disc (83),
    snrm (147),
    snrme (223),
    test (243)
```

}

ACCESS read-write

STATUS mandatory

DESCRIPTION

"The frame to use for pre-activation polling.

This is normally

set to XID to show that polling is in the control of the DLC

user. However, when SDLC is

primary talking to an old

secondary implementation, it may

be necessary to poll using

some other frame. This polling is

handled by SDLC as part of

the CONNECT_OUT processing and

uses the frame specified here."

```
DEFVAL { snrm }
```

```
::= { snasdlcLsEntry 18 }
```

snasdlcLsPollOnIFrame OBJECT-TYPE

SYNTAX INTEGER

{

```
    true (1),
    false (0)
```

}

ACCESS read-write

STATUS mandatory

DESCRIPTION

"Flag whether this link station is permitted to send the poll

bit on an I-frame. This allows SDLC to work with certain SDLC

implementations which do not handle receipt of I-frames

carrying the poll bit."

```
DEFVAL { true }
```

```
::= { snasdlcLsEntry 19 }
```

snasdlcLsResetStats OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"This is a mechanism to allow the operator to reset the

SDLC link statistics for this link. A link is defined as

the row in the RFC 1747 table: sdlcLsStats*

which is

indexed by the same values used to index the mandatory

field. Any write to this field will cause the statistics

to be reset."

```
::= { snasdlcLsEntry 20 }
```

snasdlcLsRole OBJECT-TYPE

SYNTAX INTEGER

{

```
    primary (1),
    secondary (2),
    negotiable (3)
```

}

ACCESS read-write

STATUS mandatory

DESCRIPTION

"Specifies the initial role for all Link Stations activated for

this port."

```

DEFVAL { primary }
::= { snasdlcLsEntry 21 }

-----
-----
-----
-----
-- snallcPortAdminTable
--
-- This table provides connection data for the LLC2 over
Frame Relay --
-- connection.
--
-----
-----
-----
-----

snallcPortAdminTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnallcPortAdminEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "This table contains objects that
can be
        changed to manage an LLC port.
Changing one
of these parameters may take effect in the
operating port immediately or may wait
until
the interface is restarted depending on
the
details of the implementation."
::= { snallc 1 }

snallcPortAdminEntry OBJECT-TYPE
    SYNTAX SnallcPortAdminEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The record for the frame relay group of
parameters"
    INDEX { snallcPortAdminLport, snallcPortAdminDlci }

```

```

::= { snallcPortAdminTable 1 }

SnallcPortAdminEntry ::= SEQUENCE
{
    snallcPortAdminLport          Index,
    snallcPortAdminDlci          Index,
    snallcPortAdminMaxPDUOctets  INTEGER,
    snallcPortAdminMaxRetransmits INTEGER,
    snallcPortAdminAckTimer      TimeTicks,
    snallcPortAdminPbitTimer     TimeTicks,
    snallcPortAdminRejTimer      TimeTicks,
    snallcPortAdminBusyTimer     TimeTicks,
    snallcPortAdminInactTimer    TimeTicks,
    snallcPortAdminDelayAckTimer TimeTicks,
    snallcPortAdminNw            INTEGER,
    snallcPortAdminStatus        INTEGER,
    snallcPortAdminResetStats    INTEGER,
    snallcPortAdminQueueThreshold INTEGER,
    snallcPortMaxUnackedSend    INTEGER,
    snallcPortMaxUnackedRecv    INTEGER
}

snallcPortAdminLport OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The logical port number associated with this
port."
    ::= { snallcPortAdminEntry 1 }

snallcPortAdminDlci OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The DLCI address associated with this
port"
    ::= { snallcPortAdminEntry 2 }

snallcPortAdminMaxPDUOctets OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory

```

DESCRIPTION

"This object denotes the default maximum I PDU size, in octets, that LLCs on this port may send to and receive from their remote LLC partners. This count is referred to as 'N1' in the IEEE 802.2 specification. This size includes I-Frames, UI-Frames, XIDs, and TEST frames.

This port default value may be overridden by a non-zero value in the snallcLsAdminMaxPDUEtets object.

The I PDU size includes all octets in a frame, excluding framing characters, the MAC header, and the LLC header."

REFERENCE

"ISO 8802-2 : 1989, ANSI/IEEE 802.2 - 1989 Section 7.8.3

Maximum Number of Octets in an I PDU, N1."

DEFVAL { 560 }

::= { snallcPortAdminEntry 3 }

snallcPortAdminMaxRetransmits OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-write

STATUS mandatory

DESCRIPTION

"This object denotes the default value for the maximum number of times which LLCs on this

port

shall retry a PDU following the expiration of the acknowledgement timer, the P-bit timer or the reject timer. When these retries are exhausted, the link shall be declared

inactive.

This count is referred to as 'N2' in the IEEE 802.2 specification.

This port default value may be overridden by a non-zero value in the

snallcLsAdminMaxRetransmits object."

REFERENCE

"ISO 8802-2 : 1989, ANSI/IEEE 802.2 - 1989 Section 7.8.2

Maximum Number of Transmissions, N2."

DEFVAL { 2 }

::= { snallcPortAdminEntry 4 }

snallcPortAdminAckTimer OBJECT-TYPE

SYNTAX TimeTicks

ACCESS read-write

STATUS mandatory

DESCRIPTION

"This object denotes the default value for the time interval during which the LLCs on this

port

shall expect to receive either:

1) an acknowledgement to one or more outstanding I PDUs.

2) a response PDU to an unnumbered command PDU.

The expiration of this timer shall cause the unacknowledged frames to be retransmitted (up to N2 times).

For Implementations that only use a single 'T1' Value (ref. IBM Token-Ring Network technical reference Chapter 11). This object will be used to control/read the value.

This port default value may be overridden by a non-zero value in the snallcLsAdminAckTimer object."

REFERENCE

"ISO 8802-2 : 1989, ANSI/IEEE 802.2 - 1989 Section 7.8.1.1

Acknowledgment Timer"

DEFVAL { 300 }

::= { snallcPortAdminEntry 5 }

snallcPortAdminPbitTimer OBJECT-TYPE

SYNTAX TimeTicks

ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the default value for the time interval during which the LLCs on this port shall expect to receive a PDU with the F bit set to '1' in response to a Type 2 command with the P bit set to '1'.

The expiration of this timer shall cause the command with the poll bit to be retransmitted (up to N2 times).

This port default value may be overridden by a non-zero value in the snallcLsAdminPbitTimer

object."

REFERENCE

"ISO 8802-2 : 1989, ANSI/IEEE 802.2 - 1989
Section 7.8.1.2
P-Bit Timer"

DEFVAL { 300 }
::= { snallcPortAdminEntry 6 }

snallcPortAdminRejTimer OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the default value for the time interval during which the LLCs on this port shall expect to receive a reply to a REJ PDU.

The expiration of this timer shall cause the REJ PDU to be retransmitted (up to N2 times).

This port default value may be overridden by a non-zero value in the snallcLsAdminRejTimer

object."

REFERENCE

"ISO 8802-2 : 1989, ANSI/IEEE 802.2 - 1989
Section 7.8.1.3
Reject Timer"

DEFVAL { 300 }
::= { snallcPortAdminEntry 7 }

snallcPortAdminBusyTimer OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the default value for the time interval during which the LLCs on this port shall expect to receive an indication

that

a busy condition at the remote LLC has cleared.

The expiration of this timer causes the adjacent connection component to be polled.

This port default value may be overridden by a non-zero value in the snallcLsAdminBusyTimer

object."

REFERENCE

"ISO 8802-2 : 1989, ANSI/IEEE 802.2 - 1989
Section 7.8.1.4
Busy-State Timer"

DEFVAL { 30000 }
::= { snallcPortAdminEntry 8 }

snallcPortAdminInactTimer OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the default value for the time interval during which the LLCs on this port shall expect to receive any PDU from the remote LLC. This function is not described in the IEEE 802.2 specification. It is listed in the IBM Token-Ring Network Architecture Reference as the Ti parameter and is widely implemented.

The expiration of this timer shall cause the local LLC to send a PDU to the remote LLC with

the P bit set to '1'.
This port default value may be overridden by a non-zero value in the snallcLsAdminInactTimer object.

Any value for this object less than or equal to the acknowledgement timer shall mean that the timer is not used."

REFERENCE
"IBM Token-Ring Network Architecture Ref.
SC30-3374 Chapter 11: Operation of Link Stations Inactivity Timer (Ti)"
DEFVAL { 3000 }
::= { snallcPortAdminEntry 9 }

snallcPortAdminDelayAckTimer OBJECT-TYPE
SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION
"This object denotes the default value for the time interval during which the LLCs on this port shall delay acknowledgment of one or more I PDUs (up to the value of snallcLsOperDelayAckCount).
This function is not described in the IEEE 802.2 specification.

It is listed in the IBM Token-Ring Network Architecture Reference as the T2 parameter and is widely implemented.
The expiration of this timer shall cause the local LLC to acknowledge all unacknowledged I PDUs. A value of 0 means that an acknowledgement will be sent immediately.
This object is associated with the snallcPortAdminDelayAckCount object and is only

defined if that object has a value greater than one."

REFERENCE
"IBM Token-Ring Network Architecture Ref.
SC30-3374 Chapter 11: Operation of Link Stations Receiver Acknowledgment Timer (T2)"
DEFVAL { 10 }
::= { snallcPortAdminEntry 10 }

snallcPortAdminNw OBJECT-TYPE
SYNTAX INTEGER
ACCESS read-write
STATUS mandatory
DESCRIPTION
"This object denotes the default value for the number of IPDUs that must be acknowledged before the working window size (Ww) can be incremented by 1 when the working window is not equal to the maximum transmit window size (Tw).
It controls the gradual incrementing of Ww in congestion situations.
This function is not described in the IEEE 802.2 specification. However, it is listed in the IBM Token-Ring Network Architecture Reference as the Nw parameter and is widely implemented."

REFERENCE
"IBM Token-Ring Network Architecture Ref.
SC30-3374 Chapter 11: Operation of Link Stations Number of Acknowledgments Needed to Increment Ww (Nw)"
DEFVAL { 4 }
::= { snallcPortAdminEntry 11 }

snallcPortAdminStatus OBJECT-TYPE
SYNTAX INTEGER
{
 disable (1),

```

        enable (2),
            delete (3)
    }
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "This is a control to enable, disable or
delete (0)
        the mandatory row."
    DEFVAL { disable }
    ::= { snallcPortAdminEntry 12 }

snallcPortAdminResetStats OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "A write to this field will cause the runtime
counts in the statistics table to be reset."
    ::= { snallcPortAdminEntry 13 }

snallcPortAdminQueueThreshold OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The Queue Threshold used by LLC on this
port."
    DEFVAL { 2 }
    ::= { snallcPortAdminEntry 14 }

snallcPortMaxUnackedSend OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The maximum number of unacknowledged send
I-frames which
        may be outstanding for this linkstation"
    DEFVAL { 4 }
    ::= { snallcPortAdminEntry 15 }

snallcPortMaxUnackedRecv OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-write

```

```

STATUS mandatory
DESCRIPTION
    "The maximum number of unacknowledged
received I-frames which
    may be outstanding for this linkstation"
DEFVAL { 4 }
::= { snallcPortAdminEntry 16 }

-----
-----
-----
-- snallcPortOperTable
--
-- This table provides operational data for the LLC2 over
Frame Relay --
-- connection.
--
-----
-----
-----

snallcPortOperTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnallcPortOperEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "This table contains operational
objects for LLC2 port."
    ::= { snallc 2 }

snallcPortOperEntry OBJECT-TYPE
    SYNTAX SnallcPortOperEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "The record for the frame relay group of
parameters"
    INDEX { snallcPortAdminLport, snallcPortAdminDlci }
    ::= { snallcPortOperTable 1 }

SnallcPortOperEntry ::= SEQUENCE

```

```

{
    snallcPortOperStatusINTEGER
}

snallcPortOperStatus OBJECT-TYPE
    SYNTAX INTEGER
    {
        inact          (1),
        pendingactive (2),
        active         (3),
        pendinginact  (4)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This is an operational status."
    ::= { snallcPortOperEntry 1 }

-----
-----
-----
-----
-- snallcPortStatsTable
-- This table includes all the statistics in LLC2 ports.
-----
-----
-----

snallcPortStatsTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnallcPortStatsEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Each entry in this table contains
statistics
    for a specific LLC port."
    ::= { snallc 3 }

snallcPortStatsEntry OBJECT-TYPE
    SYNTAX SnallcPortStatsEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A list of statistics for an LLC port."
    INDEX { snallcPortAdminLport, snallcPortAdminDlci }
    ::= { snallcPortStatsTable 1 }

SnallcPortStatsEntry ::= SEQUENCE
{
    snallcPortStatsTimeSecs TimeTicks,
    snallcPortStatsTimeMsecsTimeTicks,
    snallcPortStatsMacAddr DisplayString,
    snallcPortStatsAckTimer TimeTicks,
    snallcPortStatsPbitTimerTimeTicks,
    snallcPortStatsT2Timer TimeTicks,
    snallcPortStatsRejTimer TimeTicks,
    snallcPortStatsRetryCountINTEGER,
    snallcPortStatsLsCount INTEGER,
    snallcPortStatsMaxUiPDUsSentCounter,
    snallcPortStatsMaxUiPDUsRcvdCounter
}

snallcPortStatsTimeSecs OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A record of the system time, in the system
format,
        at which this port became active."
    ::= { snallcPortStatsEntry 1 }

snallcPortStatsTimeMsecs OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The milliseconds part of the time in
..TimeSecs"
    ::= { snallcPortStatsEntry 2 }

snallcPortStatsMacAddr OBJECT-TYPE
    SYNTAX DisplayString
    ACCESS read-only

```

```

STATUS mandatory
DESCRIPTION
    "The Mac address associated with this Port.
This
    is the source mac address used by linkstations
    on this port."
    ::= { snallcPortStatsEntry 3 }

snallcPortStatsAckTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The value actually specified when the port
was activated."
    ::= { snallcPortStatsEntry 4 }

snallcPortStatsPbittTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The actual runtime value."
    ::= { snallcPortStatsEntry 5 }

snallcPortStatsT2Timer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Runtime value of T2."
    ::= { snallcPortStatsEntry 6 }

snallcPortStatsRejTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "Runtime value for rej timer."
    ::= { snallcPortStatsEntry 7 }

snallcPortStatsRetryCount OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory

```

```

DESCRIPTION
    "Runtime max_retry value."
    ::= { snallcPortStatsEntry 8 }

snallcPortStatsLsCount OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The number of linkstations curently on this
port.
        This value includes linkstations which are not
yet
        in an LLC2 mode ie. in XID or TEST mode."
    ::= { snallcPortStatsEntry 9 }

snallcPortStatsMaxUiPDUsSent OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A count of LLC1 frames (Test & XID) issued on
this
        port."
    ::= { snallcPortStatsEntry 10 }

snallcPortStatsMaxUiPDUsRcvd OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "A count of LLC1 frames received
on this port."
    ::= { snallcPortStatsEntry 11 }

-----
-----
-----
-----
-- snallcLsAdminTable
-- This table includes the Link Station Administration
table
-----

```

```

-----
-----
-----
snallcLsAdminTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnallcLsAdminEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "This table contains objects that can be
        changed to manage an LLC connection component.
        Changing one of these parameters may take
        effect in the operating link immediately or
        may wait until the link is restarted depending on
        the details of the implementation.

        Most of the objects in this read-write table
        have corresponding read-only objects in the
        snallcLsOperTable that reflect the mandatory
        operating value.

        The operating values may be different from
        these configured values if changed by XID
        negotiation or if a configured parameter was
        changed after the link was started."
    ::= { snallc 4 }

snallcLsAdminEntry OBJECT-TYPE
    SYNTAX SnallcLsAdminEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A list of configured values for an LLC
        connection component."
    INDEX { snallcLsAdminLport, snallcLsAdminDlci,
            snallcLsAdminLSap,
            snallcLsAdminR Sap,
            snallcLsAdminLMac, snallcLsAdminRMac }
    ::= { snallcLsAdminTable 1 }

SnallcLsAdminEntry ::= SEQUENCE
{
    snallcLsAdminLport      Index,

```

```

    snallcLsAdminDlci      Index,
    snallcLsAdminLSap      Index,
    snallcLsAdminR Sap     Index,
    snallcLsAdminLMac      OCTET STRING,
    snallcLsAdminRMac      OCTET STRING,
    snallcLsAdminMaxPDUOctets INTEGER,
    snallcLsAdminMaxRetransmits INTEGER,
    snallcLsAdminAckTimer  TimeTicks,
    snallcLsAdminPbitTimer TimeTicks,
    snallcLsAdminRejTimer  TimeTicks,
    snallcLsAdminBusyTimer TimeTicks,
    snallcLsAdminInactTimer TimeTicks,
    snallcLsAdminDelayAckTimer TimeTicks,
    snallcLsAdminStatusINTEGER,
    snallcLsMaxUnackedSend  INTEGER,
    snallcLsMaxUnackedRecv  INTEGER,
    snallcLsRole            INTEGER,
    snallcLsAdminTestWaitSecINTEGER,
    snallcLsAdminTestRetriesINTEGER,
    snallcLsAdminXidWaitSec INTEGER,
    snallcLsAdminXidRetries INTEGER
}

snallcLsAdminLport OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The logical port number
        associated with this LS."
    ::= { snallcLsAdminEntry 1 }

snallcLsAdminDlci OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "The DLCI associated with this LS"
    ::= { snallcLsAdminEntry 2 }

snallcLsAdminLSap OBJECT-TYPE
    SYNTAX Index
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION

```

"This value is the address of the local SAP for this Connection Component."
 ::= { snallcLsAdminEntry 3 }

snallcLsAdminRSap OBJECT-TYPE
 SYNTAX Index
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This value is the address of the remote SAP for this Connection Component."
 ::= { snallcLsAdminEntry 4 }

snallcLsAdminLMac OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE (6))
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This value is the local MAC address for this Connection Component."
 ::= { snallcLsAdminEntry 5 }

snallcLsAdminRMac OBJECT-TYPE
 SYNTAX OCTET STRING (SIZE (6))
 ACCESS read-only
 STATUS mandatory
 DESCRIPTION
 "This value is the remote MAC address for this Connection Component."
 ::= { snallcLsAdminEntry 6 }

snallcLsAdminMaxPDUOctets OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object denotes the maximum I PDU size, in octets, that this LLC SAP may send to its remote connection component partner. This count is referred to as 'N1' in the IEEE 802.2 specification. This size includes I-Frames, UI-Frames, XIDs, and TEST frames.

The I PDU size includes all octets in a frame, excluding framing characters, the MAC header and link header."
 DEFVAL { 0 }
 ::= { snallcLsAdminEntry 7 }

snallcLsAdminMaxRetransmits OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object denotes the value for the maximum number of times that this LLC shall retry PDUs following the expiration of the acknowledgement timer, the P-bit timer or the reject timer. When these retries are exhausted, the link shall be declared inactive. This count is referred to as 'N2' in the IEEE 802.2 specification."
 DEFVAL { 0 }
 ::= { snallcLsAdminEntry 8 }

snallcLsAdminAckTimer OBJECT-TYPE
 SYNTAX TimeTicks
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object denotes the value for the time interval during which this LLC shall expect to receive either:
 1) an acknowledgement to one or more outstanding I PDUs.
 2) a response PDU to an unnumbered command PDU.
 The expiration of this timer shall cause the frame unacknowledged frames to be retransmitted (up to N2 times)."
 DEFVAL { 0 }
 ::= { snallcLsAdminEntry 9 }

snallcLsAdminPbitTimer OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the value for the time interval during which this LLC shall expect to receive a PDU with the F bit set to '1' in response to a Type 2 command with the P bit

set

to '1'.

The expiration of this timer shall cause the REJ PDU to be retransmitted (up to N2 times)."
DEFVAL { 0 }
::= { snallcLsAdminEntry 10 }

snallcLsAdminRejTimer OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the value for the time interval during which this LLC shall expect to receive a reply to a REJ PDU.

The expiration of this timer should cause the REJ PDU to be retransmitted (up to N2 times)."
DEFVAL { 0 }
::= { snallcLsAdminEntry 11 }

snallcLsAdminBusyTimer OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the value for the time interval during which this LLC shall expect to receive an indication that a busy condition at the remote LLC has cleared.

The expiration of this timer causes the adjacent connection component to be polled."
DEFVAL { 0 }
::= { snallcLsAdminEntry 12 }

snallcLsAdminInactTimer OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the value for the time interval during which this LLC shall expect to receive any PDU from the remote LLC. This function is not described in the IEEE 802.2 specification but is widely implemented.

The expiration of this timer shall cause the local LLC to send a PDU to the remote LLC with the P bit set to '1'.

Any value for this object less than or equal

to

the acknowledgement timer shall mean that the timer is not used."

DEFVAL { 0 }
::= { snallcLsAdminEntry 13 }

snallcLsAdminDelayAckTimer OBJECT-TYPE

SYNTAX TimeTicks
ACCESS read-write
STATUS mandatory
DESCRIPTION

"This object denotes the value for the time interval during which this LLC shall delay acknowledgment of one or more I PDUs. This

function

is not described in the IEEE 802.2

specification.

It is listed in the IBM Token-Ring Network Architecture Reference as the T2 parameter and is widely implemented.

The expiration of this timer shall cause the local LLC to acknowledge all unacknowledged I PDUs.

This object is associated with the snallcLsAdminDelayAckCount object and is only

defined if that object has a value greater than one."

REFERENCE
 "IBM Token-Ring Network Architecture Ref. SC30-3374
 Chapter 11: Operation of Link Stations Receiver Acknowledgment Timer (T2)"
 DEFVAL { 0 }
 ::= { snallcLsAdminEntry 14 }

snallcLsAdminStatus OBJECT-TYPE
 SYNTAX INTEGER
 {
 disable (1),
 enable (2),
 delete (3)
 }
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "This object is used by a management station to create or delete the row entry in snallcLsAdminTable following the RowStatus textual convention.
 Upon successful creation of the row, an agent automatically creates a corresponding entry in the snallcLsAdminOperTable with snallcLsAdminOperState equal to 'ADM(1)'."
 DEFVAL { disable }
 ::= { snallcLsAdminEntry 15 }

snallcLsMaxUnackedSend OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The maximum number of unacknowledged send I-frames which may be outstanding for this linkstation"

::= { snallcLsAdminEntry 16 }

snallcLsMaxUnackedRecv OBJECT-TYPE
 SYNTAX INTEGER
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The maximum number of unacknowledged received I-frames which may be outstanding for this linkstation"
 ::= { snallcLsAdminEntry 17 }

snallcLsRole OBJECT-TYPE
 SYNTAX INTEGER
 {
 primary(1),
 secondary(2),
 negotiable(3)
 } ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "Role for linkstation"
 DEFVAL{ negotiable }
 ::= { snallcLsAdminEntry 18 }

snallcLsAdminTestWaitSec OBJECT-TYPE
 SYNTAX INTEGER (1..65535)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The number of seconds the LLC2 linkstation will wait between sending test frames"
 DEFVAL{ 10 }
 ::= { snallcLsAdminEntry 19 }

snallcLsAdminTestRetries OBJECT-TYPE
 SYNTAX INTEGER (1..65535)
 ACCESS read-write
 STATUS mandatory
 DESCRIPTION
 "The number of times the LLC2 linkstation will resend test frames before timing out"
 DEFVAL{ 100 }

```

        ::= { snallcLsAdminEntry 20 }

snallcLsAdminXidWaitSec OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of seconds the LLC2 linkstation
will wait
        between sending XID's"
    DEFVAL{ 10 }
    ::= { snallcLsAdminEntry 21 }

snallcLsAdminXidRetries OBJECT-TYPE
    SYNTAX INTEGER (1..65535)
    ACCESS read-write
    STATUS mandatory
    DESCRIPTION
        "The number of times the LLC2 linkstation will
resend
        XID's before timing out"
    DEFVAL{ 1000 }
    ::= { snallcLsAdminEntry 22 }

-----
-----
-----
-----
-- snallcLsOperTable
-- This table includes the Link Station Operational table
-----
-----
-----
-----

snallcLsOperTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnallcLsOperEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "This table contains mandatory LLC link
parameters. Many of these objects have

```

```

corresponding objects in the
snallcLsAdminTable."
::= { snallc 5 }

snallcLsOperEntry OBJECT-TYPE
    SYNTAX SnallcLsOperEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A list of status and control values for an
LLC connection component."
    INDEX { snallcLsAdminLport, snallcLsAdminDlci,
            snallcLsAdminLSap,
            snallcLsAdminRSap,
            snallcLsAdminRMac, snallcLsAdminLMac }
    ::= { snallcLsOperTable 1 }

SnallcLsOperEntry ::= SEQUENCE
{
    snallcLsOperStateINTEGER,
    snallcLsOperMaxIPDUOctets    INTEGER,
    snallcLsOperCreateTime      TimeTicks,
    snallcLsOperLastModifyTime  TimeTicks,
    snallcLsOperLastFailTime    TimeTicks,
    snallcLsOperLastFailCause   INTEGER,
    snallcLsOperLastFailFRMRInfo OCTET STRING,
    snallcLsOperRole            INTEGER
}

snallcLsOperState OBJECT-TYPE
    SYNTAX INTEGER
    {
        aDM(1),
        setup(2),
        normal(3),
        busy(4),
        reject(5),
        await(6),
        awaitBusy(7),
        awaitReject(8),
        dConn(9),
        reset(10),
        error(11),
        conn(12),
        resetCheck(13),
    }

```

```

        resetWait(14)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object describes the operational state
of
        the LLC connection. If the connection
be
        component is disabled, snallcLsOperState will
        allowed to transition to aDM(1). If the
        connection component is enabled,
snallcLsOperState
        will be allowed to transition to normal(3)."
```

REFERENCE

"ISO 8802-2 : 1989, ANSI/IEEE 802.2 - 1989
Section 7.9.2.1.

Connection Component State Descriptions"

```
 ::= { snallcLsOperEntry 1 }
```

snallcLsOperMaxIPDUOctets OBJECT-TYPE

SYNTAX INTEGER

ACCESS read-only

STATUS mandatory

DESCRIPTION

```

        "This object denotes the maximum I PDU size,
in
        octets, that this LLC SAP may send to its
        remote connection component partner. This
count
        is referred to as 'N1' in the IEEE 802.2
        specification.
```

```

        At connection setup, the remote LLC
may send,
        using an XID frame, the maximum I PDU size
        which it is prepared to receive. If so, an
        implementation may choose to override the
        administered maximum PDU size with the
        dynamically learned value and should reflect
        that in this object.
```

```

        The I PDU size includes all octets
in a frame,
        excluding framing characters, the MAC header
        and link header."
 ::= { snallcLsOperEntry 2 }
```

snallcLsOperCreateTime OBJECT-TYPE

SYNTAX TimeTicks

ACCESS read-only

STATUS mandatory

DESCRIPTION

```

        "This object describes the value of sysUpTime
        when this row was created."
 ::= { snallcLsOperEntry 3 }
```

snallcLsOperLastModifyTime OBJECT-TYPE

SYNTAX TimeTicks

ACCESS read-only

STATUS mandatory

DESCRIPTION

```

        "For administered connection components, this
        object describes the value of sysUpTime the
        last time this row was modified. If the row
        has not been modified, then this value shall
be
        zero.
```

```

        For dynamic connection components,
this object
        identifies the time this connection component
        was created."
 ::= { snallcLsOperEntry 4 }
```

snallcLsOperLastFailTime OBJECT-TYPE

SYNTAX TimeTicks

ACCESS read-only

STATUS mandatory

DESCRIPTION

```

        "This object describes the value of sysUpTime
        the last time this connection component
        failed. Connection component failure is
        defined as a transition to an
snallcLsOperState
        value of aDM(1). If the connection component
```

```

has not failed, then this value shall be
zero."
 ::= { snallcLsOperEntry 5 }

snallcLsOperLastFailCause OBJECT-TYPE
    SYNTAX INTEGER
    {
        undefined(1),
        rxFRMR(2),
        txFRMR(3),
        discReceived(4),
        discSent(5),
        retriesExpired(6),
        forcedShutdown(7)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This enumerated object reflects the cause of
        the last failure of this LLC connection
        component. If the connection component has
not
        failed, then this object will have a value of
        undefined(1)."
    DEFVAL { undefined }
    ::= { snallcLsOperEntry 6 }

snallcLsOperLastFailFRMRInfo OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(5))
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "This object reflects the information field of
        the FRMR frame if the last failure for this
LLC
        connection component was as a result of an
        invalid frame. Otherwise, this field has no
        meaning."
    ::= { snallcLsOperEntry 7 }

snallcLsOperRole OBJECT-TYPE
    SYNTAX INTEGER
    {
        primary(1),
        secondary(2),

```

```

negotiable(3)
    }
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        "LLC Link Station Role after XID
negotiation"
    ::= { snallcLsOperEntry 8 }

-----
-----
-----
-----
-- snallcLsStatsTable
-- This table includes the Link Station Status table
----
-----
-----
-----

snallcLsStatsTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SnallcLsStatsEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "Each entry in this table contains statistics
        for a specific LLC connection component."
    ::= { snallc 6 }

snallcLsStatsEntry OBJECT-TYPE
    SYNTAX SnallcLsStatsEntry
    ACCESS not-accessible
    STATUS mandatory
    DESCRIPTION
        "A list of statistics for an LLC connection
        component."
    INDEX { snallcLsAdminLport, snallcLsAdminDlci,
        snallcLsAdminLSap,
        snallcLsAdminRSap,
        snallcLsAdminLMac, snallcLsAdminRMac }
    ::= { snallcLsStatsTable 1 }

```

SnallcLsStatsEntry ::= SEQUENCE	DESCRIPTION
{	" "
snallcLsStatsRifLen INTEGER,	::= { snallcLsStatsEntry 2 }
snallcLsStatsRif OCTET STRING,	
snallcLsStatsLsFsm INTEGER,	snallcLsStatsLsFsm OBJECT-TYPE
snallcLsStatsMacType INTEGER,	SYNTAX INTEGER
snallcLsStatsMaxPDUOctets INTEGER,	ACCESS read-only
snallcLsStatsSendWindow INTEGER,	STATUS mandatory
snallcLsStatsRcvWindow INTEGER,	DESCRIPTION
snallcLsStatsT1Count Counter,	" "
snallcLsStatsT2Count Counter,	::= { snallcLsStatsEntry 3 }
snallcLsStatsRemoteBusy Counter,	
snallcLsStatsIFramesOut Counter,	snallcLsStatsMacType OBJECT-TYPE
snallcLsStatsIOctetsOut Counter,	SYNTAX INTEGER
snallcLsStatsIFramesIn Counter,	ACCESS read-only
snallcLsStatsIOctetsIn Counter,	STATUS mandatory
snallcLsStatsIFramesRej Counter,	DESCRIPTION
snallcLsStatsIOctetsRej Counter,	" "
snallcLsStatsIFramesRetransmitCounter,	::= { snallcLsStatsEntry 4 }
snallcLsStatsIOctetsRetransmitCounter,	
snallcLsStatsRejFramesSentCounter,	snallcLsStatsMaxPDUOctets OBJECT-TYPE
snallcLsStatsRejFramesRcvdCounter,	SYNTAX INTEGER
snallcLsStatsXidFramesSentCounter,	ACCESS read-only
snallcLsStatsXidFramesRcvdCounter,	STATUS mandatory
snallcLsStatsAckTimer TimeTicks,	DESCRIPTION
snallcLsStatsPbitTimer TimeTicks,	" "
snallcLsStatsT2Timer TimeTicks,	::= { snallcLsStatsEntry 5 }
snallcLsStatsRejTimer TimeTicks,	
snallcLsStatsBusytimer TimeTicks,	snallcLsStatsSendWindow OBJECT-TYPE
snallcLsStatsInactTimer TimeTicks,	SYNTAX INTEGER
snallcLsStatsMaxRetry INTEGER	ACCESS read-only
}	STATUS mandatory
	DESCRIPTION
snallcLsStatsRifLen OBJECT-TYPE	" "
SYNTAX INTEGER	::= { snallcLsStatsEntry 6 }
ACCESS read-only	
STATUS mandatory	snallcLsStatsRcvWindow OBJECT-TYPE
DESCRIPTION	SYNTAX INTEGER
" "	ACCESS read-only
::= { snallcLsStatsEntry 1 }	STATUS mandatory
	DESCRIPTION
snallcLsStatsRif OBJECT-TYPE	" "
SYNTAX OCTET STRING	::= { snallcLsStatsEntry 7 }
ACCESS read-only	
STATUS mandatory	snallcLsStatsT1Count OBJECT-TYPE

```

SYNTAX Counter
ACCESS read-only
STATUS mandatory
DESCRIPTION
    " "
    ::= { snallcLsStatsEntry 8 }

snallcLsStatsT2Count OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 9 }

snallcLsStatsRemoteBusy OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 10 }

snallcLsStatsIFramesOut OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 11 }

snallcLsStatsIOctetsOut OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 12 }

snallcLsStatsIFramesIn OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "

```

```

    ::= { snallcLsStatsEntry 13 }

snallcLsStatsIOctetsIn OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 14 }

snallcLsStatsIFramesRej OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 15 }

snallcLsStatsIOctetsRej OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 16 }

snallcLsStatsIFramesRetransmit OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 17 }

snallcLsStatsIOctetsRetransmit OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 18 }

snallcLsStatsRejFramesSent OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only

```

```

STATUS mandatory
DESCRIPTION
    " "
    ::= { snallcLsStatsEntry 19 }

snallcLsStatsRejFramesRcvd OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 20 }

snallcLsStatsXidFramesSent OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 21 }

snallcLsStatsXidFramesRcvd OBJECT-TYPE
    SYNTAX Counter
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 22 }

snallcLsStatsAckTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 23 }

snallcLsStatsPbitTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 24 }

```

```

snallcLsStatsT2Timer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 25 }

snallcLsStatsRejTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 26 }

snallcLsStatsBusytimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 27 }

snallcLsStatsInactTimer OBJECT-TYPE
    SYNTAX TimeTicks
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 28 }

snallcLsStatsMaxRetry OBJECT-TYPE
    SYNTAX INTEGER
    ACCESS read-only
    STATUS mandatory
    DESCRIPTION
        " "
        ::= { snallcLsStatsEntry 29 }

```

-- AAL1 objects for Circuit Emulation

```

aal1ConfTable          OBJECT-TYPE
    SYNTAX              SEQUENCE OF Aal1ConfEntry
    ACCESS              not-accessible

```

```

STATUS          mandatory
DESCRIPTION
    "The aal1 configuration table is used to
configure aal1
    device for DS3-CE port and provide aal1
transmit cell
    counter."
::={ cascaal1 1}

aal1ConfEntry   OBJECT-TYPE
SYNTAX          Aal1ConfEntry
ACCESS          not-accessible
STATUS          mandatory
DESCRIPTION
    "An entry in the aal1 configuration table. There
is one entry in
    the table per Pport."
INDEX           {pportSlotId, pportId}
::={ aal1ConfTable 1}

Aal1ConfEntry ::= SEQUENCE {
    aal1MaxCellLoss      INTEGER,
    aal1RcvCondDataPatten  INTEGER,
    aal1InsertDataType   INTEGER,
    aal1TxCellCount      INTEGER
}

aal1MaxCellLoss OBJECT-TYPE
SYNTAX          INTEGER(1..7)
ACCESS          read-write
STATUS          mandatory
DESCRIPTION
    "The number of maximum cell loss (1-7). A
starvation (underrun)
    condition is entered when the number of lost
cells is greater
    than the max cell lose number programmed into the
WAC-12-A. "
::={ aal1ConfEntry 1}

aal1RcvCondDataPatten OBJECT-TYPE
SYNTAX          INTEGER
ACCESS          read-write
STATUS          mandatory
DESCRIPTION

```

```

    "Upon detection of LOS from the DS3 data stream,
if in
    aal1InsertDataType field user specify 'User-
defined-type', This
    field contains the user input dummy cell pattern"
::= { aal1ConfEntry 2}

aal1InsertDataType OBJECT-TYPE
SYNTAX          INTEGER{
    insert_FF(1),
    previous-cell(2),
    user-defined-type(3)
}
ACCESS          read-write
STATUS          mandatory
DESCRIPTION
    "When cell lose is detected, AAL1 inserts dummy
cells consisting
    of either old data from the previous cell, or user
defined cell type,
    or FFs.
    The number of dummy cells sent equals
aal1MaxCellLose."
::= { aal1ConfEntry 3}

aal1TxCellCount OBJECT-TYPE
SYNTAX          INTEGER
ACCESS          read-only
STATUS          mandatory
DESCRIPTION
    "Count of billable data cells transmitted from
AAL1 to UTOPIA
    interface."
::= { aal1ConfEntry 4}

END

```