

Ascend Broadband Access Enterprise MIB

Ascend Communications, Inc.

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Ascend Communications Broadband Access Enterprise MIB Definitions

```
-- Sahara Enterprise MIB release 3.0.0.0
--
-- *****

System Information Mib

-- *****
--
-- oasis sysInfo

OASIS-SYSINFO-MIB DEFINITIONS ::= BEGIN

IMPORTS
    ifIndex, DisplayString FROM RFC1213-MIB
    OBJECT-TYPE              FROM SNMPv2-SMI
    DateAndTime              FROM HOST-RESOURCES-MIB
    enterprises, TimeTicks, Counter FROM RFC1155-SMI;

-- Sahara Networks private enterprises MIB extensions
cascade OBJECT IDENTIFIER ::= { enterprises 277 }
SAharanet OBJECT IDENTIFIER ::= { enterprises 1677 }

-- oasis MIB group
SA OBJECT IDENTIFIER ::= { saharanet 1 }
SAProducts OBJECT IDENTIFIER ::= { sa 1 }
SAHardware OBJECT IDENTIFIER ::= { sa 2 }
SASystem OBJECT IDENTIFIER ::= { sa 3 }
SAPods OBJECT IDENTIFIER ::= { sa 4 }
SAProtocolAccelerator OBJECT IDENTIFIER ::= { sa 5 }
SAConn OBJECT IDENTIFIER ::= { sa 6 }
SADiag OBJECT IDENTIFIER ::= { sa 7 }
SAprovisioning OBJECT IDENTIFIER ::= { sa 8 }
SAManagementAccess OBJECT IDENTIFIER ::= { sa 9 }
SAUser OBJECT IDENTIFIER ::= { sa 10 }
SASignalling OBJECT IDENTIFIER ::= { sa 11 }
SAVoice OBJECT IDENTIFIER ::= { sa 12 }
SASysStats OBJECT IDENTIFIER ::= { sa 13 }

SACommsStats OBJECT IDENTIFIER ::= { saSysStats 1 }
SAMemStats OBJECT IDENTIFIER ::= { saSysStats 2 }
SASCCSStats OBJECT IDENTIFIER ::= { saSysStats 3 }

SA100 OBJECT IDENTIFIER ::= { saProducts 1 }
SA600 OBJECT IDENTIFIER ::= { saProducts 6 }
SA1200 OBJECT IDENTIFIER ::= { saProducts 12 }

SASysInfo OBJECT IDENTIFIER ::= { saSystem 1 }
```

```
SAIfExt      OBJECT IDENTIFIER ::= { saSystem 2 }
SARedundancy OBJECT IDENTIFIER ::= { saSystem 3 }
SATiming     OBJECT IDENTIFIER ::= { saSystem 4 }
SASysHw      OBJECT IDENTIFIER ::= { saSystem 5 }
```

```
SAPhyExt     OBJECT IDENTIFIER ::= { saPods 1 }
SAAtmExt     OBJECT IDENTIFIER ::= { saPods 2 }
SAVideoPod   OBJECT IDENTIFIER ::= { saPods 3 }
```

```
SANLI        OBJECT IDENTIFIER ::= { saProtocolAccelerator 1 }
```

```
SACesProv    OBJECT IDENTIFIER ::= { saProvisioning 1 }
SAImaProv    OBJECT IDENTIFIER ::= { saProvisioning 2 }
SARvxProv    OBJECT IDENTIFIER ::= { saProvisioning 3 }
```

```
SASecurity   OBJECT IDENTIFIER ::= { saUser 1 }
```

```
SAVTS        OBJECT IDENTIFIER ::= { saVoice 1 }
```

```
--*****
```

global system variables

```
--
-- non-tabular data
--*****
```

```
saSysDateAndTime OBJECT-TYPE
    SYNTAX  DateAndTime
    MAX-ACCESS read-write
    STATUS  current
    DESCRIPTION
        "Current Date and Time"
    ::= { saSysInfo 1 }
```

```
saSysSwRev OBJECT-TYPE
    SYNTAX  DisplayString
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "Current Software Revision"
    ::= { saSysInfo 2 }
```

```
saSysCfgCntrl OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        write(2),
        read(3),
```

```
        sync(4)
    }
    MAX-ACCESS read-write
    STATUS  current
    DESCRIPTION
        "configuration file control"
    ::= { saSysInfo 3 }
```

```
saSysType OBJECT-TYPE
    SYNTAX  INTEGER {
        unknown(0),
        sa100(1),
        sa600(2),
        sa1200(3)
    }
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "defines type of system"
    ::= { saSysInfo 4 }
```

```
saSysAlarm OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        minor(2),
        major(3),
        critical(4)
    }
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "defines alarm state of system"
    ::= { saSysInfo 5 }
```

```
saSysLeds OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "Current State of System LEDs:
        Bit   Value   Meaning
        0      1     Power LED on
        1      2     Run LED on
        2      4     SW Status LED on
        3      8     Critical Alarm LED on
        4     16     Major Alarm LED on
        5     32     Minor Alarm LED on"
    ::= { saSysInfo 6 }
```

```

saSnmprCntrs OBJECT-TYPE
    SYNTAX  INTEGER {
        clear(1)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "setting this variable clears all SNMP counts"
    ::= { saSysInfo 7 }

saSnmprInErrors OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Count of input SNMP PDU's with un-supported type"
    ::= { saSysInfo 8 }

-- saSubSysType is intended to qualify the saSysType object above. For
-- the SA-100 rack, saSubSysType specifies the 2 possible Switch Fabric
-- capacities (310m and 1200m). For other rack types, the use of
-- saSubSysType is TBD. Although TBD, best guess (on 2/97) is that this
-- object will continue to specify SF capacities. Therefore, the
-- enumerations below show the SF capacities of the other rack types.
--
--      Old SA-100      310 mbit of SF capacity (in house use only).
--      New SA-100      1200mbit of SF capacity.
--      Other Racks     SF capacities :
--                      1200 for SA-600 mesh
--                      3100 for SA-600 homing
--                      2000 for SA-1200 mesh
--                      6800 for SA-1200 homing

saSubSysType OBJECT-TYPE
    SYNTAX  INTEGER {
        unknown(1),
        sf-310-r1(2),
        sf-310-r2(3),
        sf-1200-r3(4),
        sf-1200-mesh-only-r2(5),
        sf-1200-r2(6),
        sf-3100-r3(7),
        sf-2000-r2(8),
        sf-6800-r2(9),
        limited-bw-r1(10),
        low-cost-r4(11)
    }

```

```

    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Used as a qualifier for saSysType"
    ::= { saSysInfo 9 }

--*****
-- saSysCfgCntrlTable
--
-- saSysCfgCntrl in a table form
--*****

saSysNvCfgCntrlTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaSysNvCfgCntrlEntry
    MAX-ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "saSysCfgCntrl in a useful (table) format"
    ::= { saSysInfo 10 }

saSysNvCfgCntrlEntry OBJECT-TYPE
    SYNTAX  SaSysNvCfgCntrlEntry
    MAX-ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "Only 1 entry ever expected in this table - for SCM"
    INDEX   { saBrdNum }
    ::= { saSysNvCfgCntrlTable 1 }

SaSysNvCfgCntrlEntry ::= SEQUENCE {
    saSysNvCfgCntrl  INTEGER,
    saSysNvCfgStatus  INTEGER
}

saSysNvCfgCntrl OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        write(2),
        read(3),
        sync(4)
    }
    MAX-ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "NV commands - must match those in saSysCfgCntrl"
    ::= { saSysNvCfgCntrlEntry 1 }

```

```
saSysNvCfgStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        write-started(2),
        write-complete(3),
        read-started(4),
        read-complete(5),
        sync-started(6),
        sync-complete(7)
    }
    MAX-ACCESS read-write
    STATUS    mandatory
    DESCRIPTION
        "NV command status"
    ::= { saSysNvCfgCntrlEntry 2 }
```

-- Redundancy Information

```
saSysPriScm OBJECT-TYPE
    SYNTAX  INTEGER {
        not-present(1),
        active(2),
        standby(3),
        failed(4)
    }
    MAX-ACCESS read-only
    STATUS    current
    DESCRIPTION
        "Specifies the state of the primary SCM. Changing
        the value can cause a redundancy switch."
    ::= { saRedundancy 1 }
```

```
saSysSecScm OBJECT-TYPE
    SYNTAX  INTEGER {
        not-present(1),
        active(2),
        standby(3),
        failed(4)
    }
    MAX-ACCESS read-only
    STATUS    current
    DESCRIPTION
        "Specifies the state of the secondary SCM. Changing
        the value can cause a redundancy switch."
    ::= { saRedundancy 2 }
```

--*****

System Timing

--

-- defines managed variables associated with system timing

--*****

saSysPCLKStat OBJECT-TYPE

```
SYNTAX  INTEGER {
    no-cfg(1),
    active(2),
    standby(3),
    failed(4)
}
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"current state of primary timing reference"

::= { saTiming 1 }

saSysSCLKStat OBJECT-TYPE

```
SYNTAX  INTEGER {
    no-cfg(1),
    active(2),
    standby(3),
    failed(4)
}
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"current state of secondary timing reference"

::= { saTiming 2 }

saSysPCLKSrc OBJECT-TYPE

```
SYNTAX  INTEGER {
    internal(1),
    external(2),
    recovered(3)
}
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"specifies timing source for primary clock"

::= { saTiming 3 }

saSysSCLKSrc OBJECT-TYPE

```
SYNTAX  INTEGER {
    internal(1),
    external(2),
    recovered(3)
}
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"specifies timing source for primary clock"

::= { saTiming 4 }

saSysPCLKBrd OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"specifies the board for the primary clock"

::= { saTiming 5 }

saSysPCLKPod OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"specifies the pod for the primary primary clock"

::= { saTiming 6 }

saSysPCLKPort OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"specifies the port for the primary clock"

::= { saTiming 7 }

saSysSCLKBrd OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"specifies the board for the secondary clock"

::= { saTiming 8 }

```

saSysSclkPod OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "specifies the pod for the secondary primary clock"
    ::= { saTiming 9 }

```

```

saSysSclkPort OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "specifies the port for the secondary clock"
    ::= { saTiming 10 }

```

```

saSysClkSel OBJECT-TYPE
    SYNTAX  INTEGER {
        primary(1),
        secondary(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Selects Primary or Secondary Timing Bus"
    ::= { saTiming 11 }

```

```

saSysClkAutoRevert OBJECT-TYPE
    SYNTAX  INTEGER {
        yes(1),
        no(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "specifies whether the system will auto-revert"
    ::= { saTiming 12 }

```

```

saSysClkRevertTime OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "specifies time to auto-revert in seconds"
    ::= { saTiming 13 }

```

```
-- *****
```

ifMapTable

```

--
-- defines the relationship between physical ports on the system
-- and ifIndex Numbers from the ifTable
-- *****

```

```

ifMapTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF IfMapEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "A list of interface entries. The number of
        entries is given by the value of ifNumber."
    ::= { saIfExt 1 }

```

```

ifMapEntry OBJECT-TYPE
    SYNTAX  IfMapEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "An interface entry containing objects at the
        subnetwork layer and below for a particular
        interface."
    INDEX   { ifIndex }
    ::= { ifMapTable 1 }

```

```

ifMapEntry ::=
    SEQUENCE {
        ifBrdNum
            INTEGER,
        ifPodNum
            INTEGER,
        ifPortNum
            INTEGER,
        saIfType
            INTEGER,
        saIfAlarm
            INTEGER,
        saIfInfo
            DisplayString,
        saIfName
            DisplayString,
        saIfClearCounts
            INTEGER,
        ifLinkUpDownTrapEnable
            INTEGER,

```

```

        saIfAtmCellHwy
            INTEGER,
        saIfAtmPortNum
            INTEGER,
        saIfDomain
            INTEGER
    }

ifBrdNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Board Number"
    ::= { ifMapEntry 1 }

ifPodNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Pod Number"
    ::= { ifMapEntry 2 }

ifPortNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port Number - 0 if not a physical port"
    ::= { ifMapEntry 3 }

saIfType OBJECT-TYPE
    SYNTAX  INTEGER {
        unknown(1),
        sonetLineLite(2),
        sonetPathLite(3),
        sonetLinePlus(4),
        sonetPathPlus(5),
        atmSFPort(6),
        ds3(7),
        e3(8),
        ds1(9),
        e1(10),
        fracDs1(11),
        ce-iwf(12),
        fr-iwf(13),
        ethernet(14),

```

```

        ima(15),
        atm25(16),
        nli-group(17),
        atmLogical(18),
        direct-group(19),
        ip(20),
        protacc-host(21),
        rvxPort(22),
        vcs-iwf(24),
        frame-relay-uni(25)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "port type as defined"
    ::= { ifMapEntry 4 }

saIfAlarm OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        minor(2),
        major(3),
        critical(4)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Interface Alarm State"
    ::= { ifMapEntry 5 }

saIfInfo OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Circuit ID for this Interface"
    ::= { ifMapEntry 6 }

saIfName OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "User Name for this Interface"
    ::= { ifMapEntry 7 }

```

```

saIfClearCounts OBJECT-TYPE
    SYNTAX  INTEGER {
        no(1),
        yes(2)
    }
    MAX-ACCESS read-write
    STATUS   current
    DESCRIPTION
        "setting this variables clears all counts"
    ::= { ifMapEntry 8 }

```

```

ifLinkUpDownTrapEnable OBJECT-TYPE
    SYNTAX  INTEGER {
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS read-write
    STATUS   current
    DESCRIPTION
        "Indicates whether linkUp/linkDown traps
        should be generated for this interface."
    ::= { ifMapEntry 9 }

```

```

saIfAtmCellHwy OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "For atmSFPort interfaces, the Cell Highway
        associated with the interface."
    ::= { ifMapEntry 10 }

```

```

saIfAtmPortNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "For atmSFPort interfaces, the Port Number
        associated with the interface."
    ::= { ifMapEntry 11 }

```

```

saIfDomain OBJECT-TYPE
    SYNTAX  INTEGER {
        ipod1(1),
        ipod2(2),
        xpod(3),
        protocolAccelerator(4)
    }

```

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Owner/Manager of interface."
::= { ifMapEntry 12 }

```

```
-- *****
```

saIfParentTable

```

--
-- defines the relationship between an interface and its parents
-- *****

```

```

saIfParentTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaIfParentEntry
    MAX-ACCESS not-accessible
    STATUS   current
    DESCRIPTION
        "Information about the relationship between
        logical interfaces arranged in a protocol stack.
        Parent nodes are closer to the physical layer
        than Children nodes."
    ::= { saIfExt 2 }

```

```

saIfParentEntry OBJECT-TYPE
    SYNTAX  SaIfParentEntry
    MAX-ACCESS not-accessible
    STATUS   current
    DESCRIPTION
        "Information about the relationship between
        logical interfaces arranged in a protocol stack."
    INDEX   { ifIndex, saParentIfIndex }
    ::= { saIfParentTable 1 }

```

```

saIfParentEntry ::=
    SEQUENCE {
        saParentIfIndex
            INTEGER,
        saParentStackStatus
            INTEGER
    }

```

```

saParentIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "ifIndex of Parent interface"
    ::= { saIfParentEntry 1 }

saParentStackStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "status of stack"
    ::= { saIfParentEntry 2 }

--*****

saIfChildTable
--
-- defines the relationship between an interface and its children
--*****

saIfChildTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaIfChildEntry
    MAX-ACCESS  not-accessible
    STATUS    current
    DESCRIPTION
        "Information about the relationship between
        logical interfaces arranged in a protocol stack.
        Parent nodes are closer to the physical layer
        than Children nodes."
    ::= { saIfExt 3 }

saIfChildEntry OBJECT-TYPE
    SYNTAX  SaIfChildEntry
    MAX-ACCESS  not-accessible
    STATUS    current
    DESCRIPTION
        "Information about the relationship between
        logical interfaces arranged in a protocol stack."
    INDEX   { ifIndex, saChildIfIndex }
    ::= { saIfChildTable 1 }

```

```

saIfChildEntry ::=
    SEQUENCE {
        saChildIfIndex
            INTEGER,
        saChildStackStatus
            INTEGER
    }

saChildIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "ifIndex of Child interface"
    ::= { saIfChildEntry 1 }

saChildStackStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "status of stack"
    ::= { saIfChildEntry 2 }

--*****

saBrdTable
--
-- provides board level information about the oasis system
--*****

saBrdTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaBrdEntry
    MAX-ACCESS  not-accessible
    STATUS    current
    DESCRIPTION
        "Board Level Information about the current state
        of the OASIS system"
    ::= { saHardware 2 }

```

```

saBrdEntry OBJECT-TYPE
    SYNTAX SaBrdEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        ""
    INDEX { saBrdNum }
    ::= { saBrdTable 1 }

```

```

saBrdEntry ::=
    SEQUENCE {
        saBrdNum
            INTEGER,
        saBrdType
            INTEGER,
        saBrdAdminStatus
            INTEGER,
        saBrdOperStatus
            INTEGER,
        saBrdBootRev
            DisplayString,
        saBrdLeds
            INTEGER,
        saBrdSelfTestResult
            INTEGER,
        saBrdAssemblyNumber
            DisplayString,
        saBrdSerialNumber
            Counter,
        saBrdBomRevision
            DisplayString,
        saBrdCfgRevision
            DisplayString,
        saBrdCleiCode
            DisplayString,
        saBrdCustCode
            DisplayString,
        saBrdManufDate
            DateAndTime,
        saBrdWarrantyDate
            DateAndTime,
        saBrdProcUtil
            INTEGER,
        saBrdProcDram
            INTEGER,
        saBrdSarDram
            INTEGER,
        saBrdPcType

```

```

        INTEGER,
        saBrdAlarm
            INTEGER,
        saBrdLastChange
            TimeTicks,
        saBrdRevSeverity
            INTEGER,
        saBrdRevStatus
            INTEGER
    }

```

```

saBrdNum OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Board Number"
    ::= { saBrdEntry 1 }

```

```

saBrdType OBJECT-TYPE
    SYNTAX INTEGER {
        no-cfg(1),          -- no information available
        unavail(2),        -- double height card in slot below
        icm(3)              -- ICM/SCM card
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Board Type"
    ::= { saBrdEntry 2 }

```

```

saBrdAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up(1),
        down(2),
        testing(3),
        reboot(4)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "State configured by system administrator"
    ::= { saBrdEntry 3 }

```

```

saBrdOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        boot(1),
        ok(2),
        out-of-service(3),
        cfg-mismatch(4),
        out-of-slot(5)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Operational Status of Board"
    ::= { saBrdEntry 4 }

```

```

saBrdBootRev OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Boot revision of board"
    ::= { saBrdEntry 5 }

```

```

saBrdLeds OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Current State of Board LEDs:
        Bit   Value   Meaning
        0      1     Power LED on
        1      2     Run LED on
        2      4     SW Status LED on
        3      8     Critical Alarm LED on
        4     16     Major Alarm LED on
        5     32     Minor Alarm LED on"
    ::= { saBrdEntry 6 }

```

```

saBrdSelfTestResult OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Self Test Results"
    ::= { saBrdEntry 7 }

```

```

saBrdAssemblyNumber OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Board Assembly Number"
    ::= { saBrdEntry 8 }

```

```

saBrdSerialNumber OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Board Serial Number"
    ::= { saBrdEntry 9 }

```

```

saBrdBomRevision OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Board BOM Revision"
    ::= { saBrdEntry 10 }

```

```

saBrdCfgRevision OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Board Configuration Revision"
    ::= { saBrdEntry 11 }

```

```

saBrdCleiCode OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Board CLEI Code"
    ::= { saBrdEntry 12 }

```

```

saBrdCustCode OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Board Customer Code"
    ::= { saBrdEntry 13 }

```

saBrdManufDate OBJECT-TYPE
SYNTAX DateAndTime
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Board Manufacturing Date"
::= { saBrdEntry 14 }

saBrdWarrantyDate OBJECT-TYPE
SYNTAX DateAndTime
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Board Warranty Date"
::= { saBrdEntry 15 }

saBrdProcUtil OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Percentage of CPU bandwidth currently being used"
::= { saBrdEntry 16 }

saBrdProcDram OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"CPU DRAM Size in bytes"
::= { saBrdEntry 17 }

saBrdSarDram OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"SAR DRAM Size in bytes"
::= { saBrdEntry 18 }

saBrdPcType OBJECT-TYPE
SYNTAX INTEGER {
none(1),
unknown(2),
serial(3)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"PCMCIA Card Type"
::= { saBrdEntry 19 }

saBrdAlarm OBJECT-TYPE
SYNTAX INTEGER {
none(1),
minor(2),
major(3),
critical(4)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Current Alarm State of Board"
::= { saBrdEntry 20 }

saBrdLastChange OBJECT-TYPE
SYNTAX TimeTicks
MAX-ACCESS read-only
STATUS current
DESCRIPTION
"Time since board last changed OperStatus"
::= { saBrdEntry 21 }

saBrdRevSeverity OBJECT-TYPE
SYNTAX INTEGER {
info(1),
minor(2),
major(3),
critical(4),
default(5)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
"Severity Level for Board Revision MisMatch"
::= { saBrdEntry 22 }

```

saBrdRevStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        ok(1),
        error(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Status of Software Support for Board Revision"
    ::= { saBrdEntry 23 }

--*****

oasisTaskStatTable
--
-- provides statistics on every task of every board in the OASIS system
--*****

saTaskStatTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaTaskStatEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "The Oasis Task Statistics table."
    ::= { saHardware 3 }

saTaskStatEntry OBJECT-TYPE
    SYNTAX  SaTaskStatEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "An entry in the Oasis Task Statistics Table."
    INDEX   { saBrdNum,
              saTaskStatTaskId }
    ::= { saTaskStatTable 1 }

saTaskStatEntry ::=
    SEQUENCE {
        saTaskStatTaskId      INTEGER,
        saTaskStatPriority    INTEGER,
        saTaskStatName        DisplayString,
        saTaskStatInstantPer  INTEGER,
        saTaskStatAccumPer    INTEGER,
        saTaskStatInstantTenth  INTEGER,
        saTaskStatAccumTenth  INTEGER
    }

```

```

saTaskStatTaskId OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Task Id"
    ::= { saTaskStatEntry 1 }

saTaskStatPriority OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Task Priority"
    ::= { saTaskStatEntry 2 }

saTaskStatName OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Task Name"
    ::= { saTaskStatEntry 3 }

saTaskStatInstantPer OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Instantaneous percentage of CPU utilization"
    ::= { saTaskStatEntry 4 }

saTaskStatAccumPer OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Accumulated percentage of CPU utilization"
    ::= { saTaskStatEntry 5 }

saTaskStatInstantTenth OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Instantaneous tenths percentage of CPU utilization"
    ::= { saTaskStatEntry 6 }

```

saTaskStatAccumTenth OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Accumulated tenths percentage of CPU utilization"

::= { saTaskStatEntry 7 }

--*****

oasisPodTable

--

-- provides information for each installed POD

--*****

saPodTable OBJECT-TYPE

SYNTAX SEQUENCE OF SaPodEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The Pod Information table."

::= { saHardware 4 }

saPodEntry OBJECT-TYPE

SYNTAX SaPodEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"An entry in the Oasis Pod Information Table."

INDEX { saBrdNum,
saPodNum }

::= { saPodTable 1 }

saPodEntry ::=

SEQUENCE {

saPodNum

INTEGER,

saPodType

INTEGER,

saPodNumPorts

INTEGER,

saPodDescription

DisplayString,

saPodAdminStatus

INTEGER,

saPodOperStatus

INTEGER,

saPodAssemblyNumber

DisplayString,

saPodSerialNumber

Counter,

saPodBomRevision

DisplayString,

saPodCfgRevision

DisplayString,

saPodCleiCode

DisplayString,

saPodCustCode

DisplayString,

saPodManufDate

DateTime,

saPodWarrantyDate

DateTime,

saPodSoftwareRev

DisplayString,

saPodBistResult

INTEGER,

saPodLastChange

TimeTicks,

saPodAlarm

INTEGER,

saPodRevSeverity

INTEGER,

saPodRevStatus

INTEGER,

saPodSecSoftwareRev

DisplayString,

saPodPostResult

INTEGER

}

saPodNum OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Pod Number"

::= { saPodEntry 1 }

saPodType OBJECT-TYPE

SYNTAX INTEGER {

unknown(1),

ipod-oc3-stm1-cell(2),

xpod-oc3-stm1-cell(3),

ipod-ds3-cell(4),

```

xpod-ds3-cell(5),
ipod-e3-cell(6),
xpod-e3-cell(7),
ipod-ds1-cell(8),
xpod-ds1-cell(9),
ipod-e1-cell(10),
xpod-e1-cell(11),
ipod-10-100-enet(12),
ipod-ds1-circuit(13),
ipod-e1-circuit(14),
ipod-ds1-ima-cell(15),
ipod-e1-ima-cell(16),
ipod-ds1-frame(17),
ipod-e1-frame(18),
xpod-ds1-ima-cell(19),
xpod-e1-ima-cell(20),
ipod-atm25-cell(21),
ipod-rvx-frame(22),
ipod-ds1-voice(23),
ipod-e1-voice(24),
xpod-ds1-csu-cell(25),
xpod-e1-csu-cell(26),
xpod-ds1-circuit(27),
xpod-e1-circuit(28),
xpod-oc3-ts-cell(29),
ipod-serial-circuit(30),
expod-ds1-ima-cell(31),
expod-e1-ima-cell(32),
expod-ds1-csu-ima-cell(33),
expod-e1-csu-ima-cell(34),
eipod-ds1-ima-cell(35),
eipod-e1-ima-cell(36),
eipod-ds1-csu-ima-cell(37),
eipod-e1-csu-ima-cell(38),
ipod-serial-frame(39)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod Type"
::= { saPodEntry 2 }

```

```

saPodNumPorts OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Number of Physical Ports on Pod"
    ::= { saPodEntry 3 }

saPodDescription OBJECT-TYPE
    SYNTAX DisplayString(SIZE(0..40))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Pod Description"
    ::= { saPodEntry 4 }

saPodAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up(1),
        down(2),
        testing(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Pod Administrative Status"
    ::= { saPodEntry 5 }

saPodOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up(1),
        down(2),
        testing(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Pod Operational Status"
    ::= { saPodEntry 6 }

saPodAssemblyNumber OBJECT-TYPE
    SYNTAX DisplayString(SIZE(0..40))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Pod Assembly Number"
    ::= { saPodEntry 7 }

```

saPodSerialNumber OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod Serial number"
::= { saPodEntry 8 }
```

saPodBomRevision OBJECT-TYPE

```
SYNTAX DisplayString(SIZE(0..40))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod BOM Revision"
::= { saPodEntry 9 }
```

saPodCfgRevision OBJECT-TYPE

```
SYNTAX DisplayString(SIZE(0..40))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod Configuration Revision"
::= { saPodEntry 10 }
```

saPodClelCode OBJECT-TYPE

```
SYNTAX DisplayString(SIZE(0..40))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod CLEI Code"
::= { saPodEntry 11 }
```

saPodCustCode OBJECT-TYPE

```
SYNTAX DisplayString(SIZE(0..40))
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Pod Customer Code"
::= { saPodEntry 12 }
```

saPodManufDate OBJECT-TYPE

```
SYNTAX DateAndTime
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod Manufacturing Date"
::= { saPodEntry 13 }
```

saPodWarrantyDate OBJECT-TYPE

```
SYNTAX DateAndTime
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod Warranty Date"
::= { saPodEntry 14 }
```

saPodSoftwareRev OBJECT-TYPE

```
SYNTAX DisplayString(SIZE(0..40))
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod Software Revision"
::= { saPodEntry 15 }
```

saPodBistResult OBJECT-TYPE

```
SYNTAX INTEGER {
    ok(1),
    testing(2),
    fault(3)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pod Self Test Result"
::= { saPodEntry 16 }
```

saPodLastChange OBJECT-TYPE

```
SYNTAX TimeTicks
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Time since last state change"
::= { saPodEntry 17 }
```

saPodAlarm OBJECT-TYPE

```
SYNTAX INTEGER {
    none(1),
    minor(2),
    major(3),
    critical(4)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Current Alarm State of Pod"
::= { saPodEntry 18 }
```

```

saPodRevSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        info(1),
        minor(2),
        major(3),
        critical(4),
        default(5)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Current Alarm State of Pod"
    ::= { saPodEntry 19 }

```

```

saPodRevStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        ok(1),
        error(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Current Alarm State of Pod"
    ::= { saPodEntry 20 }

```

```

saPodSecSoftwareRev OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Software revision for the secondary pod file,
        if applicable"
    ::= { saPodEntry 21 }

```

```

saPodPostResult OBJECT-TYPE
    SYNTAX  INTEGER {
        pass(1),
        fail(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Power on self test result"
    ::= { saPodEntry 22 }

```

```
-- *****
```

oasisPortTable

```
--
-- provides information for each port on each POD
-- *****
```

```

saPortTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaPortEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "The Port Information table."
    ::= { saHardware 5 }

```

```

saPortEntry OBJECT-TYPE
    SYNTAX  SaPortEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "An entry in the Oasis Port Information Table."
    INDEX   { saBrdNum,
              saPodNum,
              saPortNum }
    ::= { saPortTable 1 }

```

```

saPortEntry ::=
    SEQUENCE {
        saPortNum
            INTEGER,
        saPortIfIndex
            INTEGER,
        saPortLeds
            INTEGER,
        saPortServiceMask
            INTEGER,
        saPortValidTimingSrc
            INTEGER
    }

```

```

saPortNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port Number"
    ::= { saPortEntry 1 }

```

```

saPortIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "ifIndex Number"
    ::= { saPortEntry 2 }

saPortLeds OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port LED Image"
    ::= { saPortEntry 3 }

saPortServiceMask OBJECT-TYPE
    SYNTAX  INTEGER {
        uni(1),
        ces(2),
        usf(4),
        ima(8),
        nls(16),
        vcs(32)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "bit-mask of service types supported
        by this port"
    ::= { saPortEntry 4 }

saPortValidTimingSrc OBJECT-TYPE
    SYNTAX  INTEGER {
        no(1),
        yes(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Indicates whether the port is a valid source for system
        timing"
    ::= { saPortEntry 5 }

```

```

-- *****
saCpodTable
--
-- Provides information for each installed CPOD
-- *****

saCpodTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaCpodEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "The CPOD Information table."
    ::= { saHardware 6 }

saCpodEntry OBJECT-TYPE
    SYNTAX  SaCpodEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "An entry in the Oasis CPOD Information Table."
    INDEX   { saBrdNum }
    ::= { saCpodTable 1 }

saCpodEntry ::=
    SEQUENCE {
        saCpodType
            INTEGER,
        saCpodHwRev
            INTEGER,
        saCpodAssemblyNumber
            DisplayString,
        saCpodSerialNumber
            Counter,
        saCpodBomRevision
            DisplayString,
        saCpodCfgRevision
            DisplayString,
        saCpodCleiCode
            DisplayString,
        saCpodCustCode
            DisplayString,
        saCpodManufDate
            DateAndTime,
        saCpodWarrantyDate
            DateAndTime,
        saCpodAlarm
            INTEGER,

```

```

        saCpodRevSeverity
            INTEGER,
        saCpodRevStatus
            INTEGER
    }

```

```

saCpodType OBJECT-TYPE
    SYNTAX  INTEGER {
        unknown(0),
        cpod-e100(1),
        cpod-200-1(2),
        cpod-200-2(3),
        cpod-150(4)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "CPOD Type"
    ::= { saCpodEntry 1 }

```

```

saCpodHwRev OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "CPOD Hardware Revision"
    ::= { saCpodEntry 2 }

```

```

saCpodAssemblyNumber OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "CPOD Assembly Number"
    ::= { saCpodEntry 3 }

```

```

saCpodSerialNumber OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "CPOD Serial number"
    ::= { saCpodEntry 4 }

```

```

saCpodBomRevision OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current

```

```

DESCRIPTION
    "CPOD BOM Revision"
    ::= { saCpodEntry 5 }

```

```

saCpodCfgRevision OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "CPOD Configuration Revision"
    ::= { saCpodEntry 6 }

```

```

saCpodCleiCode OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "CPOD CLEI Code"
    ::= { saCpodEntry 7 }

```

```

saCpodCustCode OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "CPOD Customer Code"
    ::= { saCpodEntry 8 }

```

```

saCpodManufDate OBJECT-TYPE
    SYNTAX  DateAndTime
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "CPOD Manufacturing Date"
    ::= { saCpodEntry 9 }

```

```

saCpodWarrantyDate OBJECT-TYPE
    SYNTAX  DateAndTime
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "CPOD Warranty Date"
    ::= { saCpodEntry 10 }

```

```

saCpodAlarm OBJECT-TYPE
    SYNTAX  INTEGER {
        unknown(0),
        none(1),

```

```

        minor(2),
        major(3),
        critical(4)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Current Alarm State of CPOD"
    ::= { saCpodEntry 11 }

```

```

saCpodRevSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        info(1),
        minor(2),
        major(3),
        critical(4),
        default(5)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Current Alarm State of CPOD"
    ::= { saCpodEntry 12 }

```

```

saCpodRevStatus OBJECT-TYPE
    SYNTAX INTEGER {
        ok(1),
        error(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Current Alarm State of CPOD"
    ::= { saCpodEntry 13 }

```

```
--*****
```

saPldTable

```

--
-- Provides information for each PLD
--*****

```

```

saPldTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaPldEntry
    MAX-ACCESS not-accessible

```

```

    STATUS current
    DESCRIPTION
        "The PLD Information table."
    ::= { saHardware 7 }

```

```

saPldEntry OBJECT-TYPE
    SYNTAX SaPldEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "An entry in the Oasis PLD Information Table."
    INDEX { saBrdNum, saPldChainNum, saPldNum }
    ::= { saPldTable 1 }

```

```

saPldEntry ::=
    SEQUENCE {
        saPldChainNum
            INTEGER,
        saPldNum
            INTEGER,
        saPldDevId
            INTEGER,
        saPldChecksum
            INTEGER,
        saPldUes
            INTEGER
    }

```

```

saPldChainNum OBJECT-TYPE
    SYNTAX INTEGER {
        i960(1),
        protacc(2),
        ipod1(3),
        ipod2(4),
        xpod(5),
        cpod(6)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "ISP Chain"
    ::= { saPldEntry 1 }

```

```

saPldNum OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION

```

```

        "Pld Number"
        ::= { saPldEntry 2 }

saPldDevId OBJECT-TYPE
    SYNTAX  INTEGER {
        pld-1016(1),
        pld-1016E(11),
        pld-1024(2),
        pld-1024E(12),
        pld-1032(3),
        pld-1032E(13),
        pld-1048(4),
        pld-1048C(5),
        pld-1048E(14),
        pld-2032(21),
        pld-2064(18),
        pld-2096(19),
        pld-2128(20),
        pld-3192(33),
        pld-3256(34),
        pld-6192(50)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "ISP Chain"
    ::= { saPldEntry 3 }

saPldChecksum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "ISP Chain"
    ::= { saPldEntry 4 }

saPldUes OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "ISP Chain"
    ::= { saPldEntry 5 }

END

```

```
-- *****
```

Phy Extensions MIB

```
-- *****
```

```
-- oasis Pod Info
```

```
OASIS-PHYEXT-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```

    ifIndex, DisplayString          FROM RFC1213-MIB
    dsx3IntervalIndex, dsx3IntervalNumber FROM RFC1407-MIB
    sonetLineIntervalNumber,
    sonetPathIntervalNumber FROM SONET-MIB
    Counter                        FROM RFC1155-SMI
    SaPhyExt                      FROM OASIS-SYSINFO-MIB
    OBJECT-TYPE                   FROM SNMPv2-SMI;

```

```
-- oasis MIB group
```

```

SASonetLineExt    OBJECT IDENTIFIER ::= { saPhyExt 1 }
SASonetPathExt    OBJECT IDENTIFIER ::= { saPhyExt 2 }
SADsx3Ext         OBJECT IDENTIFIER ::= { saPhyExt 3 }
SADsx1Ext         OBJECT IDENTIFIER ::= { saPhyExt 4 }
SAEnetExt         OBJECT IDENTIFIER ::= { saPhyExt 5 }
SADs0BundleExt    OBJECT IDENTIFIER ::= { saPhyExt 6 }
SACesExt          OBJECT IDENTIFIER ::= { saPhyExt 7 }

```

```
saSonetLineExtTable OBJECT-TYPE
```

```

    SYNTAX  SEQUENCE OF SaSonetLineExtEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Additional items needed for SONET Line/Section interface"
    ::= { saSonetLineExt 1 }

```

```
saSonetLineExtEntry OBJECT-TYPE
```

```

    SYNTAX  SaSonetLineExtEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Entry for SONET Line/Section interface
        containing additional objects
        not contained in the standard mibs."
    INDEX   { ifIndex }
    ::= { saSonetLineExtTable 1 }

```

```

saSonetLineExtEntry ::=
    SEQUENCE {
        saSonetLineExtLaser
            INTEGER,
        saSonetLineExtTxClkSrc
            INTEGER,
        saSonetLineExtLpbk
            INTEGER,
        saSonetLineExtDiags
            INTEGER,
        saSonetLineExtSectAlarm
            INTEGER,
        saSonetLineExtLineAlarm
            INTEGER,
        saSonetLineExtSdhType
            INTEGER,
        saSonetLineExtTxSectTraceEnable
            INTEGER,
        saSonetLineExtTxSectionTrace
            DisplayString,
        saSonetLineExtRxSectionTrace
            DisplayString,
        saSonetLineExtCurLineFC
            Counter,
        saSonetLineExtCurLineFarEndFC
            Counter,
        saSonetLineExtMaxIntervals
            INTEGER,
        saSonetLineExtLOSSeverity
            INTEGER,
        saSonetLineExtLOFSeverity
            INTEGER,
        saSonetLineExtLAISSeverity
            INTEGER,
        saSonetLineExtLRDISeverity
            INTEGER
    }

```

```

saSonetLineExtLaser OBJECT-TYPE
    SYNTAX  INTEGER {
        off(1),
        on(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Laser On/Off"

```

```

::= { saSonetLineExtEntry 1 }

```

```

saSonetLineExtTxClkSrc OBJECT-TYPE
    SYNTAX  INTEGER {
        loopTiming(1),  -- recovered receive clock
        localTiming(2), -- local oscillator
        systemTiming(3) -- from some other line/port, sys ref, etc.
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Transmit Clock Source"
    ::= { saSonetLineExtEntry 2 }

```

```

saSonetLineExtLpbk OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        line(2),
        intSection(3),
        intPath(4)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "SONET Loopbacks"
    ::= { saSonetLineExtEntry 3 }

```

```

saSonetLineExtDiags OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        txDigitalLOS(2),
        txLineAIS(3),
        txLineRDI(4),
        txFrameBitErr(5),
        txSectBipErr(6),
        txLineBipErr(7)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "SONET Diagnostics "
    ::= { saSonetLineExtEntry 4 }

```

```

saSonetLineExtSectAlarm OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION

```

```

        "SONET Section Alarms:
        Bit      Value      Meaning
        0         1         No Section Alarm
        1         2         LOS
        2         4         LOF"
 ::= { saSonetLineExtEntry 5 }

saSonetLineExtLineAlarm OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "SONET Line Alarms:
        Bit      Value      Meaning
        0         1         No Line Defect
        1         2         Line AIS
        2         4         Line RDI"
 ::= { saSonetLineExtEntry 6 }

saSonetLineExtSdhType OBJECT-TYPE
    SYNTAX  INTEGER {
        sonet(1),
        sdh(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "SONET or SDH"
 ::= { saSonetLineExtEntry 7 }

saSonetLineExtTxSectTraceEnable OBJECT-TYPE
    SYNTAX  INTEGER {
        enable(1),
        disable(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Enable Transmit Section Trace"
 ::= { saSonetLineExtEntry 8 }

saSonetLineExtTxSectionTrace OBJECT-TYPE
    SYNTAX  DisplayString
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "SONET Transmit Section Trace"
 ::= { saSonetLineExtEntry 9 }

```

```

saSonetLineExtRxSectionTrace OBJECT-TYPE
    SYNTAX  DisplayString
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "SONET Received Section Trace"
 ::= { saSonetLineExtEntry 10 }

saSonetLineExtCurLineFC OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Current Line Failure Count"
 ::= { saSonetLineExtEntry 11 }

saSonetLineExtCurLineFarEndFC OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Current Far-End Line Failure Count"
 ::= { saSonetLineExtEntry 12 }

saSonetLineExtMaxIntervals OBJECT-TYPE
    SYNTAX  INTEGER (4..96)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Maximum number of intervals for interval table"
        DEFVAL { 32 }
 ::= { saSonetLineExtEntry 13 }

saSonetLineExtLOSSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "LOS Alarm Severity Level"
 ::= { saSonetLineExtEntry 14 }

```

saSonetLineExtLOFSeverity OBJECT-TYPE

```
SYNTAX  INTEGER {
    minor(1),
    major(2),
    critical(3)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "LOF Alarm Severity Level"
 ::= { saSonetLineExtEntry 15 }
```

saSonetLineExtLAISSeverity OBJECT-TYPE

```
SYNTAX  INTEGER {
    minor(1),
    major(2),
    critical(3)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Line AIS Alarm Severity Level"
 ::= { saSonetLineExtEntry 16 }
```

saSonetLineExtLRDISSeverity OBJECT-TYPE

```
SYNTAX  INTEGER {
    minor(1),
    major(2),
    critical(3)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Line RDI Alarm Severity Level"
 ::= { saSonetLineExtEntry 17 }
```

-- SONET Section/Line Total Counts

saSonetLineExtTotalTable OBJECT-TYPE

```
SYNTAX  SEQUENCE OF SaSonetLineExtTotalEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "Total Count variables needed for SONET
     Line/Section interface"
 ::= { saSonetLineExt 2 }
```

saSonetLineExtTotalEntry OBJECT-TYPE

```
SYNTAX  SaSonetLineExtTotalEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "Entry for SONET Line/Section interface
     containing total count objects
     not contained in the standard mibs."
INDEX   { ifIndex }
 ::= { saSonetLineExtTotalTable 1 }
```

saSonetLineExtTotalEntry ::=

```
SEQUENCE {
    saSonetLineExtTotSectCV
        Counter,
    saSonetLineExtTotSectES
        Counter,
    saSonetLineExtTotSectSES
        Counter,
    saSonetLineExtTotSectSEFS
        Counter,
    saSonetLineExtTotLineCV
        Counter,
    saSonetLineExtTotLineES
        Counter,
    saSonetLineExtTotLineSES
        Counter,
    saSonetLineExtTotLineUAS
        Counter,
    saSonetLineExtTotLineFC
        Counter,
    saSonetLineExtTotLineFeCV
        Counter,
    saSonetLineExtTotLineFeES
        Counter,
    saSonetLineExtTotLineFeSES
        Counter,
    saSonetLineExtTotLineFeUAS
        Counter,
    saSonetLineExtTotLineFeFC
        Counter
}
```

saSonetLineExtTotSectCV OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
```

```

        "Total Section Code Violations (Sect BIP) Count"
        ::= { saSonetLineExtTotalEntry 1 }

saSonetLineExtTotSectES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Section Errored Seconds Count"
    ::= { saSonetLineExtTotalEntry 2 }

saSonetLineExtTotSectSES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Section Severely Errored Seconds Count"
    ::= { saSonetLineExtTotalEntry 3 }

saSonetLineExtTotSectSEFS OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Severely Errored Framing Seconds Count"
    ::= { saSonetLineExtTotalEntry 4 }

saSonetLineExtTotLineCV OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Line Code Violations (Line BIP24) Count"
    ::= { saSonetLineExtTotalEntry 5 }

saSonetLineExtTotLineES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Line Errored Seconds Count"
    ::= { saSonetLineExtTotalEntry 6 }

saSonetLineExtTotLineSES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION

```

```

        "Total Line Severely Errored Seconds Count"
        ::= { saSonetLineExtTotalEntry 7 }

saSonetLineExtTotLineUAS OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Line Unavailable Seconds Count"
    ::= { saSonetLineExtTotalEntry 8 }

saSonetLineExtTotLineFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Line Failure Count"
    ::= { saSonetLineExtTotalEntry 9 }

saSonetLineExtTotLineFeCV OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Line Code Violation (Line FEBE) Count"
    ::= { saSonetLineExtTotalEntry 10 }

saSonetLineExtTotLineFeES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Line Errored Seconds Count"
    ::= { saSonetLineExtTotalEntry 11 }

saSonetLineExtTotLineFeSES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Line Severely Errored Seconds Count"
    ::= { saSonetLineExtTotalEntry 12 }

saSonetLineExtTotLineFeUAS OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION

```

```

        "Total Far-End Line Unavailable Seconds Count"
        ::= { saSonetLineExtTotalEntry 13 }

saSonetLineExtTotLineFeFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Line Failure Count"
    ::= { saSonetLineExtTotalEntry 14 }

-- SONET Line Interval Extension Table

saSonetLineExtIntTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaSonetLineExtIntEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional items needed for SONET Line/Section
        Interval table"
    ::= { saSonetLineExt 3 }

saSonetLineExtIntEntry OBJECT-TYPE
    SYNTAX SaSonetLineExtIntEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for SONET Line/Section interface
        containing additional objects
        not contained in the standard interval table."
    INDEX { ifIndex, sonetLineIntervalNumber }
    ::= { saSonetLineExtIntTable 1 }

saSonetLineExtIntEntry ::=
    SEQUENCE {
        saSonetLineExtIntLineFC
            Counter,
        saSonetLineExtIntLineFarEndFC
            Counter
    }

saSonetLineExtIntLineFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interval Line Failure Count"
    ::= { saSonetLineExtIntEntry 1 }

saSonetLineExtIntLineFarEndFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interval Far-End Line Failure Count"
    ::= { saSonetLineExtIntEntry 2 }

-- SONET Path Extension table

saSonetPathExtTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaSonetPathExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional items needed for SONET Path interface"
    ::= { saSonetPathExt 1 }

saSonetPathExtEntry OBJECT-TYPE
    SYNTAX SaSonetPathExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for SONET Path interface containing
        additional objects not contained in the standard mibs."
    INDEX { ifIndex }
    ::= { saSonetPathExtTable 1 }

saSonetPathExtEntry ::=
    SEQUENCE {
        saSonetPathExtDiags
            INTEGER,
        saSonetPathExtPathAlarm
            INTEGER,
        saSonetPathExtPathLabel
            INTEGER,
        saSonetPathExtTxPathTraceEnable
            INTEGER,
        saSonetPathExtTxPathTrace
            DisplayString,
        saSonetPathExtRxPathTrace
            DisplayString,
        saSonetPathExtCurPathFC
            Counter,
        saSonetPathExtCurPathFarEndFC
            Counter,

```

```

saSonetPathExtLOPSeverity
    INTEGER,
saSonetPathExtPAISSeverity
    INTEGER,
saSonetPathExtPRDISeverity
    INTEGER,
saSonetPathExtPUneqSeverity
    INTEGER,
saSonetPathExtPSLMSeverity
    INTEGER,
saSonetPathExtValidIntervals
    INTEGER,
saSonetPathExtMaxIntervals
    INTEGER
}

saSonetPathExtDiags OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        txPathAIS(2),
        txPathRDI(3),
        txPathBipErr(4),
        txHcsBitErr(5)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "SONET Path diagnostics"
    ::= { saSonetPathExtEntry 1 }

saSonetPathExtPathAlarm OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "SONET Path Alarms"
        

| Bit | Value | Meaning                 |
|-----|-------|-------------------------|
| 0   | 1     | No Path Alarm           |
| 1   | 2     | LOP                     |
| 2   | 4     | Path AIS                |
| 3   | 8     | Path RDI                |
| 4   | 16    | Path Unequipped         |
| 5   | 32    | Signal Label Mismatch " |


    ::= { saSonetPathExtEntry 2 }

```

```

saSonetPathExtPathLabel OBJECT-TYPE
    SYNTAX  INTEGER {
        unequipped(1),
        atm(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "SONET Path Label"
        DEFVAL { atm }
    ::= { saSonetPathExtEntry 3 }

saSonetPathExtTxPathTraceEnable OBJECT-TYPE
    SYNTAX  INTEGER {
        enable(1),
        disable(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Enable Transmit Path Trace"
    ::= { saSonetPathExtEntry 4 }

saSonetPathExtTxPathTrace OBJECT-TYPE
    SYNTAX  DisplayString
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "SONET Transmit Path Trace"
    ::= { saSonetPathExtEntry 5 }

saSonetPathExtRxPathTrace OBJECT-TYPE
    SYNTAX  DisplayString
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "SONET Received Path Trace"
    ::= { saSonetPathExtEntry 6 }

saSonetPathExtCurPathFC OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Current Path Failure Count"
    ::= { saSonetPathExtEntry 7 }

```

```

saSonetPathExtCurPathFarEndFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Current Far-End Path Failure Count"
    ::= { saSonetPathExtEntry 8 }

```

```

saSonetPathExtLOPSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Loss Of Pointer Alarm Severity Level"
    ::= { saSonetPathExtEntry 9 }

```

```

saSonetPathExtPAISSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Path AIS Alarm Severity Level"
    ::= { saSonetPathExtEntry 10 }

```

```

saSonetPathExtPRDISeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Path RDI Severity Level"
    ::= { saSonetPathExtEntry 11 }

```

```

saSonetPathExtPUnegSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),

```

```

        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Path Unequipped Alarm Severity Level"
    ::= { saSonetPathExtEntry 12 }

```

```

saSonetPathExtPSLMSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Path Label Mismatch Alarm Severity Level"
    ::= { saSonetPathExtEntry 13 }

```

```

saSonetPathExtValidIntervals OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of valid intervals"
    ::= { saSonetPathExtEntry 14 }

```

```

saSonetPathExtMaxIntervals OBJECT-TYPE
    SYNTAX INTEGER (4..96)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Maximum number of intervals for interval table"
        DEFVAL { 32 }
    ::= { saSonetPathExtEntry 15 }

```

```
-- SONET Path Total Counts
```

```

saSonetPathExtTotalTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaSonetPathExtTotalEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Total Count variables needed for SONET Path interface"
    ::= { saSonetPathExt 2 }

```

```

saSonetPathExtTotalEntry OBJECT-TYPE
    SYNTAX SaSonetPathExtTotalEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for SONET Path interface containing total
        count objects not contained in the standard mibs."
    INDEX { ifIndex }
    ::= { saSonetPathExtTotalTable 1 }

saSonetPathExtTotalEntry ::=
    SEQUENCE {
        saSonetPathExtTotPathCV
            Counter,
        saSonetPathExtTotPathES
            Counter,
        saSonetPathExtTotPathSES
            Counter,
        saSonetPathExtTotPathUAS
            Counter,
        saSonetPathExtTotPathFC
            Counter,
        saSonetPathExtTotPathFeCV
            Counter,
        saSonetPathExtTotPathFeES
            Counter,
        saSonetPathExtTotPathFeSES
            Counter,
        saSonetPathExtTotPathFeUAS
            Counter,
        saSonetPathExtTotPathFeFC
            Counter
    }

saSonetPathExtTotPathCV OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Path Code Violation (Path BIP8) Count"
    ::= { saSonetPathExtTotalEntry 1 }

```

```

saSonetPathExtTotPathES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Path Errored Seconds Count"
    ::= { saSonetPathExtTotalEntry 2 }

saSonetPathExtTotPathSES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Path Severely Errored Seconds Count"
    ::= { saSonetPathExtTotalEntry 3 }

saSonetPathExtTotPathUAS OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Path Unavailable Seconds Count"
    ::= { saSonetPathExtTotalEntry 4 }

saSonetPathExtTotPathFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Path Failure Count"
    ::= { saSonetPathExtTotalEntry 5 }

saSonetPathExtTotPathFeCV OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Path Code Violation (Path FEBE) Count"
    ::= { saSonetPathExtTotalEntry 6 }

saSonetPathExtTotPathFeES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Path Errored Seconds Count"
    ::= { saSonetPathExtTotalEntry 7 }

```

```

saSonetPathExtTotPathFeSES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Path Severely Errored Seconds Count"
    ::= { saSonetPathExtTotalEntry 8 }

```

```

saSonetPathExtTotPathFeUAS OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Path Unavailable Seconds Count"
    ::= { saSonetPathExtTotalEntry 9 }

```

```

saSonetPathExtTotPathFeFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total Far-End Path Failure Count"
    ::= { saSonetPathExtTotalEntry 10 }

```

-- SONET Path Interval Extension Table

```

saSonetPathExtIntTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaSonetPathExtIntEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional items needed for SONET Path Interval table"
    ::= { saSonetPathExt 3 }

```

```

saSonetPathExtIntEntry OBJECT-TYPE
    SYNTAX SaSonetPathExtIntEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for SONET Path interface containing
        additional objects not contained in the
        standard interval table."
    INDEX { ifIndex, sonetPathIntervalNumber }
    ::= { saSonetPathExtIntTable 1 }

```

```

saSonetPathExtIntEntry ::=
    SEQUENCE {
        saSonetPathExtIntPathFC
            Counter,
        saSonetPathExtIntPathFarEndFC
            Counter
    }

```

```

saSonetPathExtIntPathFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interval Path Failure Count"
    ::= { saSonetPathExtIntEntry 1 }

```

```

saSonetPathExtIntPathFarEndFC OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interval Far-End Path Failure Count"
    ::= { saSonetPathExtIntEntry 2 }

```

-- the DS3/E3 Configuration

```

saDs3Table OBJECT-TYPE
    SYNTAX SEQUENCE OF SaDs3Entry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional items needed for Ds3/E3 table"
    ::= { saDs3Ext 1 }

```

```

saDs3Entry OBJECT-TYPE
    SYNTAX SaDs3Entry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for Ds3/E3 interface containing additional objects
        not contained in the standard table."
    INDEX { ifIndex }
    ::= { saDs3Table 1 }

```

```

saDsx3Entry ::=
    SEQUENCE
    {
        saDsx3LB0
            INTEGER,
        saDsx3Framing
            INTEGER,
        saDsx3LineCoding
            INTEGER,
        saDsx3TxClock
            INTEGER,
        saDsx3MaxIntervals
            INTEGER,
        saDsx3ValidIntervals
            INTEGER,
        saDsx3Lpbk
            INTEGER,
        saDsx3Diag
            INTEGER,
        saDsx3Status
            INTEGER,
        saDsx3Alarm
            INTEGER,
        saDsx3TotalFramErrs
            Counter,
        saDsx3LOSSeverity
            INTEGER,
        saDsx3LOFSeverity
            INTEGER,
        saDsx3AISSeverity
            INTEGER,
        saDsx3YelSeverity
            INTEGER,
        saDsx3CurrentE3G832BIP8
            Counter,
        saDsx3CurrentE3G832FEBE
            Counter,
        saDsx3TotalE3G832BIP8
            Counter,
        saDsx3TotalE3G832FEBE
            Counter,
        saDsx3E3G832TxTraceEnable
            INTEGER,
        saDsx3E3G832TxTrace
            DisplayString,
        saDsx3E3G832RxTrace
            DisplayString,
        saDsx3FeacLoopProcessing

```

```

            INTEGER,
        saDsx3RcvFeac
            INTEGER,
        saDsx3TxFeac
            INTEGER,
        saDsx3SendFeacLoop
            INTEGER,
        saDsx3InFeacLoop
            INTEGER,
        saE3Diag
            INTEGER
    }

saDsx3LB0 OBJECT-TYPE
    SYNTAX  INTEGER {
        under225ft(1),
        over225ft(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Line Build Out"
    ::= { saDsx3Entry 1 }

saDsx3Framing OBJECT-TYPE
    SYNTAX  INTEGER {
        ds3-Cbit(1),
        ds3-M23(2),
        e3-G751(3),
        e3-G832(4)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "DS3/E3 Framing"
    ::= { saDsx3Entry 3 }

saDsx3LineCoding OBJECT-TYPE
    SYNTAX  INTEGER {
        b3zs(1),
        hdb3(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Line Coding"
    ::= { saDsx3Entry 4 }

```

```

saDsx3TxClock OBJECT-TYPE
    SYNTAX INTEGER {
        loopTiming(1), -- recovered receive clock
        systemTiming(2) -- from some other line/port, sys ref, etc.
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Transmit Clock Source"
    ::= { saDsx3Entry 5 }

```

```

saDsx3MaxIntervals OBJECT-TYPE
    SYNTAX INTEGER (4..96)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Max number of intervals stored"
    DEFVAL { 32 }
    ::= { saDsx3Entry 6 }

```

```

saDsx3ValidIntervals OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of valid intervals"
    ::= { saDsx3Entry 7 }

```

```

saDsx3Lpbk OBJECT-TYPE
    SYNTAX INTEGER {
        none(1),
        line(2),
        diagnostic(3),
        payload(4)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "DS3/E3 Loopbacks"
    ::= { saDsx3Entry 8 }

```

```

saDsx3Diag OBJECT-TYPE
    SYNTAX INTEGER {
        none(1),
        txLOS(2),
        txAIS(3),
        txFERF(4),
        txIdle(5),

```

```

        txLCV(6),
        txPbitErrs(7),
        txCbitErrs(8),
        txMbitErrs(9),
        txFbitErrs(10),
        txFEBE(11)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "DS3/E3 Diagnostics"
    ::= { saDsx3Entry 9 }

```

```

saDsx3Status OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "DS3/E3 Defects:
        Bit      Value      Meaning
        0         1        No Alarm
        1         2         LOS
        2         4         LOF
        3         8         AIS
        4        16         Yellow"
    ::= { saDsx3Entry 10 }

```

```

saDsx3Alarm OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "DS3/E3 Alarms:
        Bit      Value      Meaning
        0         1        No Alarm
        1         2         LOS
        2         4         LOF
        3         8         AIS
        4        16         Yellow"
    ::= { saDsx3Entry 11 }

```

```

saDsx3TotalFramErrs OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "DS3/E3 Framing Errors"
    ::= { saDsx3Entry 12 }

```

```

saDsx3LOSSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "DS3/E3 LOS Alarm Severity Level"
    ::= { saDsx3Entry 13 }

saDsx3LOFSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "DS3/E3 LOF Alarm Severity Level"
    ::= { saDsx3Entry 14 }

saDsx3AISSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "DS3/E3 AIS Alarm Severity Level"
    ::= { saDsx3Entry 15 }

saDsx3YelSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "DS3/E3 Yellow Alarm Severity Level"
    ::= { saDsx3Entry 16 }

```

```

saDsx3CurrentE3G832BIP8 OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "E3 G.832 Current Interval BIP8 Error Count"
    ::= { saDsx3Entry 17 }

saDsx3CurrentE3G832FEFE OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "E3 G.832 Current Interval FEFE Error Count"
    ::= { saDsx3Entry 18 }

saDsx3TotalE3G832BIP8 OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "E3 G.832 Total BIP8 Error Count"
    ::= { saDsx3Entry 19 }

saDsx3TotalE3G832FEFE OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "E3 G.832 Total FEFE Error Count"
    ::= { saDsx3Entry 20 }

saDsx3E3G832TxTraceEnable OBJECT-TYPE
    SYNTAX  INTEGER {
        enable(1),
        disable(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "E3 G.832 Trail Trace Enable"
    ::= { saDsx3Entry 21 }

saDsx3E3G832TxTrace OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-write
    STATUS  current

```

DESCRIPTION "E3 G.832 Transmit Trail Trace" ::= { saDsx3Entry 22 } saDsx3E3G832RxTrace OBJECT-TYPE SYNTAX DisplayString(SIZE(0..40)) MAX-ACCESS read-only STATUS current DESCRIPTION "E3 G.832 Receive Trail Trace" ::= { saDsx3Entry 23 } saDsx3FeacLoopProcessing OBJECT-TYPE SYNTAX INTEGER { enable(1), disable(2) } MAX-ACCESS read-write STATUS current DESCRIPTION "Enables/Disables processing of receive and transmit loopback codes" ::= { saDsx3Entry 24 } saDsx3RcvFeac OBJECT-TYPE SYNTAX INTEGER { none(1), ds3LOS(2), ds300F(3), ds3AIS(4), ds3Idle(5), ds3EqFailSA(6), ds3EqFailNSA(7), cmnEqFailNSA(8), lpbkAct(9), lpbkDeact(10), ds3Line(11), unknown(12) } MAX-ACCESS read-only STATUS current DESCRIPTION "FEAC code currently being received" ::= { saDsx3Entry 25 } saDsx3TxFeac OBJECT-TYPE SYNTAX INTEGER { none(1),	ds3LOS(2), ds300F(3), ds3AIS(4), ds3Idle(5) } MAX-ACCESS read-only STATUS current DESCRIPTION "FEAC code currently being transmitted" ::= { saDsx3Entry 26 } saDsx3SendFeacLoop OBJECT-TYPE SYNTAX INTEGER { activate(1), deactivate(2) } MAX-ACCESS read-write STATUS current DESCRIPTION "Sends activate/deactivate remote loopback codes" ::= { saDsx3Entry 27 } saDsx3InFeacLoop OBJECT-TYPE SYNTAX INTEGER { none(1), ds3LineLoop(2) } MAX-ACCESS read-only STATUS current DESCRIPTION "Status indicating loopback controlled by remote DS3 FEAC" ::= { saDsx3Entry 28 } saE3Diag OBJECT-TYPE SYNTAX INTEGER { none(1), txAIS(3), txFERF(4), txLCV(6), txFbitErrs(10), txFEBE(11) } MAX-ACCESS read-write STATUS current DESCRIPTION "E3 Diagnostics" ::= { saDsx3Entry 29 }
--	---

-- DS3/E3 Interval Extension Table

```
saDsx3IntTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaDsx3IntEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional items needed for DS3/E3 Interval table"
    ::= { saDsx3Ext 2 }

saDsx3IntEntry OBJECT-TYPE
    SYNTAX SaDsx3IntEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for DS3/E3 interface containing additional objects
        not contained in the standard interval table."
    INDEX { dsx3IntervalIndex, dsx3IntervalNumber }
    ::= { saDsx3IntTable 1 }

saDsx3IntEntry ::=
    SEQUENCE {
        saDsx3IntE3G832BIP8
            Counter,
        saDsx3IntE3G832FEFE
            Counter
    }

saDsx3IntE3G832BIP8 OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interval E3 G.832 BIP8 Count"
    ::= { saDsx3IntEntry 1 }

saDsx3IntE3G832FEFE OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interval E3 G.832 FEFE Event Count"
    ::= { saDsx3IntEntry 2 }
```

-- DS1 extension table

```
saDsx1AddTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaDsx1AddEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional configurables for DS1."
    ::= { saDsx1Ext 1 }

saDsx1AddEntry OBJECT-TYPE
    SYNTAX SaDsx1AddEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry containing DS1 configurable objects."
    INDEX { ifIndex }
    ::= { saDsx1AddTable 1 }

saDsx1AddEntry ::=
    SEQUENCE {
        saDsx1LineLength
            INTEGER,
        saDsx1TxClkSrc
            INTEGER,
        saDsx1Status
            INTEGER,
        saDsx1Alarm
            INTEGER,
        saDsx1MaxIntervals
            INTEGER,
        saDsx1Diags
            INTEGER,
        saDsx1LOSSeverity
            INTEGER,
        saDsx1LOFSeverity
            INTEGER,
        saDsx1AISSeverity
            INTEGER,
        saDsx1YelSeverity
            INTEGER,
        saDsx1TS16AISSeverity
            INTEGER,
        saDsx1TS16LOMFSeverity
            INTEGER,
        saDsx1CRCLOMFSeverity
            INTEGER,
        saDsx1ImaLink
```

```

        INTEGER,
saDsx1RxAttenuation
        INTEGER,
saDsx1Range
        INTEGER,
saDsx1Loopback
        INTEGER,
saDsx1NLoopDetection
        INTEGER,
saDsx1PulseMultiplier
        INTEGER,
saDsx1RxGainBoost
        INTEGER,
saDsx1Impedance
        INTEGER,
saDsx1Format
        INTEGER,
saDsx1TimeSlotMask
        INTEGER,
saDsx1DynamicBandwidth
        INTEGER,
saDsx1ClockMode
        INTEGER,
saDsx1Signaling
        INTEGER,
saDsx1FdlMode
        INTEGER
    }

```

```

saDsx1LineLength OBJECT-TYPE
    SYNTAX INTEGER {
        len0To110Ft(1),
        len110To220Ft(2),
        len220To330Ft(3),
        len330To440Ft(4),
        len440To550Ft(5),
        len550To660Ft(6),
        ohm75(7),
        ohm120(8)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Line Length"
    DEFVAL { len0To110Ft }
    ::= { saDsx1AddEntry 1 }

```

```

saDsx1TxClkSrc OBJECT-TYPE
    SYNTAX INTEGER {
        loop(1),
        system(2),
        local(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Transmit Clock Source"
    DEFVAL { loop }
    ::= { saDsx1AddEntry 2 }

```

```

saDsx1Status OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "DS1/El Status' not included in RFC1406:
        Bit      Value      Meaning
        7        128        Loss of CRC MF Alignment"
    ::= { saDsx1AddEntry 3 }

```

```

saDsx1Alarm OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "DS1/El Alarms:
        Bit      Value      Meaning
        0        1          No Alarm
        1        2          Yellow Alarm
        2        4          AIS
        3        8          LOF
        4        16         Loss of Signal
        5        32         E1 TS16 AIS
        6        64         TS16 LOMF (Loss of Sig MF)
        7        128        Loss of CRC MF Alignment
        8        192        QRSS Detected
        9        208        Network Loopback Detected"
    ::= { saDsx1AddEntry 4 }

```

```

saDsx1MaxIntervals OBJECT-TYPE
    SYNTAX INTEGER (4..96)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION

```

```

        "Max number of intervals stored"
    DEFVAL { 32 }
    ::= { saDsx1AddEntry 5 }

saDsx1Diags OBJECT-TYPE
    SYNTAX INTEGER {
        none(1),
        txYellow(2),
        txAIS(3),
        txE1FasError(4),
        txE1TS16AIS(5),
        txE1MASerror(6),
        txQRSS(7)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Diagnostics"
    DEFVAL { none }
    ::= { saDsx1AddEntry 6 }

saDsx1LOSSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "DS1/E1 LOS Alarm Severity Level"
    ::= { saDsx1AddEntry 7 }

saDsx1LOFSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "DS1/E1 LOF Alarm Severity Level"
    ::= { saDsx1AddEntry 8 }

```

```

saDsx1AISSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "DS1/E1 AIS Alarm Severity Level"
    ::= { saDsx1AddEntry 9 }

saDsx1YelSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "DS1/E1 Yellow Alarm Severity Level"
    ::= { saDsx1AddEntry 10 }

saDsx1TS16AISSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "E1 TS16 AIS Alarm Severity Level"
    ::= { saDsx1AddEntry 11 }

saDsx1TS16LOMFSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "E1 TS16 LOMF Alarm Severity Level"
    ::= { saDsx1AddEntry 12 }

```

```

saDsx1CRCLOMFSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "E1 Loss of CRC Multiframe Alignment Alarm Severity Level"
    ::= { saDsx1AddEntry 13 }

```

```

saDsx1ImaLink OBJECT-TYPE
    SYNTAX  INTEGER {
        true(1),
        false(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Indicates if the link is available for IMA"
    ::= { saDsx1AddEntry 14 }

```

```

saDsx1RxAttenuation OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Receive Attenuation Level (multiples of 2.9 dB)"
    ::= { saDsx1AddEntry 15 }

```

```

saDsx1Range OBJECT-TYPE
    SYNTAX  INTEGER {
        shortHaul(1),
        longHaul(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Specifies the range of the line length"
    ::= { saDsx1AddEntry 16 }

```

```

saDsx1Loopback OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        payload(2),
        line(3),
        local(4),

```

```

        analog(5),
        network(6),
        other(7)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Specifies the Loopback Configuration"
    ::= { saDsx1AddEntry 17 }

```

```

saDsx1NLoopDetection OBJECT-TYPE
    SYNTAX  INTEGER {
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Enable/Disable Network Loopback Detection"
    ::= { saDsx1AddEntry 18 }

```

```

saDsx1PulseMultiplier OBJECT-TYPE
    SYNTAX  INTEGER {
        x0(1),
        x1(2),
        x2(3),
        x3(4),
        x4(5)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Pulse Multiplier in -7.5dB(LH) or +0.6dB(SH) Increments"
    ::= { saDsx1AddEntry 19 }

```

```

saDsx1RxGainBoost OBJECT-TYPE
    SYNTAX  INTEGER {
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Boost Receive Gain (only applicable in 'Long Haul')"
    ::= { saDsx1AddEntry 20 }

```

```

saDsrx1Impedance OBJECT-TYPE
    SYNTAX  INTEGER {
        ohm-75(1),
        ohm-120(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Line Impedance (European Interface Only)"
    ::= { saDsrx1AddEntry 21 }

```

```

saDsrx1Format OBJECT-TYPE
    SYNTAX  INTEGER {
        unstructured(1),
        structured(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Defines format of DS1 port"
    ::= { saDsrx1AddEntry 22 }

```

```

saDsrx1TimeSlotMask OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Mask of all currently allocated time slots"
    ::= { saDsrx1AddEntry 23 }

```

```

saDsrx1DynamicBandwidth OBJECT-TYPE
    SYNTAX  INTEGER {
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Dynamic Bandwidth Allocation"
    ::= { saDsrx1AddEntry 24 }

```

```

saDsrx1ClockMode OBJECT-TYPE
    SYNTAX  INTEGER {
        synchronous(1),
        srts(2),
        adaptive(3)
    }
    MAX-ACCESS  read-write

```

```

STATUS  current
DESCRIPTION
    "Define if DSx/Ex service clocking mode. This
     maps into transmit clock source of CBR interface."
    ::= { saDsrx1AddEntry 25 }

```

```

saDsrx1Signaling OBJECT-TYPE
    SYNTAX  INTEGER {
        transport(1),
        terminate(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Specifies whether signaling should be
         transported across network, or terminated."
    ::= { saDsrx1AddEntry 26 }

```

```

saDsrx1FdlMode OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        att(2),
        ansi(3),
        sprint(4)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Specifies the appropriate FDL mode"
    DEFVAL { none }
    ::= { saDsrx1AddEntry 27 }

```

-- Ethernet

```

saEnetTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaEnetEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Additional items needed for Ethernet management"
    ::= { saEnetExt 1 }

```

```

saEnetEntry OBJECT-TYPE
    SYNTAX  SaEnetEntry
    MAX-ACCESS  not-accessible

```

```

STATUS current
DESCRIPTION
    "Entry for Ethernet interface "
INDEX { ifIndex }
 ::= { saEnetTable 2 }

```

```

saEnetEntry ::=
SEQUENCE
{
    saEnetRate
        INTEGER,
    saEnetFormat
        INTEGER,
    saEnetStatus
        INTEGER,
    saEnetAlarm
        INTEGER,
    saEnetRxPkts
        Counter,
    saEnetTxPkts
        Counter,
    saEnetMissedFrms
        Counter,
    saEnetOverflowCount
        Counter,
    saEnetBridgeGroupNum
        INTEGER,
    saEnetLinkFailSeverity
        INTEGER
}

```

```

saEnetRate OBJECT-TYPE
SYNTAX INTEGER {
    rate-10Mbps(1),
    rate-100Mbps(2),
    full-dup-10M(3),
    full-dup-100M(4)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Ethernet Bit Rate"
 ::= { saEnetEntry 1 }

```

```

saEnetFormat OBJECT-TYPE
SYNTAX INTEGER {
    ethernet(1)
}

```

```

MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Ethernet Format"
 ::= { saEnetEntry 2 }

```

```

saEnetStatus OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Ethernet Defects:
        Bit    Value    Meaning
        0      1        No Alarm
        1      2        Link Fail"
 ::= { saEnetEntry 3 }

```

```

saEnetAlarm OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Ethernet Alarms:
        Bit    Value    Meaning
        0      1        No Alarm
        1      2        Link Fail"
 ::= { saEnetEntry 4 }

```

```

saEnetRxPkts OBJECT-TYPE
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Recieve Packets"
 ::= { saEnetEntry 5 }

```

```

saEnetTxPkts OBJECT-TYPE
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Transmit Packets"
 ::= { saEnetEntry 6 }

```

```

saEnetMissedFrms OBJECT-TYPE
SYNTAX Counter
MAX-ACCESS read-only
STATUS current

```

```

        DESCRIPTION
            "Missed Frames Count"
        ::= { saEnetEntry 7 }

saEnetOverflowCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Overflow Count"
    ::= { saEnetEntry 8 }

saEnetBridgeGroupNum OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Bridge Group that this port is associated with"
    ::= { saEnetEntry 9 }

saEnetLinkFailSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Link Fail Alarm Severity Level"
    ::= { saEnetEntry 10 }

-- Sahara DS0 bundle table

saDs0BundleTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaDs0BundleEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "DS0 Bundle table"
    ::= { saDs0BundleExt 1 }

saDs0BundleEntry OBJECT-TYPE
    SYNTAX SaDs0BundleEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION

```

```

        "Entry for DS0 bundle interface"
    INDEX { ifIndex }
    ::= { saDs0BundleTable 1 }

saDs0BundleEntry ::=
    SEQUENCE
        {
            saDs0BundleTimeslots
                Counter
        }

saDs0BundleTimeslots OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Bit map for DS0s used; rightmost bit is timeslot 1"
    ::= { saDs0BundleEntry 1 }

-- Sahara CES Extension table

saCesTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaCesEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "CES Extension table"
    ::= { saCesExt 1 }

saCesEntry OBJECT-TYPE
    SYNTAX SaCesEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for CES interface"
    INDEX { ifIndex }
    ::= { saCesTable 1 }

saCesEntry ::=
    SEQUENCE
        {
            saCesCdvRXT
                INTEGER,
            saCesRxCondDataCode
                INTEGER,
            saCesRxCondSigCode
                INTEGER,

```

<pre> saCesTxCondDataCode INTEGER, saCesTxCondSigCode INTEGER, saCesIncorrectSNP Counter, saCesTxCells Counter, saCesRxOamCells Counter, saCesRxOamCellsDropped Counter, saCesTxSuppressedCells Counter, saCesTxConditionedCells Counter, saCesDynamicBandwidth INTEGER, saCesTxControl INTEGER, saCesTxControlSource INTEGER, saCesPtrParity INTEGER, saCesNumOffHookChannels INTEGER } </pre>	<pre> saCesRxCondSigCode OBJECT-TYPE SYNTAX INTEGER MAX-ACCESS read-write STATUS current DESCRIPTION "The signaling conditioning code to send to the PHY during periods of underflow conditions" ::= { saCesEntry 3 } </pre>
	<pre> saCesTxCondDataCode OBJECT-TYPE SYNTAX INTEGER MAX-ACCESS read-write STATUS current DESCRIPTION "The data conditioning code to send to the ATM network during PHY failure conditions" ::= { saCesEntry 4 } </pre>
	<pre> saCesTxCondSigCode OBJECT-TYPE SYNTAX INTEGER MAX-ACCESS read-write STATUS current DESCRIPTION "The signaling conditioning code to send to the ATM network during PHY failure conditions" ::= { saCesEntry 5 } </pre>
<pre> saCesCdvRxt OBJECT-TYPE SYNTAX INTEGER MAX-ACCESS read-write STATUS current DESCRIPTION "The maximum cell arrival jitter in 1 usec increments that the reassembly process will tolerate in the cell stream without producing errors on the CBR service interface." ::= { saCesEntry 1 } </pre>	<pre> saCesIncorrectSNP OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of uncorrectable SNP" ::= { saCesEntry 6 } </pre>
<pre> saCesRxCondDataCode OBJECT-TYPE SYNTAX INTEGER MAX-ACCESS read-write STATUS current DESCRIPTION "The data conditioning code to send to the PHY during periods of underflow conditions" ::= { saCesEntry 2 } </pre>	<pre> saCesTxCells OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of cells transmitted" ::= { saCesEntry 7 } </pre>
	<pre> saCesRxOamCells OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION </pre>

```

        "The number of received OAM cells"
        ::= { saCesEntry 8 }

saCesRxDroppedCells OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of received OAM cells dropped"
    ::= { saCesEntry 9 }

saCesTxSuppressedCells OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of transmitted suppressed cells"
    ::= { saCesEntry 10 }

saCesTxConditionedCells OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of transmitted conditioned cells"
    ::= { saCesEntry 11 }

saCesDynamicBandwidth OBJECT-TYPE
    SYNTAX INTEGER {
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Dynamic Bandwidth Allocation"
    ::= { saCesEntry 12 }

saCesTxControl OBJECT-TYPE
    SYNTAX INTEGER {
        enabled(1),
        disabled(2),
        dynamic(3)
    }
    MAX-ACCESS read-write
    STATUS current

```

```

DESCRIPTION
    "IWF Transmit Control"
    ::= { saCesEntry 13 }

saCesTxControlSource OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "IWF Transmit Control Source"
    ::= { saCesEntry 14 }

saCesPtrParity OBJECT-TYPE
    SYNTAX INTEGER {
        enabled(1),
        disabled(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "IWF Structure Pointer Parity Checking"
    ::= { saCesEntry 15 }

saCesNumOffHookChannels OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The Number of 'off-hook' Channels"
    ::= { saCesEntry 16 }

```

END

```
-- *****
```

ATM Connections MIB

```
-- *****
```

```
sa-CONNECTION-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    ifIndex, DisplayStringFROM RFC1213-MIB
    OBJECT-TYPE          FROM SNMPv2-SMI
    saConn, saBrdNumFROM OASIS-SYSINFO-MIB
    Counter              FROM RFC1155-SMI;
```

```
saConnMIBObjects OBJECT IDENTIFIER ::= {saConn 1}
```

```
--=====
```

ATM Connection table

```
--
-- A connection is identified by Source and Destination:
-- { ifIndex, VPI, VCI }
--=====
```

```
saAtmCrossCnctTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmCrossCnctEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " ATM Conn table "
    ::= { saConnMIBObjects 1}
```

```
saAtmCrossCnctEntry OBJECT-TYPE
    SYNTAX      SaAtmCrossCnctEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX { saAtmCrossCnctSrcIfIndex,
            saAtmCrossCnctSrcVpi,
            saAtmCrossCnctSrcVci,
            saAtmCrossCnctDestIfIndex,
            saAtmCrossCnctDestVpi,
            saAtmCrossCnctDestVci
          }
    ::= { saAtmCrossCnctTable 1}
```

```
SaAtmCrossCnctEntry ::= SEQUENCE
```

```
{
    SaAtmCrossCnctSrcIfIndex      INTEGER,
    SaAtmCrossCnctSrcVpi          INTEGER,
    SaAtmCrossCnctSrcVci          INTEGER,
```

```
    SaAtmCrossCnctDestIfIndex    INTEGER,
    SaAtmCrossCnctDestVpi        INTEGER,
    SaAtmCrossCnctDestVci        INTEGER,
```

```
    SaAtmCrossCnctAdminStatus    INTEGER,
    SaAtmCrossCnctOperStatus     INTEGER,
```

```
    SaAtmCrossCnctState          INTEGER,
    SaAtmCrossCnctRowInfo        INTEGER,
```

```
    SaAtmCrossCnctName           DisplayString,
```

```
    SaAtmCrossCnctType           INTEGER,
    SaAtmCrossCnctServiceCategory INTEGER,
    SaAtmCrossCnctServiceRate    INTEGER,
    SaAtmCrossCnctCongestAction  INTEGER,
    SaAtmCrossCnctBufferSize    INTEGER,
```

```
    SaAtmCrossCnctTaggingOption  INTEGER,
```

```
    SaAtmCrossCnctFwdPcrClp0     Counter,
    SaAtmCrossCnctFwdPcrClp01    Counter,
    SaAtmCrossCnctFwdScrClp0     Counter,
    SaAtmCrossCnctFwdScrClp01    Counter,
    SaAtmCrossCnctFwdMbsClp0     Counter,
    SaAtmCrossCnctFwdMbsClp01    Counter,
    SaAtmCrossCnctFwdCdvT        Counter,
```

```
    SaAtmCrossCnctBwdPcrClp0     Counter,
    SaAtmCrossCnctBwdPcrClp01    Counter,
    SaAtmCrossCnctBwdScrClp0     Counter,
    SaAtmCrossCnctBwdScrClp01    Counter,
    SaAtmCrossCnctBwdMbsClp0     Counter,
    SaAtmCrossCnctBwdMbsClp01    Counter,
    SaAtmCrossCnctBwdCdvT        Counter,
```

```
    SaAtmCrossCnctFwdFbr         Counter,
    SaAtmCrossCnctFwdVbr         Counter,
    SaAtmCrossCnctBwdFbr         Counter,
    SaAtmCrossCnctBwdVbr         Counter,
```



```

        add-pend(3),
        disc-pend(4),
        holding(5),
        disc-bad(6),
        down(7),
        add-bad(8),
        bad-Vpvc(9)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Connection state"
    ::= { saAtmCrossCnctEntry 9}

--
-- Deprecated saAtmCrossCnctPvcMState - Entry 10
--

-- NOTE: RowInfo's "submitted" and "del-submit"
-- must be left in for backwards compatibility.

SaAtmCrossCnctRowInfo OBJECT-TYPE
    SYNTAX INTEGER {
        not-inservice(2),
        submitted(10),
        modify(11),
        add(12),
        delete(14),
        modify-pend(16),
        add-pend(17),
        del-pend(18),
        del-submit(19),
        del-complete(20),
        add-mod-complete(21)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        " Internal status for the PVC Manager "
    ::= { saAtmCrossCnctEntry 11}

saAtmCrossCnctName OBJECT-TYPE
    SYNTAX DisplayString(SIZE(0..40))
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION

```

```

        "Connection Name"
    ::= {saAtmCrossCnctEntry 12}

SaAtmCrossCnctType OBJECT-TYPE
    SYNTAX INTEGER {
        vc(1),
        vp(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Connection Type (Future)"
    ::= { saAtmCrossCnctEntry 13}

SaAtmCrossCnctServiceCategory OBJECT-TYPE
    SYNTAX INTEGER {
        cbr-1(1),
        rt-vbr1(2),
        rt-vbr2(3),
        rt-vbr3(4),
        nrt-vbr1(5),
        nrt-vbr2(6),
        nrt-vbr3(7),
        ubr1(8),
        ubr2(9)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Service Category"
    ::= { saAtmCrossCnctEntry 14}

SaAtmCrossCnctServiceRate OBJECT-TYPE
    SYNTAX INTEGER {
        rate-64Kb(1),
        rate-384Kb(2),
        rate-1536Kb(3),
        rate-1Mb(4),
        rate-2Mb(5),
        rate-5Mb(6),
        rate-10Mb(7),
        rate-40Mb(8),
        rate-50Mb(9),
        rate-100Mb(10),
        rate-150Mb(11),
        user-defined(12)
    }
    MAX-ACCESS read-write

```

```

STATUS      current
DESCRIPTION
    "Service Rate"
::= { saAtmCrossCnctEntry 15}

saAtmCrossCnctTaggingOption  OBJECT-TYPE
SYNTAX      INTEGER {
    not-appl(1),
    yes(2),
    no(3)
}

MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Tagging Option, Depending on the Service Category
    chosen Tagging option may or may not be applicable"
::= { saAtmCrossCnctEntry 16}

SaAtmCrossCnctCongestAction  OBJECT-TYPE
SYNTAX      INTEGER {
    none(1),
    setEFCI(2),
    earlyPacketDiscard(3),
    dropCLP1(4),
    setEFCIandEPD(5),
    setEFCIandCLP1(6)
}

MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Action taken"
::= { saAtmCrossCnctEntry 17}

saAtmCrossCnctBufferSize  OBJECT-TYPE
SYNTAX      INTEGER {
    shallow(1),
    medium(2),
    high(3)
}

MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Buffer size allocated for this connection"
::= { saAtmCrossCnctEntry 18}

```

```

saAtmCrossCnctFwdPcrClp0  OBJECT-TYPE
SYNTAX      Counter
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Peak Cell Rate for CLP0 cell flow in Cells per Second"
::= { saAtmCrossCnctEntry 19}

SaAtmCrossCnctFwdPcrClp01  OBJECT-TYPE
SYNTAX      Counter
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Peak Cell Rate for the aggregate CLP0+1
    cell flow in Cells per Second"
::= { saAtmCrossCnctEntry 20}

SaAtmCrossCnctFwdScrClp0  OBJECT-TYPE
SYNTAX      Counter
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Sustained Cell Rate for CLP0 cell flow in
    Cells per Second"
::= { saAtmCrossCnctEntry 21}

SaAtmCrossCnctFwdScrClp01  OBJECT-TYPE
SYNTAX      Counter
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Sustained Cell Rate for the aggregate CLP0+1
    cell flow in Cells per Second"
::= { saAtmCrossCnctEntry 22}

SaAtmCrossCnctFwdMbsClp0  OBJECT-TYPE
SYNTAX      Counter
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Maximum Burst Size for CLP0 cell flow in cells"
::= { saAtmCrossCnctEntry 23}

SaAtmCrossCnctFwdMbsClp01  OBJECT-TYPE
SYNTAX      Counter
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION

```

```

        "Maximum Burst Size for the aggregate CLP0+1
        cell flow in cells"
 ::= { saAtmCrossCnctEntry 24}

SaAtmCrossCnctFwdCdvT OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Cell Delay Variation in units of time"
 ::= { saAtmCrossCnctEntry 25}

saAtmCrossCnctBwdPcrClp0 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Peak Cell Rate for CLP0 cell flow in Cells per Second"
 ::= { saAtmCrossCnctEntry 26}

SaAtmCrossCnctBwdPcrClp01 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Peak Cell Rate for the aggregate CLP0+1
        cell flow in Cells per Second"
 ::= { saAtmCrossCnctEntry 27}

SaAtmCrossCnctBwdScrClp0 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Sustained Cell Rate for CLP0 cell flow
        in Cells per Second"
 ::= { saAtmCrossCnctEntry 28}

SaAtmCrossCnctBwdScrClp01 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Sustained Cell Rate for the aggregate CLP0+1
        cell flow in Cells per Second"
 ::= { saAtmCrossCnctEntry 29}

```

```

SaAtmCrossCnctBwdMbsClp0 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Maximum Burst Size for CLP0 cell flow in cells"
 ::= { saAtmCrossCnctEntry 30}

SaAtmCrossCnctBwdMbsClp01 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Maximum Burst Size for the aggregate CLP0+1
        cell flow in cells"
 ::= { saAtmCrossCnctEntry 31}

SaAtmCrossCnctBwdCdvT OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Cell Delay Variation in units of micro-seconds"
 ::= { saAtmCrossCnctEntry 32}

saAtmCrossCnctFwdFbr OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Amount of forward fixed bandwidth used"
 ::= { saAtmCrossCnctEntry 33}

SaAtmCrossCnctFwdVbr OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Amount of forward variable bandwidth used"
 ::= { saAtmCrossCnctEntry 34}

SaAtmCrossCnctBwdFbr OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Amount of backward fixed bandwidth used"
 ::= { saAtmCrossCnctEntry 35}

```

SaAtmCrossCnctBwdVbr OBJECT-TYPE

SYNTAX Counter

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Amount of backward variable bandwidth used"

::= { saAtmCrossCnctEntry 36}

SaAtmCrossCnctUpcEnable OBJECT-TYPE

SYNTAX INTEGER {

off(1),

on(2)

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"When enabled non-conforming cells are tagged or

discarded, when disabled policing is in monitor mode only"

::= { saAtmCrossCnctEntry 37}

saAtmCrossCnctCause OBJECT-TYPE

SYNTAX INTEGER {

ok(0),

desc-00R-vcn(1),

cnctID-bad(2),

no-bw-Src(3),

no-bw-Dst(4),

no-bfrs-Src(5),

no-bfrs-Dst(6),

vpvcUsed-Src(7),

vpvcUsed-Dst(8),

noPort-Src(9),

noPort-Dst(10),

prtNotRdySrc(11),

prtNotRdyDst(12),

portBad-Src(13),

portBad-Dst(14),

vci-00R-Src(15),

vci-00R-Dst(16),

vpi-00R-Src(17),

vpi-00R-Dst(18),

vpi-Rsvd-Src(19),

vpi-Rsvd-Dst(20),

pvp-00R-Src(21),

pvp-00R-Dst(22),

type-00R-Src(23),

type-00R-Dst(24),

bfrsFail-Src(25),

bfrsFail-Dst(26),

hwFail-Src(27),

hwFail-Dst(28),

rowFail-Src(29),

rowFail-Dst(30),

clrNoPortSrc(31),

clrNoPortDst(32),

clrRwFailSrc(33),

clrRwFailDst(34),

clear-ok(35),

rate-00R(36),

desc-00R(37),

urate00R(38),

vpvc-ok(39),

pre-empt(40),

brd-oslt(41),

max-cause(42)

}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

" Detailed information on the cause of failure -

further describes connection state "

::= { saAtmCrossCnctEntry 38}

saAtmCrossCnctRowStatus OBJECT-TYPE

SYNTAX INTEGER {

create(1),

created(2),

delete(3),

create-vc(4),

create-vp(5),

create-initd(6)

}

```

MAX-ACCESS read-create
STATUS current
DESCRIPTION
    " Used to create a cross connect row using SNMP
      'set' command "
 ::= { saAtmCrossCnctEntry 39}

saAtmCrossCnctProvType OBJECT-TYPE
    SYNTAX INTEGER {
        uni-uni(1),
        uni-ces(2),
        uni-nls(3),
        uni-usf(4),
        uni-vcs(5)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        " States the service types being cross-connected "
    ::= { saAtmCrossCnctEntry 40}

saAtmCrossCnctUserRate OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        " User entered rate in units of bits/second "
    ::= { saAtmCrossCnctEntry 41}

saAtmCrossCnctURateStatus OBJECT-TYPE
    SYNTAX INTEGER {
        ok(1),
        bad(2),
        process(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        " Results of processing user entered rate "
    ::= { saAtmCrossCnctEntry 42}

saAtmCrossCnctVcmHandle OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        " ID returned from VCM "
    ::= { saAtmCrossCnctEntry 43 }

```

```

SaAtmCrossCnctSrcPortIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Source Interface Index; this is the value of ifIndex
          for this side of the connection"
    ::= { saAtmCrossCnctEntry 44}

SaAtmCrossCnctDestPortIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Source VPI"
    ::= { saAtmCrossCnctEntry 45}

--
-- The following items are to be discussed.
--
-- saAtmCrossCnctSetSegmentEndpoint OBJECT-TYPE
--     SYNTAX INTEGER
--     MAX-ACCESS read-write
--     STATUS current
--     DESCRIPTION
--         "Setting this value to 1 sets the UPC chip
--         to be an endpoint for the ATM layer managed
--         cells on this connection. Resetting this value to 0 makes
--         the module an intermediate point. "
--     ::= { saAtmCrossCnctEntry 33 }
--
-- saAtmCrossCnctAalType OBJECT-TYPE
--     SYNTAX INTEGER {
--         aal1(1),
--         aal34(2),
--         aal5(3),
--         other(4),
--         unknown(5)
--     }
--     MAX-ACCESS read-write
--     STATUS current
--     DESCRIPTION
--         "The type of AAL used on this VCC.
--         Other(4) may be user-defined
--         AAL type. The unknown type indicates that
--         the AAL type cannot be determined."
--

```

```

--      ::= { saAtmCrossCnctEntry 34 }
--
--
-- saAtmCrossCnctAal5CpcsTxSduSize  OBJECT-TYPE
--     SYNTAX      INTEGER (1..65535)
--     MAX-ACCESS  read-write
--     STATUS      current
--     DESCRIPTION
--       "The maximum AAL5 CPCS SDU size in octets that is
--       supported on the transmit direction of this connection"
--     DEFVAL { 9188 }
--     ::= { saAtmCrossCnctEntry 35 }
--
-- saAtmCrossCnctAal5CpcsRxSduSize  OBJECT-TYPE
--     SYNTAX      INTEGER (1..65535)
--     MAX-ACCESS  read-write
--     STATUS      current
--     DESCRIPTION
--       "The maximum AAL5 CPCS SDU size in octets that is
--       supported on the transmit direction of this connection"
--     DEFVAL { 9188 }
--     ::= { saAtmCrossCnctEntry 36 }
--
-- saAtmCrossCnctAal5EncapsType  OBJECT-TYPE
--     SYNTAX      INTEGER {
--
--         vcMultiplexRoutedProtocol(1),
--         vcMultiplexBridgedProtocol8023(2),
--         vcMultiplexBridgedProtocol8025(3),
--         vcMultiplexBridgedProtocol8026(4),
--         vcMultiplexLANemulation8023(5),
--         vcMultiplexLANemulation8025(6),
--         llcEncapsulation(7),
--         multiprotocolFrameRelaySscs(8),
--         other(9),
--         unknown(10)
--     }
--     MAX-ACCESS  read-write
--     STATUS      current
--     DESCRIPTION
--       "The type of data encapsulation used over
--       the AAL5 SSCS layer. The definitions reference
--       RFC 1483 Multiprotocol Encapsulation
--       over ATM AAL5 and to the ATM Forum
--       LAN Emulation specification."
--     DEFVAL { llcEncapsulation }
--     ::= { saAtmCrossCnctEntry 37 }
--

```

```

=====
-- ATM Cell Highway Statistics Table
--
-- This Table contains Stats info per ATM Cell Highway.
-- A Cell Highway Carries Aggregate traffic from one or several ATM Ports
-- to the switch fabric.
--
-- Modified 02/10/98 SCP
--
-- Added objects needed for BCON<->SCON init sequence
=====

saCellHwyStatsTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaCellHwyStatsEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "ATM Cell Highway Statistics Table"
    ::= { saConnMIBObjects 2}

saCellHwyStatsEntry  OBJECT-TYPE
    SYNTAX      SaCellHwyStatsEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX {
        saBrdNum,
        saCellHwy
    }
    ::= { saCellHwyStatsTable 1}

saCellHwyStatsEntry      ::= SEQUENCE {

    SaCellHwy              INTEGER,
    SaCellHwyRtRevNum      INTEGER,
    SaCellHwyRtRamSize     INTEGER,
    SaCellHwyStatsCongThreshold  INTEGER,
    SaCellHwyStatsNumEmptyBuffers  INTEGER,
    SaCellHwyStatsFrBuffCongState  INTEGER,

    SaCellHwyStatsMaxFbr   INTEGER,
    SaCellHwyStatsMaxVbr   INTEGER,
    SaCellHwyStatsFbrAvail  INTEGER,
    SaCellHwyStatsVbrAvail  INTEGER,

    SaCellHwyStatsVbrToLoad  INTEGER,
    SaCellHwyStatsBwCacEnable  INTEGER,

```

```

SaCellHwyStatsMarkedCellFromSF      Counter,
SaCellHwyStatsMarkedCellToSF        Counter,
SaCellHwyStatsAtmIfIndex             INTEGER,
SaCellHwyStatsUpcRevNum              INTEGER,
--
-- The following items are needed by SCON during
-- init so the "vpVcRangeFile" and the
-- "priqBfrAllocFile" can be properly validated
-- and processed
--

SaCellHwyStatsMuxPres                INTEGER,
SaCellHwyStatsUpcPres                INTEGER,
SaCellHwyStatsUpcRamSize             INTEGER,
SaCellHwyStatsRtVpBits               INTEGER,
--
-- DIST ONLY
--
-- SCON will do "sets" on these as data becomes
-- available during the init sequence
--

SaCellHwyStatsVpBits                 INTEGER,
SaCellHwyStatsVcBits                 INTEGER,
--
-- More 187 stats
--

SaCellHwyBpFailures                  INTEGER,
SaCellHwyWchdgFailures               INTEGER
}

saCellHwy                            OBJECT-TYPE
    SYNTAX      INTEGER {
        protAccel(1),
        xpod(2),
        ipod1-1(3),
        ipod1-2(4),
        ipod2-1(5),
        ipod2-2(6)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Cell Highway: carries aggregate
        traffic from one or several ATM Ports"
    ::= { saCellHwyStatsEntry 1}

SaCellHwyRtRevNum                    OBJECT-TYPE
    SYNTAX      INTEGER {

```

```

        wac-187-a(0),
        wac-187-b(1),
        unknown(128)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " Router Device Revision Number"
    ::= { saCellHwyStatsEntry 2}

SaCellHwyRtRamSize                   OBJECT-TYPE
    SYNTAX      INTEGER {
        channels-1k(0),
        channels-2k(1),
        channels-4k(2)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " Router Device RAM Size"
    ::= { saCellHwyStatsEntry 3}

saCellHwyStatsCongThreshold           OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " Device congestion threshold"
    ::= { saCellHwyStatsEntry 4}

SaCellHwyStatsNumEmptyBuffers         OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of empty cell buffers"
    ::= { saCellHwyStatsEntry 5}

saCellHwyStatsFrBuffCongState         OBJECT-TYPE
    SYNTAX      INTEGER {
        not-congested(0),
        congested(1)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Free Buffer Pool Congested State"
    ::= { saCellHwyStatsEntry 6}

```

```

saCellHwyStatsMaxFbr          OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Max FBR for this cell highway"
    ::= {saCellHwyStatsEntry 7}

SACellHwyStatsMaxVbr          OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Max VBR for this cell highway"
    ::= {saCellHwyStatsEntry 8}

SACellHwyStatsFbrAvail        OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Current FBR loading for this cell highway"
    ::= {saCellHwyStatsEntry 9}

SACellHwyStatsVbrAvail        OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Current VBR loading for this cell highway"
    ::= {saCellHwyStatsEntry 10}

SACellHwyStatsVbrToLoad       OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Percent of VBR component of connection to apply
        against FBR load"
    ::= {saCellHwyStatsEntry 11}

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

```

```

        not-set(3)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Bandwidth CAC is enabled or disabled"
    ::= {saCellHwyStatsEntry 12}

SACellHwyStatsMarkedCellFromSF OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of Marked Cells Received from the Switch Fabric"
    ::= {saCellHwyStatsEntry 13}

SACellHwyStatsMarkedCellToSF  OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of Marked Cells Transmitted to the Switch Fabric"
    ::= {saCellHwyStatsEntry 14}

SACellHwStatsAtmIfIndex       OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "ATM port associated with this Cell Highway"
    ::= {saCellHwyStatsEntry 15}

SaCellHwyStatsUpcRevNum       OBJECT-TYPE
    SYNTAX      INTEGER {
        wac-186-a(0),
        wac-186-b(1),
        unknown(128)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "UPC Device Revision Number"
    ::= { saCellHwyStatsEntry 16}

SACellHwyStatsMuxPres         OBJECT-TYPE
    SYNTAX      INTEGER {
        mux-not-present(0),
        mux-present(1)

```

```

    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Flag to indicate if cell-mux (WAC-185) exists
        on this Cell Highway"
    ::= {saCellHwyStatsEntry 17}

```

```

SACellHwyStatsUpcPres OBJECT-TYPE
    SYNTAX INTEGER {
        upc-not-present(0),
        upc-present(1)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Flag to indicate if upc (WAC-186) exists on
        this Cell Highway"
    ::= {saCellHwyStatsEntry 18}

```

```

SACellHwyStatsUpcRamSize OBJECT-TYPE
    SYNTAX INTEGER {
        channels-1k(0),
        channels-4k(1)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Amount of upc ram available (WAC 186)"
    ::= {saCellHwyStatsEntry 19}

```

```

SACellHwyStatsRtVpBits OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "# VP bits specified by POD"
    ::= {saCellHwyStatsEntry 20}

```

```

SACellHwyStatsVpBits OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Number of valid VPI bits for this cell hiway."
    ::= {saCellHwyStatsEntry 21}

```

```

SaCellHwyStatsVcBits OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Number of valid VCI bits for this cell hiway"
    ::= {saCellHwyStatsEntry 22}

```

```

SaCellHwyBpFailures OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of times WAC-187 ignored backpressure"
    ::= {saCellHwyStatsEntry 23}

```

```

SaCellHwyWchdgFailures OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of times WAC-187 watchdog timed out"
    ::= {saCellHwyStatsEntry 24}

```

```

=====
-- ATM Priority-Queues Statistics Table
--
-- This Table contains Statistical Info on Priority Queues per
-- cell Highway.
-- The following queue priorities are currently supported:
-- High-Priority, Multicast and three Proportional-Bandwidth
-- Priority queues: A,B, and C.
--
=====

```

```

saPriQueuesStatsTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaPriQueuesStatsEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        " ATM Port Priority Queues Statistics Table "
    ::= { saConnMIBObjects 3}

```

```

saPriQueuesStatsEntry OBJECT-TYPE
    SYNTAX SaPriQueuesStatsEntry
    MAX-ACCESS not-accessible

```

```

STATUS      current
DESCRIPTION
    " "
INDEX {
    saBrdNum,
    saPriCellHwy,
    saPriQueuePri
}
::= { saPriQueuesStatsTable 1}

saPriQueuesStatsEntry ::= SEQUENCE
{
    SaPriCellHwy          INTEGER,
    SaPriQueuePri         INTEGER,
    SaPriQueuesMaxQSize   INTEGER,
    SaPriQueuesCongThresh INTEGER,
    SaPriQueuesCurrQDepth INTEGER,
    SaPriQueuesCongState  INTEGER,
    SaPriQueuesOverSubQSize INTEGER,
    SaPriQueuesRemainQSize INTEGER,
    SaPriQueuesCOverSubQSize INTEGER,
    SaPriQueuesCRemainQSize INTEGER,
--
-- (Note: Although the following data is available
-- per "cell hiway", it currently is applied (by BCON)
-- per ICM)
--
    SaPriQueuesPercentAlloc      INTEGER,
    SaPriQueuesPercentThreshold  INTEGER,
    SaPriQueuesPercentOverSubscribe INTEGER
}

SAPriCellHwy OBJECT-TYPE
SYNTAX      INTEGER {
    protAccel(1),
    xpod(2),
    ipod1-1(3),
    ipod1-2(4),
    ipod2-1(5),
    ipod2-2(6)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Cell Highway: carries aggregate traffic
    from one or several ATM Ports"
::= { saPriQueuesStatsEntry 1}

```

```

saPriQueuePri OBJECT-TYPE
SYNTAX      INTEGER {
    high-priority(0),
    multicast(1),
    prop-bw-a(2),
    prop-bw-b(3),
    prop-bw-c(4),
    reserved(5),
    oam-rcv(6)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Queue Priority"
::= { saPriQueuesStatsEntry 2}

saPriQueuesMaxQSize OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Max Queue Size. Cells are dropped when queue level
    reaches this limit"
::= { saPriQueuesStatsEntry 3}

SAPriQueuesCongThresh OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Congestion Threshold for this priority, after which
    Congestion Management Actions are taken"
::= { saPriQueuesStatsEntry 4}

SAPriQueuesCurrQDepth OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Current Queue Depth"
::= { saPriQueuesStatsEntry 5}

SAPriQueuesCongState OBJECT-TYPE
SYNTAX      INTEGER {
    not-congested(0),
    congested(1)
}
MAX-ACCESS  read-only

```

```

STATUS      current
DESCRIPTION
    "Queue Congested State"
 ::= { saPriQueuesStatsEntry 6}

SAPriQueuesOverSubQSize      OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Max Q size including cell bfr
    over-subscription (from device drivers)"
 ::= { saPriQueuesStatsEntry 7}

SAPriQueuesRemainQSize      OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "If this goes to zero, new connections
    (of this pri) rejected (from device drivers)"
 ::= { saPriQueuesStatsEntry 8}

SAPriQueuesCOverSubQSize      OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Max Q size including cell bfr over-subscription
    (from CAC)"
 ::= { saPriQueuesStatsEntry 9}

SAPriQueuesCRemainQSize      OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "If this goes to zero, new connections
    (of this pri) rejected (from CAC)"
 ::= { saPriQueuesStatsEntry 10}

SaPriQueuesPercentAlloc      OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The percent of the available cells to allocate
    to this priority Q. Note: The sum of this value

```

```

    for all rows within a cell hiway must not exceed 100%"
 ::= {saPriQueuesStatsEntry 11}

```

```

SaPriQueuesPercentThreshold      OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The percentage of the allocated cell count for
    this Q that will be used to indicate congestion."
 ::= {saPriQueuesStatsEntry 12}

SaPriQueuesPercentOverSubscribe OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "The percentage of the allocated cell count
    for this Q that will be allowed to be oversubscribed."
 ::= {saPriQueuesStatsEntry 13}

```

```

=====
-- ATM Connection Routing Statistics Table
--
-- This Table contains Routing-related Statistical
-- information per VCL/VPL.
=====

```

```

saRoutingStatsTable      OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaRoutingStatsEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "ATM Connection Routing Statistics Table"
    ::= { saConnMIBObjects 4}

```

```

saRoutingStatsEntry      OBJECT-TYPE
    SYNTAX      SaRoutingStatsEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX { ifIndex,
            saRoutingVpi,
            saRoutingVci
          }
    ::= { saRoutingStatsTable 1}

```

```

saRoutingStatsEntry      ::= SEQUENCE
{
    SaRoutingVpi           INTEGER,
    SaRoutingVci           INTEGER,

    SaRoutingCellsIn       Counter,
    SaRoutingRunnCellsIn   Counter,
    SaRoutingBasCellsIn    Counter,

    SaRoutingCellsDropped  Counter,
    SaRoutingRunnCellsDropped Counter,
    SaRoutingBasCellsDropped Counter,

    SaRoutingCellsCongested Counter,
    SaRoutingRunnCellsCongested Counter,
    SaRoutingBasCellsCongested Counter,

    SaRoutingTxCells       Counter,

    SaRoutingMaxQSize       INTEGER,

```

```

    SaRoutingCongThresh    INTEGER,
    SaRoutingCurrQDepth    INTEGER,
    SaRoutingCongState     INTEGER,
    SaRoutingCongAction    INTEGER,
    SaRoutingQueueId       INTEGER,
    SaRoutingTags07        INTEGER,
    SaRoutingTags89        INTEGER,
    SaRoutingNewVPI        INTEGER,
    SaRoutingNewVCI        INTEGER,
    SaRoutingClearCounts   INTEGER,
    SaRoutingSetMarkedCellCnt INTEGER,
    SaRoutingSFLevel0Link  INTEGER,
    SaRoutingSFLevel1Link  INTEGER,
    SaRoutingDummy         INTEGER
}

```

```

saRoutingVpi      OBJECT-TYPE
    SYNTAX      INTEGER (0..4095)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " Virtual Path Identifier "
    ::= { saRoutingStatsEntry 1}

```

```

SaRoutingVci      OBJECT-TYPE
    SYNTAX      INTEGER (0..65535)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Virtual Connection Identifier"
    ::= { saRoutingStatsEntry 2}

```

```

SaRoutingCellsIn  OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Total Count of received cells"
    ::= { saRoutingStatsEntry 3}

```

```

SaRoutingRunnCellsIn  OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Running Count of received cells"
    ::= { saRoutingStatsEntry 4}

```

```

SaRoutingBasCellsIn      OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of total cells when a clear was done"
    ::= { saRoutingStatsEntry 5}

saRoutingCellsDropped    OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of Dropped cells due to congestion or invalid
        connection identifiers"
    ::= { saRoutingStatsEntry 6}

SaRoutingRunnCellsDropped OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Running count of Dropped cells due to congestion
        or invalid connection identifiers"
    ::= { saRoutingStatsEntry 7}

SaRoutingBasCellsDropped OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of total cells when a clear was done"
    ::= { saRoutingStatsEntry 8}

SaRoutingCellsCongested  OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of cells for which EFCI bit was set
        due to congestion"
    ::= { saRoutingStatsEntry 9}

SaRoutingRunnCellsCongested OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION

```

```

        "Running count of cells for which EFCI
        bit was set due to congestion"
        ::= { saRoutingStatsEntry 10}

SaRoutingBasCellsCongested    OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of total cells when a clear was done"
        ::= { saRoutingStatsEntry 11}

saRoutingTxCells    OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of cells transmitted"
        ::= { saRoutingStatsEntry 12}

saRoutingMaxQSize    OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Maximum Queue Depth for this VC. Cells are dropped
        when queue level reaches this limit"
        ::= { saRoutingStatsEntry 13}

SaRoutingCongThresh OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Congestion Threshold for this connection, after which
        Congestion Management Actions are taken"
        ::= { saRoutingStatsEntry 14}

SaRoutingCurrQDepth OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Current queue level for this connection"
        ::= { saRoutingStatsEntry 15}

```

```

SaRoutingCongState OBJECT-TYPE
    SYNTAX      INTEGER {
        not-congested(0),
        congested(1)
    }
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Congestion State: when queue level exceeds the congestion
        threshold, congestion-state is declared. It is only
        cleared when the queue level drops below 75% of
        cong threshold."
    ::= { saRoutingStatsEntry 16}

SaRoutingCongAction OBJECT-TYPE
    SYNTAX      INTEGER {
        none(1),
        drop-clp1(2),
        aal5-epd(3),
        efci-mark(4)
    }
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Action taken when either the VC, the Priority
        or the Device is in the congested state"
    ::= { saRoutingStatsEntry 17}

SaRoutingQueueId OBJECT-TYPE
    SYNTAX      INTEGER {
        high-priority(0),
        multicast(1),
        prop-bw-a(2),
        prop-bw-b(3),
        prop-bw-c(4),
        reserved(5),
        oam-rcv(6)
    }
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Queue ID this VC is assigned to"
    ::= { saRoutingStatsEntry 18}

SaRoutingTags07 OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS read-only
    STATUS      current

```

```

DESCRIPTION
    ""
    ::= { saRoutingStatsEntry 19}

SaRoutingTags89 OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "Tag prepended to cells for routing through
        the switching fabric"
    ::= { saRoutingStatsEntry 20}

SaRoutingNewVPI OBJECT-TYPE
    SYNTAX      INTEGER (0..4095)
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "New translated value for VPI"
    ::= { saRoutingStatsEntry 21}

SaRoutingNewVCI OBJECT-TYPE
    SYNTAX      INTEGER (0..65535)
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        " New translated value for VPI"
    ::= { saRoutingStatsEntry 22}

saRoutingClearCounts OBJECT-TYPE
    SYNTAX      INTEGER {
        normal(1),
        reset(2)
    }
    MAX-ACCESS read-write
    STATUS      current
    DESCRIPTION
        "Setting this objects to reset, resets all
        the running count for Routing and UPC Tables"
    ::= { saRoutingStatsEntry 23}

SaRoutingSetMarkedCellCnt OBJECT-TYPE
    SYNTAX      INTEGER {
        enable(1),
        disable(2)
    }
    MAX-ACCESS read-write
    STATUS      current

```

```

DESCRIPTION
    " Enables/Disables Marked cell counts. "
 ::= { saRoutingStatsEntry 24}

SARoutingSFLevel0Link OBJECT-TYPE
    SYNTAX      INTEGER (0..7)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " First stage Switch Fabric output link -Level0- "
 ::= { saRoutingStatsEntry 25}

SARoutingSFLevel1Link OBJECT-TYPE
    SYNTAX      INTEGER (0..7)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " Second stage Switch Fabric output link -Level1- "
 ::= { saRoutingStatsEntry 26}

SARoutingDummy OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " Dummy Var "
 ::= {saRoutingStatsEntry 27}

--=====
-- ATM Connection UPC Statistics Table
--
-- This Table contains UPC Statistical information per VCL/VPL.
--=====

saUPCStatsTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaUPCStatsEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " ATM Connection UPC Statistics Table "
 ::= { saConnMIBObjects 5}

```

```

SaUPCStatsEntry OBJECT-TYPE
    SYNTAX      SaUPCStatsEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX { ifIndex,
            saUPCVpi,
            saUPCVci
          }
 ::= { saUPCStatsTable 1}

SaUPCStatsEntry ::= SEQUENCE
{
    SaUPCVpi                INTEGER,
    SaUPCVci                INTEGER,
    SaUPCStatsTotalCellsIn  Counter,
    SaUPCStatsRunnCellsIn   Counter,
    SaUPCStatsBasCellsIn    Counter,

    SaUPCStatsClp0CellsIn   Counter,
    SaUPCStatsRunnClp0CellsIn Counter,
    SaUPCStatsBasClp0CellsIn Counter,

    SaUPCStatsGCRA0Mode     INTEGER,
    SaUPCStatsGCRA1Mode     INTEGER,
    SaUPCStatsGCRA1Flow     INTEGER,

    SaUPCStatsGCRA0Incr     INTEGER,
    SaUPCStatsGCRA0Limit    INTEGER,
    SaUPCStatsGCRA1Incr     INTEGER,
    SaUPCStatsGCRA1Limit    INTEGER,

    SaUPCStatsGCRA0TagOrDrop Counter,
    SaUPCStatsGCRA0RunnTagOrDrop Counter,
    SaUPCStatsGCRA0BasTagOrDrop Counter,

    SaUPCStatsGCRA1TagOrDrop Counter,
    SaUPCStatsGCRA1RunnTagOrDrop Counter,
    SaUPCStatsGCRA1BasTagOrDrop Counter,

    SaUPCStatsChannelStatus INTEGER,

    SaUPCStatsDummy         INTEGER
}

```

```

SaUPCVpi OBJECT-TYPE
    SYNTAX      INTEGER (0..4095)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " Virtual Path Identifier "
    ::= { saUPCStatsEntry 1}

SaUPCVci OBJECT-TYPE
    SYNTAX      INTEGER (0..65535)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Virtual Connection Identifier"
    ::= { saUPCStatsEntry 2}

SaUPCStatsTotalCellsIn OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Total number of received cells"
    ::= { saUPCStatsEntry 3}

saUPCStatsRunnCellsIn OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Running count of received cells"
    ::= { saUPCStatsEntry 4}

saUPCStatsBasCellsIn OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of total cells when a clear was done"
    ::= { saUPCStatsEntry 5}

SaUPCStatsClp0CellsIn OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of CLP0 cells received"
    ::= { saUPCStatsEntry 6}

```

```

SaUPCStatsRunnClp0CellsIn OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Running count of CLP0 cells received"
    ::= { saUPCStatsEntry 7}

SaUPCStatsBasClp0CellsIn OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of total cells when a clear was done"
    ::= { saUPCStatsEntry 8}

SaUPCStatsGCRA0Mode OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled(1),
        monitor(2),
        tag(3),
        drop(4)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " GCRA Mode: Disabled, monitor-only(do not police),
        police-and-tag( Police and Tag non-compliant cells )
        police-and-drop(Police and discard non-compliant cells)"
    ::= { saUPCStatsEntry 9}

SaUPCStatsGCRA1Mode OBJECT-TYPE
    SYNTAX      INTEGER {
        disabled(1),
        monitor(2),
        tag(3),
        drop(4)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        " GCRA Mode: Disabled, monitor-only(do not police),
        police-and-tag( Police and Tag non-compliant cells )
        police-and-drop(Police and discard non-compliant cells)"
    ::= { saUPCStatsEntry 10}

```

SaUPCStatsGCRA1Flow OBJECT-TYPE

```
SYNTAX      INTEGER {
                clp0(0),
                clp01(1)
            }
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
" Specifies whether GCRA1 is programmed to operate on
   CLP0 or CLP0+1 cell flow"
```

```
::= { saUPCStatsEntry 11}
```

SaUPCStatsGCRA0Incr OBJECT-TYPE

```
SYNTAX      INTEGER
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
" GCRA Increment Parameter:  GCRA(I,L)"
```

```
::= { saUPCStatsEntry 12}
```

SaUPCStatsGCRA0Limit OBJECT-TYPE

```
SYNTAX      INTEGER
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
" GCRA Increment Parameter:  GCRA(I,L)"
```

```
::= { saUPCStatsEntry 13}
```

SaUPCStatsGCRA1Incr OBJECT-TYPE

```
SYNTAX      INTEGER
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
" GCRA Increment Parameter:  GCRA(I,L)"
```

```
::= { saUPCStatsEntry 14}
```

SaUPCStatsGCRA1Limit OBJECT-TYPE

```
SYNTAX      INTEGER
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
" GCRA Limit Parameter:  GCRA(I,L)"
```

```
::= { saUPCStatsEntry 15}
```

SaUPCStatsGCRA0TagOrDrop OBJECT-TYPE

```
SYNTAX      Counter
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
" Number of cells that did not conform to GCRA0"
```

```
::= { saUPCStatsEntry 16}
```

SAUPCStatsGCRA0RunnTagOrDrop OBJECT-TYPE

```
SYNTAX      Counter
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
" Running count of cells that did not conform to GCRA0"
```

```
::= { saUPCStatsEntry 17}
```

saUPCStatsGCRA0BasTagOrDrop OBJECT-TYPE

```
SYNTAX      Counter
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
" Count of total cells when a clear was done"
```

```
::= { saUPCStatsEntry 18}
```

SaUPCStatsGCRA1TagOrDrop OBJECT-TYPE

```
SYNTAX      Counter
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
"Number of cells that did not conform to GCRA1 "
```

```
::= { saUPCStatsEntry 19}
```

SAUPCStatsGCRA1RunnTagOrDrop OBJECT-TYPE

```
SYNTAX      Counter
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
"Running count of cells that did not conform to GCRA1 "
```

```
::= { saUPCStatsEntry 20}
```

SAUPCStatsGCRA1BasTagOrDrop OBJECT-TYPE

```
SYNTAX      Counter
```

```
MAX-ACCESS  read-only
```

```
STATUS      current
```

DESCRIPTION

```
"Count of total cells when a clear was done"
```

```
::= { saUPCStatsEntry 21}
```

SaUPCStatsChannelStatus OBJECT-TYPE

```
SYNTAX      INTEGER {
                active(1),
                not-active(2)
            }
```

```

    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Channel Status; set to not-active if no cell
        has been received in the last 20 seconds"
    ::= { saUPCStatsEntry 22}

SaUPCStatsDummy OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        " Dummy Var "
    ::= {saUPCStatsEntry 23}

=====
-- ATM Port Stats table
--
-- This Table contains information per ATM port.
=====

SaAtmPortStatsTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAtmPortStatsEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        " ATM Port Statistics Table "
    ::= { saConnMIBObjects 6}

SaAtmPortStatsEntry OBJECT-TYPE
    SYNTAX SaAtmPortStatsEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        " "
    INDEX { ifIndex }
    ::= { saAtmPortStatsTable 1}

SaAtmPortStatsEntry ::= SEQUENCE
{
    SaAtmPortStatsNodeNum INTEGER,
    SaAtmPortStatsModuleNum INTEGER,

```

```

    SaAtmPortStatsAtmIfIndex INTEGER,

    SaAtmPortStatsAtmVpBits INTEGER,
    SaAtmPortStatsAtmVcBits INTEGER,
    SaAtmPortStatsStartResVp INTEGER,
    SaAtmPortStatsEndResVp INTEGER,

    SaAtmPortStatsMaxFbw INTEGER,
    SaAtmPortStatsMaxVbw INTEGER,
    SaAtmPortStatsFwdFbwAvail INTEGER,
    SaAtmPortStatsFwdVbwAvail INTEGER,
    SaAtmPortStatsBwdFbwAvail INTEGER,
    SaAtmPortStatsBwdVbwAvail INTEGER,

    SaAtmPortStatsVbwToLoad INTEGER,

    SaAtmPortStatsBwCacEnable INTEGER,

    SaAtmPortStatsNumActiveConn INTEGER,
    SaAtmPortStatsLastInvalidVpiVci INTEGER,

    SaAtmPortStatsPortPOST INTEGER,

    SaAtmPortStatsCellHway INTEGER,
    SaAtmPortStatsCellHwayPort INTEGER,
    SaAtmPortStatsNumActiveVps INTEGER,
    SaAtmPortStatsCmBits INTEGER,
    SaAtmPortStatsNumActiveVcs INTEGER,
    SaAtmPortStatsVpRngFlg INTEGER,
    SaAtmPortStatsNewMaxFbw INTEGER
}

SaAtmPortStatsNodeNum OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Node Number on which this ATM interface exists"
    ::= {saAtmPortStatsEntry 1}

SaAtmPortStatsModuleNum OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Module (Board) Number on which this ATM interface exists"
    ::= {saAtmPortStatsEntry 2}

```

SaAtmPortStatsAtmIfIndex OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Logical Port Number"
 ::= {saAtmPortStatsEntry 3}

SaAtmPortStatsAtmVpBits OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Number of valid VPI bits"
 ::= {saAtmPortStatsEntry 4}

SaAtmPortStatsAtmVcBits OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Number of valid VCI bits"
 ::= {saAtmPortStatsEntry 5}

SaAtmPortStatsStartResVp OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Start of reserved VP block (0 if no VPs reserved)"
 ::= {saAtmPortStatsEntry 6}

SaAtmPortStatsEndResVp OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "End of reserved VP block (0 if no VPs reserved)"
 ::= {saAtmPortStatsEntry 7}

SaAtmPortStatsMaxFbw OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "CAC parameter: Max Fixed Bandwidth for this ATM port"
 ::= {saAtmPortStatsEntry 8}

SaAtmPortStatsMaxVbw OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "CAC parameter: Max Variable Bandwidth for this ATM port"
 ::= {saAtmPortStatsEntry 9}

SaAtmPortStatsFwdFbwAvail OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "CAC parameter: Current available
 Forward Fixed Bandwidth for this ATM port"
 ::= {saAtmPortStatsEntry 10}

SaAtmPortStatsFwdVbwAvail OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "CAC parameter: Current available
 Forward Variable Bandwidth for this ATM port"
 ::= {saAtmPortStatsEntry 11}

SaAtmPortStatsBwdFbwAvail OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "CAC parameter: Current available
 Backward Fixed Bandwidth for this ATM port"
 ::= {saAtmPortStatsEntry 12}

SaAtmPortStatsBwdVbwAvail OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "CAC parameter: Current available
 Backward Variable Bandwidth for this ATM port"
 ::= {saAtmPortStatsEntry 13}

SaAtmPortStatsVbwToLoad OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current

```

DESCRIPTION
    "Percent of VBW component of connection
    to apply against FBW load"
::= {saAtmPortStatsEntry 14}

SaAtmPortStatsBwCacEnable OBJECT-TYPE
SYNTAX      INTEGER {
    enable(1),
    disable(2),
    not-set(3)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Bandwidth CAC is enabled or disabled"
::= {saAtmPortStatsEntry 15}

SaAtmPortStatsNumActiveConn OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    " Number of VP + VC connections on this port"
::= { saAtmPortStatsEntry 16}

SaAtmPortStatsLastInvalidVpiVci OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    " A 32-bit HEX value Containing: GFC(4), VPI(8), VCI(16)
    PTI(3), CLP(1) fields of the last cell received
    with Invalid VPI/VCI"
::= { saAtmPortStatsEntry 17}

SaAtmPortStatsPortPOST OBJECT-TYPE
SYNTAX      INTEGER {
    pass(1),
    fail(2)
}
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "Results of port Power On Self Test"
::= {saAtmPortStatsEntry 18}

```

```

SaAtmPortStatsCellHway OBJECT-TYPE
SYNTAX      INTEGER {
    sar(1),
    xpod(2),
    ipod1-1(3),
    ipod1-2(4),
    ipod2-1(5),
    ipod2-2(6)
}
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    " Cell Hway ID for this ATM port"
::= { saAtmPortStatsEntry 19}

SaAtmPortStatsCellHwayPort OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    " Port ID for this Cell Hiway (cell mux)"
::= { saAtmPortStatsEntry 20}

SaAtmPortStatsNumActiveVps OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    " Number of VP connections on this port"
::= { saAtmPortStatsEntry 21}

SaAtmPortStatsCmBits OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    " Cell Mux bits - for internal use "
::= { saAtmPortStatsEntry 22}

SaAtmPortStatsNumActiveVcs OBJECT-TYPE
SYNTAX      INTEGER
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    " Number of VC connections on this port"
::= { saAtmPortStatsEntry 23}

```

SaAtmPortStatsVpRngFlg OBJECT-TYPE

SYNTAX INTEGER {
vp-ranges-off(0),
vp-ranges-on(1)
}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Flag indicating whether or not VP ranges are to
be specified for this port"

::= {saAtmPortStatsEntry 24}

SaAtmPortStatsNewMaxFbw OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Used to update maximum available bandwidth for port"

::= {saAtmPortStatsEntry 25}

```
--=====
-- ATM conn table "ping"
-- This simple object is "set" by the UI when the connTable changes
--=====
```

saConnTableChange OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Signals a change within Connection Table MIB"

::= { saConnMIBObjects 8 }

saConnTableState OBJECT-TYPE

SYNTAX INTEGER {
no-change(1),
change(2),
processing(3),
pending(4)
}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Conn Table Processing State"

::= { saConnMIBObjects 9 }

```
--=====
-- ATM Per VC buffer allocation settings
-- Currently read only. Used to show the contents of a file which
-- is downloaded to the ICM. It contains the cell buffer allocation
-- and congestion threshold used for each VC. Exact values are dependant
-- upon the Service Category and (rough) allocation selection (high,
-- medium, shallow).
--=====
```

SaAtmPerVcBfrTable OBJECT-TYPE

SYNTAX SEQUENCE OF SaAtmPerVcBfrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

" ATM Per VC buffer allocation table "

::= { saConnMIBObjects 11 }

SaAtmPerVcBfrEntry OBJECT-TYPE

SYNTAX SaAtmPerVcBfrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

" "

INDEX { saAtmVcBfrSelection }

::= { saAtmPerVcBfrTable 1 }

SaAtmPerVcBfrEntry ::= SEQUENCE

```
{
  SaAtmVcBfrSelection          INTEGER,

  SaAtmVcBfrCbrAlloc           INTEGER,
  SaAtmVcBfrCbrCong            INTEGER,

  SaAtmVcBfrVbrAlloc           INTEGER,
  SaAtmVcBfrVbrCong            INTEGER,

  SaAtmVcBfrVbrNrtAlloc        INTEGER,
  SaAtmVcBfrVbrNrtCong         INTEGER,

  SaAtmVcBfrUbrAlloc           INTEGER,
  SaAtmVcBfrUbrCong            INTEGER
}
```

SaAtmVcBfrSelection OBJECT-TYPE

SYNTAX INTEGER {
shallow(1),
medium(2),
high(3)
}

```

    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Cell buffer depth selected for this connection"
    ::= { saAtmPerVcBfrEntry 1}

SaAtmVcBfrCbrAlloc OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of cell buffers allocated for CBR VCs"
    ::= { saAtmPerVcBfrEntry 2}

SaAtmVcBfrCbrCong OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Cell buffer threshold for CBR VCs"
    ::= { saAtmPerVcBfrEntry 3}

SaAtmVcBfrVbrAlloc OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of cell buffers allocated for VBR VCs"
    ::= { saAtmPerVcBfrEntry 4}

SaAtmVcBfrVbrCong OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Cell buffer threshold for VBR VCs"
    ::= { saAtmPerVcBfrEntry 5}

SaAtmVcBfrVbrNrtAlloc OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of cell buffers allocated for VBR nrt VCs"
    ::= { saAtmPerVcBfrEntry 6}

```

```

SaAtmVcBfrVbrNrtCong OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Cell buffer threshold for VBR nrt VCs"
    ::= { saAtmPerVcBfrEntry 7}

SaAtmVcBfrUbrAlloc OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of cell buffers allocated for UBR VCs"
    ::= { saAtmPerVcBfrEntry 8}

SaAtmVcBfrUbrCong OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Cell buffer threshold for UBR VCs"
    ::= { saAtmPerVcBfrEntry 9}

```

```

-----
--
-- ATM Connection Management "tuning" file status
--
-- This Table contains results of attempting to process the "tuning"
-- files. This is done once at power up. This is the current list of
-- the 'tuning' files as of 4/21/97 :
--
--  vpv.cdt  Program the VCI and VPI limits as well as setting
--            the range of reserved PVPs.
--
--  priq.cdt  Program the cell buffer distribution, congestion thresh-
--            old, and overbooking of the 4 priority queues.
--
--  vcbfr.cdt Program the per VC cell buffer allocation based on
--            the connection type and user selected buffer depth.
--
--  cac.cdt   Program the per port and per switch fabric bandwidth
--            limits.
--
-----

```

```

SaAtmTuningFilesTable      OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmTuningFilesEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Results of processing ATM 'tuning' parameters files"
    ::= { saConnMIBObjects 12 }

```

```

SaAtmTuningFilesEntry      OBJECT-TYPE
    SYNTAX      SaAtmTuningFilesEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX {
        saBrdNum,
        saAtmFileNum
    }
    ::= { saAtmTuningFilesTable 1}

```

```

SaAtmTuningFilesEntry      ::= SEQUENCE {

    SaAtmFileNum             INTEGER,
    SaAtmFileStat            INTEGER,
    SaAtmFileName            DisplayString
}

```

```

SaAtmFileNum              OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of ATM Connection Mgt File"
    ::= {saAtmTuningFilesEntry 1}

```

```

SaAtmFileStat             OBJECT-TYPE
    SYNTAX      INTEGER {
        ok(1),
        missing(2),
        fail(3),
        no-match(4)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Status of ATM Connection Mgt File"
    ::= { saAtmTuningFilesEntry 2 }

```

```

SaAtmFileName              OBJECT-TYPE
    SYNTAX      DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Name of ATM Connection Mgt File"
    ::= {saAtmTuningFilesEntry 3}

```

```

-----
--
--                                     VCM (Virtual Connection Manager) Table
--
-- This table contains information which is communicated to the individual
-- slots in an ICM. The ICMs use each row to set up one-half of a
-- x-connect. The indexes for the VCM row describing the other
-- half of the x-connect are contained in each row (as "Other" objects).
--
-- Special case: cross-connects in and out of the same ATM port
-- with the same VPI/VCI will have its "directional" object set
-- to "uni" and will only have one VCM row.
--
-----

```

```

SaAtmVcmTable              OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmVcmEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Contains central and distributed x-cnct objects"
    ::= { saConnMIBObjects 13 }

```

```

SaAtmVcmEntry              OBJECT-TYPE
    SYNTAX      SaAtmVcmEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX {
        saAtmVcmBrdNum,
        saAtmVcmAtmPort,
        saAtmVcmVpi,
        saAtmVcmVci
    }
    ::= { saAtmVcmTable 1}

```

```

saAtmVcmEntry ::= SEQUENCE {
--
-- Indexes
--
    saAtmVcmBrdNum      INTEGER,
    saAtmVcmAtmPort     INTEGER,
    saAtmVcmVpi         INTEGER,
    saAtmVcmVci         INTEGER,
--
-- Central Objects
--
    saAtmVcmIfIndex     INTEGER,
    saAtmVcmRootIfIndex INTEGER,
    saAtmVcmOtherIfIndex INTEGER,
    saAtmVcmOtherVcmRow INTEGER,
    saAtmVcmDirectional INTEGER,

    saAtmVcmCnctMgrId   INTEGER,
    saAtmVcmCnctMgrHandle INTEGER,

    saAtmVcmSfPath      OCTET STRING,
    saAtmVcmFbw         INTEGER,
    saAtmVcmVbw         INTEGER,
    saAtmVcmRowInfo     INTEGER,
    saAtmVcmBwPri       INTEGER,
--
-- Mostly Distributed Objects
--
    saAtmVcmTrafType     INTEGER,
    saAtmVcmCnctType     INTEGER,
    saAtmVcmNumBfrs      INTEGER,
    saAtmVcmCongThrsh    INTEGER,
    saAtmVcmCongAct      INTEGER,
    saAtmVcmSfTag0       INTEGER,
    saAtmVcmSfTag1       INTEGER,

    saAtmVcmOtherCmBits  INTEGER,
    saAtmVcmOtherVpi     INTEGER,
    saAtmVcmOtherVci     INTEGER,

    saAtmVcmPcrClp0      Counter,
    saAtmVcmPcrClp01     Counter,
    saAtmVcmScrClp0      Counter,
    saAtmVcmScrClp01     Counter,
    saAtmVcmMbsClp0      Counter,
    saAtmVcmMbsClp01     Counter,
    saAtmVcmCdvT         Counter,
    saAtmVcmUpcEnable    INTEGER,

```

```

    saAtmVcmAdminSt      INTEGER,
    saAtmVcmOperSt       INTEGER
}

SaAtmVcmBrdNum          OBJECT-TYPE
    SYNTAX                INTEGER
    MAX-ACCESS             read-only
    STATUS                 current
    DESCRIPTION
        " Board (slot) number index "
    ::= { saAtmVcmEntry 1 }

SaAtmVcmAtmPort         OBJECT-TYPE
    SYNTAX                INTEGER
    MAX-ACCESS             read-only
    STATUS                 current
    DESCRIPTION
        " ATM port index. Used internally by cnction mgt system "
    ::= { saAtmVcmEntry 2 }

SaAtmVcmVpi             OBJECT-TYPE
    SYNTAX                INTEGER (0..4095)
    MAX-ACCESS             read-only
    STATUS                 current
    DESCRIPTION
        " VPI for this slot and ATM port "
    ::= { saAtmVcmEntry 3 }

SaAtmVcmVci             OBJECT-TYPE
    SYNTAX                INTEGER (0..65535)
    MAX-ACCESS             read-only
    STATUS                 current
    DESCRIPTION
        " VCI for this slot and ATM port "
    ::= { saAtmVcmEntry 4 }

SaAtmVcmIfIndex         OBJECT-TYPE
    SYNTAX                INTEGER
    MAX-ACCESS             read-only
    STATUS                 current
    DESCRIPTION
        " Ifindex for this half of the x-cnct "
    ::= { saAtmVcmEntry 5 }

SaAtmVcmRootIfIndex     OBJECT-TYPE
    SYNTAX                INTEGER
    MAX-ACCESS             read-only

```

```

STATUS          current
DESCRIPTION
    " Root Ifindex for this half of the x-cnct "
 ::= { saAtmVcmEntry 6 }

SaAtmVcmOtherIfIndex OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION
        " ATM Ifindex for the other half of the x-cnct "
 ::= { saAtmVcmEntry 7 }

SaAtmVcmOtherVcmRow OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION
        " MIB row pointer to other VCM
        table entry (only if bi-directional) "
 ::= { saAtmVcmEntry 8 }

SaAtmVcmDirectional OBJECT-TYPE
    SYNTAX          INTEGER {
        bi-for(1),
        bi-bck(2),
        bi-for-loop(3),
        bi-bck-loop(4),
        uni-loop(5),
        true-uni(6)
    }
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION
        " Bi for full-duplex, Uni for half-duplex
        (or lpbk connections) "
 ::= { saAtmVcmEntry 9 }

SaAtmVcmCnctMgrId OBJECT-TYPE
    SYNTAX          INTEGER {
        pvc(1),
        sccs(2),
        bvcm(3),
        max-id(4)
    }
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION

```

```

        " ID of Cnction Mgr that initiated this x-cnct "
 ::= { saAtmVcmEntry 10 }

SaAtmVcmCnctMgrHandle OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION
        " ID of connection supplied by Cnction Mgr "
 ::= { saAtmVcmEntry 11 }

SaAtmVcmSfPath OBJECT-TYPE
    SYNTAX          OCTET STRING (SIZE(4))
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION
        " Describes connections path thru the switch fabric "
 ::= { saAtmVcmEntry 12 }

SaAtmVcmFbw OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION
        " Fixed bandwidth component "
 ::= { saAtmVcmEntry 13 }

SaAtmVcmVbw OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION
        " Variable bandwidth component "
 ::= { saAtmVcmEntry 14 }

SaAtmVcmRowInfo OBJECT-TYPE
    SYNTAX          INTEGER {
        in-service(1),
        resources-reserved(2),
        vpvc-reserved(3),
        vpvc-reserved-uni(4)
    }
    MAX-ACCESS      read-only
    STATUS           current
    DESCRIPTION
        " Internal status for VCM "
 ::= { saAtmVcmEntry 15 }

```

SaAtmVcmBwPri OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Bandwidth priority "
 ::= { saAtmVcmEntry 16 }

SaAtmVcmTraftype OBJECT-TYPE
 SYNTAX INTEGER {
 cbr-1(1),
 rt-vbr1(2),
 rt-vbr2(3),
 rt-vbr3(4),
 nrt-vbr1(5),
 nrt-vbr2(6),
 nrt-vbr3(7),
 ubr1(8),
 ubr2(9)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Traffic Type (CBR, etc.) "
 ::= { saAtmVcmEntry 17 }

SaAtmVcmCnctType OBJECT-TYPE
 SYNTAX INTEGER {
 vc(1),
 vp(2)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Connection Type VP or VC "
 ::= { saAtmVcmEntry 18 }

SaAtmVcmNumBfrs OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Max number of cell buffers allowed for this x-cnct "
 ::= { saAtmVcmEntry 19 }

SaAtmVcmCongThrsh OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only

STATUS current
 DESCRIPTION
 " Number of cell buffers used before
 congestion action taken "
 ::= { saAtmVcmEntry 20 }

SaAtmVcmCongAct OBJECT-TYPE
 SYNTAX INTEGER {
 none(1),
 setEFCI(2),
 earlyPacketDiscard(3),
 dropCLP1(4),
 setEFCIandEPD(5),
 setEFCIandCLP1(6)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Congestion Action (EFCI, etc.) "
 ::= { saAtmVcmEntry 21 }

SaAtmVcmSfTag0 OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Level 0 internal routing tag used by hardware "
 ::= { saAtmVcmEntry 22 }

SaAtmVcmSfTag1 OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Level 1 internal routing tag used by hardware "
 ::= { saAtmVcmEntry 23 }

SaAtmVcmOtherCmBits OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Cell Mux bits for other ATM port "
 ::= { saAtmVcmEntry 24 }

SaAtmVcmOtherVpi OBJECT-TYPE
 SYNTAX INTEGER (0..4095)
 MAX-ACCESS read-only

```

STATUS          current
DESCRIPTION
    " VPI index for the other half of this x-cnct "
 ::= { saAtmVcmEntry 25 }

SaAtmVcmOtherVci OBJECT-TYPE
    SYNTAX      INTEGER (0..65535)
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        " VCI index for the other half of this x-cnct "
 ::= { saAtmVcmEntry 26 }

SaAtmVcmPcrClp0 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Peak Cell Rate for CLP0 cell flow in cells/sec"
 ::= { saAtmVcmEntry 27 }

SaAtmVcmPcrClp01 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Peak Cell Rate for the aggregate CLP0+1
        cell flow in Cells per Second"
 ::= { saAtmVcmEntry 28 }

SaAtmVcmScrClp0 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Sustained Cell Rate for CLP0 cell flow in cells/sec"
 ::= { saAtmVcmEntry 29 }

SaAtmVcmScrClp01 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Sustained Cell Rate for aggregate
        CLP0+1 cell flow in cells/sec"
 ::= { saAtmVcmEntry 30 }

```

```

SaAtmVcmMbsClp0 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Maximum Burst Size for CLP0 cell flow in cells"
 ::= { saAtmVcmEntry 31 }

SaAtmVcmMbsClp01 OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Maximum Burst Size for the aggregate
        CLP0+1 cell flow in cells"
 ::= { saAtmVcmEntry 32 }

SaAtmVcmCdvT OBJECT-TYPE
    SYNTAX      Counter
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Cell Delay Variation in units of micro-seconds"
 ::= { saAtmVcmEntry 33 }

SaAtmVcmUpcEnable OBJECT-TYPE
    SYNTAX      INTEGER {
        off(1),
        on(2)
    }
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        " When enabled non-conforming cells are tagged
        or discarded, when disabled policing is in
        monitor mode only"
 ::= { saAtmVcmEntry 34 }

saAtmVcmAdminSt OBJECT-TYPE
    SYNTAX      INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS   read-write
    STATUS      current
    DESCRIPTION
        " Administrative Status "
 ::= { saAtmVcmEntry 35 }

```

```

saAtmVcmOperSt      OBJECT-TYPE
    SYNTAX      INTEGER {
        up(1),
        down(2),
        upFail-bfrs(3),
        upFail-hw(4),
        dnFail-hw(5),
        unknown(6)
    }
    MAX-ACCESS      read-only
    STATUS      current
    DESCRIPTION
        " Operational Status "
    ::= { saAtmVcmEntry 36 }

```

```

--=====
--  ATM Cell-Hiway Vp/Vc Config table
--
--  This Table contains Vp/Vc configuration information per ATM cell hiway.
--
--  The information in this table is stored in NV_DB and is intended
--  to replace the info in the system "tuning" file "vpvc.cdt".
--
--  Configured per cell-hiway.
--
--  SCP 02/19/98
--=====

```

```

saAtmCellHwyVpVcCfgTable  OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmCellHwyVpVcCfgEntry
    MAX-ACCESS      not-accessible
    STATUS      current
    DESCRIPTION
        " ATM Cell Hiway Vp/Vc Configuration Table "
    ::= { saConnMIBObjects 14}

```

```

SaAtmCellHwyVpVcCfgEntry  OBJECT-TYPE
    SYNTAX      SaAtmCellHwyVpVcCfgEntry
    MAX-ACCESS      not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX      {
        saBrdNum,

```

```

        saCellHwy
    }
    ::= { saAtmCellHwyVpVcCfgTable 1}

```

```

SaAtmCellHwyVpVcCfgEntry  ::= SEQUENCE
{
    SaAtmCellHwyVpVcCfgVpBits      INTEGER,
    SaAtmCellHwyVpVcCfgVcBits      INTEGER,
    SaAtmCellHwyVpVcCfgRngFlg      INTEGER,

    SaAtmCellHwyVpVcCfgAtmIndex      INTEGER,
    SaAtmCellHwyVpVcCfgMinVpBits      INTEGER,
    SaAtmCellHwyVpVcCfgMaxVpBits      INTEGER,
    SaAtmCellHwyVpVcCfgTotBits      INTEGER,

    SaAtmCellHwyVpVcCfgCause      INTEGER,
    SaAtmCellHwyVpVcCfgModified      INTEGER,
    SaAtmCellHwyVpVcCfgUpdate      INTEGER
}

```

```

SaAtmCellHwyVpVcCfgVpBits  OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS      read-write
    STATUS      current
    DESCRIPTION
        "Number of valid VPI bits for this cell hiway"
    ::= {saAtmCellHwyVpVcCfgEntry 1}

```

```

SaAtmCellHwyVpVcCfgVcBits  OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS      read-write
    STATUS      current
    DESCRIPTION
        "Number of valid VCI bits for this cell hiway"
    ::= {saAtmCellHwyVpVcCfgEntry 2}

```

```

SaAtmCellHwyVpVcCfgRngFlg  OBJECT-TYPE
    SYNTAX      INTEGER {
        vp-ranges-off(0),
        vp-ranges-on(1)
    }
    MAX-ACCESS      read-write
    STATUS      current
    DESCRIPTION
        "Flag indicating whether or not VP ranges are
        to be specified for any port on this cell hiway
        (will effect VP/VC bits)"
    ::= {saAtmCellHwyVpVcCfgEntry 3}

```

SaAtmCellHwyVpVcCfgMinVpBits OBJECT-TYPE
 SYNTAX INTEGER {
 vp-from-pod(0)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Min # VP bits on this cell hiway"
 ::= {saAtmCellHwyVpVcCfgEntry 4}

SaAtmCellHwyVpVcCfgMaxVpBits OBJECT-TYPE
 SYNTAX INTEGER {
 vp-from-pod(0)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Max # VP bits on this cell hiway"
 ::= {saAtmCellHwyVpVcCfgEntry 5}

SaAtmCellHwyVpVcCfgTotBits OBJECT-TYPE
 SYNTAX INTEGER {
 vp-from-pod(0)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Total # VP/VC bits available on this cell hiway"
 ::= {saAtmCellHwyVpVcCfgEntry 6}

SaAtmCellHwyVpVcCfgAtmIndex OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Index to atmPorts"
 ::= {saAtmCellHwyVpVcCfgEntry 7}

SaAtmCellHwyVpVcCfgCause OBJECT-TYPE
 SYNTAX INTEGER {
 ok(0),
 vp-bits-invalid(1),
 vc-bits-invalid(2),
 vp-and-vc-bits-invalid(3),
 port-unavailable(4)
 }
 MAX-ACCESS read-write

STATUS current
 DESCRIPTION
 "Results of processing config row.
 Note that multiple codes may be set
 simultaneously via logical 'OR'ing and
 thus all possible values are NOT represented in the enum"
 ::= {saAtmCellHwyVpVcCfgEntry 8}

SaAtmCellHwyVpVcCfgModified OBJECT-TYPE
 SYNTAX INTEGER {
 applied(0),
 applied-pend(1)
 }
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION
 "Written by SCON to indicate that a config parameter
 has been changed from what is currently being
 used by the system"
 ::= {saAtmCellHwyVpVcCfgEntry 9}

SaAtmCellHwyVpVcCfgUpdate OBJECT-TYPE
 SYNTAX INTEGER {
 no-update(0),
 update(1)
 }
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION
 "Written by UI to indicate parameter update"
 ::= {saAtmCellHwyVpVcCfgEntry 10}

```
--=====
--  ATM Port Vp/Vc Config table
--
--  This Table contains Vp/Vc configuration information per ATM port.
--
--  The information in this table is stored in NV_DB and is intended
--  to replace the info in the system "tuning" file "vpvc.cdt".
--
--  Configured per port.
--
--  SCP 01/29/98
--=====
```

```

saAtmPortVpVcCfgTable    OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmPortVpVcCfgEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " ATM Port Vp/Vc Configuration Table "
    ::= { saConnMIBObjects 15}

```

```

SaAtmPortVpVcCfgEntry    OBJECT-TYPE
    SYNTAX      SaAtmPortVpVcCfgEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX      {
        ifIndex
    }
    ::= { saAtmPortVpVcCfgTable 1}

```

```

SaAtmPortVpVcCfgEntry    ::= SEQUENCE
{
    SaAtmPortVpVcCfgStartResVp      INTEGER,
    SaAtmPortVpVcCfgEndResVp      INTEGER,

    SaAtmPortVpVcCfgAtmIndex      INTEGER,
    SaAtmPortVpVcCfgCause        INTEGER,
    SaAtmPortVpVcCfgModified      INTEGER,
    SaAtmPortVpVcCfgUpdate        INTEGER
}

```

```

SaAtmPortVpVcCfgStartResVp    OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Start of reserved VP block (0 if no VPs reserved)"
    ::= {saAtmPortVpVcCfgEntry 1}

```

```

SaAtmPortVpVcCfgEndResVp      OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "End of reserved VP block (0 if no VPs reserved)"
    ::= {saAtmPortVpVcCfgEntry 2}

```

```

SaAtmPortVpVcCfgAtmIndex    OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Index to atmPorts"
    ::= {saAtmPortVpVcCfgEntry 3}

```

```

SaAtmPortVpVcCfgCause        OBJECT-TYPE
    SYNTAX      INTEGER {
        ok(0),
        vp-start-invalid(1),
        vp-end-invalid(2),
        vp-start-gt-end(4),
        vp-ranges-disabled(8),
        port-unavailable(16)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Results of processing config row.
        Note that multiple codes may be set simultaneously via
        logical 'OR'ing and thus all possible values
        are NOT represented in the enum"
    ::= {saAtmPortVpVcCfgEntry 4}

```

```

SaAtmPortVpVcCfgModified      OBJECT-TYPE
    SYNTAX      INTEGER {
        applied(0),
        applied-pend(1)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Written by SCON to indicate that a config parameter
        has been changed from what is currently being
        used by the system"
    ::= {saAtmPortVpVcCfgEntry 5}

```

```

SaAtmPortVpVcCfgUpdate        OBJECT-TYPE
    SYNTAX      INTEGER {
        no-update(0),
        update(1)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Written by UI to indicate parameter update"

```

```

::= {saAtmPortVpVcCfgEntry 6}

=====
-- ATM Port CAC Config table
--
-- This Table contains CAC configuration information per ATM port.
--
-- The information in this table is stored in NV_DB and is intended
-- to replace the info in the system "tuning" file "cac.cdt".
--
-- Configured per interface.
--
-- SCP 02/05/98
=====

saAtmPortBwCacCfgTable      OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmPortBwCacCfgEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " ATM Port CAC Configuration Table "
    ::= { saConnMIBObjects 16}

SaAtmPortBwCacCfgEntry      OBJECT-TYPE
    SYNTAX      SaAtmPortBwCacCfgEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX      {
        ifIndex
    }
    ::= { saAtmPortBwCacCfgTable 1}

SaAtmPortBwCacCfgEntry      ::= SEQUENCE
    {
        SaAtmPortBwCacCfgCacEnable      INTEGER,
        SaAtmPortBwCacCfgVbwPool        INTEGER,
        SaAtmPortBwCacCfgVbwToLoad      INTEGER,
        SaAtmPortBwCacCfgAtmIndex        INTEGER,
        SaAtmPortBwCacCfgCause           INTEGER,
        SaAtmPortBwCacCfgUpdate          INTEGER
    }

SaAtmPortBwCacCfgCacEnable  OBJECT-TYPE
    SYNTAX      INTEGER {
        enable(1),

```

```

        disable(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Bandwidth CAC is enabled or disabled"
    ::= {saAtmPortBwCacCfgEntry 1}

SaAtmPortBwCacCfgVbwPool    OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Percent of bandwidth to reserve for variable load"
    ::= {saAtmPortBwCacCfgEntry 2}

SaAtmPortBwCacCfgVbwToLoad  OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Percent of Vbw component of connection to
        apply against FBW load"
    ::= {saAtmPortBwCacCfgEntry 3}

SaAtmPortBwCacCfgAtmIndex   OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Index to atmPorts"
    ::= {saAtmPortBwCacCfgEntry 4}

SaAtmPortBwCacCfgCause      OBJECT-TYPE
    SYNTAX      INTEGER {
        ok(0),
        invalid-vbw-pool(1),
        invalid-vbw-to-load(2),
        port-unavailable(3)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Results of processing config row.
        Note that multiple codes may be set simultaneously via
        logical 'OR'ing and thus all possible values
        are NOT represented in the enum"
    ::= {saAtmPortBwCacCfgEntry 5}

```

```

SaAtmPortBwCacCfgUpdate      OBJECT-TYPE
    SYNTAX      INTEGER {
        no-update(0),
        update(1)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Written by UI to indicate parameter update"
    ::= { saAtmPortBwCacCfgEntry 6 }

--=====
--  ATM Cell-Highway Switch Fabric CAC Config Table
--
--  The information in this table contains Cell-Highway Switch Fabric
--  configuration information.  It is stored in a table (instead of
--  a collection of simple objects) due to system limitations
--  with simple-object manipulation.
--
--  This information is stored in NV_DB and is intended
--  to partially replace the info in the system "tuning" files.
--
--  Configured per system.  (only board # 1 valid)
--
--  SCP 01/30/98
--=====

SaAtmSfBwCacCfgTable      OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmSfBwCacCfgEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " ATM Switch-Fabric CAC Configuration Table "
    ::= { saConnMIBObjects 17}

SaAtmSfBwCacCfgEntry      OBJECT-TYPE
    SYNTAX      SaAtmSfBwCacCfgEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX      {saBrdNum}
    ::= { saAtmSfBwCacCfgTable 1}

```

```

SaAtmSfBwCacCfgEntry      ::= SEQUENCE
    {
        SaAtmSfBwCacCfgCacEnable      INTEGER,
        SaAtmSfBwCacCfgVbwPool        INTEGER,
        SaAtmSfBwCacCfgVbwToLoad      INTEGER,
        SaAtmSfBwCacCfgCause          INTEGER,
        SaAtmSfBwCacCfgModified       INTEGER,
        SaAtmSfBwCacCfgUpdate         INTEGER
    }

SaAtmSfBwCacCfgCacEnable  OBJECT-TYPE
    SYNTAX  INTEGER {
        sf-enable(1),
        sf-disable(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Cell highway Switch-fabric CAC enable/disable"
    ::= { saAtmSfBwCacCfgEntry 1 }

SaAtmSfBwCacCfgVbwPool    OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Cell highway Switch-fabric % variable bandwidth pool"
    ::= { saAtmSfBwCacCfgEntry 2 }

SaAtmSfBwCacCfgVbwToLoad  OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Cell highway Switch-fabric % variable to load"
    ::= { saAtmSfBwCacCfgEntry 3 }

saAtmSfBwCacCfgCause      OBJECT-TYPE
    SYNTAX  INTEGER {
        ok(0),
        invalid-vbw-pool(1),
        invalid-vbw-to-load(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Cause value for Switch-fabric CAC configuration"
    ::= { saAtmSfBwCacCfgEntry 4 }

```

SaAtmSfBwCacCfgModified OBJECT-TYPE

SYNTAX INTEGER {
 applied(0),
 applied-pend(1)
}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Written by SCON to indicate that a config parameter
has been changed from what is currently being
used by the system"

::= {saAtmSfBwCacCfgEntry 5}

SaAtmSfBwCacCfgUpdate OBJECT-TYPE

SYNTAX INTEGER {
 no-update(0),
 update(1)
}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Written by UI to indicate parameter update"

::= {saAtmSfBwCacCfgEntry 6}

```
--=====
-- ATM per-VC buffer allocation table
--
-- This Table contains the MAX_PER_VC_Q_DEPTH and CONG_PER_VC_Q_DEPTH
-- configuration information for WAC-187 Channel-Control-Block entries.
--
-- This table specifies entries per Class-of-Service (CBR, VBR, NRT-VBR,
-- UBR)
-- and desired Q level (SHALLOW, MEDIUM, HIGH) for Q depth and
-- congestion threshold (in cells).
--
-- The information in this table is stored in NV_DB and is intended
-- to replace the info in the system "tuning" file "vcbfr.cdt".
--
-- Configured per-system.
--
-- SCP 01/30/98
--=====
```

SaAtmVCBufferCfgTable OBJECT-TYPE

SYNTAX SEQUENCE OF SaAtmVCBufferCfgEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

" ATM per-VC buffer allocation table "

::= { saConnMIBObjects 18}

SaAtmVCBufferCfgEntry OBJECT-TYPE

SYNTAX SaAtmVCBufferCfgEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

" "

INDEX

{
 saPriQueuePri,
 saAtmVcBfrSelection
}

::= { saAtmVCBufferCfgTable 1}

SaAtmVCBufferCfgEntry ::= SEQUENCE

{
 SaAtmVCBufferCfgDepth INTEGER,
 SaAtmVCBufferCfgCong INTEGER,
 SaAtmVCBufferCfgCause INTEGER,
 SaAtmVCBufferCfgUpdate INTEGER
}

SaAtmVCBufferCfgDepth OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"The per-VC upper limit to the depth of the Q.
(MAX_PER_VC_Q_DEPTH in WAC-187 CCB entry)"

::= {saAtmVCBufferCfgEntry 1}

SaAtmVCBufferCfgCong OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"The per-VC queue depth above which
the enabled congestion management
actions are taken. The congestion state
is entered when the Q length
exceeds this threshold, and the congestion
state is exited when

```

        the Q length is 75% of this threshold or less."
 ::= {saAtmVCBufferCfgEntry 2}

SaAtmVCBufferCfgCause OBJECT-TYPE
    SYNTAX      INTEGER {
        ok(0),
        depth-invalid(1),
        cong-invalid(2)
    }
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION   "Results of processing VCBufferConfig row."
 ::= {saAtmVCBufferCfgEntry 3}

SaAtmVCBufferCfgUpdate OBJECT-TYPE
    SYNTAX      INTEGER {
        no-update(0),
        update(1)
    }
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION   "Written by UI to indicate parameter update"
 ::= {saAtmVCBufferCfgEntry 4}

=====
--  ATM priority Q table
--
--  This Table contains the configuration information for WAC-187
--  Priority-Control-Block entries.
--
--  This table specifies entries per Class-of-Service (CBR, MCAST,
--  VBR, NRT-VBR, UBR) for:
--      1). % of available cells allocated to each queue.
--      2). % of (1) for congestion threshold.
--      3). % Q oversubscription allowed.
--
--  The information in this table is stored in NV_DB and is intended
--  to replace the info in the system "tuning" file "priq.cdt".
--
--  Configured per-ICM
--
--  SCP 01/30/98
=====

```

```

saAtmPriQCfgTable      OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmPriQCfgEntry
    MAX-ACCESS   not-accessible
    STATUS       current
    DESCRIPTION   " ATM priority Q table "
 ::= { saConnMIBObjects 19}

SaAtmPriQCfgEntry      OBJECT-TYPE
    SYNTAX      SaAtmPriQCfgEntry
    MAX-ACCESS   not-accessible
    STATUS       current
    DESCRIPTION   " "

    INDEX { saBrdNum, saPriQueuePri }
 ::= { saAtmPriQCfgTable 1}

SaAtmPriQCfgEntry      ::= SEQUENCE
{
    SaAtmPriQCfgPercentAlloc      INTEGER,
    SaAtmPriQCfgPercentThreshold  INTEGER,
    SaAtmPriQCfgPercentOverSubscribe  INTEGER,
    SaAtmPriQCfgCause             INTEGER,
    SaAtmPriQCfgModified           INTEGER,
    SaAtmPriQCfgUpdate            INTEGER
}

SaAtmPriQCfgPercentAlloc OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION   "The percent of the available cells to allocate
        to this priority Q. Note: The sum of this value
        for all rows must not exceed 100%"
 ::= {saAtmPriQCfgEntry 1}

SaAtmPriQCfgPercentThreshold OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION   "The percentage of the allocated cell count for
        this Q that will be used to indicate congestion."
 ::= {saAtmPriQCfgEntry 2}

```

```

SaAtmPriQCfgPercentOverSubscribe OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The percentage of the allocated cell count for
         this Q that will be allowed to be oversubscribed."
    ::= {saAtmPriQCfgEntry 3}

SaAtmPriQCfgCause OBJECT-TYPE
    SYNTAX      INTEGER {
        ok(0),
        percent-allocation-invalid(1),
        percent-threshold-invalid(2),
        percent-ovsub-invalid(4),
        total-percent-allocation-invalid(8)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Results of processing Priority-Q configuration row."
    ::= {saAtmPriQCfgEntry 4}

SaAtmPriQCfgModified OBJECT-TYPE
    SYNTAX      INTEGER {
        applied(0),
        applied-pend(1)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Written by SCON to indicate that a config parameter
         has been changed from what is currently being
         used by the system"
    ::= {saAtmPriQCfgEntry 5}

SaAtmPriQCfgUpdate OBJECT-TYPE
    SYNTAX      INTEGER {
        no-update(0),
        update(1)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Written by UI to indicate parameter update"
    ::= {saAtmPriQCfgEntry 6}

```

```

=====
-- ATM Port Basic Config table
--
-- This Table is used to pass info back-and-forth between SCON
-- and BCON during initialization.
--
-- The information in this table is NOT stored in NV_DB.
--
-- SCP 02/10/98
=====

saAtmPortBasicCfgTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaAtmPortBasicCfgEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " ATM Port Basic Configuration Table "
    ::= { saConnMIBObjects 20}

SaAtmPortBasicCfgEntry OBJECT-TYPE
    SYNTAX      SaAtmPortBasicCfgEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX       {saBrdNum, saAtmVcmAtmPort}
    ::= { saAtmPortBasicCfgTable 1}

SaAtmPortBasicCfgEntry ::= SEQUENCE
{
    --
    -- CENT ONLY
    --
    -- This information is created by BCON and
    -- used by SCON (in conjunction with info
    -- in "saCellHwyStatsTable") to allow
    -- validation and processing of the
    -- "vpVcRangeFile" and "priqBfrAllocFile".
    --
    -- Once these databases are established, the
    -- Vp/Vc info is sent back down to BCON via
    -- "sets" to the distributed objects below
    -- (along with appropriate items from
    -- "saCellHwyStatsTable").
    --
    -- BCON knows when to look at the data when
    -- the "saAtmPortBasicCfgValid" item is set.
    --

```

```

SaAtmPortBasicCfgIfIndex      INTEGER,
SaAtmPortBasicCfgCellHwy      INTEGER,
SaAtmPortBasicCfgCellHwyMuxPort  INTEGER,
SaAtmPortBasicCfgPodType      INTEGER,
SaAtmPortBasicCfgDebug1      INTEGER,
--
--   DIST  ONLY
--
SaAtmPortBasicCfgStartResVp    INTEGER,
SaAtmPortBasicCfgEndResVp      INTEGER,
SaAtmPortBasicCfgVpRngFlg     INTEGER,

SaAtmPortBasicCfgValid        INTEGER
}

SaAtmPortBasicCfgIfIndex      OBJECT-TYPE
    SYNTAX      INTEGER {
        unregistered(0)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "ifIndex (sah_if_index) associated with this entry"
    ::= {saAtmPortBasicCfgEntry 1}

SaAtmPortBasicCfgCellHwy      OBJECT-TYPE
    SYNTAX      INTEGER {
        protAccel(1),
        xpod(2),
        ipod1-1(3),
        ipod1-2(4),
        ipod2-1(5),
        ipod2-2(6)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Cell hiway for this ATM index"
    ::= {saAtmPortBasicCfgEntry 2}

SaAtmPortBasicCfgCellHwyMuxPort OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Cell-hiway Mux (WAC 185) port # for this ATM index
        (Zero-based, no mux == 0)"
    ::= {saAtmPortBasicCfgEntry 3}

```

```

SaAtmPortBasicCfgPodType      OBJECT-TYPE
    SYNTAX      INTEGER {
        proto-acc(1),
        ces(2),
        other(3)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Pod type for this ATM index.  Currently, we only
        care about SAR and CES pods"
    ::= {saAtmPortBasicCfgEntry 4}

SaAtmPortBasicCfgDebug1      OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "BCON debug info"
    ::= {saAtmPortBasicCfgEntry 5}

SaAtmPortBasicCfgStartResVp   OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Start of reserved VP block (0 if no VPs reserved)"
    ::= {saAtmPortBasicCfgEntry 6}

SaAtmPortBasicCfgEndResVp     OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "End of reserved VP block (0 if no VPs reserved)"
    ::= {saAtmPortBasicCfgEntry 7}

SaAtmPortBasicCfgVpRngFlg     OBJECT-TYPE
    SYNTAX      INTEGER {
        vp-ranges-off(0),
        vp-ranges-on(1)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Flag indicating whether or not VP ranges
        are to be specified for this port"

```

```

        ::= {saAtmPortBasicCfgEntry 8}

SaAtmPortBasicCfgValid      OBJECT-TYPE
    SYNTAX      INTEGER {
        basic-cfg-invalid(0),
        basic-cfg-valid(1)
    }
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION
        "Written by UI to indicate parameter update"
    ::= {saAtmPortBasicCfgEntry 9}

END

-- *****

Provisioning MIB

-- *****

-- oasis Provisioning Info

OASIS-PROV-MIB DEFINITIONS ::= BEGIN

IMPORTS
    OBJECT-TYPE                FROM SNMPv2-SMI
    saBrdNum, saPodNum, saCesProv FROM OASIS-SYSINFO-MIB;

-- CES Provisioning Table
saCesProvTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaCesProvEntry
    MAX-ACCESS   not-accessible
    STATUS       current
    DESCRIPTION
        "CES Provisioning Support Table"
    ::= { saCesProv 1 }

saCesProvEntry OBJECT-TYPE
    SYNTAX      SaCesProvEntry
    MAX-ACCESS   not-accessible
    STATUS       current
    DESCRIPTION
        "CES Provisioning Table Entry"

```

```

    INDEX      { saBrdNum,
                saPodNum }
    ::= { saCesProvTable 1 }

saCesProvEntry ::=
    SEQUENCE {
        saCesProvCmd
            INTEGER,
        saCesProvPort
            INTEGER,
        saCesProvIfIndex
            INTEGER
    }

saCesProvCmd OBJECT-TYPE
    SYNTAX      INTEGER {
        noop(1),
        add-ces-iwf(2),
        del-ces-iwf(3)
    }
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION
        "CES Provisioning Command"
    ::= { saCesProvEntry 1 }

saCesProvPort OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION
        "CES Port Number for command"
    ::= { saCesProvEntry 2 }

saCesProvIfIndex OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION
        "ifIndex of CES ds0bundle interface associated
         with command:
         ` returned when command = Add,
         must be supplied when command = Delete"
    ::= { saCesProvEntry 3 }

END

```

```
-- *****
```

ATM Extensions MIB

```
-- *****
```

```
-- oasis atm Pod Info
```

```
OASIS-ATMPD-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    ifIndex FROM RFC1213-MIB
    Counter FROM RFC1155-SMI
    saAtmExtFROM OASIS-SYINFO-MIB
    OBJECT-TYPEFROM SNMPv2-SMI;
```

```
-- oasis MIB group
```

```
SAAtmMibExt    OBJECT IDENTIFIER ::= { saAtmExt 1 }
SAAtmPlcpExt   OBJECT IDENTIFIER ::= { saAtmExt 2 }
SAAtmTcExt     OBJECT IDENTIFIER ::= { saAtmExt 3 }
```

```
-- ATM Cell info
```

```
saAtmMibExtTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaAtmMibExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional items needed for ATM interface"
    ::= { saAtmMibExt 1 }
```

```
saAtmMibExtEntry OBJECT-TYPE
    SYNTAX  SaAtmMibExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for ATM interface containing additional objects
        not contained in the standard mibs."
    INDEX   { ifIndex }
    ::= { saAtmMibExtTable 1 }
```

```
saAtmMibExtEntry ::=
    SEQUENCE {
        saAtmCellSync
            INTEGER,
        saAtmCellScramble
            INTEGER,
        saAtmExtCorrHcsErrCount
            Counter,
        saAtmExtUncorrHcsErrCount
            Counter,
        saAtmExtRxCellCount
            Counter,
        saAtmExtTxCellCount
            Counter,
        saAtmExtIdleCellCount
            Counter,
        saAtmExtIdleUnassignedCell
            INTEGER,
        saAtmExtIlmiMode
            INTEGER,
        saAtmExtShapingRate
            INTEGER,
        saAsaAtmSapCandidate
            INTEGER
    }
```

```
saAtmCellSync OBJECT-TYPE
    SYNTAX  INTEGER {
        plcpFrame(1),
        hcsBased(2),
        notApplicable(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Cell Sync Method"
    ::= { saAtmMibExtEntry 1 }
```

```
saAtmCellScramble OBJECT-TYPE
    SYNTAX  INTEGER {
        enable(1),
        disable(2),
        notApplicable(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Scrambling Enable/Disable"
```

```

 ::= { saAtmMibExtEntry 2 }

saAtmExtCorrHcsErrCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Correctable HCS Error Count"
    ::= { saAtmMibExtEntry 3 }

saAtmExtUncorrHcsErrCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Uncorrectable HCS Error Count"
    ::= { saAtmMibExtEntry 4 }

saAtmExtRxCellCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Receive Cell Count"
    ::= { saAtmMibExtEntry 5 }

saAtmExtTxCellCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Transmit Cell Count"
    ::= { saAtmMibExtEntry 6 }

saAtmExtIdleCellCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Receive Idle Cell Count"
    ::= { saAtmMibExtEntry 7 }

saAtmExtIdleUnassignedCell OBJECT-TYPE
    SYNTAX INTEGER {
        idle(1),
        unassigned(2),
        notApplicable(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Idle/Unassigned Cell Definition"
    ::= { saAtmMibExtEntry 8 }

saAtmExtIlmiMode OBJECT-TYPE
    SYNTAX INTEGER {
        dce(1),
        none(2)
    }
    MAX-ACCESS read-write
    STATUS current
    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. None will delete
        the ILMI service"
    ::= { saAtmMibExtEntry 9 }

saAtmExtShapingRate OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Specifies the shaping rate
        (in kbps - requires traffic shaping)"
    ::= { saAtmMibExtEntry 10 }

saAsaAtmSapCandidate OBJECT-TYPE
    SYNTAX INTEGER {
        yes(1),
        no(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Yes, if this ATM interface is a candidate
        for Signaling SAP.
        No, otherwise."
    ::= { saAtmMibExtEntry 11 }

```

```
-- Items needed for PLCP

saAtmPlcpExtTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAtmPlcpExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional PLCP items needed for ATM interface"
    ::= { saAtmPlcpExt 2 }

saAtmPlcpExtEntry OBJECT-TYPE
    SYNTAX SaAtmPlcpExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for ATM PLCP interface."
    INDEX { ifIndex }
    ::= { saAtmPlcpExtTable 1 }

saAtmPlcpExtEntry ::=
    SEQUENCE {
        saAtmPlcpStatus
            INTEGER,
        saAtmPlcpAlarm
            INTEGER,
        saAtmPlcpCvCount
            Counter,
        saAtmPlcpES
            Counter,
        saAtmPlcpSES
            Counter,
        saAtmPlcpFerrCount
            Counter,
        saAtmPlcpFebeCount
            Counter,
        saAtmPlcpFeES
            Counter,
        saAtmPlcpFeSES
            Counter,
        saAtmPlcpFeUAS
            Counter,
        saAtmPlcpLOFSeverity
            INTEGER,
        saAtmPlcpYelSeverity
            INTEGER
    }
}
```

```
saAtmPlcpStatus OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Status:
        Bit      Value      Meaning
        0        1          No Defects
        1        2          PLCP LOF
        2        4          PLCP Yellow"
    ::= { saAtmPlcpExtEntry 1 }

saAtmPlcpAlarm OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Alarms:
        Bit      Value      Meaning
        0        1          No Alarms
        1        2          PLCP LOF
        2        4          PLCP Yellow"
    ::= { saAtmPlcpExtEntry 2 }

saAtmPlcpCvCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Bip Error Count"
    ::= { saAtmPlcpExtEntry 3 }

saAtmPlcpES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Errored Seconds"
    ::= { saAtmPlcpExtEntry 4 }

saAtmPlcpSES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Severely Errored Seconds"
    ::= { saAtmPlcpExtEntry 5 }
```

```

saAtmPlcpFerrCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Framing Error Count"
    ::= { saAtmPlcpExtEntry 6 }

saAtmPlcpFebeCount OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP FEBE Count"
    ::= { saAtmPlcpExtEntry 7 }

saAtmPlcpFeES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Far End Errored Seconds"
    ::= { saAtmPlcpExtEntry 8 }

saAtmPlcpFeSES OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Far End Severely Errored Seconds"
    ::= { saAtmPlcpExtEntry 9 }

saAtmPlcpFeUAS OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PLCP Far End Unavailable Seconds"
    ::= { saAtmPlcpExtEntry 10 }

saAtmPlcpLOFSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "PLCP LOF Alarm Severity Level"
    ::= { saAtmPlcpExtEntry 11 }

saAtmPlcpYelSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "PLCP Yellow Alarm Severity Level"
    ::= { saAtmPlcpExtEntry 12 }

-- Items needed for TC

saAtmTcExtTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAtmTcExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Additional TC items needed for ATM interface"
    ::= { saAtmTcExt 3 }

saAtmTcExtEntry OBJECT-TYPE
    SYNTAX SaAtmTcExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for ATM TC interface."
    INDEX { ifIndex }
    ::= { saAtmTcExtTable 1 }

saAtmTcExtEntry ::=
    SEQUENCE {
        saAtmTcStatus
            INTEGER,
        saAtmTcAlarm
            INTEGER,
        saAtmTcLOCDSecurity
            INTEGER
    }

```

```

saAtmTcStatus OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "TC Status:
          Bit      Value      Meaning
           0        1      No Defects
           1        2      Loss of Cell Delineation"
    ::= { saAtmTcExtEntry 1 }

saAtmTcAlarm OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "TC Status:
          Bit      Value      Meaning
           0        1      No Defects
           1        2      Loss of Cell Delineation"
    ::= { saAtmTcExtEntry 2 }

saAtmTcLOCDSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Loss of Cell Delineation Alarm Severity Level"
    ::= { saAtmTcExtEntry 3 }

END

```

```

-- *****

Diagnostics MIB

-- *****

sa-DIAG-MIB DEFINITIONS ::= BEGIN

IMPORTS
    --      ifIndex,
    --      DisplayStringFROM RFC1213-MIB
    --      OBJECT-TYPEFROM SNMPv2-SMI
    --      saDiag, saBrdNumFROM OASIS-SYSINFO-MIB
    --      Counter      FROM RFC1155-SMI;

saDiagMIBObjects  OBJECT IDENTIFIER ::= {saDiag 1}

=====

Task Diagnostics Table

=====

SaTaskDiagTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaTaskDiagEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Task Diag Table "
    ::= { saDiagMIBObjects 1}

SaTaskDiagEntry  OBJECT-TYPE
    SYNTAX      SaTaskDiagEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX { saBrdNum }
    ::= { saTaskDiagTable 1}

SaTaskDiagEntry ::= SEQUENCE
    {
        SaTaskDiagPriority      INTEGER,
        SaTaskDiagPreemption    INTEGER,
        SaTaskDiagTestPattern   INTEGER,
        SaTaskDiagTestInterval  INTEGER,

```

```

    SaTaskDiagTimeToRun    INTEGER,
    SaTaskDiagApplyButton  INTEGER,
    SaTaskDiagDummy        INTEGER
}

SaTaskDiagPriority OBJECT-TYPE
    SYNTAX  INTEGER (0..255)
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "New Priority"
    ::= {saTaskDiagEntry 1}

SaTaskDiagPreemption OBJECT-TYPE
    SYNTAX  INTEGER {
        preemptable(1),
        non-preemptable(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Preemption Mode"
    ::= {saTaskDiagEntry 2}

SaTaskDiagTestPattern OBJECT-TYPE
    SYNTAX  INTEGER {
        steady(1),
        intermittent(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "steady: runs the task with new parameters
        for the specified period
        and then changes them back to the
        default values when the test is over.
        intermittent: runs the task with the
        new parameters ON and OFF until
        the test is over. Test period is set by
        the saTaskDiagTimeToRun"
    ::= {saTaskDiagEntry 3}

SaTaskDiagTestInterval OBJECT-TYPE
    SYNTAX  INTEGER (50..172800000)
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Test Interval in milliseconds ; only
        valid when saTaskDiagTestPattern is set
        to intermittent mode"
    ::= {saTaskDiagEntry 4}

SaTaskDiagTimeToRun OBJECT-TYPE
    SYNTAX  INTEGER (10..172800000)
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Time to Run in milliseconds. Minimum of 10"
    ::= {saTaskDiagEntry 5}

SaTaskDiagApplyButton OBJECT-TYPE
    SYNTAX  INTEGER {
        done(1),
        apply(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Set to 'apply' for all parameters to take effect."
    ::= {saTaskDiagEntry 6}

SaTaskDiagDummy OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Dummy"
    ::= {saTaskDiagEntry 7}

=====
--
--      Cell highway Built-In-Self-Test Table
--
--      NOTE: in the future this may be also be
--            used for other types of diagnostics.
--
=====

SaBistDiagTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaBistDiagEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
        "Task Diag Table "
    ::= { saDiagMIBObjects 2}

```

```

SaBistDiagEntry OBJECT-TYPE
    SYNTAX SaBistDiagEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        " "
    INDEX { saBrdNum, saBistDiagType }
    ::= { saBistDiagTable 1}

```

```

SaBistDiagEntry ::= SEQUENCE
{
    SaBistDiagType          INTEGER,
    SaBistDiagStartStop     INTEGER,
    SaBistDiagClrCnts       INTEGER,
    SaBistDiagDuration      INTEGER,
    SaBistDiagFrequency     INTEGER,
    SaBistDiagLpbkType      INTEGER,

    SaBistDiagTestState     INTEGER,
    SaBistDiagTestSummary   INTEGER,
    SaBistDiagTestClock     INTEGER,
    SaBistGoodCellCount     Counter,
    SaBistErrorCount        Counter,
    SaBistLastError         INTEGER
}

```

```

--
-- Command section
--

```

```

SaBistDiagType OBJECT-TYPE
    SYNTAX INTEGER {
        pod1(1),
        pod2(2),
        xpod(3),
        proto-acc(4),
        system(5)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Specify BIST type"
    ::= { saBistDiagEntry 1 }

```

```

SaBistDiagStartStop OBJECT-TYPE
    SYNTAX INTEGER {
        start(1),
        stop(2),
    }

```

```

        ready(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Start and stop the BIST"
    ::= { saBistDiagEntry 2 }

```

```

SaBistDiagClrCnts OBJECT-TYPE
    SYNTAX INTEGER {
        accum(1),
        clear(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Clear counts when test starts, or accumulate
        from previous test"
    ::= { saBistDiagEntry 3 }

```

```

SaBistDiagDuration OBJECT-TYPE
    SYNTAX INTEGER (0..86400)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Specify duration of test in seconds (up to 24 hours)"
    ::= { saBistDiagEntry 4 }

```

```

SaBistDiagFrequency OBJECT-TYPE
    SYNTAX INTEGER {
        once-a-sec(1)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Specify frequency of the BIST"
    ::= { saBistDiagEntry 5 }

```

```

SaBistDiagLpbkType OBJECT-TYPE
    SYNTAX INTEGER {
        internal(1),
        external(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Specify an internal or external loopback"
    ::= { saBistDiagEntry 6 }

```

```
--
-- Results section
--
SaBistDiagTestState      OBJECT-TYPE
    SYNTAX  INTEGER {
        pod1(1),
        pod2(2),
        xpod(3),
        proto-acc(4),
        system(5),
        not-running(6)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "State of BIST (current test, or not running)"
    ::= { saBistDiagEntry 7 }

SaBistDiagTestSummary    OBJECT-TYPE
    SYNTAX  INTEGER {
        illegal-test(1),
        pass(2),
        fail(3),
        na(4),
        unknown(5)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "BIST summary"
    ::= { saBistDiagEntry 8 }

SaBistDiagTestClock      OBJECT-TYPE
    SYNTAX  INTEGER (1..86400)
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "How many seconds have elapsed since test started"
    ::= { saBistDiagEntry 9 }

SaBistGoodCellCount      OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of good cells received during test"
    ::= { saBistDiagEntry 10 }
```

```
SaBistErrorCount         OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Number of errors accumulated during test"
    ::= { saBistDiagEntry 11 }
```

```
SaBistLastError          OBJECT-TYPE
    SYNTAX  INTEGER {
        none(0),
        cell-not-rcvd(1),
        cell-bad(2),
        cell-read-err(3),
        extra-cell(4),
        cnct-fail(5),
        send-fail(6),
        no-buffer(7),
        no-tx-desc(8),
        size-mism(9),
        not-cfgd(10),
        not-ready(11),
        unknown(12),
        bad-mac-bus(13),
        mac-loop-err(14),
        line-one-failure(15),
        line-two-failure(16),
        line-three-failure(17),
        line-four-failure(18),
        pod-fail(19)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Type of BIST error which last occurred"
    ::= { saBistDiagEntry 12 }
```

```
=====
-- Task Table
=====
```

```
SATaskTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaTaskEntry
    MAX-ACCESS  not-accessible
    STATUS      current
    DESCRIPTION
```

```

        "Task Table "
        ::= { saDiagMIBObjects 3}

SATaskEntry OBJECT-TYPE
    SYNTAX SaTaskEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        " "
    INDEX { saBrdNum, saTaskId }
    ::= { saTaskTable 1}

```

```

SaTaskEntry ::= SEQUENCE
{
    SaTaskName          DisplayString,
    SaTaskId            INTEGER,
    SaTaskPriority       INTEGER,
    SaTaskInitStack     INTEGER,
    SaTaskStackSize     INTEGER,
    SaTaskStackHighWaterMark INTEGER,
    SaTaskPercentUtil   INTEGER
}

```

```

SaTaskName OBJECT-TYPE
    SYNTAX DisplayString (SIZE (0..255))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Task Name"
    ::= {saTaskEntry 1}

```

```

SaTaskId OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Task ID"
    ::= {saTaskEntry 2}

```

```

SATaskPriority OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Task ID"
    ::= {saTaskEntry 3}

```

```

SaTaskInitStack OBJECT-TYPE

```

```

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Initial Stack Size"
    ::= {saTaskEntry 4}

```

```

SATaskStackSize OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Task Stack Size"
    ::= {saTaskEntry 5}

```

```

saTaskStackHighWaterMark OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Task Stack High Water Mark"
    ::= {saTaskEntry 6}

```

```

saTaskPercentUtil OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Percent measure on Stack Utilization"
    ::= {saTaskEntry 7}

```

```

END

```

Trap Host MIB

```
-- *****

Trap Host MIB

-- *****

-- Oasis Trap Host Mib Info

OASIS-TRAPHOST-MIB DEFINITIONS ::= BEGIN

IMPORTS
    DisplayStringFROM RFC1213-MIB
    Counter            FROM RFC1155-SMI
    saSystem           FROM OASIS-SYSINFO-MIB
    DateAndTime        FROM HOST-RESOURCES-MIB
    OBJECT-TYPE, IPAddress FROM SNMPv2-SMI;

saTrap      OBJECT IDENTIFIER ::= { saSystem 7 }
saEventLog  OBJECT IDENTIFIER ::= { saSystem 8 }
saEventMib  OBJECT IDENTIFIER ::= { saSystem 9 }

-- *****

saTrapHostTbl

--
-- Table where the list of trap agents reside
-- *****

saTrapHostTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaTrapHostEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The Trap Host Information Table."
    ::= { saTrap 1 }

saTrapHostEntry OBJECT-TYPE
    SYNTAX SaTrapHostEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A host entry in the Oasis Trap Host Information Table."
    INDEX { saTrapHostIndex }
    ::= { saTrapHostTable 1 }
```

```
saTrapHostEntry ::=
    SEQUENCE {
        saTrapHostIndex
            INTEGER,
        saTrapRowCreate
            INTEGER,
        saTrapHostAddress
            IPAddress,
        saTrapHostEnable
            INTEGER,
        saTrapCommString
            DisplayString,
        saSetCommString
            DisplayString,
        saGetCommString
            DisplayString
    }

saTrapHostIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Trap Host Index"
    ::= { saTrapHostEntry 1 }

saTrapRowCreate OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-create
    STATUS current
    DESCRIPTION
        "Trap Row Create Variable"
    ::= { saTrapHostEntry 2 }

saTrapHostAddress OBJECT-TYPE
    SYNTAX IPAddress
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Trap Host IP Address"
    ::= { saTrapHostEntry 3 }

saTrapHostEnable OBJECT-TYPE
    SYNTAX INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS read-write
```

```

STATUS current
DESCRIPTION
    "Allows enabling or disabling sending traps to this host"
::= { saTrapHostEntry 4 }

saTrapCommString OBJECT-TYPE
SYNTAX DisplayString(SIZE(0..40))
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Trap Community String"
::= { saTrapHostEntry 5 }

saSetCommString OBJECT-TYPE
SYNTAX DisplayString(SIZE(0..40))
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Set Community String"
::= { saTrapHostEntry 6 }

saGetCommString OBJECT-TYPE
SYNTAX DisplayString(SIZE(0..40))
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Get Community String"
::= { saTrapHostEntry 7 }

```

--*****

saEventLogTable

```

--
-- Table where the list of systems events reside
--*****

```

```

saEventLogTable OBJECT-TYPE
SYNTAX SEQUENCE OF SaEventLogEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "The System Event Log Table."
::= { saEventLog 1 }

```

```

saEventLogEntry OBJECT-TYPE
SYNTAX SaEventLogEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    " An entry in the Oasis Event Mib Log table"
INDEX { saEventLogIndex }
::= { saEventLogTable 1 }

```

```

saEventLogEntry ::=
SEQUENCE {
    saEventLogIndex
        INTEGER,
    saEventLogDateAndTime
        DateAndTime,
    saEventLogType
        INTEGER,
    saEventLogDescription
        DisplayString,
    saEventLogSeverity
        INTEGER
}

```

```

saEventLogIndex OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Event Mib Log Index"
::= { saEventLogEntry 1 }

```

```

saEventLogDateAndTime OBJECT-TYPE
SYNTAX DateAndTime
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Event Mib Log Date"
::= { saEventLogEntry 2 }

```

```

saEventLogType OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Event Mib Log Event Number"
::= { saEventLogEntry 3 }

```

```

saEventLogDescription OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Event Mib Log Entry Description"
    ::= { saEventLogEntry 4 }

saEventLogSeverity OBJECT-TYPE
    SYNTAX  INTEGER {
        debug(0),
        info(1),
        minAlrm(2),
        majAlrm(3),
        critAlrm(4)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Event Mib Log Severity Level"
    ::= { saEventLogEntry 5 }

-- event Table Control and Status

saMaxEvents OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Allows user to configure Max Number of saved events"
    ::= { saEventLog 2 }

saNumEvents OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Current Number of saved events"
    ::= { saEventLog 3 }

-- *****

saEventMibTable
--
-- Table where the list of systems events reside
-- *****

```

```

saEventMibTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaEventMibEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "The System Event Mib Table."
    ::= { saEventMib 1 }

saEventMibEntry OBJECT-TYPE
    SYNTAX  SaEventMibEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        " An entry in the Oasis Event Mib table"
    INDEX   { saEventMibType, saEventMibSubtype }
    ::= { saEventMibTable 1 }

saEventMibEntry ::=
    SEQUENCE {
        saEventMibType
            INTEGER,
        saEventMibSubtype
            INTEGER,
        saEventMibEventFilter
            Counter,
        saEventMibSeverityFilter
            Counter,
        saEventMibInstanceFilter
            Counter
    }

saEventMibType OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Event Mib Index"
    ::= { saEventMibEntry 1 }

saEventMibSubtype OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Event Mib Event SubType"
    ::= { saEventMibEntry 2 }

```

```

saEventMibEventFilter OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "This field is used to provide Event Filtering"
    ::= { saEventMibEntry 3 }

saEventMibSeverityFilter OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "This field is used to provide Severity Filtering"
    ::= { saEventMibEntry 4 }

saEventMibInstanceFilter OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "This field is used to provide Instance Filtering"
    ::= { saEventMibEntry 5 }

END

```

```
-- *****
```

Protocol Accelerator MIB

```
-- *****
```

```
-- oasis Protocol Accelerator Info
```

```
OASIS-PROTACC-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```

    DisplayStringFROM RFC1213-MIB
    Counter            FROM RFC1155-SMI
    saNLI, saBrdNumFROM OASIS-SYSINFO-MIB
    ifIndex            FROM RFC1213-MIB
    OBJECT-TYPE        FROM SNMPv2-SMI;

```

```
-- oasis MIB group
```

```

saNliProtAccOBJECT IDENTIFIER ::= { saNLI 1 }
saNliGroup      OBJECT IDENTIFIER ::= { saNLI 2 }
saNliPort       OBJECT IDENTIFIER ::= { saNLI 3 }
saNliTunnel     OBJECT IDENTIFIER ::= { saNLI 4 }
saNliMAC        OBJECT IDENTIFIER ::= { saNLI 5 }
saNliDescCfg    OBJECT IDENTIFIER ::= { saNLI 6 }
saNliPoolCfg    OBJECT IDENTIFIER ::= { saNLI 7 }
saNliDirect     OBJECT IDENTIFIER ::= { saNLI 8 }
saPaTunnel      OBJECT IDENTIFIER ::= { saNLI 9 }
saNliAdvCfg     OBJECT IDENTIFIER ::= { saNLI 10 }
saNliMACView    OBJECT IDENTIFIER ::= { saNLI 11 }
saNliSpanGrp    OBJECT IDENTIFIER ::= { saNLI 12 }
saNliSpanPrt    OBJECT IDENTIFIER ::= { saNLI 13 }

```

```
-- Native Lan Interconnect Protocol Accelerator Table
```

```
saNliProtAccTable OBJECT-TYPE
```

```

    SYNTAX SEQUENCE OF SaNliProtAccEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "NLI Protocol Accelerator Table"
    ::= { saNliProtAcc 1 }

```

```
saNliProtAccEntry OBJECT-TYPE
```

```

    SYNTAX SaNliProtAccEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "NLI Protocol Accelerator Table Entry"
    INDEX { saBrdNum , saNliProtAccPciSlot }
    ::= { saNliProtAccTable 1 }

```

```
saNliProtAccEntry ::=
```

```

    SEQUENCE {
        saNliProtAccAdminStatus
            INTEGER,
        saNliProtAccRcvCells
            Counter,
        saNliProtAccXmtCells
            Counter,
        saNliProtAccXmtBufUflowPkts
            Counter,
        saNliProtAccXmtQOflowPkts
            Counter,

```

```

saNliProtAccRcvLenOfFlowPkts
    Counter,
saNliProtAccRcvBufUflowPkts
    Counter,
saNliProtAccRcvCrcErrPkts
    Counter,
saNliProtAccRcvReasmTOPkts
    Counter,
saNliProtAccRcvInactPkts
    Counter,
saNliProtAccRcvUndefPkts
    Counter,
saNliProtAccHUQOfFlow
    Counter,
saNliProtAccFwdErrPkts
    Counter,
saNliProtAccCamOfFlow
    Counter,
saNliProtAccBlockedPkts
    Counter,
saNliProtAccParm1
    INTEGER,
saNliProtAccParm2
    INTEGER,
saNliProtAccMicrocodeName
    DisplayString,
saNliProtAccMicrocodeRev
    DisplayString,
saNliProtAccStatus
    INTEGER,
saNliProtAccErrorCode
    INTEGER,
saNliProtAccCHIQOfFlow
    Counter,
saNliProtAccVccMisdirect
    Counter
}

saNliProtAccAdminStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        no-operation(1),
        add-group(2),
        del-group(3),
        clear-counts(4),
        clear-all(5),
        add-advcfg(6),
        del-advcfg(7),
        save-advcfg(8)
    }
}

}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Hot key to group row."
 ::= { saNliProtAccEntry 1 }

saNliProtAccRcvCells OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number cells received."
    ::= { saNliProtAccEntry 2 }

saNliProtAccXmtCells OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number cells transmitted."
    ::= { saNliProtAccEntry 3 }

saNliProtAccXmtBufUflowPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets not transmitted because no buffers
        were available."
    ::= { saNliProtAccEntry 4 }

saNliProtAccXmtQOfFlowPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets dropped because transmitting VC queue
        was full."
    ::= { saNliProtAccEntry 5 }

saNliProtAccRcvLenOfFlowPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets received that were
        larger than two buffers."

```

```

        ::= { saNliProtAccEntry 6 }

saNliProtAccRcvBufUflowPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets received when no
        buffers were available."
    ::= { saNliProtAccEntry 7 }

saNliProtAccRcvCrcErrPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets dropped due to a CRC error."
    ::= { saNliProtAccEntry 8 }

saNliProtAccRcvReasmTOPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets dropped due to a reassembly timeout."
    ::= { saNliProtAccEntry 9 }

saNliProtAccRcvInactPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets received on an inactive VC."
    ::= { saNliProtAccEntry 10 }

saNliProtAccRcvUndefPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets received on an undefined VC."
    ::= { saNliProtAccEntry 11 }

saNliProtAccHUQOflow OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION

```

```

        "Number of packets not forwarded to the host because
        the queue was full."
    ::= { saNliProtAccEntry 12 }

saNliProtAccFwdErrPkts OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets dropped because a transmit
        queue was full."
    ::= { saNliProtAccEntry 13 }

saNliProtAccCamOflow OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of times adding a MAC address failed
        due to CAM overflow."
    ::= { saNliProtAccEntry 14 }

saNliProtAccHIQOflow OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of times the Host Indications Queue overflowed."
    ::= { saNliProtAccEntry 15 }

saNliProtAccVccMisdirect OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of times a packet received on a VC was forwarded
        to another VC."
    ::= { saNliProtAccEntry 16 }

saNliProtAccParm1 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Specifies POD on group adds, interface
        index on group deletes."
    ::= { saNliProtAccEntry 17 }

```

```

saNliProtAccParm2 OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Specifies Port on group adds."
    ::= { saNliProtAccEntry 18 }

saNliProtAccMicrocodeName OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Name of the file containing the microcode image."
    ::= { saNliProtAccEntry 19 }

saNliProtAccPciSlot OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "PCI slot where the Protocol Accelerator is running."
    ::= { saNliProtAccEntry 20 }

saNliProtAccStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        normal(1),
        config-mismatch(2),
        group-add-failed(3),
        group-added(4),
        group-del-failed(5),
        group-deleted(6),
        advcfg-added(7),
        advcfg-add-failed(8),
        advcfg-deleted(9),
        advcfg-del-failed(10),
        advcfg-saved(11),
        advcfg-save-failed(12)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Contains any messages in response to sets made in
        this row."
    ::= { saNliProtAccEntry 21 }

```

```

saNliProtAccErrorCode OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Error code associated with the Status message."
    ::= { saNliProtAccEntry 22 }

saNliProtAccBlockedPkts OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of times a packet was dropped in an attempt
        to transmit out a blocked port."
    ::= { saNliProtAccEntry 23 }

saNliProtAccMicrocodeRev OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Revision of the file containing the microcode image."
    ::= { saNliProtAccEntry 24 }

-- Native Lan Interconnect Group Table

saNliGroupTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaNliGroupEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI Group Table"
    ::= { saNliGroup 1 }

saNliGroupEntry OBJECT-TYPE
    SYNTAX  SaNliGroupEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI Group Table Entry"
    INDEX { ifIndex }
    ::= { saNliGroupTable 1 }

```

```

saNliGroupEntry ::=
    SEQUENCE {
        saNliGroupName
            DisplayString,
        saNliGroupXmtPackets
            Counter,
        saNliGroupRcvPackets
            Counter,
        saNliGroupPortAssociation
            INTEGER,
        saNliGroupNumTunnels
            INTEGER,
        saNliGroupDataBaseAge
            INTEGER,
        saNliGroupBufferPool
            INTEGER,
        saNliGroupIPAccess
            INTEGER,
        saNliGroupSpanningTree
            INTEGER,
        saNliGroupAdminStatus
            INTEGER,
        saNliGroupOperStatus
            INTEGER,
        saNliGroupId
            INTEGER,
        saNliGroupNewInterfaceParm1
            INTEGER,
        saNliGroupNewInterfaceParm2
            INTEGER,
        saNliGroupNewInterfaceParm3
            INTEGER,
        saNliGroupCreateNewInterface
            INTEGER,
        saNliGroupStatus
            INTEGER,
        saNliGroupErrorCode
            INTEGER
    }

saNliGroupName OBJECT-TYPE
    SYNTAX DisplayString(SIZE(0..40))
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Group Name"
    ::= { saNliGroupEntry 1 }

```

```

saNliGroupXmtPackets OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets transmitted to ports by this group"
    ::= { saNliGroupEntry 2 }

saNliGroupRcvPackets OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets received from ports by this group"
    ::= { saNliGroupEntry 3 }

saNliGroupPortAssociation OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Bit mask of physical ports presently associated
        with this group."
    ::= { saNliGroupEntry 4 }

saNliGroupDataBaseAge OBJECT-TYPE
    SYNTAX INTEGER(0..1023)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Default age of MAC addresses kept in forwarding table"
    ::= { saNliGroupEntry 5 }

saNliGroupIPAccess OBJECT-TYPE
    SYNTAX INTEGER {
        ip(1),
        no-ip(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Determines whether or not IP access is granted through
        this forwarding group."
    ::= { saNliGroupEntry 6 }

saNliGroupAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        no-operation(1),

```

```

        apply(2),
        clear-counts(3),
        clear-all(8),
        enable(4),
        disable(5),
        mac-cache-view-on(6),
        mac-cache-view-off(7)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Controls group state"
    ::= { saNliGroupEntry 7 }

saNliGroupOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        new(1),
        enabled(2),
        disabled(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Reports group status"
    ::= { saNliGroupEntry 8 }

saNliGroupId OBJECT-TYPE
    SYNTAX INTEGER(0..65535)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Group Identification number from BridgeMaker"
    ::= { saNliGroupEntry 9 }

saNliGroupNewInterfaceParm1 OBJECT-TYPE
    SYNTAX INTEGER(0..255)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Parameter 1 for adding an interface.
        (VPI | POD | upperMAC)."
    ::= { saNliGroupEntry 10 }

saNliGroupNewInterfaceParm2 OBJECT-TYPE
    SYNTAX INTEGER(0..65535)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Parameter 2 for adding an interface.
        (VCI | Port | lowerMAC)."
    ::= { saNliGroupEntry 11 }

saNliGroupNewInterfaceParm3 OBJECT-TYPE
    SYNTAX INTEGER(0..65535)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Parameter 3 for adding an interface.
        (N/A | N/A | chanId)."
    ::= { saNliGroupEntry 12 }

saNliGroupCreateNewInterface OBJECT-TYPE
    SYNTAX INTEGER {
        no-operation(1),
        add-tunnel(2),
        del-tunnel(3),
        add-mac(6),
        del-mac(7)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Hot key to create a new interface row."
    ::= { saNliGroupEntry 13 }

saNliGroupStatus OBJECT-TYPE
    SYNTAX INTEGER {
        normal(1),
        config-mismatch(2),
        group-register-failed(3),
        group-registered(4),
        add-tunnel-failed(5),
        added-tunnel(6),
        del-tunnel-failed(7),
        deleted-tunnel(8),
        add-mac-failed(9),
        added-mac(10),
        del-mac-failed(11),
        deleted-mac(12),
        port-assoc-failed(13),
        port-assoc-changed(14),
        db-age-change-failed(15),
        db-age-changed(16),
        change-ip-access-failed(17),
        changed-ip-access(18),
        group-enable-failed(19),
    
```

```

        group-enabled(20),
        group-disable-failed(21),
        group-disabled(22),
        change-span-failed(23),
        changed-span(24)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Contains any messages in response
        to sets made in this row."
    ::= { saNliGroupEntry 14 }

saNliGroupErrorCode OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Error code associated with the Status message."
    ::= { saNliGroupEntry 15 }

saNliGroupNumTunnels OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of tunnels presently associated with this group."
    ::= { saNliGroupEntry 16 }

saNliGroupBufferPool OBJECT-TYPE
    SYNTAX INTEGER {
        mgmt(1),
        comms(2),
        pool-1(3),
        pool-2(4)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Selects which buffer pool this group draws from."
    ::= { saNliGroupEntry 17 }

saNliGroupSpanningTree OBJECT-TYPE
    SYNTAX INTEGER {
        active(1),
        inactive(2)
    }
    MAX-ACCESS read-write

```

```

STATUS current
DESCRIPTION
    "Determines whether or not Spanning Tree is run over
    this forwarding group."
::= { saNliGroupEntry 18 }

-- Native Lan Interconnect Port Table

saNliPortTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaNliPortEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "NLI Port Table"
    ::= { saNliPort 1 }

saNliPortEntry OBJECT-TYPE
    SYNTAX SaNliPortEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "NLI Port Table Entry"
    INDEX { ifIndex, saNliPortIfIndex }
    ::= { saNliPortTable 1 }

saNliPortEntry ::=
    SEQUENCE {
        saNliPortId
            INTEGER,
        saNliPortBifIdx
            INTEGER,
        saNliPortName
            DisplayString,
        saNliPortPodNum
            INTEGER,
        saNliPortPortNum
            INTEGER,
        saNliPortLinkSpeed
            INTEGER,
        saNliPortXmtPackets
            Counter,
        saNliPortRcvPackets
            Counter,
        saNliPortAdminStatus
            INTEGER,

```

```

        saNliPortOperStatus
            INTEGER,
        saNliPortStatus
            INTEGER,
        saNliPortErrorCode
            INTEGER
    }

saNliPortId OBJECT-TYPE
    SYNTAX  INTEGER(0..65535)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port Identification number from BridgeMaker"
    ::= { saNliPortEntry 1 }

saNliPortBIfIdx OBJECT-TYPE
    SYNTAX  INTEGER(0..65535)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "BridgeMaker interface identification number"
    ::= { saNliPortEntry 2 }

saNliPortName OBJECT-TYPE
    SYNTAX  DisplayString(SIZE(0..40))
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Port Name"
    ::= { saNliPortEntry 3 }

saNliPortPodNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port POD position"
    ::= { saNliPortEntry 4 }

saNliPortPortNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port position on the POD"
    ::= { saNliPortEntry 5 }

```

```

saNliPortLinkSpeed OBJECT-TYPE
    SYNTAX  INTEGER {
        speed-10M(1),
        speed-100M(2),
        autosense(3),
        full-dplx-10M(4),
        full-dplx-100M(5)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port speed"
    ::= { saNliPortEntry 6 }

saNliPortXmtPackets OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of packets transmitted on the port"
    ::= { saNliPortEntry 7 }

saNliPortRcvPackets OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of packets received on the port"
    ::= { saNliPortEntry 8 }

saNliPortAdminStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        no-operation(1),
        apply(2),
        clear-counts(3),
        block(4),
        unblock(5)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Controls port state"
    ::= { saNliPortEntry 9 }

saNliPortOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        new(1),
        blocked(2),

```

```

        unblocked(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Reports port status"
    ::= { saNliPortEntry 10 }

saNliPortStatus OBJECT-TYPE
    SYNTAX INTEGER {
        normal(1),
        config-mismatch(2),
        port-configure-failed(3),
        port-configured(4),
        port-block-failed(5),
        port-blocked(6),
        port-unblock-failed(7),
        port-unblocked(8)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Contains any messages in response to sets made in
        this row."
    ::= { saNliPortEntry 11 }

saNliPortErrorCode OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Error code associated with the Status message."
    ::= { saNliPortEntry 12 }

saNliPortIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Ethernet Port interface index."
    ::= { saNliPortEntry 13 }

-- Native Lan Interconnect Tunnel Table
saNliTunnelTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaNliTunnelEntry
    MAX-ACCESS not-accessible

```

```

    STATUS current
    DESCRIPTION
        "NLI Tunnel Table"
    ::= { saNliTunnel 1 }

saNliTunnelEntry OBJECT-TYPE
    SYNTAX SaNliTunnelEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "NLI Tunnel Table Entry"
    INDEX { ifIndex, saNliTunnelVPI, saNliTunnelVCI }
    ::= { saNliTunnelTable 1 }

saNliTunnelEntry ::=
    SEQUENCE {
        saNliTunnelName
            DisplayString,
        saNliTunnelSvcRate
            INTEGER,
        saNliTunnelSvcUserDefRate
            INTEGER,
        saNliTunnelSvcCat
            INTEGER,
        saNliTunnelSvcCdvT
            INTEGER,
        saNliTunnelType
            INTEGER,
        saNliTunnelPID
            INTEGER,
        saNliTunnelVbrAvgRate
            INTEGER,
        saNliTunnelVbrMaxBurst
            INTEGER,
        saNliTunnelAbrInitRate
            INTEGER,
        saNliTunnelAbrMinRate
            INTEGER,
        saNliTunnelAbrXrm
            INTEGER,
        saNliTunnelAbrRIF
            INTEGER,
        saNliTunnelAbrRDF
            INTEGER,
        saNliTunnelAbrCDF
            INTEGER,
        saNliTunnelAbrActivateOpt
            INTEGER,

```

<pre> saNliTunnelVPI INTEGER, saNliTunnelVCI INTEGER, saNliTunnelAdminStatus INTEGER, saNliTunnelOperStatus INTEGER, saNliTunnelStatus INTEGER, saNliTunnelErrorCode INTEGER } saNliTunnelName OBJECT-TYPE SYNTAX DisplayString(SIZE(0..40)) MAX-ACCESS read-write STATUS current DESCRIPTION "Tunnel Name" ::= { saNliTunnelEntry 1 } saNliTunnelSvcRate OBJECT-TYPE SYNTAX INTEGER { svcRate-100M(1), svcRate-45M(2), svcRate-34M(3), svcRate-10M(4), svcRate-2M(5), svcRate-1544K(6), svcRate-512K(7), svcRate-384K(8), svcRate-256K(9), svcRate-128K(10), svcRate-64K(11), svcRate-56K(12), user-defined(13) } MAX-ACCESS read-write STATUS current DESCRIPTION "Tunnel Service Rate" ::= { saNliTunnelEntry 2} saNliTunnelSvcUserDefRate OBJECT-TYPE SYNTAX INTEGER MAX-ACCESS read-write STATUS current </pre>	<pre> DESCRIPTION "Tunnel rate in bits per second for userDefined service rates. This bit rate is used to calculate a Peak Cell Rate." ::= { saNliTunnelEntry 3 } -- abr(5) saNliTunnelSvcCat OBJECT-TYPE SYNTAX INTEGER { cbr(1), rt-vbr(2), nrt-vbr(3), ubr(4) } MAX-ACCESS read-write STATUS current DESCRIPTION "Tunnel Service Category" ::= { saNliTunnelEntry 4 } saNliTunnelSvcCdvT OBJECT-TYPE SYNTAX INTEGER(0..65535) MAX-ACCESS read-write STATUS current DESCRIPTION "Tunnel Cell Delay Variance Tolerance (in cell times)" ::= { saNliTunnelEntry 5 } saNliTunnelType OBJECT-TYPE SYNTAX INTEGER { static(1), aging(2) } MAX-ACCESS read-write STATUS current DESCRIPTION "Tunnel attributes. Cannot be reconfigured." ::= { saNliTunnelEntry 6 } saNliTunnelPID OBJECT-TYPE SYNTAX INTEGER { pid-1(1), pid-7(2) } MAX-ACCESS read-write STATUS current </pre>
--	--

```

DESCRIPTION
    "PID1 means the ethernet CRC is preserved across the
    network. PID7 means the CRC is regenerated locally.
    Cannot be reconfigured."
::= { saNliTunnelEntry 7 }

saNliTunnelVPI OBJECT-TYPE
    SYNTAX INTEGER(0..255)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Tunnel VPI"
    ::= { saNliTunnelEntry 8 }

saNliTunnelVCI OBJECT-TYPE
    SYNTAX INTEGER(0..65535)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Tunnel VCI"
    ::= { saNliTunnelEntry 9 }

saNliTunnelAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        no-operation(1),
        apply(2),
        block(3),
        unblock(4)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Controls tunnel state"
    ::= { saNliTunnelEntry 10 }

saNliTunnelOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        new(1),
        blocked(2),
        unblocked(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Tunnel Oper StatusReports tunnel status"
    ::= { saNliTunnelEntry 11 }

```

```

saNliTunnelStatus OBJECT-TYPE
    SYNTAX INTEGER {
        normal(1),
        config-mismatch(2),
        tunnel-configure-failed(3),
        tunnel-configured(4),
        tunnel-block-failed(5),
        tunnel-blocked(6),
        tunnel-unblock-failed(7),
        tunnel-unblocked(8),
        tunnel-reconfigure-failed(9),
        tunnel-reconfigured(10)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Contains any messages in response to sets made in
        this row."
    ::= { saNliTunnelEntry 12 }

saNliTunnelErrorCode OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Error code associated with the Status message."
    ::= { saNliTunnelEntry 13 }

saNliTunnelVbrAvgRate OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Sustained rate in bits per second for VBR tunnels."
    ::= { saNliTunnelEntry 14 }

saNliTunnelVbrMaxBurst OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Maximum burst size in bits for VBR tunnels. This amount
        of data can be transmitted at the peak rate before
        getting throttled to the the sustained rate."
    ::= { saNliTunnelEntry 15 }

```

```

saNliTunnelAbrInitRate OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Initial rate in bits per second for ABR tunnels."
    ::= { saNliTunnelEntry 16 }

```

```

saNliTunnelAbrXrm OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "???"
    ::= { saNliTunnelEntry 17 }

```

```

saNliTunnelAbrRIF OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "???"
    ::= { saNliTunnelEntry 18 }

```

```

saNliTunnelAbrRDF OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "???"
    ::= { saNliTunnelEntry 19 }

```

```

saNliTunnelAbrCDF OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "???"
    ::= { saNliTunnelEntry 20 }

```

```

saNliTunnelAbrActivateOpt OBJECT-TYPE
    SYNTAX  INTEGER{
        on-first-xmt(1),
        on-enable(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION

```

```

        "???"
    ::= { saNliTunnelEntry 21 }

```

```

saNliTunnelAbrMinRate OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Minimum rate in bits per second for ABR tunnels."
    ::= { saNliTunnelEntry 22 }

```

-- Native Lan Interconnect MAC table

```

saNliMACTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaNliMACEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI MAC Table"
    ::= { saNliMAC 1 }

```

```

saNliMACEntry OBJECT-TYPE
    SYNTAX  SaNliMACEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI MAC Table Entry"
    INDEX   { ifIndex, saNliMACIndex1, saNliMACIndex2 }
    ::= { saNliMACTable 1 }

```

```

saNliMACEntry ::=
    SEQUENCE {
        saNliMACUpperAddr
            INTEGER,
        saNliMACLowerAddr
            INTEGER,
        saNliMACDestIfIndex
            INTEGER,
        saNliMACDestVPI
            INTEGER,
        saNliMACDestVCI
            INTEGER,
        saNliMACEntryType
            INTEGER,
        saNliMACDestChanId
            INTEGER,
        saNliMACStatus
            INTEGER
    }

```

```

saNliMACIndex1 OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "First index derived from the MAC address."
    ::= { saNliMACEntry 1 }

saNliMACIndex2 OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "Second index derived from the MAC address."
    ::= { saNliMACEntry 2 }

saNliMACUpperAddr OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "Upper 16 bits of the MAC address"
    ::= { saNliMACEntry 3 }

saNliMACLowerAddr OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "Lower 32 bits of the MAC address"
    ::= { saNliMACEntry 4 }

saNliMACDestIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS    current
    DESCRIPTION
        "Destination Interface Index. Identifies an interface
        port. Or, if it is equal to the parent Forwarding Group,
        Interface Index, the saNliMACDestVPI and saNliMACDestVCI
        are used to remember the destination through a power
        cycle."
    ::= { saNliMACEntry 5 }

saNliMACDestVPI OBJECT-TYPE
    SYNTAX  INTEGER(0..255)
    MAX-ACCESS  read-write

```

```

    STATUS    current
    DESCRIPTION
        "Destination VPI is used in conjunction with
saNliMACDestVCI
        to remember which tunnel to forward a given MAC address
        through a power cycle."
    ::= { saNliMACEntry 6 }

saNliMACDestVCI OBJECT-TYPE
    SYNTAX  INTEGER(0..65535)
    MAX-ACCESS  read-write
    STATUS    current
    DESCRIPTION
        "Destination VCI is used in conjunction with
        saNliMACDestVCI to remember which tunnel to
        forward a given MAC address through a power cycle."
    ::= { saNliMACEntry 7 }

saNliMACEntryType OBJECT-TYPE
    SYNTAX  INTEGER {
        static(1),
        dynamic(2)
    }
    MAX-ACCESS  read-write
    STATUS    current
    DESCRIPTION
        "Entry type. Static if it is not subject to aging."
    ::= { saNliMACEntry 8 }

saNliMACDestChanId OBJECT-TYPE
    SYNTAX  INTEGER(0..65535)
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "BridgeMaker channel Id of the associated tunnel or port"
    ::= { saNliMACEntry 9 }

saNliMACStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        pending(1),
        active(2)
    }
    MAX-ACCESS  read-only
    STATUS    current
    DESCRIPTION
        "Used to track non-volatile restore. Active means it is in
        the BridgeMaker MAC cache."
    ::= { saNliMACEntry 10 }

```

```
-- Protocol Accelerator Descriptor Configuration table
```

```
saNliDescCfgTable OBJECT-TYPE
```

```
    SYNTAX SEQUENCE OF SaNliDescCfgEntry
```

```
    MAX-ACCESS not-accessible
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Protocol Accelerator Descriptor Configuration Table"
```

```
    ::= { saNliDescCfg 1 }
```

```
saNliDescCfgEntry OBJECT-TYPE
```

```
    SYNTAX SaNliDescCfgEntry
```

```
    MAX-ACCESS not-accessible
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Protocol Accelerator Descriptor Configuration Table Entry"
```

```
    INDEX {
```

```
        saBrdNum,
```

```
        saNliDescCfgPciSlot,
```

```
        saNliDescCfgPodNum,
```

```
        saNliDescCfgPortNum
```

```
    }
```

```
    ::= { saNliDescCfgTable 1 }
```

```
saNliDescCfgEntry ::=
```

```
    SEQUENCE {
```

```
        saNliDescCfgGroupType
```

```
        INTEGER,
```

```
        saNliDescCfgPool
```

```
        INTEGER,
```

```
        saNliDescCfgRatio
```

```
        INTEGER,
```

```
        saNliDescCfgBufsPerDesc
```

```
        INTEGER,
```

```
        saNliDescCfgDescSize
```

```
        INTEGER,
```

```
        saNliDescCfgSeedBufs
```

```
        INTEGER,
```

```
        saNliDescCfgTotalDescs
```

```
        INTEGER,
```

```
        saNliDescCfgOperStatus
```

```
        INTEGER
```

```
    }
```

```
saNliDescCfgGroupType OBJECT-TYPE
```

```
    SYNTAX INTEGER {
```

```
        host(1),
```

```
        forwarding(2),
```

```
        direct(3)
```

```
    }
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Group type of which this descriptor can be a member."
```

```
    ::= { saNliDescCfgEntry 1 }
```

```
saNliDescCfgPool OBJECT-TYPE
```

```
    SYNTAX INTEGER {
```

```
        mgmt(1),
```

```
        comms(2),
```

```
        pool1(3),
```

```
        pool2(4)
```

```
    }
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Index of the Pool Configuration Table entry used."
```

```
    ::= { saNliDescCfgEntry 2 }
```

```
saNliDescCfgRatio OBJECT-TYPE
```

```
    SYNTAX INTEGER
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Number contrasted with other users of the pool to  
        divide extra buffers."
```

```
    ::= { saNliDescCfgEntry 3 }
```

```
saNliDescCfgBufsPerDesc OBJECT-TYPE
```

```
    SYNTAX INTEGER
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Number of buffers reserved per descriptor allocated."
```

```
    ::= { saNliDescCfgEntry 4 }
```

```
saNliDescCfgDescSize OBJECT-TYPE
```

```
    SYNTAX INTEGER
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Size of each descriptor."
```

```
    ::= { saNliDescCfgEntry 5 }
```

```

saNliDescCfgSeedBufs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Minimum requested number of descriptors."
    ::= { saNliDescCfgEntry 6 }

saNliDescCfgTotalDescs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of descriptors allocated."
    ::= { saNliDescCfgEntry 7 }

saNliDescCfgOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        configured(1),
        new(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Status of the descriptor. Configured means that the
        descriptor was used in BridgeMaker initialization.
        New rows must be identified as such to prevent their
        use until BridgeMaker is re-initialized."
    ::= { saNliDescCfgEntry 8 }

saNliDescCfgPciSlot OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Protocol Accelerator PCI slot which owns this descriptor."
    ::= { saNliDescCfgEntry 9 }

saNliDescCfgPodNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "POD number used with Port number to uniquely identify
        this descriptor"
    ::= { saNliDescCfgEntry 10 }

```

```

saNliDescCfgPortNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port number used with POD number to uniquely identify
        this descriptor"
    ::= { saNliDescCfgEntry 11 }

-- Protocol Accelerator Pool Configuration table
saNliPoolCfgTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaNliPoolCfgEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Protocol Accelerator Pool Configuration Table"
    ::= { saNliPoolCfg 1 }

saNliPoolCfgEntry OBJECT-TYPE
    SYNTAX  SaNliPoolCfgEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Protocol Accelerator Pool Configuration Table Entry"
    INDEX   { saBrdNum, saNliPoolCfgPciSlot, saNliPoolCfgId }
    ::= { saNliPoolCfgTable 1 }

saNliPoolCfgEntry ::=
    SEQUENCE {
        saNliPoolCfgType
            INTEGER,
        saNliPoolCfgBufSize
            INTEGER,
        saNliPoolCfgTotalBufs
            INTEGER
    }

saNliPoolCfgType OBJECT-TYPE
    SYNTAX  INTEGER {
        reserved-0(1),
        reserved-1(2),
        reserved-2(3),
        reserved-3(4),
        shared(5),
        private-1(6),
        private-2(7),
        private-3(8)
    }

```

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Pool type. Can set to shared to allow multiple users
    or to private-x to allow only one descriptor to access
    the pool."
::= { saNliPoolCfgEntry 1 }

saNliPoolCfgBufSize OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Size of the buffers allocated for this pool."
    ::= { saNliPoolCfgEntry 2 }

saNliPoolCfgTotalBufs OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Total number of buffers allocated for this pool."
    ::= { saNliPoolCfgEntry 3 }

saNliPoolCfgPciSlot OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Protocol Accelerator PCI slot which owns this pool."
    ::= { saNliPoolCfgEntry 4 }

saNliPoolCfgId OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Pool Id as in the Pool Configuration Table."
    ::= { saNliPoolCfgEntry 5 }

-- Protocol Accelerator Direct Group Table
saNliDirectTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaNliDirectEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Protocol Accelerator Direct Group Table"

    ::= { saNliDirect 1 }

saNliDirectEntry OBJECT-TYPE
    SYNTAX SaNliDirectEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Protocol Accelerator Direct Group Table Entry"
    INDEX { ifIndex }
    ::= { saNliDirectTable 1 }

saNliDirectEntry ::=
    SEQUENCE {
        saNliDirectName
            DisplayString,
        saNliDirectDescPod
            INTEGER,
        saNliDirectDescPort
            INTEGER,
        saNliDirectOperStatus
            INTEGER,
        saNliDirectGroupId
            INTEGER
    }

saNliDirectName OBJECT-TYPE
    SYNTAX DisplayString(SIZE(0..40))
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Direct Group Name"
    ::= { saNliDirectEntry 1 }

saNliDirectDescPod OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "POD number used to index into the Protocol Accelerator
        Descriptor Configuration Table."
    ::= { saNliDirectEntry 2 }

saNliDirectDescPort OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Port number used to index into the Protocol Accelerator

```

```

        Descriptor Configuration Table."
 ::= { saNliDirectEntry 3 }

saNliDirectOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        new(1),
        enabled(2),
        disabled(3)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Reports group status."
 ::= { saNliDirectEntry 4 }

saNliDirectGroupId OBJECT-TYPE
    SYNTAX  INTEGER(0..65535)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Group Identification number from BridgeMaker."
 ::= { saNliDirectEntry 5 }

-- Protocol Accelerator Tunnel Table
saPaTunnelTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaPaTunnelEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Protocol Accelerator Tunnel Table"
 ::= { saPaTunnel 1 }

saPaTunnelEntry OBJECT-TYPE
    SYNTAX  SaPaTunnelEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Protocol Accelerator Tunnel Table Entry"
    INDEX  { ifIndex, saPaTunnelVPI, saPaTunnelVCI }
 ::= { saPaTunnelTable 1 }

saPaTunnelEntry ::=
    SEQUENCE {
        saPaTunnelServiceClass
            INTEGER,
        saPaTunnelPeakCPS
            INTEGER,

```

```

        saPaTunnelAvgCPS
            INTEGER,
        saPaTunnelInitCPS
            INTEGER,
        saPaTunnelMinCPS
            INTEGER,
        saPaTunnelCdvT
            INTEGER,
        saPaTunnelType
            INTEGER,
        saPaTunnelUuCpi
            INTEGER,
        saPaTunnelMaxBurstSize
            INTEGER,
        saPaTunnelXrm
            INTEGER,
        saPaTunnelRIF
            INTEGER,
        saPaTunnelRDF
            INTEGER,
        saPaTunnelCDF
            INTEGER,
        saPaTunnelActivateOpt
            INTEGER,
        saPaTunnelVPI
            INTEGER,
        saPaTunnelVCI
            INTEGER,
        saPaTunnelPeakCellRate
            INTEGER,
        saPaTunnelAvgCellRate
            INTEGER,
        saPaTunnelInitCellRate
            INTEGER,
        saPaTunnelMinCellRate
            INTEGER,
        saPaTunnelChanId
            INTEGER,
        saPaTunnelBifIdx
            INTEGER
    }

```

```

saPaTunnelPeakCPS OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Tunnel peak rate in cells per second for which this tunnel

```

```

        is configured."
 ::= { saPaTunnelEntry 1 }

--      abr(5)
saPaTunnelServiceClass OBJECT-TYPE
    SYNTAX  INTEGER {
        cbr(1),
        rt-vbr(2),
        nrt-vbr(3),
        ubr(4)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Tunnel service class."
 ::= { saPaTunnelEntry 2 }

saPaTunnelCdvT OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Tunnel cell delay variance tolerance for which
         this tunnel is configured."
 ::= { saPaTunnelEntry 3 }

saPaTunnelType OBJECT-TYPE
    SYNTAX  INTEGER {
        static(1),
        aging(2)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Tunnel attributes."
 ::= { saPaTunnelEntry 4 }

saPaTunnelUuCpi OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Tunnel UU and CPI fields."
 ::= { saPaTunnelEntry 5 }

saPaTunnelVPI OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only

```

```

    STATUS      current
    DESCRIPTION
        "Tunnel VPI"
 ::= { saPaTunnelEntry 6 }

saPaTunnelVCI OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Tunnel VCI"
 ::= { saPaTunnelEntry 7 }

saPaTunnelPeakCellRate OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Peak cell rate in effect for the specified
         service rate in TM 4.0 RATE format."
 ::= { saPaTunnelEntry 8 }

saPaTunnelChanId OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Tunnel Identification number from BridgeMaker"
 ::= { saPaTunnelEntry 9 }

saPaTunnelBifIdx OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "BridgeMaker interface identification number"
 ::= { saPaTunnelEntry 10 }

saPaTunnelAvgCPS OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The average rate in cells per second for which this tunnel
         is configured. Only applies to VBR tunnels."
 ::= { saPaTunnelEntry 11 }

```

```

saPaTunnelInitCPS OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The initial rate in cells per second for which this tunnel
        is configured. Only applies to ABR tunnels."
    ::= { saPaTunnelEntry 12 }

saPaTunnelMinCPS OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The minimum usable rate in cells per second for which this
        tunnel is configured. Only applies to ABR tunnels."
    ::= { saPaTunnelEntry 13 }

saPaTunnelAvgCellRate OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Average cell rate in effect for the specified service rate
        in TM 4.0 RATE format. Only applies to VBR tunnels."
    ::= { saPaTunnelEntry 14 }

saPaTunnelInitCellRate OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Initial cell rate in effect for the specified service rate
        in TM 4.0 RATE format. Only applies to ABR tunnels."
    ::= { saPaTunnelEntry 15 }

saPaTunnelMinCellRate OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Minimum cell rate in effect for the specified service rate
        in TM 4.0 RATE format. Only applies to ABR tunnels."
    ::= { saPaTunnelEntry 16 }

```

```

saPaTunnelXrm OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Maximum number of cell times between RM cell transmission.
        Applies only to ABR tunnels."
    ::= { saPaTunnelEntry 17 }

saPaTunnelRIF OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Rate Increase Factor determines how much the transmission
        rate increases upon receipt of an RM cell. Applies only to
        ABR tunnels."
    ::= { saPaTunnelEntry 18 }

saPaTunnelRDF OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Rate Decrease Factor determines how much the transmission
        rate decreases upon receipt of an RM cell. Applies only to
        ABR tunnels."
    ::= { saPaTunnelEntry 19 }

saPaTunnelCDF OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Cutoff Decrease Factor determines how much the
        transmission rate decreases upon not receiving
        backward RM cells. Applies only to ABR tunnels."
    ::= { saPaTunnelEntry 20 }

saPaTunnelMaxBurstSize OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Maximum burst size. Applies only to VBR tunnels."
    ::= { saPaTunnelEntry 21 }

```

```

saPaTunnelActivateOpt OBJECT-TYPE
    SYNTAX  INTEGER{
        on-first-xmt(1),
        on-enable(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Determines when the first forward RM cell is sent."
    ::= { saPaTunnelEntry 22 }

```

-- NLI Advanced Configuration Table

```

saNliAdvCfgTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaNliAdvCfgEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI Advanced Configuration Table"
    ::= { saNliAdvCfg 1 }

```

```

saNliAdvCfgEntry OBJECT-TYPE
    SYNTAX  SaNliAdvCfgEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI Advanced Configuration Table Entry"
    INDEX  { saBrdNum, saNliAdvCfgPciSlot, saNliAdvCfgPodNum,
saNliAdvCfgPortNum }
    ::= { saNliAdvCfgTable 1 }

```

```

saNliAdvCfgEntry ::=
    SEQUENCE {
        saNliAdvCfgPool
            INTEGER,
        saNliAdvCfgWeight
            INTEGER,
        saNliAdvCfgEntryStatus
            INTEGER
    }

```

```

saNliAdvCfgPool OBJECT-TYPE
    SYNTAX  INTEGER {
        pool-1(1),
        pool-2(2),
        mgmt(3),
        comms(4)
    }
    MAX-ACCESS  read-write

```

```

STATUS  current
DESCRIPTION
    "Group type of which this descriptor can be a member."
    ::= { saNliAdvCfgEntry 1 }

```

```

saNliAdvCfgPciSlot OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Protocol Accelerator PCI slot which owns this descriptor."
    ::= { saNliAdvCfgEntry 2 }

```

```

saNliAdvCfgPodNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "POD number used with Port number to uniquely identify
        this descriptor"
    ::= { saNliAdvCfgEntry 3 }

```

```

saNliAdvCfgPortNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port number used with POD number to uniquely identify
        this descriptor"
    ::= { saNliAdvCfgEntry 4 }

```

```

saNliAdvCfgWeight OBJECT-TYPE
    SYNTAX  INTEGER(1..100)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Within a given pool, the length of the queues for
        this physical port relative to the other physical
        ports which draw from this pool is proportional to
        this number divided by the total of all weights
        assigned to the ports drawing from this group."
    ::= { saNliAdvCfgEntry 5 }

```

```

saNliAdvCfgEntryStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        new(1),
        accepted(2),
        configured(3)
    }

```

```

    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Configured means that the entry reflects what is
        actually in service. Accepted means that the entry
        has been processed and deemed valid such that it
        will go into service when the box is rebooted. New
        means that the entry has not been processed or has
        been rejected for some reason."
    ::= { saNliAdvCfgEntry 6 }

-- NLI MAC View Table
saNliMACViewTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaNliMACViewEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "NLI MAC View Table"
    ::= { saNliMACView 1 }

saNliMACViewEntry OBJECT-TYPE
    SYNTAX SaNliMACViewEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "NLI MAC View Table Entry"
    INDEX { ifIndex, saNliMACViewMacAddress }
    ::= { saNliMACViewTable 1 }

saNliMACViewEntry ::=
    SEQUENCE {
        saNliMACViewType
            INTEGER,
        saNliMACViewDestSlot
            INTEGER,
        saNliMACViewDestPod
            INTEGER,
        saNliMACViewDestPort
            INTEGER,
        saNliMACViewDestVPI
            INTEGER,
        saNliMACViewDestVCI
            INTEGER
    }

```

```

saNliMACViewTypeOBJECT-TYPE
    SYNTAX INTEGER {
        static(1),
        dynamic(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Type of MAC cache entry."
    ::= { saNliMACViewEntry 1 }

saNliMACViewDestSlotOBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Destination Slot onto which this MAC
        address gets forwarded."
    ::= { saNliMACViewEntry 2 }

saNliMACViewDestPodOBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Destination POD onto which this MAC
        address gets forwarded."
    ::= { saNliMACViewEntry 3 }

saNliMACViewDestPort OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Destination Port onto which this MAC address
        gets forwarded."
    ::= { saNliMACViewEntry 4 }

saNliMACViewDestVPI OBJECT-TYPE
    SYNTAX INTEGER(0..255)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Destination Tunnel VPI onto which this MAC
        address gets forwarded."
    ::= { saNliMACViewEntry 5 }

```

```

saNliMACViewDestVCI OBJECT-TYPE
    SYNTAX  INTEGER(0..65535)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Destination Tunnel VCI onto which this MAC
        address gets forwarded."
    ::= { saNliMACViewEntry 6 }

saNliMACViewMacAddressOBJECT-TYPE
    SYNTAX  OCTET STRING (SIZE(6))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "MAC Address of this entry."
    ::= { saNliMACViewEntry 7 }

-- NLI Spanning Tree Bridge Group Table
saNliSpanGrpTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaNliSpanGrpEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI Spanning Tree Bridge Group Table"
    ::= { saNliSpanGrp 1 }

saNliSpanGrpEntry OBJECT-TYPE
    SYNTAX  SaNliSpanGrpEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI Spanning Tree Bridge Group Table Entry"
    INDEX   { ifIndex }
    ::= { saNliSpanGrpTable 1 }

saNliSpanGrpEntry ::=
    SEQUENCE {
        saNliSpanGrpBridgeMACAddr
            OCTET STRING,
        saNliSpanGrpBridgePriority
            OCTET STRING,
        saNliSpanGrpDesRoot
            OCTET STRING,
        saNliSpanGrpRootPort
            OCTET STRING,
        saNliSpanGrpRootPathCost
            INTEGER,
        saNliSpanGrpTopoChangeSeen

```

```

            INTEGER,
        saNliSpanGrpTopoChangeGen
            INTEGER,
        saNliSpanGrpTopoChangeTime
            INTEGER,
        saNliSpanGrpBridgeMaxAge
            INTEGER,
        saNliSpanGrpBridgeHelloTime
            INTEGER,
        saNliSpanGrpBridgeFwdDelay
            INTEGER,
        saNliSpanGrpMaxAge
            INTEGER,
        saNliSpanGrpHelloTime
            INTEGER,
        saNliSpanGrpFwdDelay
            INTEGER,
        saNliSpanGrpHoldTime
            INTEGER
    }

```

```

saNliSpanGrpBridgeMACAddrOBJECT-TYPE
    SYNTAX  OCTET STRING (SIZE(6))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "MAC Address used as the six least significant bytes of
        the Bridge Identifier."
    ::= { saNliSpanGrpEntry 1 }

```

```

saNliSpanGrpBridgePriorityOBJECT-TYPE
    SYNTAX  OCTET STRING (SIZE(2))
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Bridge priority used as the two most significant bytes
        of the Bridge Identifier."
    ::= { saNliSpanGrpEntry 2 }

```

```

saNliSpanGrpDesRootOBJECT-TYPE
    SYNTAX  OCTET STRING (SIZE(8))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Bridge Identifier of the Root on the bridged LAN."
    ::= { saNliSpanGrpEntry 3 }

```

```

saNliSpanGrpRootPortOBJECT-TYPE
    SYNTAX  OCTET STRING (SIZE(2))
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Port Identifier of the lowest cost path to the Root."
    ::= { saNliSpanGrpEntry 4 }

saNliSpanGrpRootPathCostOBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Cost of the path to the Root via the Root Port."
    ::= { saNliSpanGrpEntry 5 }

saNliSpanGrpTopoChangeSeenOBJECT-TYPE
    SYNTAX  INTEGER {
        yes(1),
        no(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Tells whether or not topology change is being reported."
    ::= { saNliSpanGrpEntry 6 }

saNliSpanGrpTopoChangeGenOBJECT-TYPE
    SYNTAX  INTEGER {
        yes(1),
        no(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Tells whether or not topology change is being reported
        downstream by the bridge."
    ::= { saNliSpanGrpEntry 7 }

saNliSpanGrpTopoChangeTimeOBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Time period for which topology changes are reported
        following detection from upstream."
    ::= { saNliSpanGrpEntry 8 }

```

```

saNliSpanGrpBridgeMaxAgeOBJECT-TYPE
    SYNTAX  INTEGER(6..40)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Time period for which Configuration BPDUs are retained
        when this bridge is or is attempting to become the Root."
    ::= { saNliSpanGrpEntry 9 }

saNliSpanGrpBridgeHelloTimeOBJECT-TYPE
    SYNTAX  INTEGER(1..10)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Time period between sending batches of Configuration BPDUs
        when this bridge is or is attempting to become the Root."
    ::= { saNliSpanGrpEntry 10 }

saNliSpanGrpBridgeFwdDelayOBJECT-TYPE
    SYNTAX  INTEGER(4..30)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Duration of the Listening and Learning states as well as
        the MAC cache aging time during topology changes."
    ::= { saNliSpanGrpEntry 11 }

saNliSpanGrpMaxAgeOBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Time period for which Configuration BPDUs are retained."
    ::= { saNliSpanGrpEntry 12 }

saNliSpanGrpHelloTimeOBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Time period between sending batches of Configuration
        BPDUs."
    ::= { saNliSpanGrpEntry 13 }

saNliSpanGrpFwdDelayOBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current

```

```

DESCRIPTION
    "Duration of the Listening and Learning states."
 ::= { saNliSpanGrpEntry 14 }

saNliSpanGrpHoldTimeOBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Time period between the transmission of
         individual Configuration BPDUs in a batch."
 ::= { saNliSpanGrpEntry 15 }

```

```

-- NLI Spanning Tree Port Table
saNliSpanPrtTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaNliSpanPrtEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI Spanning Tree Port Table"
 ::= { saNliSpanPrt 1 }

```

```

saNliSpanPrtEntry OBJECT-TYPE
    SYNTAX  SaNliSpanPrtEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "NLI Spanning Tree Port Table Entry"
    INDEX   { ifIndex, saNliSpanPrtIfIndex }
 ::= { saNliSpanPrtTable 1 }

```

```

saNliSpanPrtEntry ::=
    SEQUENCE {
        saNliSpanPrtPriority
            OCTET STRING,
        saNliSpanPrtPathCost
            INTEGER,
        saNliSpanPrtPortState
            INTEGER,
        saNliSpanPrtDesRoot
            OCTET STRING,
        saNliSpanPrtDesCost
            INTEGER,
        saNliSpanPrtDesBridge
            OCTET STRING,

```

```

        saNliSpanPrtDesPort
            OCTET STRING,
        saNliSpanPrtTopoChangeAck
            INTEGER,
        saNliSpanPrtConfigPending
            INTEGER
    }

```

```

saNliSpanPrtIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Spanning Tree Port interface index."
 ::= { saNliSpanPrtEntry 1 }

```

```

saNliSpanPrtPriority OBJECT-TYPE
    SYNTAX  OCTET STRING (SIZE(1))
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Spanning Tree Port priority."
 ::= { saNliSpanPrtEntry 2 }

```

```

saNliSpanPrtPathCost OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "The contribution of the path through this Port, when the
         port is the Root Port, to the total cost of the path to
         the Root for this Bridge."
 ::= { saNliSpanPrtEntry 3 }

```

```

saNliSpanPrtPortState OBJECT-TYPE
    SYNTAX  INTEGER {
        disabled(1),
        listening(2),
        learning(3),
        forwarding(4),
        blocking(5)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The current state of this Port."
 ::= { saNliSpanPrtEntry 4 }

```

```

saNliSpanPrtDesRoot OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(8))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The Bridge Identifier of the Root reported by the
        Designated Bridge on the LAN to which this Port
        is attached."
    ::= { saNliSpanPrtEntry 5 }

saNliSpanPrtDesCost OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The cost of the path to the Root offered by this Port."
    ::= { saNliSpanPrtEntry 6 }

saNliSpanPrtDesBridge OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(8))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The Bridge Identifier of the Designated Bridge on the LAN
        to which this Port is attached."
    ::= { saNliSpanPrtEntry 7 }

saNliSpanPrtDesPort OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(2))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The Port Identifier of the Designated Port of the
        Designated
        Bridge on the LAN to which this Port is attached."
    ::= { saNliSpanPrtEntry 8 }

saNliSpanPrtTopoChangeAck OBJECT-TYPE
    SYNTAX INTEGER {
        yes(1),
        no(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The value of the Topology Change Acknowledgement Flag in
        Configuration BPDUs sent on this port."
    ::= { saNliSpanPrtEntry 9 }

```

```

saNliSpanPrtConfigPending OBJECT-TYPE
    SYNTAX INTEGER {
        yes(1),
        no(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Indicates whether this port is in the midst of
        transmitting a batch of Configuration BPDUs."
    ::= { saNliSpanPrtEntry 10 }

```

END

-- *****

Managment Access MIB

-- *****

sa-MGMT-ACCS-MIB DEFINITIONS ::= BEGIN

IMPORTS

```

    DisplayStringFROM RFC1213-MIB
    IfIndex             FROM RFC1213-MIB
    OBJECT-TYPE         FROM SNMPv2-SMI
    SaManagementAccess  FROM OASIS-SYSINFO-MIB
    IpAddress           FROM RFC1155-SMI;

```

-- groups in SA-MGMT-ACCS-MIB

```

SaManagementAccessPoint OBJECT IDENTIFIER ::= {saManagementAccess 1}
saManAccessDirectIpni    OBJECT IDENTIFIER ::= {saManagementAccess 2}

```

-- =====

Management Access Point IP Configuration Table

--

-- =====

```

saMapIpConfigTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaMapIpConfigEntry
    MAX-ACCESS not-accessible
    STATUS current

```

```

DESCRIPTION
    "Management Access Point IP Configuration Table"
 ::= { saManagementAccessPoint 1}

SaMapIpConfigEntry OBJECT-TYPE
    SYNTAX      SaMapIpConfigEntry
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX { ifIndex }
    ::= { saMapIpConfigTable 1}

SaMapIpConfigEntry ::= SEQUENCE
{
    SaMapIPAddressIpAddress,
    saMapNetworkMaskIpAddress,
    SaMapDestIPAddressIpAddress,
    saMapAdminStatusINTEGER,
    saMapOperStatusINTEGER
}

SaMapIPAddress OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS   read-write
    STATUS      current
    DESCRIPTION
        "IP address for this Management Access Point"
    ::= {saMapIpConfigEntry 1}

SaMapNetworkMask OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS   read-write
    STATUS      current
    DESCRIPTION
        "Network mask, if saMapInterfaceType is of
        type broadcast(1); Not used otherwise."
    ::= {saMapIpConfigEntry 2}

SaMapDestIPAddress OBJECT-TYPE
    SYNTAX      IpAddress
    MAX-ACCESS   read-write
    STATUS      current
    DESCRIPTION
        "IP address at the remote end of a point-to-point link,
        if saMapInterfaceType is of type point-to-point(2);
        Not used otherwise."
    ::= {saMapIpConfigEntry 3}

```

```

SaMapAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        up(1),
        down(2),
        testing(3)
    }
    MAX-ACCESS   read-write
    STATUS      current
    DESCRIPTION
        "Management Access Point administration status"
    ::= {saMapIpConfigEntry 4}

```

```

SaMapOperStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        up(1),
        down(2),
        testing(3)
    }
    MAX-ACCESS   read-only
    STATUS      current
    DESCRIPTION
        "Management Access Point operational status"
    ::= {saMapIpConfigEntry 5}

```

```

=====
-- IP Default Route Table
--
=====

```

```

saIpRouteTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaIpRouteEntry
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        "IP Route Configuration Table"
    ::= { saManagementAccessPoint 2}

```

```

SaIpRouteEntry OBJECT-TYPE
    SYNTAX      SaIpRouteEntry
    MAX-ACCESS   not-accessible
    STATUS      current
    DESCRIPTION
        " "
    INDEX { saRouteDestAddress }
    ::= { saIpRouteTable 1}

```

```

SaIpRouteEntry ::= SEQUENCE
{
    saRouteAdminStatusINTEGER,
    saRouteOperStatusINTEGER,
    SaRouteDestAddressIpAddress,
    saRouteGtwyAddressIpAddress,
    SaRouteType INTEGER,
    saRouteRowStatusINTEGER
}

saRouteAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        down(1),
        up(2),
        delete-route(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "IP Route configuration administrative status"
    ::= {saIpRouteEntry 1}

saRouteOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        down(1),
        up(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "IP Route configuration operational status"
    ::= {saIpRouteEntry 2}

SaRouteDestAddress OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Destination IP address of the route"
    ::= {saIpRouteEntry 3}

saRouteGtwyAddress OBJECT-TYPE
    SYNTAX IpAddress
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Gateway IP address of the route"
    ::= {saIpRouteEntry 4}

```

```

saRouteType OBJECT-TYPE
    SYNTAX INTEGER {
        direct-route(1),
        indirect-route(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Route type"
    ::= {saIpRouteEntry 5}

saRouteRowStatus OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-create
    STATUS current
    DESCRIPTION
        "IP Route Configuration Table row creation variable"
    ::= {saIpRouteEntry 6}

--=====
-- Direct Management Access Point Creation Table
--
--=====

saMapDirectIpniTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaMapDirectIpniEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Management Access Point Direct IPNI Creation Table"
    ::= { saManAccessDirectIpni 1}

SaMapDirectIpniEntry OBJECT-TYPE
    SYNTAX SaMapDirectIpniEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Indexed by board number"
    INDEX { INTEGER }
    ::= { saMapDirectIpniTable 1}

SaMapDirectIpniEntry ::= SEQUENCE
{
    SaMapDirIpniAdminStatusINTEGER,
    SaMapDirIpniOperStatusINTEGER,

```

```

saMapDirIpniProtAccId INTEGER,
saMapDirIpniType      INTEGER,
saMapDirIpniIndex     INTEGER
}

SaMapDirIpniAdminStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        no-operation(1),
        add-direct-ipni(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Add or delete a direct ipni"
    ::= {saMapDirectIpniEntry 1}

SaMapDirIpniOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        no-operation(1),
        direct-ipni-added(2),
        operation-failed(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Confirms the addition or deletion of a direct ipni"
    ::= {saMapDirectIpniEntry 2}

saMapDirIpniProtAccId OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Specifies the Protocol Accelerator
        for each operation (read-only for now)"
    ::= {saMapDirectIpniEntry 3}

SaMapDirIpniType OBJECT-TYPE
    SYNTAX  INTEGER {
        broadcast(1),
        point-to-point(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Interface type"
    ::= {saMapDirectIpniEntry 4}

```

```

SaMapDirIpniIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "ifIndex of the newly created IPNI"
    ::= {saMapDirectIpniEntry 5}

```

```

=====
-- Direct IPNI Configuration Table
--
=====

```

```

SaMapIpniCfgTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaMapIpniCfgEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Direct IPNI Configuration Table"
    ::= { saManAccessDirectIpni 2}

```

```

SaMapIpniCfgEntry OBJECT-TYPE
    SYNTAX  SaMapIpniCfgEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Indexed by board number"
    INDEX { ifIndex }
    ::= { saMapIpniCfgTable 1}

```

```

saMapIpniCfgEntry ::= SEQUENCE
{
    SaMapIpniCfgAdminStatus INTEGER,
    SaMapIpniCfgOperStatus INTEGER,
    saMapIpniCfgProtAccId INTEGER,
    saMapIpniCfgIfType INTEGER,
    saMapIpniCfgDestVPI INTEGER,
    saMapIpniCfgDestVCI INTEGER
}

```

```

SaMapIpniCfgAdminStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        no-operation(1),
        add-tunnel(2),
        delete-ipni(3)
    }

```

```

MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Direct IPNI administrative status and tunnel operations"
::= {saMapIpniCfgEntry 1}

SaMapIpniCfgOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        ipni-new(1),
        no-operation(2),
        tunnel-added(3),
        operation-failed(4)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Direct IPNI operational status"
    ::= {saMapIpniCfgEntry 2}

saMapIpniCfgProtAccId OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Specifies the Protocol Accelerator
        for each operation (read-only for now)"
    ::= {saMapIpniCfgEntry 3}

saMapIpniCfgIfType OBJECT-TYPE
    SYNTAX INTEGER {
        broadcast(1),
        point-to-point(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interface type"
    ::= {saMapIpniCfgEntry 4}

saMapIpniCfgDestVPI OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Destination VPI"
    ::= {saMapIpniCfgEntry 5}

```

```

saMapIpniCfgDestVCI OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Destination VCI"
    ::= {saMapIpniCfgEntry 6}

```

```

=====
-- Direct IPNI Tunnel Configuration Table
--
=====

```

```

SaMapIpniTunnelTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaMapIpniTunnelEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Direct IPNI Configuration Table"
    ::= { saManAccessDirectIpni 3}

```

```

SaMapIpniTunnelEntry OBJECT-TYPE
    SYNTAX SaMapIpniTunnelEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Indexed by IPNI's ifIndex, VPI, VCI"
    INDEX { ifIndex, saMapIpniTunnelDestVPI, saMapIpniTunnelDestVCI }
    ::= { saMapIpniTunnelTable 1}

```

```

saMapIpniTunnelEntry ::= SEQUENCE
{
    saMapIpniTunnelDestVPIINTEGER,
    saMapIpniTunnelDestVCIINTEGER,
    saMapTunnelProtAccIdINTEGER,
    saMapIpniTunnelSvcRateINTEGER,
    saMapIpniTunnelNameDisplayString,
    saMapIpniTunnelAdminStatusINTEGER,
    saMapIpniTunnelOperStatusINTEGER
}

```

```

saMapIpniTunnelDestVPI OBJECT-TYPE
    SYNTAX INTEGER(0..255)
    MAX-ACCESS read-only
    STATUS current

```

```

DESCRIPTION
    "Destination VPI"
 ::= { saMapIpniTunnelEntry 1 }

SaMapIpniTunnelDestVCI OBJECT-TYPE
    SYNTAX  INTEGER(0..65535)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Destination VCI"
 ::= { saMapIpniTunnelEntry 2 }

saMapTunnelProtAccId OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Specifies the Protocol Accelerator for
        each operation (read-only for now)"
 ::= {saMapIpniTunnelEntry 3}

saMapIpniTunnelSvcRate OBJECT-TYPE
    SYNTAX  INTEGER {
        svcRate-64K(1),
        svcRate-128K(2),
        svcRate-256K(3),
        svcRate-512K(4),
        svcRate-1544K(5),
        svcRate-2048K(6)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "IPNI Tunnel Service Rate"
 ::= { saMapIpniTunnelEntry 4}

saMapIpniTunnelName OBJECT-TYPE
    SYNTAX  DisplayString
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "IPNI Tunnel Name"
 ::= { saMapIpniTunnelEntry 5 }

saMapIpniTunnelAdminStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2),
        testing(3),
        delete-tunnel(4)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "IPNI Tunnel administration status"
 ::= {saMapIpniTunnelEntry 6}

SaMapIpniTunnelOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2),
        testing(3),
        new(4)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "IPNI Tunnel operational status"
 ::= {saMapIpniTunnelEntry 7}

END

-- *****

System Hardware MIB

-- *****

-- oasis System Hardware MIB

OASIS-SYSHW-MIB DEFINITIONS ::= BEGIN

IMPORTS
    OBJECT-TYPE FROM SNMPv2-SMI
    SaSysHw FROM OASIS-SYSINFO-MIB;

saPsu OBJECT IDENTIFIER ::= { saSysHw 1 }
saFans OBJECT IDENTIFIER ::= { saSysHw 2 }
saSums OBJECT IDENTIFIER ::= { saSysHw 3 }

```

-- PSU Stats Table

```
saPsuTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaPsuEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Power Supply Stats"
    ::= { saPsu 1 }
```

```
saPsuEntry OBJECT-TYPE
    SYNTAX SaPsuEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for PSU."
    INDEX { saPsuNum }
    ::= { saPsuTable 1 }
```

```
saPsuEntry ::=
    SEQUENCE {
        saPsuNum
            INTEGER,
        saPsuInSlot
            INTEGER,
        saPsuType
            INTEGER,
        saPsuOutVoltStatus
            INTEGER,
        saPsuAlarmEnable
            INTEGER,
        saPsuOutSlotSeverity
            INTEGER,
        saPsuOutVoltFaultSeverity
            INTEGER
    }
```

```
saPsuNum OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PSU number"
    ::= { saPsuEntry 1 }
```

```
saPsuInSlot OBJECT-TYPE
    SYNTAX INTEGER {
        inSlot(1),    -- PSU in slot
        outSlot(2)    -- PSU out of slot
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PSU In/Out slot"
    ::= { saPsuEntry 2 }
```

```
saPsuType OBJECT-TYPE
    SYNTAX INTEGER {
        ac(1),        -- AC PSU
        dc(2)         -- DC PSU
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PSU Type (AC or DC)"
    ::= { saPsuEntry 3 }
```

```
saPsuOutVoltStatus OBJECT-TYPE
    SYNTAX INTEGER {
        ok(1),        -- PSU DC output voltage ok
        fault(2)      -- PSU DC output voltage fault
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "PSU DC output status"
    ::= { saPsuEntry 5 }
```

```
saPsuAlarmEnable OBJECT-TYPE
    SYNTAX INTEGER {
        enable(1),    -- PSU alarm reporting enabled
        disable(2)    -- PSU alarm reporting disabled
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "PSU alarm reporting enable/disable"
    ::= { saPsuEntry 6 }
```

```
saPsuOutSlotSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
    }
```

```

        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "PSU Out Of Slot Alarm Severity"
    ::= { saPsuEntry 7 }

saPsuOutVoltFaultSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Severity level of PSU Output Voltage Fault"
    ::= { saPsuEntry 9 }

```

-- Fan Status Table

```

saFanTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaFanEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Fan Stats"
    ::= { saFans 1 }

```

```

saFanEntry OBJECT-TYPE
    SYNTAX SaFanEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for PSU."
    INDEX { saFanNum }
    ::= { saFanTable 1 }

```

```

saFanEntry ::=
    SEQUENCE {
        saFanNum
            INTEGER,
        saFanStatus
            INTEGER
    }

```

```

saFanNum OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Fan number"
    ::= { saFanEntry 1 }

```

```

saFanStatus OBJECT-TYPE
    SYNTAX INTEGER {
        ok(1),
        fault(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "current state of the fans"
    ::= { saFanEntry 2 }

```

-- System Utility Module (SUM) Table

```

saSumTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaSumEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Power Supply Stats"
    ::= { saSums 1 }

```

```

saSumEntry OBJECT-TYPE
    SYNTAX SaSumEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Entry for SUM"
    INDEX { saSumNum }
    ::= { saSumTable 1 }

```

```

saSumEntry ::=
    SEQUENCE {
        saSumNum
            INTEGER,
        saSumInSlot
            INTEGER,
        saSumType
            INTEGER,
        saSumActive

```

```

        INTEGER
    }

saSumNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "SUM number"
    ::= { saSumEntry 1 }

saSumInSlot OBJECT-TYPE
    SYNTAX  INTEGER {
        inSlot(1),    -- SUM in slot
        outSlot(2)    -- SUM out of slot
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "SUM In/Out slot"
    ::= { saSumEntry 2 }

saSumType OBJECT-TYPE
    SYNTAX  INTEGER {
        sum100(1)    -- SUM100
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "SUM Type"
    ::= { saSumEntry 3 }

saSumActive OBJECT-TYPE
    SYNTAX  INTEGER {
        active(1),    -- SUM active
        standby(2)    -- SUM in standby
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "SUM active/standby status"
    ::= { saSumEntry 4 }

END

```

```

-- *****

Trap MIB

-- *****

TRAP-MIB DEFINITIONS ::= BEGIN

-- *****
SAHARA sa-100 TRAP mib
-- *****

IMPORTS
    saharanet FROM OASIS-SYSINFO-MIB
    TRAP-TYPE FROM RFC-1215;

-- Events start at index 1

-- *****

SYSTEM Events
-- Subtypes for SYSTEM
-- *****

    sysStartup TRAP-TYPE
        ENTERPRISE saharanet
        DESCRIPTION
            "System event - system startup"
        ::= 65537

    sysShutdown TRAP-TYPE
        ENTERPRISE saharanet
        DESCRIPTION
            "System event - System shutdown"
        ::= 65538

    sysMemMonitor TRAP-TYPE
        ENTERPRISE saharanet
        DESCRIPTION
            "System event - Code corruption"
        ::= 65539

```

```

sysNvStartRestore TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - non-volatile configuration restore started"
    ::= 65540

sysNvEndRestore TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - non-volatile configuration restore
completed"
    ::= 65541

sysNvStartBuild TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - non-volatile configuration save started"
    ::= 65542

sysNvEndBuild TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - non-volatile configuration save complete"
    ::= 65543

sysFlashInitFail TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - Flash file init fail"
    ::= 65544

sysInitVolFail TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - Flash file volume init fail"
    ::= 65545

sysMountVolFail TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - Flash file system mount fail"
    ::= 65546

sysVolVerifyFail TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - Flash file system volume verify fail"
    ::= 65547

```

```

sysChangeDirFail TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - Flash file system change dir fail"
    ::= 65548

sysNvRestoreError TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - non-volatile configuration restore failure"
    ::= 65549

sysNvBuildError TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - non-volatile configuration save failure"
    ::= 65550

sysPsuInSlot TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saPsuNum}
    DESCRIPTION
        "System event - PSU In Slot"
    ::= 65551

sysPsuOutSlot TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saPsuNum}
    DESCRIPTION
        "System event - PSU Out Of Slot"
    ::= 65552

sysPsuOutVoltOk TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saPsuNum}
    DESCRIPTION
        "System event - PSU Output Voltage OK"
    ::= 65555

sysPsuOutVoltFault TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saPsuNum}
    DESCRIPTION
        "System event - PSU Output Voltage Fault"
    ::= 65556

```

```

sysBrdRevError TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - ICM Hardware Revision Error"
    ::= 65557

sysCpodRevError TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - CPOD Hardware Revision Error"
    ::= 65558

sysPodRevError TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum}
    DESCRIPTION
        "System event - XPOD/IPOD Hardware Revision Error"
    ::= 65559

sysBISTError TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saBistDiagType}
    DESCRIPTION
        "System event - Power on self test has failed"
    ::= 65560

sysEnetBISTError TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum}
    DESCRIPTION
        "System event - Ethernet BIST has failed"
    ::= 65561

sysPodIntsNotSupported TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - ICM does not support POD interrupts"
    ::= 65562

sysIcmChange TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - ICM Change"
    ::= 65563

```

```

sysPodChange TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum}
    DESCRIPTION
        "System event - POD Change"
    ::= 65564

sysCpodChange TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - CPOD Change"
    ::= 65565

sysIcmOutOfSlot TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - ICM Out Of Slot"
    ::= 65566

sysIcmInSlot TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - ICM In Slot"
    ::= 65567

sysUnexpectedCommsPoolSize TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - The buffers in the interboard
        comms pool are an unexpected size"
    ::= 65568

sysIcmStartup TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "System event - An ICM has started up"
    ::= 65569

sysProtaccCfgErr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum}
    DESCRIPTION

```

```

        "System event - The Protocol Accelerator is
        not configured properly"
 ::= 65570

sysWanIpRestoreErr TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "System event - Predefined Management Tunnel
        configuration error"
 ::= 65571

-- *****

CONTROL_CHANGE Events
-- Subtypes for CONTROL_CHANGE
-- *****

ctlGoingActive TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Control Change event - System slot active"
 ::= 131073

ctlGoingStandby TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Control Change event - System slot standby"
 ::= 131074

ctlSemLinkUp TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES { ifIndex, saBrdNum, saPodNum, saPortNum}
    DESCRIPTION
        "Control Change event - Link up"
 ::= 131075

ctlSemLinkDown TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES { ifIndex, saBrdNum, saPodNum, saPortNum}
    DESCRIPTION
        "Control Change event - Link down"
 ::= 131076

```

```

-- *****

FLASH_DRIVER Events
-- Subtypes for FLASH_DRIVER */
-- *****

flshNormalOpError TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Flash Driver event - Flash disk op error"
 ::= 196609

flshDiskVerifyError TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Flash Driver event - Flash disk verify error"
 ::= 196610

-- *****

BUS_ERROR Events
-- Subtypes for BUS_ERROR
-- *****

busLocalBusAddrError TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Bus Error event - Bus address error"
 ::= 262145

busPCIBusMasterAbort TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Bus Error event - PCI Master Abort"
 ::= 262146

busPCIBusTargetAbort TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Bus Error event - PCI Target Abort"
 ::= 262147

busPCIBusParityError TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Bus Error event - PCI Parity Error"
 ::= 262148

```

--*****

OAM_EVENT Events

-- BIDIRECTIONAL ALARM EVENTS
--*****

```
oamCountersClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "OAM event - Counters have been cleared for interface"
    ::= 327681
```

--*****

ATM LAYER Events

--*****

```
oamPlcpLofClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saAtmPlcpLOFSeverity
        }
    DESCRIPTION
        "OAM event - PLCP Loss of Frame Alarm Clear"
    ::= 327682
```

```
oamPlcpLofSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saAtmPlcpLOFSeverity
        }
    DESCRIPTION
        "OAM event - PLCP Loss of Frame Alarm Active"
    ::= 327683
```

```
oamPlcpYelClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saAtmPlcpYelSeverity
        }
    DESCRIPTION
        "OAM event - PLCP Yellow Alarm Clear"
    ::= 327684
```

```
oamPlcpYelSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saAtmPlcpYelSeverity
        }
    DESCRIPTION
        "OAM event - PLCP Yellow Alarm Active"
    ::= 327685
```

```
oamLcdClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saAtmTcLOCDSeverity
        }
    DESCRIPTION
        "OAM event - Loss of Cell Delineation Alarm Clear"
    ::= 327686
```

```
oamLcdSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
```

```

        saPortNum,
        ifIndex,
        saAtmTcLOCDSeverity
    }
DESCRIPTION
    "OAM event - Loss of Cell Delineation Alarm Active"
 ::= 327687

```

--*****

DS1E1_EVENTS

--*****

```

oamDs1E1LosClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1LOSSeverity
        }
    DESCRIPTION
        "OAM event - DS1/E1 Loss of Signal Alarm Clear"
    ::= 327688

```

```

oamDs1E1LosSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1LOSSeverity
        }
    DESCRIPTION
        "OAM event - DS1/E1 Loss of Signal Alarm Active"
    ::= 327689

```

```

oamDs1E1AisClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,

```

```

        ifIndex,
        saDsx1AISSeverity
    }
DESCRIPTION
    "OAM event - DS1/E1 Alarm Indication Signal Alarm Clear"
    ::= 327690

```

```

oamDs1E1AisSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1AISSeverity
        }
    DESCRIPTION
        "OAM event - DS1/E1 Alarm Indication Signal Alarm Active"
    ::= 327691

```

```

oamDs1E1LofClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1LOFSeverity
        }
    DESCRIPTION
        "OAM event - DS1/E1 Loss of Frame Alarm Clear"
    ::= 327692

```

```

oamDs1E1LofSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1LOFSeverity
        }
    DESCRIPTION
        "OAM event - DS1/E1 Loss of Frame Alarm Active"
    ::= 327693

```

```

oamE1Ts16AisClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1TS16AISSeverity
        }
    DESCRIPTION
        "OAM event - E1 Timeslot 16 Alarm Indication
        Signal Alarm Clear"
        ::= 327694

oamE1Ts16AisSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1TS16AISSeverity
        }
    DESCRIPTION
        "OAM event - E1 Timeslot 16 Alarm Indication
        Signal Alarm Active"
        ::= 327695

oamDs1E1YelClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1YelSeverity
        }
    DESCRIPTION
        "OAM event - DS1/E1 Yellow Alarm Active"
        ::= 327696

```

```

oamDs1E1YelSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1YelSeverity
        }
    DESCRIPTION
        "OAM event - DS1/E1 Yellow Alarm Active"
        ::= 327697

oamE1LOMFClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1TS16LOMFSeverity
        }
    DESCRIPTION
        "OAM event - E1 Loss of Multiframe Alignment Alarm Clear"
        ::= 327698

oamE1LOMFSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,
            saPortNum,
            ifIndex,
            saDsx1TS16LOMFSeverity
        }
    DESCRIPTION
        "OAM event - E1 Loss of Multiframe Alignment Alarm Active"
        ::= 327699

oamE1LOCRCMFClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
        {
            saBrdNum,
            saPodNum,

```

```

        saPortNum,
        ifIndex,
        saDsx1CRCLOMFSeverity
    }
DESCRIPTION
    "OAM event - E1 Loss of CRC Multiframe Alignment
    Alarm Clear"
 ::= 327700

oamE1LOCRCMFSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES
    {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saDsx1CRCLOMFSeverity
    }
DESCRIPTION
    "OAM event - E1 Loss of CRC Multiframe Alignment
    Alarm Active"
 ::= 327701

```

--*****

DS3_EVENTS

--*****

```

oamDs3E3LosClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saDsx3LOSSeverity
    }
DESCRIPTION
    "OAM event - DS3/E3 Loss of Signal Alarm Clear"
 ::= 327702

```

```

oamDs3E3LosSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,

```

```

        saPortNum,
        ifIndex,
        saDsx3LOSSeverity
    }
DESCRIPTION
    "OAM event - DS3/E3 Loss of Signal Alarm Active"
 ::= 327703

oamDs3E3AisClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saDsx3AISSeverity
    }
DESCRIPTION
    "OAM event - DS3/E3 Alarm Indication Signal Alarm Clear"
 ::= 327704

oamDs3E3AisSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saDsx3AISSeverity
    }
DESCRIPTION
    "OAM event - DS3/E3 Alarm Indication Signal Alarm Active"
 ::= 327705

oamDs3E3LofClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saDsx3LOFSeverity
    }
DESCRIPTION
    "OAM event - DS3/E3 Loss of Frame Alarm Clear"
 ::= 327706

```

```

oamDs3E3LofSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saDs3LOFSeverity
    }
    DESCRIPTION
        "OAM event - DS3/E3 Loss of Frame Alarm Active"
    ::= 327707

```

```

oamDs3E3YelClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saDs3YelSeverity
    }
    DESCRIPTION
        "OAM event - DS3/E3 Yellow Alarm Clear"
    ::= 327708

```

```

oamDs3E3YelSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saDs3YelSeverity
    }
    DESCRIPTION
        "OAM event - DS3/E3 Yellow Alarm Active"
    ::= 327709

```

--*****

ETHERNET Events

--*****

```

oamEnetLnkFailClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,

```

```

        saPodNum,
        saPortNum,
        ifIndex,
        saEnetLinkFailSeverity
    }
    DESCRIPTION
        "OAM event - Ethernet Link Fail Alarm Clear"
    ::= 327710

```

```

oamEnetLnkFailSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saEnetLinkFailSeverity
    }
    DESCRIPTION
        "OAM event - Ethernet Link Fail Alarm Active"
    ::= 327711

```

--*****

OC3_EVENTS

--*****

```

oamOc3SectLosClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saSonetLineExtLOSSeverity
    }
    DESCRIPTION
        "OAM event - OC3 Loss of Signal Alarm Clear"
    ::= 327712

```

```

oamOc3SectLosSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,

```

```

        saSonetLineExtLOSSeverity
    }
DESCRIPTION
    "OAM event - OC3 Loss of Signal Alarm Active"
 ::= 327713

oamOc3SectLofClr TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetLineExtLOFSeverity
}
DESCRIPTION
    "OAM event - OC3 Loss of Frame Alarm Clear"
 ::= 327714

oamOc3SectLofSet TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetLineExtLOFSeverity
}
DESCRIPTION
    "OAM event - OC3 Loss of Frame Alarm Active"
 ::= 327715

oamOc3LineAisClr TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetLineExtLAISSeverity
}
DESCRIPTION
    "OAM event - OC3 Line Alarm Indication Signal
    (LAIS) Alarm Clear"
 ::= 327716

```

```

oamOc3LineAisSet TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetLineExtLAISSeverity
}
DESCRIPTION
    "OAM event - OC3 Line Alarm Indication
    Signal (LAIS) Alarm Active"
 ::= 327717

oamOc3LineRdiClr TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetLineExtLRDISeverity
}
DESCRIPTION
    "OAM event - OC3 Line Remote Defect Indication
    (LRDI) Alarm Clear"
 ::= 327718

oamOc3LineRdiSet TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetLineExtLRDISeverity
}
DESCRIPTION
    "OAM event - OC3 Line Remote Defect Indication
    (LRDI) Alarm Active"
 ::= 327719

oamOc3PathAisClr TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,

```

```

        ifIndex,
        saSonetPathExtPAISSeverity
    }
DESCRIPTION
    "OAM event - OC3 Path Alarm Indication Signal
    (PAIS) Alarm Clear"
::= 327720

oamOc3PathAisSet TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetPathExtPAISSeverity
}
DESCRIPTION
    "OAM event - OC3 Path Alarm Indication Signal
    (PAIS) Alarm Active"
::= 327721

oamOc3PathLopClr TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetPathExtLOPSeverity
}
DESCRIPTION
    "OAM event - OC3 Path Loss of Pointer (LOP) Alarm Clear"
::= 327722

oamOc3PathLopSet TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetPathExtLOPSeverity
}
DESCRIPTION
    "OAM event - OC3 Path Loss of Pointer (LOP) Alarm Active"
::= 327723

```

```

oamOc3PathUneqClr TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetPathExtPUneqSeverity
}
DESCRIPTION
    "OAM event - OC3 Path Unequipped Alarm Clear"
::= 327724

oamOc3PathUneqSet TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetPathExtPUneqSeverity
}
DESCRIPTION
    "OAM event - OC3 Path Unequipped Alarm Active"
::= 327725

oamOc3PathPlmClr TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetPathExtPSLMSeverity
}
DESCRIPTION
    "OAM event - OC3 Path Label Mismatch Alarm Clear"
::= 327726

oamOc3PathPlmSet TRAP-TYPE
ENTERPRISE saharanet
VARIABLES {
    saBrdNum,
    saPodNum,
    saPortNum,
    ifIndex,
    saSonetPathExtPSLMSeverity
}

```

```

DESCRIPTION
    "OAM event - OC3 Path Label Mismatch Alarm Active"
 ::= 327727

oamOc3PathRdiClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saSonetPathExtPRDISeverity
    }
    DESCRIPTION
        "OAM event - OC3 Path Remote Defect Indication
        (PRDI) Alarm Clear"
 ::= 327728

oamOc3PathRdiSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {
        saBrdNum,
        saPodNum,
        saPortNum,
        ifIndex,
        saSonetPathExtPRDISeverity
    }
    DESCRIPTION
        "OAM event - OC3 Path Remote Defect Indication
        (PRDI) Alarm Active"
 ::= 327729

```

--*****

Universal Serial Frame Events

--*****

```

oamUsfLosClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "OAM event - Universal Serial Frame Loss of
        Signal Alarm Clear"
 ::= 327730

oamUsfLosSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION

```

```

    "OAM event - Universal Serial Frame Loss
    of Signal Alarm Set"
 ::= 327731

```

```

oamUsfLocClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "OAM event - Universal Serial Frame Loss
        of Clock Alarm Clear"
 ::= 327732

```

```

oamUsfLocSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "OAM event - Universal Serial Frame Loss
        of Clock Alarm Set"
 ::= 327733

```

```

oamUsfExFrErrClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "OAM event - Universal Serial Frame Excessive
        Frame Error Alarm Clear"
 ::= 327734

```

```

oamUsfExFrErrSet TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "OAM event - Universal Serial Frame Excessive
        Frame Error Alarm Set"
 ::= 327735

```

--*****

POD_EVENT Events

-- Simple 1 way events

--*****

```

podReconfig TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - Reconfiguration has occurred"
 ::= 393217

```

```

--*****
-- Bidirectional events
--*****

```

```

podAlarmRepEna TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - Alarm Reporting Enabled on Interface"
    ::= 393218

```

```

podAlarmRepDis TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - Alarm Reporting Disabled on Interface"
    ::= 393219

```

```

podLoopBackOff TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - Loopback Deactivated on Interface"
    ::= 393220

```

```

podLoopBackOn TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - Loopback Activated on Interface"
    ::= 393221

```

```

podDiagnosticOff TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - Diagnostic Deactivated on Interface"
    ::= 393222

```

```

podDiagnosticOn TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - Diagnostic Activated on Interface"
    ::= 393223

```

```

podNot150Compat TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum}
    DESCRIPTION
        "POD event - POD not compatible with CPOD150"
    ::= 393224

```

```

podDs3FeacNotSupported TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum}
    DESCRIPTION
        "POD event - DS3 POD does not support FEAC"
    ::= 393225

```

```

ds3FeacLoopDeact TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - DS3 FEAC Loopback Deactivated"
    ::= 393226

```

```

ds3FeacLoopAct TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum, ifIndex}
    DESCRIPTION
        "POD event - DS3 FEAC Loopback Activated"
    ::= 393227

```

```

podCESBistNotSupported TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum}
    DESCRIPTION
        "POD event - CES POD does not support Interrupts"
    ::= 393228

```

```

podEnetExcBcst TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum}
    DESCRIPTION
        "POD event - Excessive bcsts, multicast rcv disabled"
    ::= 393229

```

```

podEnetExchUQ TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum}
    DESCRIPTION
        "POD event - Excessive unknown dest, port rcv disabled"
    ::= 393230

```

```

podEnetRcvClr TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum, saPortNum}
    DESCRIPTION
        "POD event - Ethernet port congestion condition cleared"
    ::= 393231

```

```

podVoco TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Voco POD event - Error occurred."
    ::= 393232

```

```

podVocoExtra TRAP-TYPE
    ENTERPRISE saharanet
    DESCRIPTION
        "Voco POD event - Extra info."
    ::= 393233

```

```
--*****
```

BOOT_EVENT Events

```
-- Simple 1 way events
```

```
--*****
```

```

bootPodFileNotFound TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum}
    DESCRIPTION
        "Boot event - Unable to load pod file"
    ::= 458753

```

```

bootOasosFileNotFound TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "Boot event - Unable to load oasos.bin file"
    ::= 458754

```

```

bootScmappFileNotFound TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "Boot event - Unable to load scmapp.bin file"
    ::= 458755

```

```

bootInvalidPodType TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum, saPodNum}
    DESCRIPTION
        "Boot event - Pod file verify fail"
    ::= 458756

```

```

bootIcm00S TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "Boot event - ICM Out Of Service"
    ::= 458757

```

```

bootIcmNotMultiSlotCompatible TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "Boot event - ICM not Multi-Slot Compatible"
    ::= 458758

```

```

bootCpodNotMultiSlotCompatible TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "Boot event - CPOD not Multi-Slot Compatible"
    ::= 458759

```

```

bootIcmSarPostFail TRAP-TYPE
    ENTERPRISE saharanet
    VARIABLES {saBrdNum}
    DESCRIPTION
        "Boot event - ICM SAR POST Failed"
    ::= 458760

```

```
END
```

```

-- *****

RVX MIB

-- *****

RVX-FRAME-MIB DEFINITIONS ::= BEGIN

IMPORTS
    ifIndex                FROM RFC1213-MIB
    DisplayString           FROM RFC1213-MIB
    OBJECT-TYPE            FROM SNMPv2-SMI
    saBrdNum, saPodNum     FROM OASIS-SYSINFO-MIB
    SaRvxProv              FROM OASIS-SYSINFO-MIB
    `Counter               FROM RFC1155-SMI;

-- *****
--
--      Define where these tables reside in the hierarchy
--
-- *****
SaRvxPodTbl OBJECT IDENTIFIER ::= { saRvxProv 1}
SaRvxSyncPortTbl OBJECT IDENTIFIER ::= { saRvxProv 2}
SaFrmFwdCfgStatTbl OBJECT IDENTIFIER ::= { saRvxProv 3}
saRvxTunnelTbl OBJECT IDENTIFIER ::= { saRvxProv 4}

-- *****
-- saRvxPodTable
--
-- This table provides Serial Frame POD specific information not in
-- the SaPodTable
-- *****

saRvxPodTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaRvxPodTableEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "This table provides Serial Frame POD specific
        information not in the saPodTable."
    ::= { saRvxPodTbl 1}

saRvxPodTableEntry OBJECT-TYPE
    SYNTAX SaRvxPodTableEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Serial Frame POD specific entries not in saPodTable"

```

```

INDEX { saBrdNum, saPodNum }
::= { saRvxPodTable 1}

saRvxPodTableEntry ::=
    SEQUENCE {
        saRvxPostResult
            INTEGER,
        saRvxRCodeRev
            DisplayString
    }

saRvxPostResult OBJECT-TYPE
    SYNTAX INTEGER {
        pass(1),
        fail(2),
        ramerror(3),
        sca3error(4)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Power on self test results enumerations"
    ::= { saRvxPodTableEntry 1 }

saRvxRCodeRev OBJECT-TYPE
    SYNTAX DisplayString(SIZE(0..40))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        " Revision level of the embedded i960RP firmware"
    ::= { saRvxPodTableEntry 2 }

-- *****

saRvxSyncPortTable
--
-- This table contains the installed cable option, configured services
-- and the standard 1659 Sync Port Table Entries
-- *****
saRvxSyncPortTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaRvxSyncPortTableEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "This table contains the installed cable option,
        configured services and the standard 1659 Sync
        Port Table Entries"
    ::= { saRvxSyncPortTbl 2}

```

```

saRvxSyncPortTableEntry OBJECT-TYPE
    SYNTAX  SaRvxSyncPortTableEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Table entries to the Serial Frame POD sync port table"
    INDEX   { ifIndex }
    ::= { saRvxSyncPortTable 1 }

saRvxSyncPortTableEntry ::=
    SEQUENCE {
        saRvxPortRole
            INTEGER,
        saRvxServiceType
            INTEGER,
        saRvxPortType
            INTEGER,
        saRvxPortSpeed
            INTEGER,
        saRvxRxTimingPhase
            INTEGER,
        saRvxLosDetection
            INTEGER,
        saRvxPortLoopBack
            INTEGER,
        saRvxPortAlarmStatus
            INTEGER,
        saRvxPortAlarmLOSSeverity
            INTEGER,
        saRvxPortDefectStatus
            INTEGER
    }

saRvxPortRole OBJECT-TYPE
    SYNTAX  INTEGER {
        dte(1),
        dce(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The role the device is playing that is using this port.
        dte means the device is performing the role of
        data terminal equipment.
        dce means the device is performing the role of
        data circuit-terminating equipment."
    ::= { saRvxSyncPortTableEntry 1 }

```

```

--
--      serviceIW(3),
--      networkIW(4),
--      svc(5)
saRvxServiceType OBJECT-TYPE
    SYNTAX  INTEGER {
        sdlcEncapsulation(1),
        hdlcEncapsulation(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "The type of service available on the serial
        frame interface port"
    ::= { saRvxSyncPortTableEntry 2 }

saRvxPortType OBJECT-TYPE
    SYNTAX  INTEGER {
        rs232(1),
        rs449(2),
        rs530(3),
        v35(4),
        x21(5),
        none(6),
        unknown(7)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The serial frame port hardware type"
    ::= { saRvxSyncPortTableEntry 3 }

--
--      portBPS-8192k(16)
saRvxPortSpeed OBJECT-TYPE
    SYNTAX  INTEGER {
        portBPS-2400(1),
        portBPS-4800(2),
        portBPS-9600(3),
        portBPS-19200(4),
        portBPS-38400(5),
        portBPS-64k(6),
        portBPS-128k(7),
        portBPS-256k(8),
        portBPS-384k(9),
        portBPS-512k(10),
        portBPS-768k(11),
        portBPS-1024k(12),
        portBPS-1536k(13),

```

```

        portBPS-2048k(14),
        portBPS-4096k(15)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The port input and output speed in bits per second"
    ::= { saRvxSyncPortTableEntry 4 }

saRvxRXTimingPhase OBJECT-TYPE
    SYNTAX INTEGER {
        normal(1),
        invert(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "This indicates whether to invert or not invert
        the phase of receive clocks. This option will most
        often be used to correct cable length delays when
        internal timing is used. It is used to ensure correct
        clock and data phase"
    ::= { saRvxSyncPortTableEntry 5 }

saRvxLosDetection OBJECT-TYPE
    SYNTAX INTEGER {
        dtr(1),
        rts(2),
        dtrORrts(3),
        dtrANDrts(4),
        dsr(5),
        cts(6),
        dsrORcts(7),
        dsrANDcts(8),
        none(9)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Configures the loss of signal detection
        for the serial frame card. When configured,
        a LOS alarm is generated when the signal is
        not present on the serial interface."
    ::= { saRvxSyncPortTableEntry 6 }

```

```

saRvxPortLoopBack OBJECT-TYPE
    SYNTAX INTEGER {
        local(1),
        line(2),
        none(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Configures the type of loopback set for the serial port"
    ::= { saRvxSyncPortTableEntry 7 }

saRvxPortAlarmStatus OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Serial Frame Port Alarms:
        Bit      Value      Meaning
        0         1        No Alarm
        1         2        LOS"
    ::= { saRvxSyncPortTableEntry 8 }

saRvxPortAlarmLOSSeverity OBJECT-TYPE
    SYNTAX INTEGER {
        minor(1),
        major(2),
        critical(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Serial Frame Port Alarm Severity Level"
    ::= { saRvxSyncPortTableEntry 9 }

saRvxPortDefectStatus OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Serial Frame Port Defects:
        Bit      Value      Meaning
        0         1        No Alarm
        1         2        LOS"
    ::= { saRvxSyncPortTableEntry 10 }

```

```
--*****
```

saFrmFwdCfgStatTable

```
--
```

```
-- This table contains the configurables and status items for the
```

```
-- Frame Forward and Frame-ATM IWF
```

```
--*****
```

```
saFrmFwdCfgStatTable OBJECT-TYPE
```

```
    SYNTAX SEQUENCE OF SaFrmFwdCfgStatEntry
```

```
    MAX-ACCESS not-accessible
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "This table contains the configurables and status
```

```
        items for the Frame Forward and Frame-ATM IWF"
```

```
    ::= { saFrmFwdCfgStatTbl 3}
```

```
saFrmFwdCfgStatEntry OBJECT-TYPE
```

```
    SYNTAX SaFrmFwdCfgStatEntry
```

```
    MAX-ACCESS not-accessible
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Entries for the frame forward config and status table"
```

```
    INDEX { ifIndex }
```

```
    ::= { saFrmFwdCfgStatTable 1}
```

```
SaFrmFwdCfgStatEntry ::=
```

```
    SEQUENCE {
```

```
        saFrmFwdLatencyMode
```

```
        INTEGER,
```

```
        saFrmFwdAtmTxLatency
```

```
        INTEGER,
```

```
        saFrmFwdAtmRxLatency
```

```
        INTEGER,
```

```
        saFrmFwdCrcLength
```

```
        INTEGER,
```

```
        saFrmFwdMaxSize
```

```
        INTEGER,
```

```
        saFrmFwdHeaderLength
```

```
        INTEGER,
```

```
        saFrmFwdErrsPerMin
```

```
        INTEGER,
```

```
        saFrmFwdTxFrames
```

```
        Counter,
```

```
        saFrmFwdRxFrames
```

```
        Counter,
```

```
        saFrmFwdTxBytes
```

```
        Counter,
```

```
        saFrmFwdRxBytes
```

```
        Counter,
```

```
        saFrmFwdProvCmd
```

```
        INTEGER
```

```
    }
```

```
saFrmFwdLatencyMode OBJECT-TYPE
```

```
    SYNTAX INTEGER {
```

```
        normal(1),
```

```
        controlled(2)
```

```
    }
```

```
    MAX-ACCESS read-write
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Defines whether the system is configured to control
```

```
        the transmission delay of a PDU into the ATM network"
```

```
    ::= { saFrmFwdCfgStatEntry 1}
```

```
saFrmFwdAtmTxLatency OBJECT-TYPE
```

```
    SYNTAX INTEGER
```

```
    MAX-ACCESS read-write
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "The maximum time between reception of the first byte
```

```
        of a PDU from the local port to the transmission of
```

```
        the first byte of the PDU to the ATM network"
```

```
    ::= { saFrmFwdCfgStatEntry 2}
```

```
saFrmFwdAtmRxLatency OBJECT-TYPE
```

```
    SYNTAX INTEGER
```

```
    MAX-ACCESS read-write
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "The maximum time between reception of the first byte
```

```
        of a PDU from the ATM network to the transmission of
```

```
        the first byte of the PDU to the local port"
```

```
    ::= { saFrmFwdCfgStatEntry 3}
```

```
saFrmFwdCrcLength OBJECT-TYPE
```

```
    SYNTAX INTEGER {
```

```
        crc16(1),
```

```
        crc32(2)
```

```
    }
```

```
    MAX-ACCESS read-write
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Defines the size of the CRC to 16 or 32"
```

```
    ::= { saFrmFwdCfgStatEntry 4}
```

```

saFrmFwdMaxSize OBJECT-TYPE
    SYNTAX  INTEGER {
        buf2k(1),
        buf4k(2),
        buf8k(3)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "The maximum frame size allowed on the serial frame
        interface. This parameter is used to size buffers
        within the system"
    ::= { saFrmFwdCfgStatEntry 5}

saFrmFwdHeaderLength OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "This configures the length of the frame header"
    ::= { saFrmFwdCfgStatEntry 6}

saFrmFwdErrsPerMin OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Sets the threshold at which an alarm
        is generated for frame errors per minute"
    ::= { saFrmFwdCfgStatEntry 7}

saFrmFwdTxFrames OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Counter which contains the total number of
        valid frames transmitted out of the serial port"
    ::= { saFrmFwdCfgStatEntry 8}

saFrmFwdRxFrames OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Counter which contains the total number
        of valid frames received from the serial port"
    ::= { saFrmFwdCfgStatEntry 9}

```

```

saFrmFwdTxBytes OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Counter which contains the total number
        of bytes transmitted to the serial port"
    ::= { saFrmFwdCfgStatEntry 10}

saFrmFwdRxBytes OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Counter which contains the total number
        of bytes received from the serial port"
    ::= { saFrmFwdCfgStatEntry 11}

saFrmFwdProvCmd OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        addIWF(2),
        modIWF(3),
        delIWF(4),
        conIWF(5),
        disIWF(6)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Command to configure the Serial
        Frame Interworking Function"
    ::= { saFrmFwdCfgStatEntry 12}

```

```
--*****
```

RVX Tunnel Table

```
-- This table contains the rvxTunnel row image of the paTunnel table
--*****
```

saRvxTunnelTable OBJECT-TYPE

SYNTAX SEQUENCE OF SaRvxTunnelEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Rvx Tunnel Table"

::= { saRvxTunnelTbl 4 }

saRvxTunnelEntry OBJECT-TYPE

SYNTAX SaRvxTunnelEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Rvx Tunnel Table Entry"

INDEX { ifIndex, saRvxTunnelVPI, saRvxTunnelVCI }

::= { saRvxTunnelTable 1 }

saRvxTunnelEntry ::=

SEQUENCE {

saRvxTunnelSvcRate

INTEGER,

saRvxTunnelSvcCat

INTEGER,

saRvxTunnelSvcCdvT

INTEGER,

saRvxTunnelType

INTEGER,

saRvxTunnelPID

INTEGER,

saRvxTunnelVbrAvgRate

INTEGER,

saRvxTunnelVbrMaxBurst

INTEGER,

saRvxTunnelAbrInitRate

INTEGER,

saRvxTunnelAbrMinRate

INTEGER,

saRvxTunnelAbrXrm

INTEGER,

saRvxTunnelAbrRIF

INTEGER,

saRvxTunnelAbrRDF

INTEGER,

saRvxTunnelAbrCDF

INTEGER,

saRvxTunnelAbrActivateOpt

INTEGER,

saRvxTunnelVPI

INTEGER,

saRvxTunnelVCI

INTEGER,

saRvxTunnelAdminStatus

INTEGER,

saRvxTunnelOperStatus

INTEGER,

saRvxServiceRate

INTEGER,

saRvxUserRate

INTEGER

}

saRvxTunnelSvcRate OBJECT-TYPE

SYNTAX INTEGER

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Tunnel Service Rate"

::= { saRvxTunnelEntry 1 }

saRvxTunnelSvcCat OBJECT-TYPE

SYNTAX INTEGER {

cbr(1),

rt-vbr(2),

nrt-vbr(3),

ubr(4),

abr(5)

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Tunnel Service Category"

::= { saRvxTunnelEntry 2 }

saRvxTunnelSvcCdvT OBJECT-TYPE

SYNTAX INTEGER(0..65535)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Tunnel Cell Delay Variance Tolerance (in cell times)"

::= { saRvxTunnelEntry 3 }

```

saRvxTunnelType OBJECT-TYPE
    SYNTAX INTEGER {
        static(1),
        aging(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Tunnel attributes. Cannot be reconfigured."
    ::= { saRvxTunnelEntry 4 }

saRvxTunnelPID OBJECT-TYPE
    SYNTAX INTEGER {
        pid-1(1),
        pid-7(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "PID1 means the ethernet CRC is preserved across the
        network. PID7 means the CRC is regenerated locally.
        Cannot be reconfigured."
    ::= { saRvxTunnelEntry 5 }

saRvxTunnelVPI OBJECT-TYPE
    SYNTAX INTEGER(0..255)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Tunnel VPI"
    ::= { saRvxTunnelEntry 6 }

saRvxTunnelVCI OBJECT-TYPE
    SYNTAX INTEGER(0..65535)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Tunnel VCI"
    ::= { saRvxTunnelEntry 7 }

saRvxTunnelVbrAvgRate OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Sustained rate in bits per second for VBR tunnels."
    ::= { saRvxTunnelEntry 8 }

```

```

saRvxTunnelVbrMaxBurst OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Maximum burst size in bits for VBR tunnels. This amount
        of data can be transmitted at the peak rate before
        getting throttled to the the sustained rate."
    ::= { saRvxTunnelEntry 9 }

saRvxTunnelAbrInitRate OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Initial rate in bits per second for ABR tunnels."
    ::= { saRvxTunnelEntry 10 }

saRvxTunnelAbrXrm OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "???"
    ::= { saRvxTunnelEntry 11 }

saRvxTunnelAbrRIF OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "???"
    ::= { saRvxTunnelEntry 12 }

saRvxTunnelAbrRDF OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "???"
    ::= { saRvxTunnelEntry 13 }

saRvxTunnelAbrCDF OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION

```

```

        "???"
 ::= { saRvxTunnelEntry 14 }

saRvxTunnelAbrActivateOpt OBJECT-TYPE
    SYNTAX  INTEGER{
        on-first-xmt(1),
        on-enable(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "???"
 ::= { saRvxTunnelEntry 15 }

saRvxTunnelAbrMinRate OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Minimum rate in bits per second for ABR tunnels."
 ::= { saRvxTunnelEntry 16 }

saRvxTunnelAdminStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Controls tunnel state"
 ::= { saRvxTunnelEntry 17 }

saRvxTunnelOperStatus OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Tunnel Oper StatusReports tunnel status"
 ::= { saRvxTunnelEntry 18 }

saRvxServiceRate OBJECT-TYPE
    SYNTAX  INTEGER {
        rate-64Kb(1),
        rate-128k(2),
        rate-256k(3),
        rate-384Kb(4),
        rate-512k(5),

```

```

        rate-768k(6),
        rate-1024k(7),
        rate-1536Kb(8),
        rate-2048k(9),
        rate-4096k(10),
        rate-5Mb(11),
        rate-10Mb(12),
        rate-40Mb(13),
        user-defined(14)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Serial Frame Service Rate"
 ::= { saRvxTunnelEntry 19}

```

```

saRvxUserRate OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Serial Frame User-Defined Service Rate (BPS)"
 ::= { saRvxTunnelEntry 20}

```

END

-- *****

VTS MIB

-- *****

-- oasis Voice and Telephony Services Info

OASIS-MM-VTS-MIB DEFINITIONS ::= BEGIN

IMPORTS

```

    saVTS                      FROM OASIS-SYSINFO-MIB
    OBJECT-TYPE FROM SNMPv2-SMI;

```

-- oasis MIB group

```

    saVtsIWFCfg                OBJECT IDENTIFIER ::= { saVTS 1 }
    saVtsVpeCtrl               OBJECT IDENTIFIER ::= { saVTS 2 }
    saVtsNbIfCfg               OBJECT IDENTIFIER ::= { saVTS 3 }
    saVtsNbChanIWF             OBJECT IDENTIFIER ::= { saVTS 4 }

```

```

saVtsNbChanStat      OBJECT IDENTIFIER ::= { saVTS 5 }
saVtsVtgCfg          OBJECT IDENTIFIER ::= { saVTS 6 }
saVtsVtgTunCfg       OBJECT IDENTIFIER ::= { saVTS 7 }
saVtsConnV1          OBJECT IDENTIFIER ::= { saVTS 8 }

-- Voice and Telephony Services Interworking Function Configuration Table
saVtsIWFCfgTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaVtsIWFCfgEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "VTS Interworking Function Configuration Table"
    ::= { saVtsIWFCfg 1 }

saVtsIWFCfgEntry OBJECT-TYPE
    SYNTAX  SaVtsIWFCfgEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "VTS Interworking Function Configuration Table Entry"
    INDEX   { saVtsIWFCfgIfIndex }
    ::= { saVtsIWFCfgTable 1 }

saVtsIWFCfgEntry ::=
    SEQUENCE {
        saVtsIWFCfgWhatever
            INTEGER
    }

saVtsIWFCfgIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interface index of the VTS Interworking function."
    ::= { saVtsIWFCfgEntry 1 }

saVtsIWFCfgWhatever OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "First object."
    ::= { saVtsIWFCfgEntry 2 }

```

```

-- Voice and Telephony Services Provisioning Engine Control Table
saVtsVpeCtrlTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaVtsVpeCtrlEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "VTS Provisioning Engine Control Table"
    ::= { saVtsVpeCtrl 1 }

saVtsVpeCtrlEntry OBJECT-TYPE
    SYNTAX  SaVtsVpeCtrlEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "VTS Provisioning Engine Control Table Entry"
    INDEX   { saVtsVpeCtrlIfIndex }
    ::= { saVtsVpeCtrlTable 1 }

saVtsVpeCtrlEntry ::=
    SEQUENCE {
        saVtsVpeCtrlParm1
            INTEGER,
        saVtsVpeCtrlParm2
            INTEGER,
        saVtsVpeCtrlParm3
            INTEGER,
        saVtsVpeCtrlParm4
            INTEGER,
        saVtsVpeCtrlParm5
            INTEGER,
        saVtsVpeCtrlCommand
            INTEGER,
        saVtsVpeCtrlResponse
            INTEGER
    }

saVtsVpeCtrlIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interface index of the VTS AAL5 Direct Group."
    ::= { saVtsVpeCtrlEntry 1 }

saVtsVpeCtrlParm1 OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-write

```

```

STATUS current
DESCRIPTION
    "Parameter 1 for VPE control commands."
::= { saVtsVpeCtrlEntry 2 }

```

```

saVtsVpeCtrlParm2 OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Parameter 2 for VPE control commands."
::= { saVtsVpeCtrlEntry 3 }

```

```

saVtsVpeCtrlParm3 OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Parameter 3 for VPE control commands."
::= { saVtsVpeCtrlEntry 4 }

```

```

saVtsVpeCtrlParm4 OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Parameter 4 for VPE control commands."
::= { saVtsVpeCtrlEntry 5 }

```

```

saVtsVpeCtrlParm5 OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Parameter 5 for VPE control commands."
::= { saVtsVpeCtrlEntry 6 }

```

```

saVtsVpeCtrlCommand OBJECT-TYPE
SYNTAX INTEGER {
    no-operation(1),
    add-tunnel(2),
    del-tunnel(3),
    cfg-tunnel(4),
    add-vcs-iwf(5),
    del-nb-chan(6),
    cfg-nb-chan(7),
    idle-nb-chan(8),
    act-nb-chan(9),

```

```

    clear-counts(10),
    get-cid(11),
    check-cid(12)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Hot key for VPE control commands."
::= { saVtsVpeCtrlEntry 7 }

```

```

saVtsVpeCtrlResponse OBJECT-TYPE
SYNTAX INTEGER {
    ok(1),
    ready(2),
    unknown-cmd(3),
    ignored(4)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Response to the last VPE command."
::= { saVtsVpeCtrlEntry 8 }

```

-- Voice and Telephony Services Narrow Band Interface Configuration Table

```

saVtsNbIfCfgTable OBJECT-TYPE
SYNTAX SEQUENCE OF SaVtsNbIfCfgEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "VTS Narrow Band Interface Configuration Table"
::= { saVtsNbIfCfg 1 }

```

```

saVtsNbIfCfgEntry OBJECT-TYPE
SYNTAX SaVtsNbIfCfgEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "VTS Narrow Band Interface Configuration Table Entry"
INDEX { saVtsNbIfCfgIfIndex }
::= { saVtsNbIfCfgTable 1 }

```

```

saVtsNbIfCfgEntry ::=
SEQUENCE {
    saVtsNbIfCfgPCMLaw
        INTEGER,
    saVtsNbIfCfgIfType
        INTEGER,

```

```

saVtsNbIfCfgMaxChans
    INTEGER,
saVtsNbIfCfgInfoMsgs
    INTEGER,
saVtsNbIfCfgRecovErrs
    INTEGER,
saVtsNbIfCfgRcvUndefPkts
    INTEGER,
saVtsNbIfCfgDspsEmptied
    INTEGER,
saVtsNbIfCfgDspsLeftFull
    INTEGER
}

saVtsNbIfCfgIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Interface index of the TDM interface or
        signalling entity."
    ::= { saVtsNbIfCfgEntry 1 }

saVtsNbIfCfgPCMLaw OBJECT-TYPE
    SYNTAX  INTEGER {
        a-law(1),
        u-law(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "PCM coding scheme."
    ::= { saVtsNbIfCfgEntry 2 }

saVtsNbIfCfgIfType OBJECT-TYPE
    SYNTAX  INTEGER {
        ds1(1),
        e1(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Physical interface under this narrow band interface."
    ::= { saVtsNbIfCfgEntry 3 }

saVtsNbIfCfgMaxChans OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only

```

```

    STATUS  current
    DESCRIPTION
        "Number of informational messages received from
        the FRF.11 stack."
    ::= { saVtsNbIfCfgEntry 4 }

saVtsNbIfCfgInfoMsgs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of informational messages received from
        the FRF.11 stack."
    ::= { saVtsNbIfCfgEntry 5 }

saVtsNbIfCfgRecovErrs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of recoverable errors reported by the
        FRF.11 stack."
    ::= { saVtsNbIfCfgEntry 6 }

saVtsNbIfCfgRcvUndefPkts OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of packets received from the WAN bound for
        unconfigured channels."
    ::= { saVtsNbIfCfgEntry 7 }

saVtsNbIfCfgDspsEmptied OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of of times the DSPs were processed until all were
        empty. If this count is not rolling, the hardware is
        abnormally busy."
    ::= { saVtsNbIfCfgEntry 8 }

saVtsNbIfCfgDspsLeftFull OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION

```

```

        "Number of of times the DSPs still had information
        to process when background processing had to be started.
        It is normal for this to roll. A useful guage
        of how busy the processor is can be obtained by
        looking at the ratio of this value to the Dspsemtied
        value"
 ::= { saVtsNbIfCfgEntry 9 }

-- Voice and Telephony Services Narrow Band Channel Configuration Table

saVtsNbChanIWFTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaVtsNbChanIWfEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "VTS Narrow Band Channel Configuration Table"
    ::= { saVtsNbChanIWF 1 }

saVtsNbChanIWfEntry OBJECT-TYPE
    SYNTAX SaVtsNbChanIWfEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "VTS Narrow Band Channel Configuration Table Entry"
    INDEX { saVtsNbChanIWFifIndex }
    ::= { saVtsNbChanIWFTable 1 }

saVtsNbChanIWfEntry ::=
    SEQUENCE {
        saVtsNbChanIWFoperStat
            INTEGER,
        saVtsNbChanIWFopMode
            INTEGER,
        saVtsNbChanIWFCallType
            INTEGER,
        saVtsNbChanIWFvoiceEnc
            INTEGER,
        saVtsNbChanIWFvoiceEchoCan
            INTEGER,
        saVtsNbChanIWFvoiceSilComp
            INTEGER,
        saVtsNbChanIWFvoicePostFilt
            INTEGER,
        saVtsNbChanIWFvoiceHPFilt
            INTEGER,
        saVtsNbChanIWFvoiceVol
            INTEGER,
        saVtsNbChanIWFDTMFVol
            INTEGER,
        saVtsNbChanIWFfaxBypass
            INTEGER,
        saVtsNbChanIWFfaxEnc
            INTEGER,
        saVtsNbChanIWFmaxFax
            INTEGER,
        saVtsNbChanIWFfaxVol
            INTEGER,
        saVtsNbChanIWFrxData
            INTEGER,
        saVtsNbChanIWFcasOpt
            INTEGER,
        saVtsNbChanIWFrxCas
            INTEGER,
        saVtsNbChanIWFtxCas
            INTEGER,
        saVtsNbChanIWFdbaOpt
            INTEGER,
        saVtsNbChanIWFnomJitDly
            INTEGER,
        saVtsNbChanIWFminJitDly
            INTEGER,
        saVtsNbChanIWFmaxJitDly
            INTEGER,
        saVtsNbChanIWFjitOptFact
            INTEGER,
        saVtsNbChanIWFpackFactor
            INTEGER,
        saVtsNbChanIWFmaxChans
            INTEGER
    }

saVtsNbChanIWFifIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interface index of this channel inter-working function."
    ::= { saVtsNbChanIWfEntry 1 }

saVtsNbChanIWFopMode OBJECT-TYPE
    SYNTAX INTEGER {
        normal(1),
        coder-loopback(2),
        pcm-loopback(3),
        tone-injection(4)
    }

```

```

    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Operational mode of the channel."
    ::= { saVtsNbChanIWFEntry 2 }

saVtsNbChanIWFCallType OBJECT-TYPE
    SYNTAX INTEGER {
        voice(1),
        data(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Call type for which the channel is configured."
    ::= { saVtsNbChanIWFEntry 3 }

saVtsNbChanIWFVoiceEnc OBJECT-TYPE
    SYNTAX INTEGER {
        g711-A-law(1),
        g711-u-law(2),
        g726-16k(3),
        g726-24k(4),
        g726-32k(5),
        g726-40k(6),
        g727-16k(7),
        g727-24k-16k(8),
        g727-24k(9),
        g727-32k-16k(10),
        g727-32k-24k(11),
        g727-32k(12),
        g727-40k-16k(13),
        g727-40k-24k(14),
        g727-40k-32k(15),
        g723-low(16),
        g723-high(17),
        g729(18),
        g728(19)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Encoding algorithm used for voice compression."
    ::= { saVtsNbChanIWFEntry 4 }

```

```

saVtsNbChanIWFVoiceEchoCan OBJECT-TYPE
    SYNTAX INTEGER {
        on(1),
        off(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "State of the echo canceller for voice processing."
    ::= { saVtsNbChanIWFEntry 5 }

saVtsNbChanIWFVoiceSilComp OBJECT-TYPE
    SYNTAX INTEGER {
        on(1),
        off(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "State of the silence compressor for voice processing."
    ::= { saVtsNbChanIWFEntry 6 }

saVtsNbChanIWFVoicePostFilt OBJECT-TYPE
    SYNTAX INTEGER {
        on(1),
        off(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "State of the post-filter for voice processing.
        This is only applicable for G.723 and G.729 compression."
    ::= { saVtsNbChanIWFEntry 7 }

saVtsNbChanIWFVoiceHPFilt OBJECT-TYPE
    SYNTAX INTEGER {
        on(1),
        off(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "State of the high-pass filter for voice processing.
        This is only applicable for G.723 and G.729 compression."
    ::= { saVtsNbChanIWFEntry 8 }

```

saVtsNbChanIWFVoiceVol OBJECT-TYPE

```

SYNTAX  INTEGER (-32..31)
MAX-ACCESS  read-write
STATUS  current
DESCRIPTION
    "Voice volume in dB. Use -32 to mute."
 ::= { saVtsNbChanIWFEEntry 9 }

```

saVtsNbChanIWFDTMFVol OBJECT-TYPE

```

SYNTAX  INTEGER (-32..31)
MAX-ACCESS  read-write
STATUS  current
DESCRIPTION
    "DTMF volume in dB. Use -32 to mute."
 ::= { saVtsNbChanIWFEEntry 10 }

```

saVtsNbChanIWFbypass OBJECT-TYPE

```

SYNTAX  INTEGER {
    fax-relay(1),
    fax-modem-bypass(2),
    none(3)
}
MAX-ACCESS  read-write
STATUS  current
DESCRIPTION
    "Setting this to fax-modem-bypass causes the detection
    of a modem or FAX to be handled by switching to an
    alternate voice coder. Setting this to fax-relay
    causes the detection of FAX
    calls to be handled by demodulating the FAX tones and
    transferring the binary data. Setting this to none
    causes no special action to be taken upon detection
    of FAX or modem."
 ::= { saVtsNbChanIWFEEntry 11 }

```

saVtsNbChanIWFbypassEnc OBJECT-TYPE

```

SYNTAX  INTEGER {
    g711-A-law(1),
    g711-u-law(2),
    g726-32k(3),
    g726-40k(4)
}
MAX-ACCESS  read-write
STATUS  current
DESCRIPTION
    "Encoding algorithm used when FAX and modem bypass is
    active."
 ::= { saVtsNbChanIWFEEntry 12 }

```

saVtsNbChanIWFMaxFax OBJECT-TYPE

```

SYNTAX  INTEGER {
    rate-2400(1),
    rate-4800(2),
    rate-7200(3),
    rate-9600(4),
    rate-12000(5),
    rate-14400(6)
}
MAX-ACCESS  read-write
STATUS  current
DESCRIPTION
    "Maximum allowable FAX transmission rate."
 ::= { saVtsNbChanIWFEEntry 13 }

```

saVtsNbChanIWFbypassVol OBJECT-TYPE

```

SYNTAX  INTEGER (-32..31)
MAX-ACCESS  read-write
STATUS  current
DESCRIPTION
    "FAX volume in dB. Use -32 to mute."
 ::= { saVtsNbChanIWFEEntry 14 }

```

saVtsNbChanIWFrxData OBJECT-TYPE

```

SYNTAX  INTEGER (0..255)
MAX-ACCESS  read-write
STATUS  current
DESCRIPTION
    "Pattern used to condition the narrow-band interface."
 ::= { saVtsNbChanIWFEEntry 15 }

```

saVtsNbChanIWFcasOpt OBJECT-TYPE

```

SYNTAX  INTEGER {
    none(1),
    transport(2),
    condition(3)
}
MAX-ACCESS  read-write
STATUS  current
DESCRIPTION
    "CAS transport options.
    none      - CAS bits not transported
    transport - CAS bits transported
    condition - CAS bits transported and
    conditioned when needed."
 ::= { saVtsNbChanIWFEEntry 16 }

```

```

saVtsNbChanIWFRxCas OBJECT-TYPE
    SYNTAX  INTEGER (0..15)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Bitfield of CAS bits used to condition the local DS0:
         Bit 0 - A
         Bit 1 - B
         Bit 2 - C
         Bit 3 - D"
    ::= { saVtsNbChanIWFEEntry 17 }

saVtsNbChanIWFTxCas OBJECT-TYPE
    SYNTAX  INTEGER (0..15)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Bitfield of CAS bits used to condition the remote DS0:
         Bit 0 - A
         Bit 1 - B
         Bit 2 - C
         Bit 3 - D"
    ::= { saVtsNbChanIWFEEntry 18 }

saVtsNbChanIWFDbaOpt OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Bit field to choose control sources for
         dynamic bandwidth allocation.
         Bit 0 - signalling codes
         Bit 1 - loss of signal
         Bit 2 - packet loss"
    ::= { saVtsNbChanIWFEEntry 19 }

saVtsNbChanIWFFMinJitDly OBJECT-TYPE
    SYNTAX  INTEGER (0..150)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Minimum jitter buffer in milliseconds."
    ::= { saVtsNbChanIWFEEntry 20 }

saVtsNbChanIWFFMaxJitDly OBJECT-TYPE
    SYNTAX  INTEGER (0..150)
    MAX-ACCESS  read-write
    STATUS  current

```

```

    DESCRIPTION
        "Maximum jitter buffer in milliseconds."
    ::= { saVtsNbChanIWFEEntry 21 }

saVtsNbChanIWFFJitOptFact OBJECT-TYPE
    SYNTAX  INTEGER (0..12)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Jitter buffer tuning factor."
    ::= { saVtsNbChanIWFEEntry 22 }

saVtsNbChanIWFFPackFactor OBJECT-TYPE
    SYNTAX  INTEGER (1..16)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Factor used to increase the amount of voice data collected
         before a packet is dispatched. Set low for low latency."
    ::= { saVtsNbChanIWFEEntry 23 }

saVtsNbChanIWFFMaxChans OBJECT-TYPE
    SYNTAX  INTEGER (1..32)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Maximum channels allowed on this IWF."
    ::= { saVtsNbChanIWFEEntry 24 }

saVtsNbChanIWFFOperStat OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Present state of the IWF. If the IWF is down, all
         member channels are idle. If the IWF is up, channels
         may be active though that is not necessarily true."
    ::= { saVtsNbChanIWFEEntry 25 }

saVtsNbChanIWFFNomJitDly OBJECT-TYPE
    SYNTAX  INTEGER (0..150)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Nominal jitter buffer delay in milliseconds. Setting this

```

```

        to 0 enables the settings for saVtsNbChanIWFMinJitDly,
        saVtsNbChanIWFMaxJitDly, and saVtsNbChanIWFJitOptFact.
        Otherwise, those values are ignored, and others are used
        to strive for this nominal delay."
 ::= { saVtsNbChanIWFEntry 26 }

-- Voice and Telephony Services Narrow Band Channel Status Table

saVtsNbChanStatTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaVtsNbChanStatEntry
    MAX-ACCESS not-accessible
    STATUS   current
    DESCRIPTION
        "VTS Narrow Band Channel Status Table"
    ::= { saVtsNbChanStat 1 }

saVtsNbChanStatEntry OBJECT-TYPE
    SYNTAX  SaVtsNbChanStatEntry
    MAX-ACCESS not-accessible
    STATUS   current
    DESCRIPTION
        "VTS Narrow Band Channel Status Table Entry"
    INDEX   { saVtsNbChanStatIfIndex , saVtsNbChanStatTimeSlot }
    ::= { saVtsNbChanStatTable 1 }

saVtsNbChanStatEntry ::=
    SEQUENCE {
        saVtsNbChanStatConnStatus
            INTEGER,
        saVtsNbChanStatIsAnchor
            INTEGER,
        saVtsNbChanStatRcvCAS
            INTEGER,
        saVtsNbChanStatXmtCAS
            INTEGER,
        saVtsNbChanStatDefects
            INTEGER,
        saVtsNbChanStatDigits
            INTEGER,
        saVtsNbChanStatDialEnds
            INTEGER,
        saVtsNbChanStatFaxStarts
            INTEGER,
        saVtsNbChanStatFaxEnds
            INTEGER
    }

saVtsNbChanStatIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Interface index of the voice channel IWF."
    ::= { saVtsNbChanStatEntry 1 }

saVtsNbChanStatTimeSlot OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Time slot of the TDM interface."
    ::= { saVtsNbChanStatEntry 2 }

saVtsNbChanStatConnStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        active(1),
        idle(2),
        fax-relay(3),
        bypass(4)
    }
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Status of the narrow-band connection."
    ::= { saVtsNbChanStatEntry 3 }

saVtsNbChanStatIsAnchor OBJECT-TYPE
    SYNTAX  INTEGER {
        anchor(1),
        slave(2)
    }
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Anchor channel is one which is used to release data
        from other channels. The anchor channel can only be
        removed or idled after all other members in a sub-
        channel MUX are removed or idled."
    ::= { saVtsNbChanStatEntry 4 }

saVtsNbChanStatRcvCAS OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION

```

```

        "Bitfield of CAS bits received from the DS0:
        Bit 0 - A
        Bit 1 - B
        Bit 2 - C
        Bit 3 - D"
 ::= { saVtsNbChanStatEntry 5 }

saVtsNbChanStatXmtCAS OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Bitfield of CAS bits transmitted to the DS0:
        Bit 0 - A
        Bit 1 - B
        Bit 2 - C
        Bit 3 - D"
 ::= { saVtsNbChanStatEntry 6 }

saVtsNbChanStatDefects OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Bitfield defects presently observed on the DS0:
        Bit 0 - jitter buffer underflow "
 ::= { saVtsNbChanStatEntry 7 }

saVtsNbChanStatDigits OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of touch tone key presses detected."
 ::= { saVtsNbChanStatEntry 8 }

saVtsNbChanStatDialEnds OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of dial sequence ends detected."
 ::= { saVtsNbChanStatEntry 9 }

saVtsNbChanStatFaxStarts OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current

```

```

DESCRIPTION
    "Number of FAX call starts detected."
 ::= { saVtsNbChanStatEntry 10 }

saVtsNbChanStatFaxEnds OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Number of FAX call ends detected."
 ::= { saVtsNbChanStatEntry 11 }

-- Voice and Telephony Services Virtual Trunk Group Configuration Table

saVtsVtgCfgTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaVtsVtgCfgEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "VTS Virtual Trunk Group Configuration Table"
 ::= { saVtsVtgCfg 1 }

saVtsVtgCfgEntry OBJECT-TYPE
    SYNTAX  SaVtsVtgCfgEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "VTS Virtual Trunk Group Configuration Table Entry"
    INDEX   { saVtsVtgCfgIfIndex }
 ::= { saVtsVtgCfgTable 1 }

saVtsVtgCfgEntry ::=
    SEQUENCE {
--         saVtsVtgCfgRemoteAddr
--         AtmAddr,
        saVtsVtgCfgAdminStatus
            INTEGER,
        saVtsVtgCfgOperStatus
            INTEGER,
        saVtsVtgCfgSigVcMode
            INTEGER,
        saVtsVtgCfgSigVcDownTimeout
            INTEGER,
        saVtsVtgCfgBaseVcProtoId
            INTEGER,
        saVtsVtgCfgBaseVcMode
            INTEGER,

```

```

        saVtsVtgCfgBaseVcDownTimeout
            INTEGER
-- This is forward looking enough as is with out SVCs. As
-- trunking strategies for compressed voice become clearer,
-- objects similar to the VTOA MIB will be defined.
    }

saVtsVtgCfgIfIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS     current
    DESCRIPTION
        "Interface index of the VTS Virtual Trunk Group."
    ::= { saVtsVtgCfgEntry 1 }

--saVtsVtgCfgRemoteAddr OBJECT-TYPE
--    SYNTAX      AtmAddr
--    MAX-ACCESS  read-write
--    STATUS      current
--    DESCRIPTION
--        "The ATM address supporting the corresponding far end
--        Trunking IWF process for this Virtual Trunk Group.
--        If no address is supplied, no attempts to
--        establish the active SVC are initiated."
--    ::= { saVtsVtgCfgEntry 2 }

saVtsVtgCfgAdminStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The desired administrative status of the Virtual
        Trunk Group. The up and down states indicate
        that the traffic flow is enabled or disabled
        respectively across the Virtual Trunk Group."
    ::= { saVtsVtgCfgEntry 3 }

saVtsVtgCfgOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2),
        unknown(3)
    }
    MAX-ACCESS  read-only
    STATUS      current

```

```

DESCRIPTION
    "The operational status of the Virtual Trunk Group.
    The up and down states indicate that the traffic flow is
    enabled or disabled respectively across the Virtual
    Trunk Group.
    The unknown state indicates that the state of the
    Virtual Trunk Group cannot be determined.
    The state will be down or unknown if the
    supporting ATM interfaces are down or unknown."
    ::= { saVtsVtgCfgEntry 4 }

saVtsVtgCfgSigVcMode OBJECT-TYPE
    SYNTAX  INTEGER {
        none(1),
        pvc(2),
        svcAlwaysUp(3),
        svcOnDemand(4)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The desired mode of the IWF-IWF signalling VC connection.
        none (1) - This is the required setting for CAS
        VTG's (which have no IWF-IWF signalling VC).

        pvc (2) - The signalling VC will be set up separately
        as a PVC via network administrative action.

        svcAlwaysUp (3) - The signalling VC connection
        must be established by the IWF via automatic SVC
        establishment procedures.
        This VC connection should be established at all times.

        svcOnDemand (4) - The signalling VC connection should
        only be established (via automatic SVC establishment
        procedures) by this IWF when an incoming call (from
        a narrowband interface) needs to be connected via
        this Virtual Trunk Group. It may also be initiated
        by the remote IWF, as necessary. Once this VC
        connection is established, it should remain
        connected until the condition of no narrowband
        connections active on this virtual trunk group has
        persisted for the interval specified by
        'saVtsVtgCfgVcDownTimeout', at which time it
        should itself be disconnected."
    ::= { saVtsVtgCfgEntry 5 }

```

```

saVtsVtgCfgSigVcDownTimeout OBJECT-TYPE
    SYNTAX      INTEGER (1..86400)
    UNITS        "seconds"
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION
        "The amount of time that a signalling VC connection of
        'saVtsVtgCfgSigMode' svcOnDemand (4) should remain connected
        after the last narrowband connection using this virtual
        trunk group has been terminated before being itself
        disconnected."
        ::= { saVtsVtgCfgEntry 6 }

saVtsVtgCfgBaseVcProtoId OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION
        "Identifier used with the VTS IWF ifIndex to link to a
        prototype VTS trunk traffic descriptor in the 'saVtsVtgTun'
        table to be used for the base trunk on this VTG."
        ::= { saVtsVtgCfgEntry 7 }

saVtsVtgCfgBaseVcMode OBJECT-TYPE
    SYNTAX      INTEGER {
        pvc(1),
        svcAlwaysUp(2),
        svcOnDemand(3)
    }
    MAX-ACCESS   read-create
    STATUS       current
    DESCRIPTION
        "The desired mode of the base (first) voice VC connection.

        pvc (1) - The base voice VC will be set up separately as a
        PVC via network administrative action.

        svcAlwaysUp (2) - The base voice VC connection must
        be established by the IWF via automatic SVC
        establishment procedures.
        This VC connection should be established at all
        times.

        svcOnDemand (3) - The base voice VC connection should
        only be established (via automatic SVC establishment
        procedures) by this IWF when an incoming call (from
        a narrowband interface) needs to be connected via
        this Virtual Trunk Group. It may also be initiated

```

```

        by the remote IWF, as necessary. Once this VC
        connection is established, it should remain
        connected until the condition of no narrowband
        connections active on this virtual trunk group has
        persisted for the interval specified by
        'saVtsVtgCfgBaseVcDownTimeout', at which time it
        should itself be disconnected."
        ::= { saVtsVtgCfgEntry 8 }

```

```

saVtsVtgCfgBaseVcDownTimeout OBJECT-TYPE
    SYNTAX      INTEGER (1..86400)
    UNITS        "seconds"
    MAX-ACCESS   read-write
    STATUS       current
    DESCRIPTION
        "The amount of time that a base voice VC connection of
        'saVtsVtgCfgBaseVcMode' svcOnDemand (3) should remain
        connected after the last narrowband connection using
        this virtual trunk group has been terminated before
        being itself disconnected."
        ::= { saVtsVtgCfgEntry 9 }

```

```

-- Voice and Telephony Services Virtual Trunk Group
-- Tunnel Configuration Table

```

```

saVtsVtgTunCfgTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF SaVtsVtgTunCfgEntry
    MAX-ACCESS   not-accessible
    STATUS       current
    DESCRIPTION
        "VTS Virtual Trunk Group Tunnel Configuration Table"
        ::= { saVtsVtgTunCfg 1 }

```

```

saVtsVtgTunCfgEntry OBJECT-TYPE
    SYNTAX      SaVtsVtgTunCfgEntry
    MAX-ACCESS   not-accessible
    STATUS       current
    DESCRIPTION
        "VTS Virtual Trunk Group Tunnel Configuration Table Entry"
    INDEX      { saVtsVtgTunCfgDgIdx,
        saVtsVtgTunCfgVPI,
        saVtsVtgTunCfgVCI }
        ::= { saVtsVtgTunCfgTable 1 }

```

```

saVtsVtgTunCfgEntry ::=
    SEQUENCE {
        saVtsVtgTunCfgType
            INTEGER,
        saVtsVtgTunCfgTrafficClass

```

```

        INTEGER,
saVtsVtgTunCfgPeakCPS
        INTEGER,
saVtsVtgTunCfgAvgCPS
        INTEGER,
saVtsVtgTunCfgCdvT
        INTEGER,
saVtsVtgTunCfgMaxBurstSize
        INTEGER,
saVtsVtgTunCfgXmtPkts
        INTEGER,
saVtsVtgTunCfgRcvPkts
        INTEGER,
saVtsVtgTunCfgXmtOctets
        INTEGER,
saVtsVtgTunCfgRcvOctets
        INTEGER,
saVtsVtgTunCfgXmtErrs
        INTEGER
    }

saVtsVtgTunCfgDgIdx OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Interface index of the tunnel's parent AAL."
    ::= { saVtsVtgTunCfgEntry 2 }

saVtsVtgTunCfgVPI OBJECT-TYPE
    SYNTAX  INTEGER (0..255)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Virtual Path Identifier of the tunnel."
    ::= { saVtsVtgTunCfgEntry 3 }

saVtsVtgTunCfgVCI OBJECT-TYPE
    SYNTAX  INTEGER (0..65535)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Virtual Channel Identifier of the tunnel."
    ::= { saVtsVtgTunCfgEntry 4 }

```

```

saVtsVtgTunCfgType OBJECT-TYPE
    SYNTAX  INTEGER {
        sig(1),
        base(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Tunnel type.
        sig (1) -This VC is used for signalling between VTS
        Interworking Functions.
        base (2) -This VC is the primary VC used to carry voice
        traffic on this VTG."
    ::= { saVtsVtgTunCfgEntry 5 }

saVtsVtgTunCfgTrafficClass OBJECT-TYPE
    SYNTAX  INTEGER {
        cbr(1),
        rt-vbr(2),
        nrt-vbr(3),
        `ubr(4)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "VTS Tunnel Service Category"
    ::= { saVtsVtgTunCfgEntry 6 }

saVtsVtgTunCfgPeakCPS OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "VTS Tunnel peak rate in cells per second for which this
        tunnel is configured."
    ::= { saVtsVtgTunCfgEntry 7 }

saVtsVtgTunCfgAvgCPS OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "The average rate in cells per second for which this VTS
        tunnel is configured. Only applies to VBR tunnels."
    ::= { saVtsVtgTunCfgEntry 8 }

```

```

saVtsVtgTunCfgCdvt OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Tunnel cell delay variance tolerance for which
        this VTS tunnel is configured."
    ::= { saVtsVtgTunCfgEntry 9 }

saVtsVtgTunCfgMaxBurstSize OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Maximum burst size. Applies only to VBR tunnels."
    ::= { saVtsVtgTunCfgEntry 10 }

saVtsVtgTunCfgXmtPkts OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of AAL5 packets transmitted on this VC."
    ::= { saVtsVtgTunCfgEntry 11 }

saVtsVtgTunCfgRcvPkts OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of AAL5 packets received on this VC."
    ::= { saVtsVtgTunCfgEntry 12 }

saVtsVtgTunCfgXmtOctets OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of octets transmitted on this VC."
    ::= { saVtsVtgTunCfgEntry 13 }

saVtsVtgTunCfgRcvOctets OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of octets received on this VC."
    ::= { saVtsVtgTunCfgEntry 14 }

```

```

saVtsVtgTunCfgXmtErrs OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of packets which failed to transmit on this VC due
        to lack of resources."
    ::= { saVtsVtgTunCfgEntry 15 }

-- Voice and Telephony Services Connection Table Version 1

saVtsConnV1Table OBJECT-TYPE
    SYNTAX SEQUENCE OF SaVtsConnV1Entry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "VTS Connection Table Version 1"
    ::= { saVtsConnV1 1 }

saVtsConnV1Entry OBJECT-TYPE
    SYNTAX SaVtsConnV1Entry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "VTS Connection Table Version 1 Entry"
    INDEX { saVtsConnV1IfIndex , saVtsConnV1TimeSlot }
    ::= { saVtsConnV1Table 1 }

saVtsConnV1Entry ::=
    SEQUENCE {
        saVtsConnV1RxCID
            INTEGER,
        saVtsConnV1TxCID
            INTEGER
    }

saVtsConnV1IfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Interface index of the voice channel IWF."
    ::= { saVtsConnV1Entry 1 }

```

```

saVtsConnV1TimeSlot OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Time slot of the TDM interface."
    ::= { saVtsConnV1Entry 2 }

saVtsConnV1RxCID OBJECT-TYPE
    SYNTAX  INTEGER(0..31)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Local channel identifier used for this connection. This is
        a number from 0 to 1 less than the number of channels that
        can be handled by the card which depends on the version
        in use."
    ::= { saVtsConnV1Entry 3 }

saVtsConnV1TxCID OBJECT-TYPE
    SYNTAX  INTEGER(0..31)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Channel identifier used in packets transmitted from this
        connection."
    ::= { saVtsConnV1Entry 4 }

```

END

-- *****

COMMSTATS MIB

-- *****

-- oasis Backplane Comms statistics MIB

OASIS-COMMSTAT-MIB DEFINITIONS ::= BEGIN

```

IMPORTS
    OBJECT-TYPE          FROM SNMPv2-SMI
    saCommsStats, saBrdNum FROM OASIS-SYSINFO-MIB;

```

```

saCommChan  OBJECT IDENTIFIER ::= { saCommsStats 1 }
saCommBuff  OBJECT IDENTIFIER ::= { saCommsStats 2 }

```

```

saCommUser  OBJECT IDENTIFIER ::= { saCommsStats 3 }

```

-- Backplane Comms Stats Table

```

saCommChanTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaCommChanEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Backplane comms stats"
    ::= { saCommChan 1 }

```

```

saCommChanEntry OBJECT-TYPE
    SYNTAX  SaCommChanEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Entry for comms stats"
    INDEX   { saBrdNum, saCommDstBrd }
    ::= { saCommChanTable 1 }

```

```

saCommChanEntry ::=
    SEQUENCE {
        saCommDstBrd
            INTEGER,
        saCommStatus
            INTEGER,
        saCommClrCnts
            INTEGER,
        saCommInPkts
            INTEGER,
        saCommRxAsData
            INTEGER,
        saCommRxUnasData
            INTEGER,
        saCommOutPkts
            INTEGER,
        saCommTxAsData
            INTEGER,
        saCommTxUnasData
            INTEGER,
        saCommFailedTx
            INTEGER,
        saCommTxDescFail
            INTEGER,
        saCommTxNotReady
            INTEGER,
        saCommNumCommsDown

```

```

        INTEGER,
saCommWindowFull
        INTEGER,
saCommRcvQfull
        INTEGER,
saCommSendQfull
        INTEGER,
saCommChanDelivers
        INTEGER,
saCommDestErrors
        INTEGER,
saCommDiscardsOOR
        INTEGER,
saCommReasmReqds
        INTEGER,
saCommReasmOKs
        INTEGER,
saCommReasmFails
        INTEGER,
saCommRcvNackOOR
        INTEGER,
saCommRcvNackUnexp
        INTEGER,
saCommAckTimeouts
        INTEGER,
saCommNumKeepAlives
        INTEGER,
saCommNumRetx
        INTEGER,
saCommNumTxTestMsgs
        INTEGER,
saCommNumRxTestMsgs
        INTEGER
    }

saCommDstBrd OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Destination Board Number"
    ::= { saCommChanEntry 1 }

saCommStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        up(1),
        down(2)
    }

```

```

MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
    "Source Board Number"
::= { saCommChanEntry 2 }

saCommClrCnts OBJECT-TYPE
    SYNTAX  INTEGER {
        no(1),
        yes(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Clears stats"
    ::= { saCommChanEntry 3 }

saCommInPkts OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Total # of packets rcvd (data and control)"
    ::= { saCommChanEntry 4 }

saCommRxAsData OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Total assured data packets received"
    ::= { saCommChanEntry 5 }

saCommRxUnasData OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Total unassured data packets received"
    ::= { saCommChanEntry 6 }

saCommOutPkts OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Total packets sent (data and control)"
    ::= { saCommChanEntry 7 }

```

saCommTxAsData OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Total assured data packets sent"
 ::= { saCommChanEntry 8 }
```

saCommTxUnasData OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Total unassured data packets sent"
 ::= { saCommChanEntry 9 }
```

saCommFailedTx OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# of packets unable to send into packet subsystem"
 ::= { saCommChanEntry 10 }
```

saCommTxDescFail OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# of packets unable to send due to tx descriptor failure"
 ::= { saCommChanEntry 11 }
```

saCommTxNotReady OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# of packets unable to send due to comms not ready"
 ::= { saCommChanEntry 12 }
```

saCommNumCommsDown OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# of times comms has gone down"
 ::= { saCommChanEntry 13 }
```

saCommWindowFull OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# time sliding window has become full"
 ::= { saCommChanEntry 14 }
```

saCommRcvQfull OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# times channel rcv queue full"
 ::= { saCommChanEntry 15 }
```

saCommSendQfull OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# times channel send queue full"
 ::= { saCommChanEntry 16 }
```

saCommChanDelivers OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# data packets successfully delivered to dest process"
 ::= { saCommChanEntry 17 }
```

saCommDestErrors OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# dest errors"
 ::= { saCommChanEntry 18 }
```

saCommDiscardsOOR OBJECT-TYPE

```
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "# data packets discarded due to lack of resources"
 ::= { saCommChanEntry 19 }
```

```

saCommReasmReqds OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of fragments received that need reassembly"
    ::= { saCommChanEntry 20 }

saCommReasmOKs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of user data successfully reassembled"
    ::= { saCommChanEntry 21 }

saCommReasmFails OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of failures in reassembly process"
    ::= { saCommChanEntry 22 }

saCommRcvNack00R OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of NACKs received due to low resources at remote"
    ::= { saCommChanEntry 23 }

saCommRcvNackUnexp OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of NACKs received due to unexpected sequence number"
    ::= { saCommChanEntry 24 }

saCommAckTimeouts OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of acknowledgement timeouts"
    ::= { saCommChanEntry 25 }

```

```

saCommNumKeepAlives OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of keep alive messages sent"
    ::= { saCommChanEntry 26 }

saCommNumRetx OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of data packet retransmits"
    ::= { saCommChanEntry 27 }

saCommNumTxTestMsgs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of test messages sent"
    ::= { saCommChanEntry 28 }

saCommNumRxTestMsgs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of test messages received"
    ::= { saCommChanEntry 29 }

-- Comms Buffer Stat Table

saCommBuffTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaCommBuffEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Buffer Pool Stat Table"
    ::= { saCommBuff 1 }

saCommBuffEntry OBJECT-TYPE
    SYNTAX  SaCommBuffEntry
    MAX-ACCESS  not-accessible
    STATUS  current

```

```

DESCRIPTION
    "Entry for comms buffer pool stats"
INDEX     { saBrdNum, saCommBufPoolNum }
 ::= { saCommBuffTable 1 }

saCommBuffEntry ::=
    SEQUENCE {
        saCommBufPoolNum
            INTEGER,
        saCommBufSz
            INTEGER,
        saCommBufNumOrigBufs
            INTEGER,
        saCommBufNumFreeBufs
            INTEGER,
        saCommBufNumGetMems
            INTEGER,
        saCommBufNumRetMems
            INTEGER,
        saCommBufNumFailGets
            INTEGER,
        saCommBufLowWaterMark
            INTEGER
    }

saCommBufPoolNum OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Buffer Pool Number"
    ::= { saCommBuffEntry 1 }

saCommBufSz OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Size of the buffers in this pool"
    ::= { saCommBuffEntry 2 }

saCommBufNumOrigBufs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Number of buffer originally contained in this pool"
    ::= { saCommBuffEntry 3 }

saCommBufNumFreeBufs OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Number of free buffers currently in the pool"
    ::= { saCommBuffEntry 4 }

saCommBufNumGetMems OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Number of successful get buffer requests"
    ::= { saCommBuffEntry 5 }

saCommBufNumRetMems OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Number of successful return buffer requests"
    ::= { saCommBuffEntry 6 }

saCommBufNumFailGets OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "Number of failed get buffer requests"
    ::= { saCommBuffEntry 7 }

saCommBufLowWaterMark OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS   current
    DESCRIPTION
        "The low water mark for this pool in number of buffers"
    ::= { saCommBuffEntry 8 }

-- Backplane comms user's stats table

saCommUserTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaCommUserEntry
    MAX-ACCESS not-accessible
    STATUS   current

```

```

DESCRIPTION
    "Backplane comms user stats"
::= { saCommUser 1 }

saCommUserEntry OBJECT-TYPE
    SYNTAX  SaCommUserEntry
    MAX-ACCESS not-accessible
    STATUS  current
    DESCRIPTION
        "Entry for comms stats"
    INDEX   { saBrdNum, saCommsUserPID }
    ::= { saCommUserTable 1 }

saCommUserEntry ::=
    SEQUENCE {
        saCommsUserPID
            INTEGER,
        saCommsUserValid
            INTEGER,
        saCommsUserDataTypes
            INTEGER,
        saCommsUserSrvCwgt
            INTEGER,
        saCommsUserMaxBufAllowed
            INTEGER,
        saCommsUserCurrBuf
            INTEGER,
        saCommsUserHighBuf
            INTEGER,
        saCommsUserQdepth
            INTEGER,
        saCommsUserClrCounts
            INTEGER,
        saCommsUserDataSends
            INTEGER,
        saCommsUserRejects
            INTEGER,
        saCommsUserAccepts
            INTEGER,
        saCommsUserCBNotInUse
            INTEGER,
        saCommsUserFrgsOK
            INTEGER,
        saCommsUserFrgsFails
            INTEGER,
        saCommsUserFrgsCreates
            INTEGER
    }

```

```

saCommsUserPID OBJECT-TYPE
    SYNTAX  INTEGER {
        comms(1),
        comms-test(2),
        bsm(3),
        ssm(4),
        blm(5),
        slm(6),
        file-client(7),
        file-server(8),
        btm(9),
        stm(10),
        smm-cmd(11),
        smm-reply(12),
        bmm-cmd(13),
        bmm-reply(14),
        bem(15),
        sem(16),
        sccs(17),
        accs(18)
    }
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "User PID"
    ::= { saCommUserEntry 1 }

```

```

saCommsUserValid OBJECT-TYPE
    SYNTAX  INTEGER {
        not-registered(1),
        registered(2)
    }
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "Indicates whether or not user is registered"
    ::= { saCommUserEntry 2 }

```

```

saCommsUserDataTypes OBJECT-TYPE
    SYNTAX  INTEGER {
        assured(1),
        unassured(2)
    }
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "User's Data Transfer Type"

```

```

::= { saCommUserEntry 3 }

saCommsUserSrvcWgt OBJECT-TYPE
    SYNTAX  INTEGER {
        low(1),
        med(2),
        high(3)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "User's Service Weight"
    ::= { saCommUserEntry 4 }

saCommsUserMaxBufAllowed OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "User's Chosen Max buffer usage"
    ::= { saCommUserEntry 5 }

saCommsUserCurrBuf OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "User's Current buffer usage"
    ::= { saCommUserEntry 6 }

saCommsUserHighBuf OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "User's High-Water buffer usage"
    ::= { saCommUserEntry 7 }

saCommsUserQdepth OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "User's Current User Queue Depth"
    ::= { saCommUserEntry 8 }

saCommsUserClrCounts OBJECT-TYPE
    SYNTAX  INTEGER {
        no(1),
        yes(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Clear User Stats"
    ::= { saCommUserEntry 9 }

saCommsUserDataSends OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# user data submitted to comms module by a user"
    ::= { saCommUserEntry 10 }

saCommsUserRejects OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# data packets delivered but rejected by user"
    ::= { saCommUserEntry 11 }

saCommsUserAccepts OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        " data packets delivered successfully to user"
    ::= { saCommUserEntry 12 }

saCommsUserCBNotInUse OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# data packets rec'd when user not registered"
    ::= { saCommUserEntry 13 }

saCommsUserFrgsOK OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION

```

```
        "# user data needing fragmentation & succeeding"
 ::= { saCommUserEntry 14 }

saCommsUserFrgsFails OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# user data needing fragmentation & failing"
    ::= { saCommUserEntry 15 }

saCommsUserFrgsCreates OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "# of fragments generated by this user"
    ::= { saCommUserEntry 16 }

END
```

```
-- *****
```

MEMSTATS MIB

```
-- *****
```

```
-- oasis Memory statistics MIB
```

```
OASIS-MEMSTAT-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    OBJECT-TYPE
```

```
        FROM SNMPv2-SMI
```

```
    saMemStats, saBrdNum
```

```
        FROM OASIS-SYSINFO-MIB;
```

```
-- Memory Stats Table
```

```
saMemStatsTable OBJECT-TYPE
```

```
    SYNTAX SEQUENCE OF SaMemStatsEntry
```

```
    MAX-ACCESS not-accessible
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Memory Statistics Table"
```

```
    ::= { saMemStats 1 }
```

```
saMemStatsEntry OBJECT-TYPE
```

```
    SYNTAX SaMemStatsEntry
```

```
    MAX-ACCESS not-accessible
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Entry for Task memory usage stats"
```

```
    INDEX { saBrdNum, saMemTaskId }
```

```
    ::= { saMemStatsTable 1 }
```

```
saMemStatsEntry ::=
```

```
    SEQUENCE {
```

```
        saMemTaskId
```

```
        INTEGER,
```

```
        saMemSize
```

```
        INTEGER,
```

```
        saHiWaterMemSize
```

```
        INTEGER
```

```
    }
```

```
saMemTaskId OBJECT-TYPE
```

```
    SYNTAX INTEGER {
```

```
        bmm(1),
```

```
        smm(2)
```

```
    }
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Memory usage statistics Task ID"
```

```
    ::= { saMemStatsEntry 1 }
```

```
saMemSize OBJECT-TYPE
```

```
    SYNTAX INTEGER
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "Memory size"
```

```
    ::= { saMemStatsEntry 2 }
```

```
saHiWaterMemSize OBJECT-TYPE
```

```
    SYNTAX INTEGER
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "High Water Memory size"
```

```
    ::= { saMemStatsEntry 3 }
```

```
END
```

-- *****

IMA MIB

-- *****

ATMF-IMA DEFINITIONS ::= BEGIN

IMPORTS

enterprises FROM RFC1155-SMI
OBJECT-TYPE, MODULE-IDENTITY, Integer32 FROM SNMPv2-SMI
TEXTUAL-CONVENTION, DateAndTime, RowStatus FROM SNMPv2-TC;

atmForum OBJECT IDENTIFIER ::= { enterprises 353 }
atmForumNetworkManagement OBJECT IDENTIFIER ::= { atmForum 5 }
atmfIma OBJECT IDENTIFIER ::= { atmForumNetworkManagement 7 }

atmfImaMib MODULE-IDENTITY

LAST-UPDATED "9701092245Z"
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DESCRIPTION
"The MIB Module to describe an ATM Inverse
Multiplexer interface."
::= { atmfIma 1 }

atmImaMibObjects OBJECT IDENTIFIER ::= { atmfImaMib 1 }

-- This MIB consists of the IMA group subtree.
-- The IMA group subtree consists of the number of IMA groups and a
-- table of IMA groups. Each entry in the table of IMA groups contains
-- information (configuration and status) specific to each group.

-- The following textual conventions are used when describing the ima mib
-- element's syntax

ImaIfIndex ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
"ifIndex"

SYNTAX Integer32

ImaId ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
"IMA group ID"
SYNTAX INTEGER(0..255)

ImaLid ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
"IMA group ID"
SYNTAX INTEGER(0..31)

Boolean ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
"Truth values"
SYNTAX INTEGER {
true(1),
false(2)
}

Seconds ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
"Time in seconds"
SYNTAX Integer32

Milliseconds ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
"Time in milliseconds"
SYNTAX Integer32

ImaGroupState ::= TEXTUAL-CONVENTION
STATUS current
DESCRIPTION
"State of the IMA group."
SYNTAX INTEGER {
notConfigured(1),
startUp(2),
startUpAck(3),
configAbortUnsupportedM(4),
configAbortIncompatibleSymmetry(5),
configAbortOther(6),
insufficientLinks(7),
blocked(8),

<pre> operational(9) } ImaGroupFailureStatus ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "Failure reason of an IMA group." SYNTAX INTEGER { noFailure(1), -- unit is up startUpNe(2), startUpFe(3), invalidMValueNe(4), invalidMValueFe(5), failedAssymmetricNe(6), failedAssymmetricFe(7), insufficientLinksNe(8), insufficientLinksFe(9), blockedNe(10), blockedFe(11), otherFailure(12) } ImaGroupTxClkMode ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "Indicate the synchronization configuration of the IMA group. There are two possible configurations: the Common Transmit Clock (CTC) and the Independent Transmit Clock (ITC) configurations. The CTC configuration corresponds to the case when the transmit clock of all IMA links are derived from the Same source. The ITC configuration corresponds to the case where there is at least one IMA link whose transmit clock is derived from a source different than at least another link transmit clock." SYNTAX INTEGER { ctc(1), itc(2) } ImaGroupSymmetry ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "The symmetry mode adjusted during the group start-up." SYNTAX INTEGER { symmetricOperation(1), assymmetricOperation(2), </pre>	<pre> assymmetricConfiguration(3) } ImaFrameLength ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "Length of the IMA frames." SYNTAX INTEGER { m32(1), m64(2), m128(3), m256(4) } ImaLinkState ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "State of a link belonging to an IMA group." SYNTAX INTEGER { notInGroup(1), unusableNoGivenReason(2), unusableFault(3), unusableMisconnected(4), unusableBlocked(5), unusableFailed(6), usable(7), active(8) } ImaLinkFailureStatus ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "Local failure status of a link belonging to an IMA group." SYNTAX INTEGER { noFailure(1), imaLinkFailure(2), lifFailure(3), lodsFailure(4), misConnected(5), blocked(6), fault(7) } ImaTestProcStatus ::= TEXTUAL-CONVENTION STATUS current DESCRIPTION "States of the Test Pattern Procedure." SYNTAX INTEGER { </pre>
--	---

```

        disabled(1),
        operating(2),
        linkfail(3)
    }

ImaGroupPhyType ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "Physical interface type of the ima group."
    SYNTAX      INTEGER {
        ds1(1),
        e1(2)
    }

-- The IMA group subtree

imaGroupNumber OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The number of IMA groups configured on this system"
    ::= { atmImaMibObjects 1 }

-- The IMA group table contains configuration and status information
-- The following describes an individual IMA group entry in the table

imaGroupTable OBJECT-TYPE
    SYNTAX      SEQUENCE OF ImaGroupEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "The IMA group configuration table.
        Contains an entry per each configured group"
    ::= { atmImaMibObjects 2 }

imaGroupEntry OBJECT-TYPE
    SYNTAX      ImaGroupEntry
    MAX-ACCESS not-accessible
    STATUS      current
    DESCRIPTION
        "An entry into the IMA group table."
    INDEX      { imaGroupIndex }
    ::= { imaGroupTable 1 }

ImaGroupEntry ::= SEQUENCE {
    imaGroupIndex      Integer32,

```

```

    imaGroupRowStatus      RowStatus,
    imaGroupIfIndex        ImaIfIndex,
    imaGroupNeState        ImaGroupState,
    imaGroupFeState        ImaGroupState,
    imaGroupFailureStatus  ImaGroupFailureStatus,
    imaGroupSymmetry        ImaGroupSymmetry,
    imaGroupMinNumTxLinks  INTEGER,
    imaGroupMinNumRxLinks  INTEGER,
    imaGroupNeTxClkMode    ImaGroupTxClkMode,
    imaGroupFeTxClkMode    ImaGroupTxClkMode,
    imaGroupTxTimingRefLink ImaIfIndex,
    imaGroupRxTimingRefLink ImaIfIndex,
    imaGroupLastChange     DateAndTime,
    imaGroupTxImaId        ImaId,
    imaGroupRxImaId        ImaId,
    imaGroupTxFrameLength  ImaFrameLength,
    imaGroupRxFrameLength  ImaFrameLength,
    imaGroupDiffDelayMax   MilliSeconds,
    imaGroupLeastDelayLink ImaIfIndex,
    imaGroupDiffDelayMaxObs MilliSeconds,
    imaGroupAlphaValue     INTEGER,
    imaGroupBetaValue      INTEGER,
    imaGroupGammaValue     INTEGER,
    imaGroupRunningSecs    Seconds,
    imaGroupUnavailSecs    Seconds,
    imaGroupNeNumFailures  Integer32,
    imaGroupFeNumFailures  Integer32,
    imaGroupTxAvailCellRate Integer32,
    imaGroupRxAvailCellRate Integer32,
    imaGroupNumTxCfgLnks   Integer32,
    imaGroupNumRxCfgLnks   Integer32,
    imaGroupNumTxActLnks   Integer32,
    imaGroupNumRxActLnks   Integer32,
    imaGroupTestLinkIfIndex ImaIfIndex,
    imaGroupTestPattern    Integer32,
    imaGroupTestProcStatus ImaTestProcStatus,
    imaGroupPhyType        ImaGroupPhyType }

```

-- The following OBJECT-TYPES define all the elements in an IMA group table entry

```

imaGroupIndex OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "A unique value for the IMA group"
    ::= { imaGroupEntry 1 }

```

imaGroupRowStatusOBJECT-TYPE

SYNTAX RowStatus
 MAX-ACCESS read-write
 STATUS current

DESCRIPTION

"The imaGroupRowStatus object allows create and delete operations on imaGroupTable entries.

To create a new conceptual row (or instance) of the imaGroupTable, imaGroupRowStatus must be set to 'createAndWait' or 'createAndGo.' A successful set of the following objects must be performed before the row can transition to 'active' state:

imaGroupTxImaId
 imaGroupMinNumTxLinks and
 imaGroupMinNumRxLinks

To remove (delete) an imaGroupTable entry from this table, set imaGroupRowStatus to 'destroy.'

Setting the imaGroupRowStatus to 'active' has the effect of activating the Group Startup Procedure. The Group Startup Procedure uses provisioned links that have imaLinkRowStatus set to 'active' an imaLinkGroupIndex set the imaGroupIndex in this conceptual row.

When the imaGroupRowStatus is not in 'active' state, the Group State machine is in its 'Not Configured' state."

::= { imaGroupEntry 2 }

imaGroupIfIndexOBJECT-TYPE

SYNTAX ImaIfIndex
 MAX-ACCESS read-only
 STATUS current

DESCRIPTION

"This object identifies the logical interface number ('ifIndex') assigned to this IMA group, and is used to identify corresponding rows in the Interfaces MIB.

Note that re-initialization of the management agent may cause a client's 'imaGroupIfIndex' to change."

::= { imaGroupEntry 3 }

imaGroupNeStateOBJECT-TYPE

SYNTAX ImaGroupState
 MAX-ACCESS read-only
 STATUS current

DESCRIPTION

"The current operational state of the near-end IMA Group State Machine."

::= { imaGroupEntry 4 }

imaGroupFeStateOBJECT-TYPE

SYNTAX ImaGroupState
 MAX-ACCESS read-only
 STATUS current

DESCRIPTION

"The current operational state of the far-end IMA Group State Machine."

::= { imaGroupEntry 5 }

imaGroupFailureStatus OBJECT-TYPE

SYNTAX ImaGroupFailureStatus
 MAX-ACCESS read-only
 STATUS current

DESCRIPTION

"The current failure status of the IMA group"

::= { imaGroupEntry 6 }

imaGroupSymmetry OBJECT-TYPE

SYNTAX ImaGroupSymmetry
 MAX-ACCESS read-only
 STATUS current

DESCRIPTION

"Symmetry of the IMA group. The default value is 'symmetric'. Currently only support symmetric mode"

::= { imaGroupEntry 7 }

imaGroupMinNumTxLinks OBJECT-TYPE

SYNTAX INTEGER(1..32)
 MAX-ACCESS read-write
 STATUS current

DESCRIPTION

"Minimum number of transmit links required to be active to move the IMA group into the up(2) state"

::= { imaGroupEntry 8 }

imaGroupMinNumRxLinks OBJECT-TYPE

SYNTAX INTEGER(1..32)

```

MAX-ACCESS read-write
STATUS      current
DESCRIPTION
    "Minimum number of receive links
    required to be active to move the IMA
    group into the up(2) state"
::= { imaGroupEntry 9 }

imaGroupNetxClockMode OBJECT-TYPE
    SYNTAX      ImaGroupTxClockMode
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Synchronization mode used
        by the local IMA group. Default value 'ctc'.
        Currently only support ctc mode"
    ::= { imaGroupEntry 10 }

imaGroupFeTxClockMode OBJECT-TYPE
    SYNTAX      ImaGroupTxClockMode
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Synchronization mode used by the remote IMA group"
    ::= { imaGroupEntry 11 }

imaGroupTxTimingRefLink OBJECT-TYPE
    SYNTAX      ImaIfIndex
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The LID of the transmit timing
        reference link to be used by the near
        end for IMA cell clock recovery from the ATM layer"
    ::= { imaGroupEntry 12 }

imaGroupRxTimingRefLink OBJECT-TYPE
    SYNTAX      ImaIfIndex
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The LID of the receive timing reference link to be
        used by near end for IMA cell clock
        recovery toward the ATM layer"
    ::= { imaGroupEntry 13 }

```

```

imaGroupLastChange OBJECT-TYPE
    SYNTAX      DateAndTime
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The time of day the IMA group last
        changed operational state."
    ::= { imaGroupEntry 14 }

imaGroupTxImaId OBJECT-TYPE
    SYNTAX      ImaId
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The IMA ID currently in use by the local IMA function."
    ::= { imaGroupEntry 15 }

imaGroupRxImaId OBJECT-TYPE
    SYNTAX      ImaId
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The IMA ID currently in use by the remote IMA function."
    ::= { imaGroupEntry 16 }

imaGroupTxFrameLength OBJECT-TYPE
    SYNTAX      ImaFrameLength
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The frame length to be used by the
        IMA group in the transmit direction.
        This value can only be set when the IMA
        group oper status is startup(1). The
        default value is M128(128)."
    ::= { imaGroupEntry 17 }

imaGroupRxFrameLength OBJECT-TYPE
    SYNTAX      ImaFrameLength
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The detected length of incoming IMA frames."
    ::= { imaGroupEntry 18 }

imaGroupDiffDelayMax OBJECT-TYPE
    SYNTAX      MilliSeconds
    MAX-ACCESS  read-write

```

```

STATUS      current
DESCRIPTION
    "The maximum number of milliseconds of
    delay differential among the links
    that will be tolerated on this interface.
    The default value is 25 mSec."
 ::= { imaGroupEntry 19 }

imaGroupLeastDelayLink OBJECT-TYPE
SYNTAX      ImIfIndex
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The index of the link (in imaLinkTable),
    belonging to this IMA group, which
    has the smallest link propagation delay.
    This value has meaning only if at
    least 1 link is included in the IMA group."
 ::= { imaGroupEntry 20 }

imaGroupDiffDelayMaxObs OBJECT-TYPE
SYNTAX      MilliSeconds
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The latest max differential delay
    (in milliseconds) observed among the
    receive links that are currently available
    in the IMA group."
 ::= { imaGroupEntry 21 }

imaGroupAlphaValue OBJECT-TYPE
SYNTAX      INTEGER( 1..2 )
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "This indicates the ''alpha'' value used
    to specify the number of consecutive
    invalid ICP cells to be detected before
    moving to the IMA HUNT state. The
    default value is 2."
 ::= { imaGroupEntry 22 }

imaGroupBetaValue OBJECT-TYPE
SYNTAX      INTEGER( 1..5 )
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "This indicates the ''beta'' value used to
    specify the number of consecutive
    errored ICP cells to be detected before
    moving to the IMA HUNT state. The
    default value is 2."
 ::= { imaGroupEntry 23 }

imaGroupGammaValue OBJECT-TYPE
SYNTAX      INTEGER( 1..5 )
MAX-ACCESS  read-write
STATUS      current
DESCRIPTION
    "This indicates the ''gamma'' value used
    to specify the number of consecutive
    valid ICP cells to be detected before
    moving to the IMA SYNC state from the
    PRESYNC state. The default value is 1."
 ::= { imaGroupEntry 24 }

imaGroupRunningSecs OBJECT-TYPE
SYNTAX      Seconds
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The amount of time (in seconds) since
    this IMA group has been in operation
    (up(2) or down(3))."
 ::= { imaGroupEntry 25 }

imaGroupUnavailSecs OBJECT-TYPE
SYNTAX      Seconds
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "Count of 1 second intervals where
    the group is unusable or not in service
    (more than (N-P) links in UUS-IMA or UUS-FE)."
 ::= { imaGroupEntry 26 }

imaGroupNeNumFailures OBJECT-TYPE
SYNTAX      Integer32
MAX-ACCESS  read-only
STATUS      current
DESCRIPTION
    "The number of times the IMA group has moved
    to a failure state since power-up or reboot."
 ::= { imaGroupEntry 27 }

```

```

imaGroupFeNumFailures OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of times a far-end group failure
        (Config-Abort-FE, Insufficient-Links-FE,
        Blocked-FE) have been reported since power-up or reboot."
    ::= { imaGroupEntry 28 }

imaGroupTxAvailCellRate OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current cell rate (in cells per second)
        provided by this IMA group, considering all the
        transmit links in the Active state."
    ::= { imaGroupEntry 29 }

imaGroupRxAvailCellRate OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The current cell rate (in cells per second)
        provided by this IMA group, considering all
        the receive links in the Active state."
    ::= { imaGroupEntry 30 }

-- imaGroupNumTxCfgLnks is used by a network operator to tell how many
-- links are configured for transmit in the IMA group. The object
-- imaGroupAvailCellRate only indicates what cell rate is currently
-- available. An available cell rate which is less than the desired rate
-- could mean that one or more links are inactive or not enough links
-- have been assigned to the group to obtain the desired cell rate.

imaGroupNumTxCfgLnks OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of links that are configured to
        transmit in this IMA group."
    ::= { imaGroupEntry 31 }

-- imaGroupNumRxCfgLnks is used by a network operator to tell how many
-- links are configured for receive in the IMA group.

```

```

imaGroupNumRxCfgLnks OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of links that are configured to
        receive in this IMA group."
    ::= { imaGroupEntry 32 }

-- imaGroupNumTxActLnks is used by a network operator to tell how many
-- links which are configured for transmit are also active.

imaGroupNumTxActLnks OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of links that are currently
        active in this IMA group."
    ::= { imaGroupEntry 33 }

-- imaGroupNumRxActLnks is used by a network operator to tell how many
-- links which are configured for receive are also active.

imaGroupNumRxActLnks OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of links that are currently active
        in this IMA group."
    ::= { imaGroupEntry 34 }

--
-- Test Pattern Procedure control objects. These objects are implemented
-- if the IMA implements the Test Pattern Procedure. In this case all
-- test pattern procedure related objects must be implemented.
-- Specifically these are
--
-- imaGroupTestLinkIfIndex
-- imaGroupTestPattern
-- imaGroupTestProcStatus
-- imaLinkTestProcStatus
-- imaLinkRxTestPattern
--

```

imaGroupTestLinkIfIndex OBJECT-TYPE

SYNTAX ImaIfIndex

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object is used to designate an interface as the Test Link. A value of -1 specifies that the implementation may choose the Test Link. In this case, the implementation may also choose the value of 'imaGroupTestPattern'. Default value is -1"

::= { imaGroupEntry 35 }

imaGroupTestPattern OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"The value of this object is used to specify the test pattern in an IMA group loopback operation. A value in the range 0 to 255 designates a specific pattern. A value of -1 specifies that the implementation may choose the value. In this case, the implementation may also choose the value of 'imaGroupTestLinkIfIndex'. The default value is -1."

::= { imaGroupEntry 36 }

imaGroupTestProcStatus OBJECT-TYPE

SYNTAX ImaTestProcStatus

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object is used to enable or disable the Test Pattern Procedure, and to note whether at least one link failed the test.

The test is started by setting operating(2) status. If any link should fail the test, the IMA will set the status to linkfail(3). The linkfail(3) state will persist until either the disabled(1) state is set or until no instance of imaLinkTestProcStatus has the value linkfail(3).

Only the values disabled(1) and operating(2) may be written. Writing the operating(2) value will not cause clearing of the linkfail(3) state. The default value is disabled(1)"

::= { imaGroupEntry 37 }

imaGroupPhyType OBJECT-TYPE

SYNTAX ImaGroupPhyType

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The physical link media type of the group. A group cannot have mixed ds1 and e1 physical interfaces"

::= { imaGroupEntry 38 }

--

-- The IMA Group - ifIndex Mapping Table

--

imaGroupMappingTable OBJECT-TYPE

SYNTAX SEQUENCE OF ImaGroupMappingEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A table mapping the 'ifIndex' values of 'imaGroupIfIndex' to the 'imaGroupIndex' values of the corresponding IMA group."

::= { atmImaMibObjects 3 }

imaGroupMappingEntry OBJECT-TYPE

SYNTAX ImaGroupMappingEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Each row describes one ifIndex -> imaGroupIndex mapping."

INDEX { imaGroupMappingIndex }

::= { imaGroupMappingTable 1 }

ImaGroupMappingEntry ::= SEQUENCE {

imaGroupMappingIndexInteger32,

imaGroupMappingIfIndexImaIfIndex }

imaGroupMappingIndex OBJECT-TYPE

SYNTAX Integer32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The imaGroupIndex of the IMA Group which implements the specified interface."

::= { imaGroupMappingEntry 1 }

```

imaGroupMappingIfIndexOBJECT-TYPE
    SYNTAX      ImaIfIndex
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This object identifies the logical interface number
        ('ifIndex') assigned to this IMA group, and is used to
        identify corresponding rows in the Interfaces MIB.

        Note that re-initialization of the management agent
        may cause a client's 'imaGroupIfIndex' to change."
    ::= { imaGroupMappingEntry 2 }

```

```

-- The IMA link configuration table
-- Each entry in the table contains information about a link
-- which could potentially be part of an IMA group

```

```

imaLinkTable OBJECT-TYPE
    SYNTAX SEQUENCE OF ImaLinkEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The IMA link Configuration & status table.
        Contains an entry per each IMA link"
    ::= { atmImaMibObjects 4 }

```

```

imaLinkEntry OBJECT-TYPE
    SYNTAX ImaLinkEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "An entry into the IMA link table."
    INDEX { imaLinkIfIndex }
    ::= { imaLinkTable 1 }

```

```

ImaLinkEntry ::= SEQUENCE {
    imaLinkIfIndex      ImaIfIndex,
    imaLinkGroupIndex   Integer32,
    imaLinkRowStatus    RowStatus,
    imaLinkNeTxState    ImaLinkState,
    imaLinkNeRxState    ImaLinkState,
    imaLinkFeTxState    ImaLinkState,
    imaLinkFeRxState    ImaLinkState,

```

```

    imaLinkNeRxFailureStatus    ImaLinkFailureStatus,
    imaLinkFeRxFailureStatus    ImaLinkFailureStatus,
    imaLinkTxLid                ImaLid,
    imaLinkRxLid                ImaLid,
    imaLinkRelDelay             MilliSeconds,
    imaLinkImaViolations        Integer32,
    imaLinkOifAnomalies         Integer32,
    imaLinkNeSevErroredSec      Seconds,
    imaLinkFeSevErroredSec      Seconds,
    imaLinkNeUnavailSec         Seconds,
    imaLinkFeUnavailSec         Seconds,
    imaLinkNeTxUnusableSec      Seconds,
    imaLinkNeRxUnusableSec      Seconds,
    imaLinkFeTxUnusableSec      Seconds,
    imaLinkFeRxUnusableSec      Seconds,
    imaLinkNeTxNumFailures      Integer32,
    imaLinkNeRxNumFailures      Integer32,
    imaLinkFeTxNumFailures      Integer32,
    imaLinkFeRxNumFailures      Integer32,
    imaLinkTxStuffs             Integer32,
    imaLinkRxStuffs             Integer32,
    imaLinkRxTestPattern        INTEGER,
    imaLinkTestProcStatus       ImaTestProcStatus,
    imaLinkICPcellMon           Boolean,
    imaLinkICPcellPos           Integer32 }

```

```

-- The following OBJECT-TYPES define all the elements in an IMA link table
entry

```

```

imaLinkIfIndex OBJECT-TYPE
    SYNTAX      ImaIfIndex
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The ifIndex of the physical link corresponding
        to this port."
    ::= { imaLinkEntry 1 }

```

```

imaLinkGroupIndex OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "The index of the IMA Group to
        which this link belongs. This value has
        significance only if the link belongs to an IMA group."
    ::= { imaLinkEntry 2 }

```

imaLinkRowStatus OBJECT-TYPE

SYNTAX RowStatus
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION

"The imaLinkRowStatus object allows create, change and delete operations on imaLinkTable entries.

To create a new conceptual row (or instance) of the imaLinkTable, imaLinkRowStatus must be set to 'createAndWait' or 'createAndGo.'

A successful set of the object imaLinkGroupIndex must be performed before the RowStatus of this new row can transition to the 'active' state. The imaLinkGroupIndex provides the association between a physical IMA link to an IMA group.

To change (modify) an imaLinkTable entry, the imaLinkRowStatus object must be set to 'notInService'. Only then can the conceptual row be changed. Setting object imaLinkGroupIndex to a different value has the effect of changing the association between a physical IMA link and an IMA group. To place the link 'in group', the imaLinkRowStatus object is set to 'active'. While the row is not in 'active' state, both the Transmit and Receive IMA state machines are in the 'Not In Group' state.

To remove (delete) an imaLinkTable entry from this table, Set this object to 'destroy.'

A network manager may elect to perform a delete operation followed immediately by a create operation instead of a modify operation. The net effect of the delete/create is to re-instantiate (reset) agent counters defined in this table."

::= { imaLinkEntry 3 }

imaLinkNeTxState OBJECT-TYPE

SYNTAX ImaLinkState
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"The current state of the near-end transmit link."

::= { imaLinkEntry 4 }

imaLinkNeRxState OBJECT-TYPE

SYNTAX ImaLinkState
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"The current state of the near-end receive link."
 ::= { imaLinkEntry 5 }

imaLinkFeTxState OBJECT-TYPE

SYNTAX ImaLinkState
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"The current state of the far-end transmit link as reported via ICP cells."
 ::= { imaLinkEntry 6 }

imaLinkFeRxState OBJECT-TYPE

SYNTAX ImaLinkState
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"The current state of the far-end receive link as reported via ICP cells."
 ::= { imaLinkEntry 7 }

imaLinkNeRxFailureStatus OBJECT-TYPE

SYNTAX ImaLinkFailureStatus
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"The current link failure status of the near-end receive link."
 ::= { imaLinkEntry 8 }

imaLinkFeRxFailureStatus OBJECT-TYPE

SYNTAX ImaLinkFailureStatus
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

"The current link failure status of the far-end receive link as reported via ICP cells."
 ::= { imaLinkEntry 9 }

imaLinkTxLid OBJECT-TYPE

SYNTAX ImaLid
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION

```

        "The outgoing LID used currently on the link by the
        local end. This value has meaning only if the link
        belongs to an IMA group."
 ::= { imaLinkEntry 10 }

imaLinkRxLid OBJECT-TYPE
    SYNTAX      ImaLid
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The incoming LID used currently on the link by
        the remote end. This value has meaning only if the
        link belongs to an IMA group."
 ::= { imaLinkEntry 11 }

imaLinkRelDelay OBJECT-TYPE
    SYNTAX      MilliSeconds
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The latest measured delay on this link relative
        to the link, in the same IMA group, with the least delay."
 ::= { imaLinkEntry 12 }

imaLinkImaViolations OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "ICP violations: count of errored, invalid or
        missing ICP cells during non-SES-IMA condition."
 ::= { imaLinkEntry 13 }

imaLinkOifAnomalies OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of OIF anomalies during non-SES-IMA
        condition at the NE. This is an optional attribute"
 ::= { imaLinkEntry 14 }

imaLinkNeSevErroredSec OBJECT-TYPE
    SYNTAX      Seconds
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of one second intervals containing

```

```

        several (TDB) IV-IMA, or one or more link defects
        (LOS, OOF/LOF, LCD), LIF, LODS defects during
        non UAS-IMA condition."
 ::= { imaLinkEntry 15 }

imaLinkFeSevErroredSec OBJECT-TYPE
    SYNTAX      Seconds
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Count of one second intervals containing one
        or more IMA-RDI defects."
 ::= { imaLinkEntry 16 }

imaLinkNeUnavailSec OBJECT-TYPE
    SYNTAX      Seconds
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Unavailable seconds: unavailability begins at the
        onset of 10 contiguous SES-IMA and ends at the
        onset of 10 contiguous seconds with non SES-IMA."
 ::= { imaLinkEntry 17 }

imaLinkFeUnavailSec OBJECT-TYPE
    SYNTAX      Seconds
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Unavailable seconds at far-end: unavailability begins
        at the onset of 10 contiguous SES-IMA-FE
        and ends at the onset of 10 contiguous seconds with
        non SES-IMA-FE."
 ::= { imaLinkEntry 18 }

imaLinkNeTxUnusableSec OBJECT-TYPE
    SYNTAX      Seconds
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Tx unusable seconds: the count of unusable seconds
        at the near end Tx LSM."
 ::= { imaLinkEntry 19 }

imaLinkNeRxUnusableSec OBJECT-TYPE
    SYNTAX      Seconds
    MAX-ACCESS  read-only
    STATUS      current

```

```

DESCRIPTION
    "Rx unusable seconds: the count of unusable
    seconds at the near end Rx LSM."
 ::= { imaLinkEntry 20 }

imaLinkFeTxUnusableSec OBJECT-TYPE
    SYNTAX      Seconds
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Unusable seconds at far-end: the count of seconds
        with unusable indications at the far end Tx LSM."
 ::= { imaLinkEntry 21 }

imaLinkFeRxUnusableSec OBJECT-TYPE
    SYNTAX      Seconds
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Unusable seconds at far-end: the count
        of seconds with unusable indications at
        the far end Rx LSM."
 ::= { imaLinkEntry 22 }

imaLinkNeTxNumFailures OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of times a near-end Tx failure
        alarm condition has been entered for
        this link."
 ::= { imaLinkEntry 23 }

imaLinkNeRxNumFailures OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of times a near-end Rx
        failure alarm condition has been entered for
        this link."
 ::= { imaLinkEntry 24 }

imaLinkFeTxNumFailures OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current

```

```

DESCRIPTION
    "The number of times a far-end Tx failure
    alarm condition has been entered for
    this link. This is an optional attribute"
 ::= { imaLinkEntry 25 }

imaLinkFeRxNumFailures OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "The number of times a far-end Rx
        failure alarm condition has been entered for
        this link. This is an optional attribute"
 ::= { imaLinkEntry 26 }

imaLinkTxStuffs OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Counts of stuff events inserted in the tx direction.
        This is an optional attribute"
 ::= { imaLinkEntry 27 }

imaLinkRxStuffs OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Counts of stuff events inserted in the rx direction.
        This is an optional attribute"
 ::= { imaLinkEntry 28 }

--
-- Test Pattern Procedure control objects. These objects are implemented
-- if the IMA implements the Test Pattern Procedure. In this case all
-- test pattern procedure related objects must be implemented.
-- Specifically these are
--
-- imaGroupTestLinkIfIndex
-- imaGroupTestPattern
-- imaGroupTestProcStatus
-- imaLinkTestProcStatus
-- imaLinkRxTestPattern
--

```

```

imaLinkRxTestPattern OBJECT-TYPE
    SYNTAX  INTEGER (0..255)
    MAX-ACCESS  read-only
    STATUS     current
    DESCRIPTION
        "This object identifies the test pattern
        received in the ICP Cell (octet 17)
        on the link during the IMA Test Pattern Procedure.
        This value may then be compared to the
        transmitted test pattern."
    ::= { imaLinkEntry 29 }

imaLinkTestProcStatus OBJECT-TYPE
    SYNTAX      ImaTestProcStatus
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "This value indicates the current state
        of the Test Pattern Procedure. If the
        value is disabled(1), the test is not running.
        A value of operating(2) means the test is running
        and no error has been found on this interface. A value of
        linkfail(3) means an error has been detected
        on this link during the test.

        Once an error occurs, the linkfail(3) value is
        latched until either this object is read or until
        the imaGroupTestProcStatus is moved to disabled(1).
        Once read, if the error no longer persists, a
        subsequent read will report the value
        operating(2)."
    ::= { imaLinkEntry 30 }

-- imaLinkICPcellMon is used to indicate if the link is selected for
-- ICP Cell monitoring. Any number of links in a group can have a TRUE
-- value for the imaLinkICPcellMon object. If all links that have
-- imaLinkICPcellMon set to TRUE have and ifOperStatus 'down',
-- monitoring of the ICP Cell in the group is implementation specific.

imaLinkICPcellMon OBJECT-TYPE
    SYNTAX      Boolean
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "This value indicates if the link is selected for ICP Cell
        monitoring purposes. "
    ::= { imaLinkEntry 31 }

```

```

imaLinkICPcellPos OBJECT-TYPE
    SYNTAX      Integer32
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "This value indicates where in the ima frame
        a link should place its' ICP cell.
        Note: this value must be between 0 and M the frame size."
    ::= { imaLinkEntry 32 }

END

-- *****

IMAPROV MIB
-- *****
--
-- IMA Provisioning Info

IMA-PROV-MIB DEFINITIONS ::= BEGIN

IMPORTS
    OBJECT-TYPE FROM RFC-1212
    saBrdNum, saPodNum, saImaProv FROM OASIS-SYSINFO-MIB;

-- Ima Provisioning Table
saImaProvTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaImaProvEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "IMA Provisioning Support Table"
    ::= { saImaProv 1 }

saImaProvEntry OBJECT-TYPE
    SYNTAX  SaImaProvEntry
    ACCESS  not-accessible
    STATUS  mandatory
    DESCRIPTION
        "IMA Provisioning Table Entry"
    INDEX   { saBrdNum,
              saPodNum }
    ::= { saImaProvTable 1 }

```

```

saImaProvEntry ::=
    SEQUENCE {
        saImaProvGrpStatus      INTEGER,
-- STW - 980120      saImaProvTxImaId      INTEGER,
-- STW - 980120      saImaProvTxLinks      INTEGER,
-- STW - 980120      saImaProvRxLinks      INTEGER,
-- STW - 980120      saImaProvLinkStatus    INTEGER,
-- STW - 980120      saImaProvPort         INTEGER
        saImaProvGrpIndex      INTEGER
-- STW - 980120 - added as pass back for UI
    }

saImaProvGrpStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        none(0),
        createAndGo(1),
        createAndWait(2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "group status"
    ::= { saImaProvEntry 1 }

-- STW - 980120 - all below removed from Mib

--      saImaProvTxImaId OBJECT-TYPE
--      SYNTAX  INTEGER( 0..255 )
--      ACCESS  read-write
--      STATUS  mandatory
--      DESCRIPTION
--          "transmit ima id"
--      ::= { saImaProvEntry 2 }

--      saImaProvTxLinks OBJECT-TYPE
--      SYNTAX  INTEGER( 1..16 )
--      ACCESS  read-write
--      STATUS  mandatory
--      DESCRIPTION
--          "number of transmit links to be in group"
--      ::= { saImaProvEntry 3 }

--      saImaProvRxLinks OBJECT-TYPE
--      SYNTAX  INTEGER( 1..16 )
--      ACCESS  read-write
--      STATUS  mandatory
--      DESCRIPTION
--          "number of transmit links to be in group"

--      ::= { saImaProvEntry 4 }

saImaProvLinkStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        none(0),
        createAndGo(1),
        createAndWait(2)
    }
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "link status"
    ::= { saImaProvEntry 5 }

saImaProvPort OBJECT-TYPE
    SYNTAX  INTEGER
    ACCESS  read-write
    STATUS  mandatory
    DESCRIPTION
        "ima Port Number for command"
    ::= { saImaProvEntry 6 }

-- STW - 980120 - added to Mib for Index pass back to UI

saImaProvGrpIndex OBJECT-TYPE
    SYNTAX  INTEGER (0..65536) -- This should be 32 bit
    ACCESS  read-only
    STATUS  mandatory
    DESCRIPTION
        "Group table entry for newly created group"
    ::= { saImaProvEntry 2 }

END

```

```
-- *****
```

SIG MIB

```
-- *****
```

```
sa-SIGNALLING-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    OBJECT-TYPE, Counter32, Gauge32, Integer32
        FROM SNMPv2-SMI
    ifIndex
        FROM RFC1213-MIB
    saSignalling
        FROM OASIS-SYSINFO-MIB
    Counter
        FROM RFC1155-SMI;
```

```
-- groups in SA-SIG-ILMI-MIB
```

```
    saILMIObject IDENTIFIER ::= { saSignalling 1 }
    saUNIOBJECT IDENTIFIER ::= { saSignalling 2 }
    saPNNIOBJECT IDENTIFIER ::= { saSignalling 3 }
    saSvcSapOBJECT IDENTIFIER ::= { saSignalling 4 }
    saAspvcOBJECT IDENTIFIER ::= { saSignalling 5 }
```

```
=====
```

```
--
```

```
-- SA ILMI Parameter Table
```

```
--
```

```
=====
```

```
-- ILMI Extension Table
```

```
-- This group is current for all ATM Interface devices.
```

```
saIlmiParamTable OBJECT-TYPE
```

```
    SYNTAX SEQUENCE OF SaIlmiParamEntry
```

```
    MAX-ACCESS not-accessible
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "A table of ILMI Configurational and Operational
        information not covered by ATM Forum ILMI MIB."
```

```
    ::= { saILMI 1 }
```

```
saIlmiParamEntry OBJECT-TYPE
```

```
    SYNTAX SaIlmiParamEntry
```

```
    MAX-ACCESS not-accessible
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
"An entry in the table, containing information about
ILMI on an ATM Interface."
```

```
INDEX { saIlmiParamIndex }
```

```
::= { saIlmiParamTable 1 }
```

```
SaIlmiParamEntry ::=
```

```
    SEQUENCE {
```

```
        saIlmiParamIndex
            INTEGER,
        saIlmiOperStatus
            INTEGER,
        saIlmiBmkrVpi
            INTEGER,
        saIlmiBmkrVci
            INTEGER,
        saIlmiPollInt
            INTEGER,
        saIlmiPollRetryCnt
            INTEGER,
        saIlmiNumPduTx
            Counter,
        saIlmiNumPduRx
            Counter,
        saIlmiNumBytesTx
            Counter,
        saIlmiNumBytesRx
            Counter,
        saIlmiNumUmePollsTx
            Counter,
        saIlmiNumUmeResponsesRx
            Counter,
        saIlmiNumErrorsRx
            Counter,
        saIlmiUmeState
            INTEGER,
        saIlmiUmeStatus
            INTEGER,
        saIlmiParamRowStatus
            INTEGER
    }
```

```
saIlmiParamIndex OBJECT-TYPE
```

```
    SYNTAX INTEGER (1..255)
```

```
    MAX-ACCESS read-only
```

```
    STATUS current
```

```
    DESCRIPTION
```

```
        "IfIndex associated with the ATM Interface"
```

```
    ::= { saIlmiParamEntry 1 }
```

saIlmiOperStatus OBJECT-TYPE

```

SYNTAX INTEGER {
    down(1),
    alloc-buff-failed(2),
    tunnel-add-failed(3),
    xcnt-add-failed(4),
    up(5),
    new(6)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Operational status for ILMI function on this ATM port."
 ::= { saIlmiParamEntry 2 }

```

saIlmiBmkrVpi OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Internal BridgeMaker VPI"
 ::= { saIlmiParamEntry 3 }

```

saIlmiBmkrVci OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Internal BridgeMaker VPI"
 ::= { saIlmiParamEntry 4 }

```

saIlmiPollInt OBJECT-TYPE

```

SYNTAX INTEGER (1..255)
MAX-ACCESS read-write
STATUS current
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."
 ::= { saIlmiParamEntry 5 }

```

saIlmiPollRetryCnt OBJECT-TYPE

```

SYNTAX INTEGER (1..255)
MAX-ACCESS read-write
STATUS current
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."
 ::= { saIlmiParamEntry 6 }

```

saIlmiNumPdusTx OBJECT-TYPE

```

SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of ILMI PDU's transmitted on this ATM port."
 ::= { saIlmiParamEntry 7 }

```

saIlmiNumPdusRx OBJECT-TYPE

```

SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of properly formatted ILMI PDU's
     received on this ATM port."
 ::= { saIlmiParamEntry 8 }

```

saIlmiNumBytesTx OBJECT-TYPE

```

SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of ILMI bytes transmitted on this ATM port."
 ::= { saIlmiParamEntry 9 }

```

saIlmiNumBytesRx OBJECT-TYPE

```

SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of ILMI bytes received on this ATM port."
 ::= { saIlmiParamEntry 10 }

```

saIlmiNumUmePollsTx OBJECT-TYPE

```

SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of ILMI polls sent by the UME
     entity on this ATM DCE port."
 ::= { saIlmiParamEntry 11 }

```

```

saIlmiNumUmeResponsesRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of ILMI poll responses received by the
        UME entity on this ATM DCE port."
    ::= { saIlmiParamEntry 12 }

saIlmiNumErrorsRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of improperly formatted ILMI PDU's
        received on this ATM port."
    ::= { saIlmiParamEntry 13 }

saIlmiUmeState OBJECT-TYPE
    SYNTAX INTEGER {
        ume-plnk-down-state(1),
        ume-llnk-down-state(2),
        ume-llnk-up-state(3),
        ume-registering-state(4),
        ume-reg-xchg-state(5)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "ILMI UME FSM state"
    ::= { saIlmiParamEntry 14 }

saIlmiUmeStatus OBJECT-TYPE
    SYNTAX INTEGER {
        ilmi-down(1),
        ilmi-registering(2),
        ilmi-up(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "ILMI UME statue"
    ::= { saIlmiParamEntry 15 }

saIlmiParamRowStatus OBJECT-TYPE
    SYNTAX INTEGER {
        create(1),
        created(2)

```

```

    }
    MAX-ACCESS read-create
    STATUS current
    DESCRIPTION
        " Used to create an ILMI Parameter row using SNMP 'set' command "
    ::= { saIlmiParamEntry 16 }

--
-- The tables that are relevant to managing SVC addresses and prefixes
-- in a Sahara Network.
--

--
-- ILMI Node Prefix Table
--

saIlmiNodePrefixTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaIlmiNodePrefixEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table of prefixes associated with this node."
    ::= { saILMI 2 }

saIlmiNodePrefixEntry OBJECT-TYPE
    SYNTAX SaIlmiNodePrefixEntry
    MAX-ACCESS not-accessible
    STATUS current
    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 { saIlmiNodePrefixPrefix }
    ::= { saIlmiNodePrefixTable 1 }

SaIlmiNodePrefixEntry ::= SEQUENCE
    {
        saIlmiNodePrefixPrefix
            OCTET STRING,
        saIlmiNodePrefixAdminStatus
            INTEGER,
        saIlmiNodePrefixNumBits
            INTEGER,
        saIlmiNodePrefixNmbPlan
            INTEGER,

```

```

        saIlmiNodePrefixOperStatus
            INTEGER,
        saIlmiNodePrefixOrgScope
            INTEGER,
        saIlmiNodePrefixRowStatus
            INTEGER
    }

saIlmiNodePrefixPrefix OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(1..20))
    MAX-ACCESS read-only
    STATUS current
    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."
    ::= { saIlmiNodePrefixEntry 1 }

saIlmiNodePrefixAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up(1),
        down(2),
        no-operation(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The status of this entry."
    ::= { saIlmiNodePrefixEntry 2 }

saIlmiNodePrefixNumBits OBJECT-TYPE
    SYNTAX INTEGER (1..160)
    MAX-ACCESS read-write
    STATUS current
    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."
    ::= { saIlmiNodePrefixEntry 3 }

saIlmiNodePrefixNmbPlan OBJECT-TYPE
    SYNTAX INTEGER {
        e164(1),
        nsap(2),
        unknown(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The numbering plan corresponding to this entry's
        prefix object."
    ::= { saIlmiNodePrefixEntry 4 }

saIlmiNodePrefixOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        down(1),
        unknown-nmbPlan(2),
        wrong-numBits(3),
        up(4),
        new(5)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Operational status of this entry."
    ::= { saIlmiNodePrefixEntry 5 }

saIlmiNodePrefixOrgScope 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)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION

```

```

        "The organizational scope corresponding to
        this entry's prefix object."
    DEFVAL { inter-global }
    ::= { saIlmiNodePrefixEntry 6 }

saIlmiNodePrefixRowStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        create(1),
        created(2),
        delete(3)
    }
    MAX-ACCESS read-create
    STATUS      current
    DESCRIPTION
        " Used to create a Node Prefix row using SNMP 'set' command "
    ::= { saIlmiNodePrefixEntry 7}

--
--  ILMI Port Prefix Table
--

saIlmiPortPrefixTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaIlmiPortPrefixEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table of SVC address prefixes
        associated with ports on this node."
    ::= { saILMI 3 }

saIlmiPortPrefixEntry OBJECT-TYPE
    SYNTAX SaIlmiPortPrefixEntry
    MAX-ACCESS not-accessible
    STATUS current
    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 { saIlmiPortPrefixIfIndex, saIlmiPortPrefixPrefix }
    ::= { saIlmiPortPrefixTable 1 }

SaIlmiPortPrefixEntry ::=
    SEQUENCE {
        saIlmiPortPrefixIfIndex
            INTEGER,
        saIlmiPortPrefixPrefix

```

```

        OCTET STRING,
        saIlmiPortPrefixNumBits
            INTEGER,
        saIlmiPortPrefixNmbPlan
            INTEGER,
        saIlmiPortPrefixAdminStatus
            INTEGER,
        saIlmiPortPrefixOperStatus
            INTEGER,
        saIlmiPortPrefixOrgScope
            INTEGER,
        saIlmiPortPrefixRowStatus
            INTEGER
    }

saIlmiPortPrefixIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The interface value of the corresponding MIB-II ifEntry."
    ::= { saIlmiPortPrefixEntry 1 }

saIlmiPortPrefixPrefix OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(1..20))
    MAX-ACCESS read-only
    STATUS current
    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."
    ::= { saIlmiPortPrefixEntry 2 }

saIlmiPortPrefixAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up(1),
        down(2),
        no-operation(3)
    }
    MAX-ACCESS read-write

```

```

STATUS current
DESCRIPTION
    "The status of this entry."
 ::= { saIImiPortPrefixEntry 3 }

saIImiPortPrefixNumBits OBJECT-TYPE
    SYNTAX INTEGER (0..160)
    MAX-ACCESS read-write
    STATUS current
    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."
 ::= { saIImiPortPrefixEntry 4 }

saIImiPortPrefixNmbPlan OBJECT-TYPE
    SYNTAX INTEGER {
        e164(1),
        nsap(2),
        unknown(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The numbering plan corresponding to this
        entry's prefix object."
 ::= { saIImiPortPrefixEntry 5 }

saIImiPortPrefixOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        down(1),
        unknown-nmbPlan(2),
        wrong-numBits(3),
        up(4),
        new(5)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Operational status of this entry."
 ::= { saIImiPortPrefixEntry 6 }

saIImiPortPrefixOrgScope 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)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The organizational scope corresponding to this entry's
        prefix object."
    DEFVAL { inter-global }
 ::= { saIImiPortPrefixEntry 7 }

saIImiPortPrefixRowStatus OBJECT-TYPE
    SYNTAX INTEGER {
        create(1),
        created(2),
        delete(3)
    }
    MAX-ACCESS read-create
    STATUS current
    DESCRIPTION
        " Used to create a Port Prefix row using SNMP 'set' command "
 ::= { saIImiPortPrefixEntry 8 }

--
--   SVC ATM User Part Table
--

saIImiUserPartTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaIImiUserPartEntry
    MAX-ACCESS not-accessible
    STATUS current
    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."
 ::= { saILMI 4 }

saIlmiUserPartEntry OBJECT-TYPE
    SYNTAX SaIlmiUserPartEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The user part entry contains objects relevant to
        partial SVC addresses associated with ATM DTE
        ports on this node."
    INDEX { saIlmiUserPartIfIndex, saIlmiUserPartUserPart }
    ::= { saIlmiUserPartTable 1 }

SaIlmiUserPartEntry ::=
    SEQUENCE {
        saIlmiUserPartIfIndex
            INTEGER,
        saIlmiUserPartUserPart
            OCTET STRING,
        saIlmiUserPartAdminStatus
            INTEGER,
        saIlmiUserPartRowStatus
            INTEGER,
        saIlmiUserPartOperStatus
            INTEGER
    }

saIlmiUserPartIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The interface value of the corresponding MIB-II ifEntry."
    ::= { saIlmiUserPartEntry 1 }

saIlmiUserPartUserPart OBJECT-TYPE
    SYNTAX OCTET STRING (SIZE(7))
    MAX-ACCESS read-only
    STATUS current
    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."

```

```

 ::= { saIlmiUserPartEntry 2 }

saIlmiUserPartAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        configured(1), -- this entry has been configured by NMS
        invalid(2)     -- this entry will be marked down
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The status of this entry."
    ::= { saIlmiUserPartEntry 3 }

saIlmiUserPartRowStatus OBJECT-TYPE
    SYNTAX INTEGER {
        create(1),
        created(2),
        delete(3)
    }
    MAX-ACCESS read-create
    STATUS current
    DESCRIPTION
        " Used to create a Port Prefix row using SNMP 'set' command "
    ::= { saIlmiUserPartEntry 4 }

saIlmiUserPartOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        configured(1), -- this entry is up
        invalid(2)     -- this entry is down
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The operational status of this entry."
    ::= { saIlmiUserPartEntry 5 }

```

```

=====
-- SA Svc Tunnel Table
--
=====

--          Svc Tunnel Table
--
-- This group is current for all ATM Interface devices.
--

saSvcTunnelTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaSvcTunnelEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table of SVC BridgeMaker Tunnel table"
    ::= { saSvcSap 1 }

saSvcTunnelEntry OBJECT-TYPE
    SYNTAX SaSvcTunnelEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "An entry in the table, containing information about
        BridgeMaker tunnel details for signaling VC"
    INDEX {saSvcTunnelAtmPortIndex, saSvcTunnelBmkrIndex,
saSvcTunnelBmkrVp, saSvcTunnelBmkrVc }
    ::= { saSvcTunnelTable 1 }

SaSvcTunnelEntry ::=
    SEQUENCE {
        saSvcTunnelAtmPortIndex
            INTEGER,
        saSvcTunnelBmkrIndex
            INTEGER,
        saSvcTunnelBmkrVp
            INTEGER,
        saSvcTunnelBmkrVc
            INTEGER,
        saSvcTunnelAdminStatus
            INTEGER,
        saSvcTunnelAtmPortVp
            INTEGER,
        saSvcTunnelAtmPortVc
            INTEGER,
        saSvcTunnelPcr
            INTEGER,
        saSvcTunnelCdvT

```

```

            INTEGER,
            saSvcTunnelCreateErrCode
            INTEGER,
            saSvcTunnelConId
            INTEGER
        }

saSvcTunnelAtmPortIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "IfIndex associated with the ATM Interface"
    ::= { saSvcTunnelEntry 1 }

saSvcTunnelBmkrIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "BridgeMaker ATM interaface ifIndex"
    ::= { saSvcTunnelEntry 2 }

saSvcTunnelBmkrVp OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Internal BridgeMaker VPI"
    ::= { saSvcTunnelEntry 3 }

saSvcTunnelBmkrVc OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Internal BridgeMaker VCI"
    ::= { saSvcTunnelEntry 4 }

saSvcTunnelAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up(1)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Admin status of the Signaling VC."
    ::= { saSvcTunnelEntry 5 }

```

```

saSvcTunnelAtmPortVp OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "VP of the ATM Interface"
    ::= { saSvcTunnelEntry 6 }

saSvcTunnelAtmPortVc OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "VC of the ATM Interface"
    ::= { saSvcTunnelEntry 7 }

saSvcTunnelPcr OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Peak Cell Rate"
    ::= { saSvcTunnelEntry 8 }

saSvcTunnelCdvT OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "cdvt"
    ::= { saSvcTunnelEntry 9 }

saSvcTunnelCreateErrCode OBJECT-TYPE
    SYNTAX INTEGER {
        creating(1),
        success(2),
        port-failed-post(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Signaling VC creation error code"
    ::= { saSvcTunnelEntry 10 }

saSvcTunnelConId OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only

```

```

STATUS current
DESCRIPTION
    "cross connect ID - used to modify/delete an entry"
::= { saSvcTunnelEntry 11 }

```

```
-- *****
```

svcAtmConfigTables

```

--
-- These were transferred from the Cascade.MIB. The Cascade version
-- of these tables, were actually encoded as a single ASN.1 table.
-- Some SNMP managers (notable SNMPc from Castlerock) were unable to
-- browse tables that large. All object definitions remain intact,
-- but the table has been split into three independent tables, and
-- some syntax errors have been removed.
--
-- A mirror of this MIB can be instantiated under the cascade enterprise
-- if necessary.
-- *****

```

```

--
*****
-- svcAtmConfigTable1
--
-- First part of svcAtmConfigTable from cascade enterprise.
--
*****
*

```

```

svcAtmConfigTable1 OBJECT-TYPE
    SYNTAX SEQUENCE OF SvcAtmConfigEntry1
    MAX-ACCESS not-accessible
    STATUS current
    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."
    ::= { saSvcSap 2 }

```

```

svcAtmConfigEntry1 OBJECT-TYPE
    SYNTAX SvcAtmConfigEntry1
    MAX-ACCESS not-accessible
    STATUS current

```

DESCRIPTION	
"The SVC ATM configuration entry contains objects relevant to the configuration and monitoring of ATM signalling on an ATM logical port."	
INDEX { svcAtmConfigIfIndex }	
::= { svcAtmConfigTable1 1 }	
SvcAtmConfigEntry1 ::=	
SEQUENCE {	
svcAtmConfigIfIndex	INTEGER
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
svcAtmConfigQ93bT301	INTEGER
svcAtmConfigQ93bT397	INTEGER
svcAtmConfigAal5FrameDiscardStatus	INTEGER
svcAtmConfigClearCounts	INTEGER
svcAtmConfigSigXcntCause	INTEGER
svcAtmConfigSigVcRate	INTEGER
}	
	svcAtmConfigIfIndex OBJECT-TYPE
	SYNTAX INTEGER
	MAX-ACCESS read-only
	STATUS current
	DESCRIPTION
	"The ifIndex value of the corresponding ifEntry."
	::= { svcAtmConfigEntry1 1 }
	svcAtmConfigSigAdminStatus OBJECT-TYPE
	SYNTAX INTEGER {
	enabled (1),
	disabled (2)
	}
	MAX-ACCESS read-write
	STATUS current
	DESCRIPTION
	"The configured state of the ATM signalling function for this port."
	::= { svcAtmConfigEntry1 2 }
	svcAtmConfigSigOperStatus OBJECT-TYPE
	SYNTAX INTEGER {
	down (1),
	connecting (2),
	up (3)
	}
	MAX-ACCESS read-only
	STATUS current
	DESCRIPTION
	"The operational status of the signalling function on this port."
	::= { svcAtmConfigEntry1 3 }
	svcAtmConfigQ93bMaxRestart OBJECT-TYPE
	SYNTAX INTEGER
	MAX-ACCESS read-write
	STATUS current
	DESCRIPTION
	"The maximum number of unacknowledged restarts to send before declaring a signalling failure."
	::= { svcAtmConfigEntry1 4 }

```

svcAtmConfigQ93bMaxStatEnq OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The maximum number of unacknowledged status
        enquiries to send before issuing a restart."
    ::= { svcAtmConfigEntry1 5 }

svcAtmConfigQ93bT303 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T303, specified in milliseconds."
    ::= { svcAtmConfigEntry1 6 }

svcAtmConfigQ93bT308 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T308, specified in milliseconds."
    ::= { svcAtmConfigEntry1 7 }

svcAtmConfigQ93bT309 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T309, specified in milliseconds."
    ::= { svcAtmConfigEntry1 8 }

svcAtmConfigQ93bT310 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T310, specified in milliseconds."
    ::= { svcAtmConfigEntry1 9 }

svcAtmConfigQ93bT313 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T313, specified in milliseconds."
    ::= { svcAtmConfigEntry1 10 }

```

```

svcAtmConfigQ93bT316 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T316, specified in milliseconds."
    ::= { svcAtmConfigEntry1 11 }

svcAtmConfigQ93bT322 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T322, specified in milliseconds."
    ::= { svcAtmConfigEntry1 12 }

svcAtmConfigQ93bT398 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T398, specified in milliseconds."
    ::= { svcAtmConfigEntry1 13 }

svcAtmConfigQ93bT399 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T399, specified in milliseconds."
    ::= { svcAtmConfigEntry1 14 }

svcAtmConfigQ93bT301 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T301, specified in milliseconds."
    ::= { svcAtmConfigEntry1 110 }

svcAtmConfigQ93bT397 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Protocol Timer T397, specified in milliseconds."
    ::= { svcAtmConfigEntry1 111 }

```

svcAtmConfigAal5FrameDiscardStatus OBJECT-TYPE

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

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Indicates whether to perform EPD on SVCs on this port.
Applicable only to non-UNI4.0 and non-PNNI1.0 lports.
If set EPD is performed on AAL5 signalled circuits."

::= { svcAtmConfigEntry1 112 }

svcAtmConfigClearCounts OBJECT-TYPE

```
SYNTAX INTEGER {
    normal(1),
    reset(2)
}
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Setting this objects to reset, resets all the
running counts for signaling"

::= { svcAtmConfigEntry1 113 }

svcAtmConfigSigXcntCause OBJECT-TYPE

```
SYNTAX INTEGER {
    ok(1),
    failed(2)
}
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Signaling VC cross-connect creation status."

::= { svcAtmConfigEntry1 114 }

svcAtmConfigSigVcRate OBJECT-TYPE

```
SYNTAX INTEGER {
    rate-64K(1),
    rate-128K(2),
    rate-256K(3),
    rate-512K(4),
    rate-1024K(5),
    rate-1544K(6),
    rate-2048K(7),
    rate-4096K(8),
    rate-8192K(9),

```

rate-16384K(10)

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Signaling VC Rate"

::= { svcAtmConfigEntry1 115 }

```
-- *****
-- svcAtmConfigTable2
--
-- Second part of svcAtmConfigTable from cascade enterprise.
-- *****
```

svcAtmConfigTable2 OBJECT-TYPE

SYNTAX SEQUENCE OF SvcAtmConfigEntry2

MAX-ACCESS not-accessible

STATUS current

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."

::= { saSvcSap 3 }

svcAtmConfigEntry2 OBJECT-TYPE

SYNTAX SvcAtmConfigEntry2

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"The SVC ATM configuration entry contains objects
relevant to the configuration and monitoring of
ATM signalling on an ATM logical port."

INDEX { svcAtmConfigIfIndex }

::= { svcAtmConfigTable2 1 }

SvcAtmConfigEntry2 ::=

SEQUENCE {

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,
    svcAtmConfigQ93bNumReleaseCmplTxDuTx
    Counter,
    svcAtmConfigQ93bNumReleaseCmplTxDuRx
    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,
    svcAtmConfigQ93bNumNotifyPduTx
    Counter,
    svcAtmConfigQ93bNumNotifyPduRx
    Counter,
    svcAtmConfigQ93bNumProgressPduTx
    Counter,
    svcAtmConfigQ93bNumProgressPduRx
    Counter,
    svcAtmConfigQ93bNumAlertingPduTx
    Counter,
    svcAtmConfigQ93bNumAlertingPduRx
    Counter,
    svcAtmConfigQ93bNumPtyAlertingPduTx
    Counter,
    svcAtmConfigQ93bNumPtyAlertingPduRx
    Counter
}

```

svcAtmConfigQ93bTotalConns OBJECT-TYPE

SYNTAX Counter

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The total number of SVC's established on this port."

::= { svcAtmConfigEntry2 15 }

svcAtmConfigQ93bActiveConns OBJECT-TYPE

SYNTAX Counter

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The number of SVC's present on this port."

::= { svcAtmConfigEntry2 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 toSTATUS 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
    b-cap-unavailable (58), -- bearer capability not available
    service-unavailable (63), -- Service or option unavailable
    b-cap-not-implemented (65), -- bearer capability
        -- not implemented
    combination-unsupported (73), -- unsupported comb.
        -- of traffic parameters
    aal-params-un supp-31 (78), -- UNI 3.1: AAL parameters
        -- cannot be supported
    invalid-call-reference (81), -- invalid call reference
    no-channel (82), -- identified channel does not exist
    dest-incompatible (88), -- incompatible destination
    invalid-endpoint-ref (89), -- invalid endpoint reference
    invalid-transit-net (91), -- invalid transit
        -- network selection
    too-many-add-pty-req (92), -- too many add party requests
    aal-params-un supp-30 (93), -- UNI 3.0:AAL parameters
        -- cannot be supported

```

```

info-element-missing (96), -- current info element
        -- is missing
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 expire
invalid-message-len (104), -- incorrect message length
protocol-error (111), -- protocol error, unspecified
optional-element-error (127), -- opt info el content
        -- error (non-std)
no-route-next-node (128), -- pnni
dtl-not-my-node (160) -- pnni

```

}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The last transmitted cause code for this port."

::= { svcAtmConfigEntry2 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 toSTATUS 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
b-cap-unavailable (58), -- bearer capability not available
service-unavailable (63), -- Service or option unavailable
b-cap-not-implemented (65), -- bearer capability not
    -- implemented
combination-unsupported (73), -- unsupported comb. of
    -- traffic parameters
aal-params-un supp-31 (78), -- UNI 3.1: AAL parameters
    -- cannot be supported
invalid-call-reference (81), -- invalid call reference
no-channel (82), -- identified channel does not exist
dest-incompatible (88), -- incompatible destination
invalid-endpoint-ref (89), -- invalid endpoint reference
invalid-transit-net (91), -- invalid transit network
    -- selection
too-many-add-pty-req (92), -- too many add party requests
aal-params-un supp-30 (93), -- UNI 3.0:AAL parameters
    -- cannot be supported
info-element-missing (96), -- mandatory info element
    -- is missing
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 expire
invalid-message-len (104), -- incorrect message length
protocol-error (111), -- protocol error, unspecified
optional-element-error (127), -- opt info el content
    -- error (non-std)
no-route-next-node (128), -- pnni
dtl-not-my-node (160) -- pnni
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The last received cause code for this port."
::= { svcAtmConfigEntry2 18 }

svcAtmConfigQ93bNumSetupPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of setup PDU's transmitted on this port."
    ::= { svcAtmConfigEntry2 19 }

svcAtmConfigQ93bNumSetupPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of setup PDU's received on this port."
    ::= { svcAtmConfigEntry2 20 }

svcAtmConfigQ93bNumCallProcPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of call proceeding PDU's transmitted
        on this port."
    ::= { svcAtmConfigEntry2 21 }

svcAtmConfigQ93bNumCallProcPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of call proceeding PDU's
        received on this port."
    ::= { svcAtmConfigEntry2 22 }

svcAtmConfigQ93bNumConnectPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of connect PDU's transmitted on this port."
    ::= { svcAtmConfigEntry2 23 }

svcAtmConfigQ93bNumConnectPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of connect PDU's received on this port."
    ::= { svcAtmConfigEntry2 24 }

svcAtmConfigQ93bNumConnectAckPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current

```

DESCRIPTION "The number of connect ack PDU's transmitted on this port." ::= { svcAtmConfigEntry2 25 } svcAtmConfigQ93bNumConnectAckPduRx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of connect ack PDU's received on this port." ::= { svcAtmConfigEntry2 26 } svcAtmConfigQ93bNumReleasePduTx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of release PDU's transmitted on this port." ::= { svcAtmConfigEntry2 27 } svcAtmConfigQ93bNumReleasePduRx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of release PDU's received on this port." ::= { svcAtmConfigEntry2 28 } svcAtmConfigQ93bNumReleaseCmpltpduTx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of release complete PDU's transmitted on this port." ::= { svcAtmConfigEntry2 29 } svcAtmConfigQ93bNumReleaseCmpltpduRx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of release complete PDU's received on this port." ::= { svcAtmConfigEntry2 30 }	svcAtmConfigQ93bNumAddPtyPduTx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of add party PDU's transmitted on this port." ::= { svcAtmConfigEntry2 31 } svcAtmConfigQ93bNumAddPtyPduRx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of add party PDU's received on this port." ::= { svcAtmConfigEntry2 32 } svcAtmConfigQ93bNumAddPtyAckPduTx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of add party acknowledge PDU's transmitted on this port." ::= { svcAtmConfigEntry2 33 } svcAtmConfigQ93bNumAddPtyAckPduRx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of add party acknowledge PDU's received on this port." ::= { svcAtmConfigEntry2 34 } svcAtmConfigQ93bNumAddPtyRejPduTx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION "The number of add party reject PDU's transmitted on this port." ::= { svcAtmConfigEntry2 35 } svcAtmConfigQ93bNumAddPtyRejPduRx OBJECT-TYPE SYNTAX Counter MAX-ACCESS read-only STATUS current DESCRIPTION
--	--

```

        "The number of add party reject PDU's received
        on this port."
 ::= { svcAtmConfigEntry2 36 }

svcAtmConfigQ93bNumDropPtyPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of drop party PDU's transmitted on this port."
    ::= { svcAtmConfigEntry2 37 }

svcAtmConfigQ93bNumDropPtyPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of drop party PDU's received on this port."
    ::= { svcAtmConfigEntry2 38 }

svcAtmConfigQ93bNumDropPtyAckPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of drop party acknowledge PDU's
        transmitted on this port."
    ::= { svcAtmConfigEntry2 39 }

svcAtmConfigQ93bNumDropPtyAckPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of drop party acknowledge PDU's
        received on this port."
    ::= { svcAtmConfigEntry2 40 }

svcAtmConfigQ93bNumStatusEnqPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of status enquiry PDU's transmitted
        on this port."
    ::= { svcAtmConfigEntry2 41 }

```

```

svcAtmConfigQ93bNumStatusEnqPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of status enquiry PDU's received on this port."
    ::= { svcAtmConfigEntry2 42 }

svcAtmConfigQ93bNumStatusPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of status PDU's transmitted on this port."
    ::= { svcAtmConfigEntry2 43 }

svcAtmConfigQ93bNumStatusPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of status PDU's received on this port."
    ::= { svcAtmConfigEntry2 44 }

svcAtmConfigQ93bNumRestartPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of restart PDU's transmitted on this port."
    ::= { svcAtmConfigEntry2 45 }

svcAtmConfigQ93bNumRestartPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of restart PDU's received on this port."
    ::= { svcAtmConfigEntry2 46 }

svcAtmConfigQ93bNumRestartAckPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of restart acknowledge PDU's
        transmitted on this port."
    ::= { svcAtmConfigEntry2 47 }

```

svcAtmConfigQ93bNumRestartAckPduRx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of restart acknowledge PDU's received
    on this port."
 ::= { svcAtmConfigEntry2 48 }
```

svcAtmConfigQ93bNumNotifyPduTx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of notify PDU's transmitted on this port."
 ::= { svcAtmConfigEntry2 102 }
```

svcAtmConfigQ93bNumNotifyPduRx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of notify PDU's received on this port."
 ::= { svcAtmConfigEntry2 103 }
```

svcAtmConfigQ93bNumProgressPduTx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of progress PDU's transmitted on this port."
 ::= { svcAtmConfigEntry2 104 }
```

svcAtmConfigQ93bNumProgressPduRx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of progress PDU's received on this port."
 ::= { svcAtmConfigEntry2 105 }
```

svcAtmConfigQ93bNumAlertingPduTx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of alerting PDU's transmitted on this port."
```

```
 ::= { svcAtmConfigEntry2 106 }
```

svcAtmConfigQ93bNumAlertingPduRx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of alerting PDU's received on this port."
 ::= { svcAtmConfigEntry2 107 }
```

svcAtmConfigQ93bNumPtyAlertingPduTx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of party alerting PDU's transmitted
    on this port."
 ::= { svcAtmConfigEntry2 108 }
```

svcAtmConfigQ93bNumPtyAlertingPduRx OBJECT-TYPE

```
SYNTAX Counter
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of party alerting PDU's received on this port."
 ::= { svcAtmConfigEntry2 109 }
```

```
-- *****
-- svcAtmConfigTable3
--
-- Third part of svcAtmConfigTable from cascade enterprise.
-- *****
```

svcAtmConfigTable3 OBJECT-TYPE

```
SYNTAX SEQUENCE OF SvcAtmConfigEntry3
MAX-ACCESS not-accessible
STATUS current
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."
 ::= { saSvcSap 4 }
```

svcAtmConfigEntry3 OBJECT-TYPE

```
SYNTAX SvcAtmConfigEntry3
MAX-ACCESS not-accessible
```

STATUS current
DESCRIPTION
"The SVC ATM configuration entry contains objects relevant to the configuration and monitoring of ATM signalling on an ATM logical port."

INDEX { svcAtmConfigIfIndex }
::= { svcAtmConfigTable3 1 }

SvcAtmConfigEntry3 ::=

```
SEQUENCE {
    svcAtmConfigQSaaLMaxCC
        INTEGER,
    svcAtmConfigQSaaLMaxPD
        INTEGER,
    svcAtmConfigQSaaLMaxStat
        INTEGER,
    svcAtmConfigQSaaLTPoll
        INTEGER,
    svcAtmConfigQSaaLKeepalive
        INTEGER,
    svcAtmConfigQSaaLNoResponse
        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
}

```

svcAtmConfigQSaalMaxCC OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The maximum number of unacknowledged transmitted
    control PDU's before declaring a loss of connection."
 ::= { svcAtmConfigEntry3 49 }

```

svcAtmConfigQSaalMaxPD OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The maximum number of PDU's transmitted before a
    POLL PDU is transmitted."
 ::= { svcAtmConfigEntry3 50 }

```

svcAtmConfigQSaalMaxStat OBJECT-TYPE

```

SYNTAX INTEGER (1..67)
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The maximum number of list elements in a STAT PDU."
 ::= { svcAtmConfigEntry3 51 }

```

svcAtmConfigQSaalTPoll OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The protocol timer corresponding to the polling function,
    specified in milliseconds."
 ::= { svcAtmConfigEntry3 52 }

```

svcAtmConfigQSaalKeepalive OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The protocol timer corresponding to the
    keepalive function,
    specified in milliseconds."
 ::= { svcAtmConfigEntry3 53 }

```

svcAtmConfigQSaalNoResponse OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The protocol timer corresponding to the response
    timeout function,
    specified in milliseconds."
 ::= { svcAtmConfigEntry3 54 }

```

svcAtmConfigQSaalTCC OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The protocol timer corresponding to the transmission of
    control PDU's, specified in milliseconds."
 ::= { svcAtmConfigEntry3 55 }

```

svcAtmConfigQSaalIdle OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The protocol timer corresponding to the idle function for
    UNI 3.1, only, specified in milliseconds."
 ::= { svcAtmConfigEntry3 56 }

```

```

svcAtmConfigQSaalNumDiscardTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of QSaal transmit discards on this port."
    ::= { svcAtmConfigEntry3 57 }

svcAtmConfigQSaalNumDiscardRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of QSaal receive discards on this port."
    ::= { svcAtmConfigEntry3 58 }

svcAtmConfigQSaalNumErrorTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of QSaal transmit errors on this port."
    ::= { svcAtmConfigEntry3 59 }

svcAtmConfigQSaalNumErrorRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of QSaal receive errors on this port."
    ::= { svcAtmConfigEntry3 60 }

svcAtmConfigQSaalNumBgnPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of begin PDU's transmitted on this port."
    ::= { svcAtmConfigEntry3 61 }

svcAtmConfigQSaalNumBgnPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of begin PDU's received on this port."
    ::= { svcAtmConfigEntry3 62 }

```

```

svcAtmConfigQSaalNumBgakPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of begin acknowledge PDU's transmitted
        on this port."
    ::= { svcAtmConfigEntry3 63 }

svcAtmConfigQSaalNumBgakPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of begin acknowledge PDU's received
        on this port."
    ::= { svcAtmConfigEntry3 64 }

svcAtmConfigQSaalNumBgrejPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of begin reject PDU's transmitted
        on this port."
    ::= { svcAtmConfigEntry3 65 }

svcAtmConfigQSaalNumBgrejPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of begin reject PDU's received on this port."
    ::= { svcAtmConfigEntry3 66 }

svcAtmConfigQSaalNumEndPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of end PDU's transmitted on this port."
    ::= { svcAtmConfigEntry3 67 }

svcAtmConfigQSaalNumEndPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION

```

```

        "The number of end PDU's received on this port."
        ::= { svcAtmConfigEntry3 68 }

svcAtmConfigQSaalNumEndakPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of end acknowledge PDU's transmitted
         on this port."
    ::= { svcAtmConfigEntry3 69 }

svcAtmConfigQSaalNumEndakPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of end acknowledge PDU's received
         on this port."
    ::= { svcAtmConfigEntry3 70 }

svcAtmConfigQSaalNumRsPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of resynchronization PDU's transmitted
         on this port."
    ::= { svcAtmConfigEntry3 71 }

svcAtmConfigQSaalNumRsPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of resynchronization PDU's received
         on this port."
    ::= { svcAtmConfigEntry3 72 }

svcAtmConfigQSaalNumRsakPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of resynchronization acknowledge PDU's
         transmitted on this port."
    ::= { svcAtmConfigEntry3 73 }

```

```

svcAtmConfigQSaalNumRsakPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of resynchronization acknowledge PDU's
         received on this port."
    ::= { svcAtmConfigEntry3 74 }

svcAtmConfigQSaalNumErPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of error recovery PDU's transmitted
         on this port."
    ::= { svcAtmConfigEntry3 75 }

svcAtmConfigQSaalNumErPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of error recovery PDU's received on this port."
    ::= { svcAtmConfigEntry3 76 }

svcAtmConfigQSaalNumErakPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of error recovery PDU's transmitted
         on this port."
    ::= { svcAtmConfigEntry3 77 }

svcAtmConfigQSaalNumErakPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of error recovery acknowledge PDU's
         received on this port."
    ::= { svcAtmConfigEntry3 78 }

svcAtmConfigQSaalNumSdPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current

```

```

DESCRIPTION
    "The number of sequenced data PDU's transmitted
    on this port."
::= { svcAtmConfigEntry3 79 }

svcAtmConfigQSaalNumSdPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of sequenced data PDU's received on this port."
    ::= { svcAtmConfigEntry3 80 }

svcAtmConfigQSaalNumPollPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of poll PDU's transmitted on this port."
    ::= { svcAtmConfigEntry3 81 }

svcAtmConfigQSaalNumPollPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of poll PDU's received on this port."
    ::= { svcAtmConfigEntry3 82 }

svcAtmConfigQSaalNumStatPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of status PDU's transmitted on this port."
    ::= { svcAtmConfigEntry3 83 }

svcAtmConfigQSaalNumStatPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of status PDU's received on this port."
    ::= { svcAtmConfigEntry3 84 }

svcAtmConfigQSaalNumUstatPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only

```

```

STATUS current
DESCRIPTION
    "The number of unsolicited status PDU's transmitted
    on this port."
::= { svcAtmConfigEntry3 85 }

svcAtmConfigQSaalNumUstatPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of unsolicited status PDU's received
        on this port."
    ::= { svcAtmConfigEntry3 86 }

svcAtmConfigQSaalNumUdPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of unnumbered user data PDU's
        transmitted on this port."
    ::= { svcAtmConfigEntry3 87 }

svcAtmConfigQSaalNumUdPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of unnumbered user data PDU's received
        on this port."
    ::= { svcAtmConfigEntry3 88 }

svcAtmConfigQSaalNumMdPduTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of unnumbered management data PDU's
        transmitted on this port."
    ::= { svcAtmConfigEntry3 89 }

svcAtmConfigQSaalNumMdPduRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of unnumbered management data PDU's

```

```

        received on this port."
 ::= { svcAtmConfigEntry3 90 }

svcAtmConfigQSaalNumOctetsTx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of octets sent on the signalling channel."
 ::= { svcAtmConfigEntry3 91 }

svcAtmConfigQSaalNumOctetsRx OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of octets received from the signalling
        channel."
 ::= { svcAtmConfigEntry3 92 }

svcAtmConfigVpiStartVp OBJECT-TYPE
    SYNTAX INTEGER (0..4095)
    MAX-ACCESS read-write
    STATUS current
    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."
 ::= { svcAtmConfigEntry3 93 }

svcAtmConfigVpiStopVp OBJECT-TYPE
    SYNTAX INTEGER (0..4095)
    MAX-ACCESS read-write
    STATUS current
    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."
 ::= { svcAtmConfigEntry3 94 }

svcAtmConfigVpiStart OBJECT-TYPE
    SYNTAX INTEGER (0..4095)
    MAX-ACCESS read-write
    STATUS current

```

```

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"
 ::= { svcAtmConfigEntry3 95 }

svcAtmConfigVpiStop OBJECT-TYPE
    SYNTAX INTEGER (0..4095)
    MAX-ACCESS read-write
    STATUS current
    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."
 ::= { svcAtmConfigEntry3 96 }

svcAtmConfigVciStart OBJECT-TYPE
    SYNTAX INTEGER (32..65535)
    MAX-ACCESS read-write
    STATUS current
    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."
 ::= { svcAtmConfigEntry3 97 }

svcAtmConfigVciStop OBJECT-TYPE
    SYNTAX INTEGER (32..65535)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Ending VCI value for SVC range. Must be greater than
        or 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."
 ::= { svcAtmConfigEntry3 98 }

```

```

svcAtmConfigQSaalWindowSize OBJECT-TYPE
    SYNTAX INTEGER (1..4095)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The window size for Q.SAAL."
    DEFVAL { 64 }
    ::= { svcAtmConfigEntry3 99 }

svcAtmConfigSvcCdvT OBJECT-TYPE
    SYNTAX INTEGER (1..16777215)
    MAX-ACCESS read-write
    STATUS current
    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 }
    ::= { svcAtmConfigEntry3 100 }

svcAtmConfigQSaalTxWindowDepth OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The current depth of the Q.SAAL transmit window.
        This number represents the number of outstanding
        unacknowledged SD PDUs."
    ::= { svcAtmConfigEntry3 101 }

-- *****
-- atmInterfaceExtTable
-- This table was transferred from IETF ATM2 MIB,
-- which is still pre-standard.
-- A mirror of this MIB may be created in the future,
-- if we must strictly comply with ATM2.
-- *****

atmInterfaceExtTable OBJECT-TYPE
    SYNTAX SEQUENCE OF AtmInterfaceExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "This table contains ATM interface
        configuration and monitoring information not

```

```

        defined in the atmInterfaceConfTable from the
        ATM-MIB [1]. This includes the type of
        connection setup procedures, ILMI information,
        and information on the VPI/VCI range."
    ::= { saSvcSap 5 }

```

```

atmInterfaceExtEntry OBJECT-TYPE
    SYNTAX AtmInterfaceExtEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "An entry extends the
        atmInterfaceConfEntry defined in [1]. Each
        entry corresponds to an ATM
        interface."
    INDEX { ifIndex }
    ::= { atmInterfaceExtTable 1 }

AtmInterfaceExtEntry ::= SEQUENCE {
    atmIntfConfigType INTEGER,
    atmIntfActualType INTEGER,
    atmIntfConfigSide INTEGER,
    atmIntfActualSide INTEGER,
    atmIntfIlmiAdminStatus INTEGER,
    atmIntfIlmiOperStatus INTEGER,
    atmIntfIlmiFsmState INTEGER,
    atmIntfIlmiEstablishConPollIntvl Integer32,
    atmIntfIlmiCheckConPollIntvl Integer32,
    atmIntfIlmiConPollInactFactor Integer32,
    atmIntfIlmiPublicPrivateIndctr INTEGER,
    atmInterfaceConfMaxSvpcVpi INTEGER,
    atmInterfaceCurrentMaxSvpcVpi INTEGER,
    atmInterfaceConfMaxSvccVpi INTEGER,
    atmInterfaceCurrentMaxSvccVpi INTEGER,
    atmInterfaceConfMinSvccVci INTEGER,
    atmInterfaceCurrentMinSvccVci INTEGER,
    atmIntfSigVccRxTrafficDescrIndex INTEGER,
    atmIntfSigVccTxTrafficDescrIndex INTEGER,
    atmIntfPvcFailures Counter32,
    atmIntfCurrentlyFailingPVpls Gauge32,
    atmIntfCurrentlyFailingPVcls Gauge32,
    atmIntfPvcFailuresTrapEnable INTEGER,
    atmIntfPvcNotificationInterval INTEGER
}

-- As new protocol variants are added, use these enumerations
-- to match IETF ATM2 pre-standard
--         other(1),
--         autoConfig(2),

```

```
--          ituDss2(3),
--          atmUni3Dot0(4),
--          atmUni3Dot1(5),
--          atmUni4Dot0(6),
--          atmIispUni3Dot0(7),
--          atmIispUni3Dot1(8),
--          atmIispUni4Dot0(9),
--          atmPnni1Dot0(10),
--          atmBici2Dot0(11),
--          atmUniPvcOnly(12),
--          atmNniPvcOnly(13)

atmIntfConfigType OBJECT-TYPE
    SYNTAX  INTEGER {
        atmUni3Dot0(4),
        atmUni3Dot1(5),
        atmIispUni3Dot0(7),
        atmIispUni3Dot1(8),
        atmUniPvcOnly(12)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The type of connection setup procedures
        configured for the ATM interface. Setting this
        variable to a value of 'other' is not allowed."
    DEFVAL { atmUni3Dot0 }
    ::= { atmInterfaceExtEntry 1 }
```

```
atmIntfActualType OBJECT-TYPE
    SYNTAX  INTEGER {
        other(1),
        autoConfig(2),
        ituDss2(3),
        atmUni3Dot0(4),
        atmUni3Dot1(5),
        atmUni4Dot0(6),
        atmIispUni3Dot0(7),
        atmIispUni3Dot1(8),
        atmIispUni4Dot0(9),
        atmPnni1Dot0(10),
        atmBici2Dot0(11),
        atmUniPvcOnly(12),
        atmNniPvcOnly(13)
    }
    MAX-ACCESS read-only
    STATUS current
```

```
DESCRIPTION
    "The type of connection setup procedures
    currently being used on the interface. This may
    reflect a manually configured value for the
    interface type, or may be determined by other
    means such as auto-configuration. A value of
    'autoConfig' indicates that auto-configuration
    was requested but has not yet been completed."
    ::= { atmInterfaceExtEntry 2 }
```

```
atmIntfConfigSide OBJECT-TYPE
    SYNTAX  INTEGER {
        other(1),
        user(2),
        network(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The configured role of the managed entity as one
        side of the ATM interface. This value does not
        apply when the object atmIntfConfigType is set to
        'autoConfig', 'atmPnni1Dot0', or
        'atmBici2Dot0'."
    ::= { atmInterfaceExtEntry 3 }
```

```
atmIntfActualSide OBJECT-TYPE
    SYNTAX  INTEGER {
        other(1),
        user(2),
        network(3),
        symmetric(4)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The current role used by the managed entity to
        represent one side of the ATM interface."
    ::= { atmInterfaceExtEntry 4 }
```

```
atmIntfIlmiAdminStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        none(0), -- added for SA systems
        ilmi(1),
        ilmiAddressRegistration(2),
        ilmiConnectivity(4),
        ilmiPvcPvpMgmt(8),
        ilmiSigVccParamNegotiation(16)
```

```

    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Indicates which components of ILMI are
        administratively enabled on this interface. If the
        'ilmi' bit is not set, then no ILMI components are
        operational. ILMI components other than auto-
        configuration that are not represented in the value
        have their administrative status determined
        according to the 'ilmi' bit. The ILMI auto-
        configuration component is enabled/disabled by the
        atmIntfConfigType object."
    ::= { atmInterfaceExtEntry 5 }

atmIntfIlmiOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        none(0), -- added for SA systems
        ilmi(1),
        ilmiAddressRegistration(2),
        ilmiConnectivity(4),
        ilmiPvcPvpMgmt(8),
        ilmiSigVccParamNegotiation(16)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Indicates which components of ILMI are operational
        on this interface."
    ::= { atmInterfaceExtEntry 6 }

atmIntfIlmiFsmState OBJECT-TYPE
    SYNTAX INTEGER { stopped(1),
        linkFailing(2),
        establishing(3),
        configuring(4),
        retrievingNetworkPrefixes(5),
        registeringNetworkPrefixes(6),
        retrievingAddresses(7),
        registeringAddresses(8),
        verifying(9)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Indicates the state of the ILMI Finite State Machine
        associated with this interface."
    REFERENCE

```

"ATM Forum ILMI 4.0 Specification, Appendix 1"
 ::= { atmInterfaceExtEntry 7 }

```

atmIntfIlmiEstablishConPollIntvl OBJECT-TYPE
    SYNTAX Integer32 (1..65535)
    UNITS "seconds"
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The amount of time S between successive transmissions
        of ILMI messages on this interface for the purpose of
        detecting establishment of ILMI connectivity."
    REFERENCE
        "ATM Forum ILMI 4.0 Section 8.3.1"
    DEFVAL { 1 }
    ::= { atmInterfaceExtEntry 8 }

atmIntfIlmiCheckConPollIntvl OBJECT-TYPE
    SYNTAX Integer32 (0..65535)
    UNITS "seconds"
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The amount of time T between successive transmissions
        of ILMI messages on this interface for the purpose of
        detecting loss of ILMI connectivity. The distinguished
        value zero disables ILMI connectivity procedures on
        this interface."
    REFERENCE
        "ATM Forum ILMI 4.0 Section 8.3.1"
    DEFVAL { 5 }
    ::= { atmInterfaceExtEntry 9 }

atmIntfIlmiConPollInactFactor OBJECT-TYPE
    SYNTAX Integer32 (0..65535)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The number K of consecutive polls on this interface
        for which no ILMI response message is received before
        ILMI connectivity is declared lost."
    REFERENCE
        "ATM Forum ILMI 4.0 Section 8.3.1"
    DEFVAL { 4 }
    ::= { atmInterfaceExtEntry 10 }

```

atmIntfIlmiPublicPrivateIndctr OBJECT-TYPE

```
SYNTAX INTEGER {
    other(1),
    public(2),
    private(3)
}
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

Specifies whether this end of the interface is advertised in ILMI as a device of the 'public' or 'private' type."

DEFVAL { private }

::= { atmInterfaceExtEntry 11 }

atmInterfaceConfMaxSvpcVpi OBJECT-TYPE

```
SYNTAX INTEGER(0..4095)
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

The maximum VPI that the signalling stack on the ATM interface is configured to support for allocation to switched virtual path connections."

::= { atmInterfaceExtEntry 12 }

atmInterfaceCurrentMaxSvpcVpi OBJECT-TYPE

```
SYNTAX INTEGER(0..4095)
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

The maximum VPI that the signalling stack on the ATM interface may currently allocate to switched virtual path connections. This value is the minimum of atmInterfaceConfMaxSvpcVpi, and the atmInterfaceMaxSvpcVpi of the interface's UNI/NNI peer.

If the interface does not negotiate with its peer to

determine the maximum VPI that can be allocated to SVPCs on the interface, then the value of this object must equal atmInterfaceConfMaxSvpcVpi. "

::= { atmInterfaceExtEntry 13 }

atmInterfaceConfMaxSvccVpi OBJECT-TYPE

```
SYNTAX INTEGER(0..4095)
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

The maximum VPI that the signalling stack on the ATM

interface is configured to support for allocation to switched virtual channel connections."

::= { atmInterfaceExtEntry 14 }

atmInterfaceCurrentMaxSvccVpi OBJECT-TYPE

```
SYNTAX INTEGER(0..4095)
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

The maximum VPI that the signalling stack on the ATM interface may currently allocate to switched virtual channel connections. This value is the minimum of atmInterfaceConfMaxSvccVpi, and the atmInterfaceConfMaxSvccVpi of the interface's UNI/NNI peer.

If the interface does not negotiate with its peer to

determine the maximum VPI that can be allocated to SVCCs on the interface, then the value of this object must equal atmInterfaceConfMaxSvccVpi."

::= { atmInterfaceExtEntry 15 }

atmInterfaceConfMinSvccVci OBJECT-TYPE

```
SYNTAX INTEGER(0..65535)
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

The minimum VCI that the signalling stack on the ATM interface is configured to support for allocation to switched virtual channel connections."

::= { atmInterfaceExtEntry 16 }

atmInterfaceCurrentMinSvccVci OBJECT-TYPE

```
SYNTAX INTEGER(0..65535)
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

The minimum VCI that the signalling stack on the ATM interface may currently allocate to switched virtual channel connections. This value is the maximum of atmInterfaceConfMinSvccVci, and the atmInterfaceConfMinSvccVci of the interface's UNI/NNI peer.

If the interface does not negotiate with its peer to determine the minimum VCI that can be allocated to SVCCs on the interface, then the value of this object must equal atmInterfaceConfMinSvccVci."

```

        ::= { atmInterfaceExtEntry 17 }

atmIntfSigVccRxTrafficDescrIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "This object identifies the row in the
        atmTrafficDescrParamTable used during ILMI
        auto-configuration to specify the advertised
        signalling VCC traffic parameters for the
        receive direction.

        The traffic descriptor resulting from ILMI auto-
        configuration of the signalling VCC is indicated
        in the atmVclTable."
    ::= { atmInterfaceExtEntry 18 }

atmIntfSigVccTxTrafficDescrIndex OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "This object identifies the row in the
        atmTrafficDescrParamTable used during ILMI
        auto-configuration to specify the advertised
        signalling VCC traffic parameters for the
        transmit direction.

        The traffic descriptor resulting from ILMI auto-
        configuration of the signalling VCC is indicated
        in the atmVclTable."
    ::= { atmInterfaceExtEntry 19 }

atmIntfPvcFailures OBJECT-TYPE
    SYNTAX  Counter32
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The number of times the operational status of a PVPL
        or PVCL on this interface has gone down."
    ::= { atmInterfaceExtEntry 20 }

atmIntfCurrentlyFailingPVpls OBJECT-TYPE
    SYNTAX  Gauge32
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION

```

```

        The current number of VPLs on this interface for which
        there is an active row in the atmVplTable having an
        atmVplConnKind value of `pvc' and an atmVplOperStatus
        with a value other than `up'."
    ::= { atmInterfaceExtEntry 21 }

```

```

atmIntfCurrentlyFailingPVcls OBJECT-TYPE
    SYNTAX  Gauge32
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The current number of VCLs on this interface for which
        there is an active row in the atmVclTable having an
        atmVclConnKind value of `pvc' and an atmVclOperStatus
        with a value other than `up'."
    ::= { atmInterfaceExtEntry 22 }

```

```

atmIntfPvcFailuresTrapEnable OBJECT-TYPE
    SYNTAX  INTEGER {
        true(1),
        false(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Allows the generation of traps in response to PVCL or
        PVPL failures on this interface."
    DEFVAL { false }
    ::= { atmInterfaceExtEntry 23 }

```

```

atmIntfPvcNotificationInterval OBJECT-TYPE
    SYNTAX  INTEGER (1..3600)
    UNITS  "seconds"
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "The minimum interval between the sending of
        atmIntfPvcFailuresTrap notifications for this
        interface."
    DEFVAL { 30 }
    ::= { atmInterfaceExtEntry 24 }

```

END

Ascend Broadband - Adaptation Soft PVC (A-SPVC) MIB

sa-ASPVC-MIB DEFINITIONS ::= BEGIN

IMPORTS

DisplayString FROM RFC1213-MIB
 OBJECT-TYPE FROM SNMPv2-SMI
 TimeTicks FROM RFC1155-SMI
 SaAspvc FROM SA-SIGNALLING-MIB;

-- groups in SA-ASPVC-MIB

SaAspvcAddress OBJECT IDENTIFIER ::= { saAspvc 1 }
 SaAspvcStatus OBJECT IDENTIFIER ::= { saAspvc 2 }
 SaAspvcService OBJECT IDENTIFIER ::= { saAspvc 3 }
 SaAspvcTrafficDesc OBJECT IDENTIFIER ::= { saAspvc 4 }
 SaAspvcPvcIProv OBJECT IDENTIFIER ::= { saAspvc 5 }

-- A-SPVC Addressing MIBs

--

-- These objects provide addressing information for
 -- local ASPVC terminators

saAspvcCfgEsi OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(6))
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION
 "ESI used with port and node prefixes to identify incoming
 call setup messages as being A-SPVC's"
 ::= { saAspvcAddress 1 }

saAspvcDefaultEsi OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(6))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Unique ESI programmed into ICM as part of
 manufacturing process, serves as power-on default
 for saAspvcCfgEsi in the absence of nv_db.dat"
 ::= { saAspvcAddress 2 }

saAspvcPrimaryAesa OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(20))
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Primary Network address to be used when attempting to
 reach ASPVC terminators within this node"
 ::= { saAspvcAddress 3 }

saAspvcNetPrefix OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(13))
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION
 "Network prefix to identify incoming call
 setup messages as being A-SPVC's"
 ::= { saAspvcAddress 4 }

saAspvcTrunkSlot OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION
 "Slot number of the trunk"
 ::= { saAspvcAddress 5 }

saAspvcTrunkPod OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION
 "Pod number of the trunk"
 ::= { saAspvcAddress 6 }

saAspvcTrunkPort OBJECT-TYPE

SYNTAX INTEGER
 MAX-ACCESS read-write
 STATUS current
 DESCRIPTION
 "Port number of the trunk"
 ::= { saAspvcAddress 7 }

saAspvcAutoNetPrefix OBJECT-TYPE

SYNTAX INTEGER {
 yes(1),
 no(2)
 }
 MAX-ACCESS read-only

```

STATUS current
DESCRIPTION
    "Yes, if saAspvcNetPrefix will be automatically populated
    if ILMI is enabled on the truck. No, otherwise."
::= { saAspvcAddress 8 }

saAspvcNetPrefixNmbPlan OBJECT-TYPE
    SYNTAX INTEGER {
        e164 (1),
        aesa (2),
        unknown (3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This object specifies the addressing format. Supported
        addressing formats are AESA and E.164. Set to none if
        saAspvcNetPrefix object does not conform to supported
        numbering plans."
    ::= { saAspvcAddress 9 }

-----
--          A-SPVC General Status Information
-- These objects provide error counts for inbound call setups that were
-- rejected by the A-SPVC manager.
--
-----

saAspvcClearCounts OBJECT-TYPE
    SYNTAX INTEGER {
        yes(1),
        no(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "clears all simple status variables for A-SPVCs"
    ::= { saAspvcStatus 1 }

saAspvcRejects OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of call setups rejected by A-SPVC Manager"
    ::= { saAspvcStatus 2 }

```

```

saAspvcBadAddress OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of call setups that had invalid Called Party IE"
    ::= { saAspvcStatus 3 }

saAspvcBadBhli OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of call setups that had no BHLI IE
        or an invalid BHLI IE"
    ::= { saAspvcStatus 4 }

saAspvcNoHandle OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of call setups that had invalid service
        handle in BHLI"
    ::= { saAspvcStatus 5 }

saAspvcMaxServices OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Max no of A-SPVC services allowed."
    ::= { saAspvcStatus 6 }

saAspvcCfgServices OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of A-SPVC services configured as of now"
    ::= { saAspvcStatus 7 }

-----
--          A-SPVC Service Information
-- A row will be automatically created in this table for each provisioned
-- service. Service types will include native ATM VCLs as well as a
-- variety of adaptation service types such as CES IWFs, NLS tunnels,
-- FRF.5 tunnels, etc.

```

```
--
-- From this table, the user may configure how the service will be routed
-- out of the node by modifying the 'dialType' object in this table.
-- Supported dialTypes include PVC, PVP, ASPVC-ORIG, ASPVC-TERM, etc.
-- The various dialTypes are defined below:
--
-- PVC/PVP - traditional SA service where trunk side if/VP/VC are
-- specified by the user during provisioning.
--
-- ASPVC-TERM - service is provisioned, but does not go active until a
-- remote node calls the node and specifies the provisioned
-- service.
--
-- ASPVC-ORIG - service is provisioned, and the AESA and service handle
-- of the corresponding ASPVC-TERM function is supplied as
-- part of provisioning. This node will place a call to the
-- specified remote node, when the ASPVC-TERM on
-- the far end of the network accepts the call,
-- the service will go active.
--
-- SPVC-ORIG - same as ASPVC-ORIG, except the AESA and far-end VP/VC
-- are supplied during service provisioning. This
-- node will dial a far-end switch, If the call is
-- accepted, the service will go active.
--=====
```

```
saAspvcServiceTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAspvcServiceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Table of A-SPVC services. Contains a record per
        service instance. All A-SPVC's are comprised of a
        Permanent VCL which represents the adaptation service,
        and an SVCL which represents the switched network
        circuit. When an A-SPVC is operational,
        the PVCL will be cross-connected to the SVCL"
    ::= { saAspvcService 1 }
```

```
saAspvcServiceEntry OBJECT-TYPE
    SYNTAX SaAspvcServiceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Contains objects relevant to A-SPVC services"
    INDEX { saAspvcPifIndex, saAspvcPvpi, saAspvcPvci }
    ::= { saAspvcServiceTable 1 }
```

```
SaAspvcServiceEntry ::=
    SEQUENCE {
        SAAspvcPifIndex
            INTEGER,
        SAAspvcPvpi
            INTEGER,
        SAAspvcPvci
            INTEGER,
        SAAspvcName
            DisplayString,
        SAAspvcAdminStatus
            INTEGER,
        SAAspvcOperStatus
            INTEGER,
        SAAspvcLastChange
            TimeTicks,
        SAAspvcDialType
            INTEGER,
        SAAspvcServiceType
            INTEGER,
        SAAspvcAppIfIndex
            INTEGER,
        SAAspvcRootIfIndex
            INTEGER,
        SAAspvcServiceCategory
            INTEGER,
        SAAspvcFwdTdIndex
            INTEGER,
        SAAspvcBwdTdIndex
            INTEGER,
        SAAspvcForceTDs
            INTEGER,
        SAAspvcTdOverride
            INTEGER,
        saAspvcFwdFbw
            INTEGER,
        saAspvcFwdVbw
            INTEGER,
        saAspvcBwdFbw
            INTEGER,
        saAspvcBwdVbw
            INTEGER,
        SAAspvcTaggingOption
            INTEGER,
        SAAspvcBwPriority
            INTEGER,
        SAAspvcBumpPriority
            INTEGER,
```

```

        SAAspvcSuInstId
        INTEGER,
        SAAspvcState
        INTEGER,
        SAAspvcCause
        INTEGER
    }

saAspvcPifIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The ifIndex of the PVCL for this service"
    ::= { saAspvcServiceEntry 1 }

saAspvcPvpi OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The VPI of the PVCL for this service"
    ::= { saAspvcServiceEntry 2 }

saAspvcPvci OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The VCI of the PVCL for this service"
    ::= { saAspvcServiceEntry 3 }

saAspvcName OBJECT-TYPE
    SYNTAX DisplayString(SIZE(0..40))
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "User Assigned Name for this service"
    ::= { saAspvcServiceEntry 4 }

saAspvcAdminStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION

```

```

        "The Administrative Status of this service"
    ::= { saAspvcServiceEntry 5 }

saAspvcOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        up(1),
        down(2),
        testing(3),
        diag(4),
        down-admin(5),
        down-oper(6),
        down-diag(7)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Operational Status for this service"
    ::= { saAspvcServiceEntry 6 }

saAspvcLastChange OBJECT-TYPE
    SYNTAX TimeTicks
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Time since last change in OperStatus for this service"
    ::= { saAspvcServiceEntry 7 }

saAspvcDialType OBJECT-TYPE
    SYNTAX INTEGER {
        none(0),
        pvc-orig(1),
        pvp(2),
        aspvc-orig(3),
        aspvc-term(4),
        spvc-orig(5),
        pvc-term(6)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "pvc-orig/pvp when no networking is required for service
        aspvc-orig originates end to end A-SPVC call
        aspvc-term terminates end to end A-SPVC call
        spvc-orig originates SPVC call
        pvc-term used for locally cross-connected IWFS
        (also no networking required)"
    ::= { saAspvcServiceEntry 8 }

```

saAspvcServiceType OBJECT-TYPE

```

SYNTAX INTEGER {
    spvcc(1),
    spvpc(2),
    ces(3),
    nls(4),
    ffs(5),
    vcs(6),
    uni-pvc(7),
    uni-pvp(8),
    cip(9)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Service Type identifier. This maps to the Service Type
    Identifier in the Ascend Vendor-Specific B-HLI."
 ::= { saAspvcServiceEntry 9 }

```

saAspvcAppIfIndex OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "ifIndex of service application beneath ATM switch
    fabric port"
 ::= { saAspvcServiceEntry 10}

```

saAspvcRootIfIndex OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "ifIndex of physical or logical interface from which this
    service is launched. For example for CES the root ifIndex
    would be the DS1 port from which the service is launched.
    For NLS the root interface would be the bridge group from
    which the tunnel is launched. This is information is used
    by the UI to generate service lists based on launch
    points."
 ::= { saAspvcServiceEntry 11}

```

saAspvcServiceCategory OBJECT-TYPE

```

SYNTAX INTEGER {
    cbr-1(1),
    rt-vbr1(2),
    rt-vbr2(3),
    rt-vbr3(4),

```

```

    nrt-vbr1(5),
    nrt-vbr2(6),
    nrt-vbr3(7),
    ubr1(8),
    ubr2(9)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Defines the Service Category for the Configured Service"
 ::= { saAspvcServiceEntry 16 }

```

saAspvcFwdTdIndex OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Index into the Traffic Descriptor Table
    for the Forward Traffic Descriptors"
 ::= { saAspvcServiceEntry 17 }

```

saAspvcBwdTdIndex OBJECT-TYPE

```

SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Index into the Traffic Descriptor Table
    for the Backward Traffic Descriptors"
 ::= { saAspvcServiceEntry 18 }

```

saAspvcForceTDs OBJECT-TYPE

```

SYNTAX INTEGER {
    yes(1),
    no(2)
}
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Forces Adaptation Traffic Descriptors into
    fwd and bwd traffic descriptors for this service"
 ::= { saAspvcServiceEntry 19 }

```

saAspvcTdOverride OBJECT-TYPE

```

SYNTAX INTEGER {
    no(1),
    yes(2)
}
MAX-ACCESS read-write

```

```

STATUS    current
DESCRIPTION
    "set to 'yes' if user directly edits traffic descriptor
    entries associated with this service."
::= { saAspvcServiceEntry 20 }

saAspvcFwdFbw OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "Cells per Second debited from available forward
        Fixed Bandwidth by CAC"
    ::= { saAspvcServiceEntry 21 }

saAspvcFwdVbw OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "Cells per Second debited from available
        forward Variable Bandwidth by CAC"
    ::= { saAspvcServiceEntry 22 }

saAspvcBwdFbw OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "Cells per Second debited from available
        backward Fixed Bandwidth by CAC"
    ::= { saAspvcServiceEntry 23 }

saAspvcBwdVbw OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "Cells per Second debited from available
        backward Variable Bandwidth by CAC"
    ::= { saAspvcServiceEntry 24 }

saAspvcTaggingOption OBJECT-TYPE
    SYNTAX  INTEGER {
        not-appl(1),
        yes(2),
        no(3)
    }

```

```

MAX-ACCESS read-only
STATUS  current
DESCRIPTION
    "Tagging Option, Depending on the Service Category
    chosen Taggingoption may or may not be applicable"
::= { saAspvcServiceEntry 25 }

saAspvcBwPriority OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-write
    STATUS  current
    DESCRIPTION
        "Bandwidth Priority"
    ::= { saAspvcServiceEntry 26 }

saAspvcBumpPriority OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-write
    STATUS  current
    DESCRIPTION
        "Bumping Priority"
    ::= { saAspvcServiceEntry 27 }

saAspvcSuInstId OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "ASPVC control block index"
    ::= { saAspvcServiceEntry 28 }

saAspvcState OBJECT-TYPE
    SYNTAX  INTEGER {
        init(1),
        active(2),
        dialing(3),
        wait4retry(4),
        wait4call(5),
        answering(6),
        stopped(7),
        cb-update(8)
    }
    MAX-ACCESS read-only
    STATUS  current
    DESCRIPTION
        "State for this service"
    ::= { saAspvcServiceEntry 29 }

```

saAspvcCause OBJECT-TYPE

```

SYNTAX INTEGER {
    none(0),
    desc-00R-vcn(1),
    cnctID-bad(2),

    no-bw-Src(3),
    no-bw-Dst(4),
    no-bfrs-Src(5),
    no-bfrs-Dst(6),

    vpvUsed-Src(7),
    vpvUsed-Dst(8),

    noPort-Src(9),
    noPort-Dst(10),
    prtNotRdySrc(11),
    prtNotRdyDst(12),
    portBad-Src(13),
    portBad-Dst(14),

    vci-00R-Src(15),
    vci-00R-Dst(16),
    vpi-00R-Src(17),
    vpi-00R-Dst(18),
    vpi-Rsvd-Src(19),
    vpi-Rsvd-Dst(20),
    pvp-00R-Src(21),
    pvp-00R-Dst(22),
    type-00R-Src(23),
    type-00R-Dst(24),

    bfrsFail-Src(25),
    bfrsFail-Dst(26),

    hwFail-Src(27),
    hwFail-Dst(28),

    rowFail-Src(29),
    rowFail-Dst(30),

    clrNoPortSrc(31),
    clrNoPortDst(32),

    clrRwFailSrc(33),
    clrRwFailDst(34),

    clear-ok(35),

```

```

    rate-00R(36),
    desc-00R(37),
    urate00R(38),

    vpv-ok(39),

    pre-empt(40),
    brd-oslt(41),

    user-unregistered(42),

    xcncnt-init(43),

    cac-notReady(44),
    no-bw-sf(45),

    max-cause(46)
}

```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Oper status down while Admin is up,
this is the cause for oper down"

::= { saAspvcServiceEntry 30 }

```

-----
--
--          A-SPVC PVC Table
-- A row is automatically populated in this table for each
-- service that is configured with a dialType of PVC or PVP.
-- This table provides the additional information necessary
-- to manage PVC/PVP based circuits.
-----

```

saAspvcPvcTable OBJECT-TYPE

SYNTAX SEQUENCE OF SaAspvcPvcEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"Table of A-SPVC services configured with
dial-type of PVC or PVP"

::= { saAspvcService 2 }

saAspvcPvcEntry OBJECT-TYPE

SYNTAX SaAspvcPvcEntry

MAX-ACCESS not-accessible

STATUS current

```

DESCRIPTION
    "Contains objects to provision PVC trunk-side services.
    Indexed by drop side."
INDEX {
    saAspvcPifIndex,
    saAspvcPvpI,
    saAspvcPvcI,
    saAspvcPvcLeafRef }
::= { saAspvcPvcTable 1 }

SaAspvcPvcEntry ::=
SEQUENCE {
    SAAspvcPvcLeafRef
        INTEGER,
    SAAspvcPvcIfIndex
        INTEGER,
    SAAspvcPvcVpi
        INTEGER,
    SAAspvcPvcVci
        INTEGER,
    SAAspvcPvcState
        INTEGER,
    SAAspvcPvcRowInfo
        INTEGER,
    SAAspvcPvcCause
        INTEGER,
    SAAspvcPvcVcmHandle
        INTEGER
    }

saAspvcPvcLeafRef OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Leaf Reference for point to multi-point PVCs,
    Until multi-point is supported this will always
    be equal to 1."
::= { saAspvcPvcEntry 1 }

saAspvcPvcIfIndex OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The ifIndex of the VCL we are to
    which we are connecting"
::= { saAspvcPvcEntry 2 }

```

```

saAspvcPvcVpi OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The VPI of the VCL we are to
    which we are connecting"
::= { saAspvcPvcEntry 3 }

saAspvcPvcVci OBJECT-TYPE
SYNTAX INTEGER
MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "The VCI of the VCL we are to
    which we are connecting"
::= { saAspvcPvcEntry 4 }

saAspvcPvcState OBJECT-TYPE
SYNTAX INTEGER {
    notInSrv(0),
    up(1),
    port-fail(2),
    add-pend(3),
    disc-pend(4),
    holding(5),
    disc-bad(6),
    down(7),
    add-bad(8),
    bad-Vpvc(9)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "PVC specific connection status"
::= { saAspvcPvcEntry 5}

saAspvcPvcRowInfo OBJECT-TYPE
SYNTAX INTEGER {
    not-inservice(2),
    submitted(10),
    modify(11),
    add(12),
    delete(14),
    delete-request(15),
    modify-pend(16),
    add-pend(17),

```

```

        del-pend(18),
        del-submit(19),
        del-complete(20),
        add-mod-complete(21)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        " Internal status for the PVC Manager "
    ::= { saAspvcPvcEntry 6}

```

```

saAspvcPvcCause    OBJECT-TYPE
    SYNTAX          INTEGER {
        ok(0),
        desc-00R-vcn(1),
        cnctID-bad(2),

        no-bw-src(3),
        no-bw-dst(4),
        no-bfrs-src(5),
        no-bfrs-dst(6),

        vpvUsed-src(7),
        vpvUsed-dst(8),

        noPort-src(9),
        noPort-dst(10),
        prtNotRdySrc(11),
        prtNotRdyDst(12),
        portBad-src(13),
        portBad-dst(14),

        vci-00R-src(15),
        vci-00R-dst(16),
        vpi-00R-src(17),
        vpi-00R-dst(18),
        vpi-Rsvd-src(19),
        vpi-Rsvd-dst(20),
        pvp-00R-src(21),
        pvp-00R-dst(22),
        type-00R-src(23),
        type-00R-dst(24),

        bfrsFail-src(25),
        bfrsFail-dst(26),

        hwFail-src(27),
        hwFail-dst(28),

```

```

        rowFail-src(29),
        rowFail-dst(30),

        clrNoPortSrc(31),
        clrNoPortDst(32),

        clrRwFailSrc(33),
        clrRwFailDst(34),

        clear-ok(35),

        rate-00R(36),
        desc-00R(37),
        urate00R(38),

        vpv-ok(39),

        pre-empt(40),
        brd-oslt(41),

        user-unregistered(42),

        xcncnt-init(43),

        cac-notReady(44),
        no-bw-sf(45),

        max-cause(46)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        " Detailed information on the cause of failure -
          further describes connection state "
    ::= { saAspvcPvcEntry 7}

```

```

SaAspvcPvcVcmHandle    OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        " ID returned from VCM "
    ::= { saAspvcPvcEntry 8 }

```

```

SaAspvcPvcRowStatus    OBJECT-TYPE
    SYNTAX          INTEGER {
        created(2),

```

```

        delete(3),
        disconnect(7)
    }
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    " Used to signal PVCm to delete row "
::= { saAspvcPvcEntry 9 }

--=====
-- Table to manage Soft PVCCs.
--
-- A row will be automatically added to this table for each
-- service that is configured with a dialType of
-- ASPVC_ORIG or SPVC_ORIG. It provides the
-- additional managed objects required to manage ASPVC/SPVC originators.
--
-- This closely resembles the ATM Forum af-pnni-0066.000 MIB. If we need
-- to formally support that MIB in the future, it should be minimal effort
-- to install a 'mirror' of this table under the atmForum enterprise
--=====

saSoftPVccTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaSoftPVccEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The (conceptual) table used to manage Soft
        Permanent Virtual Channel Connections (Soft PVCCs)."
```

```

::= { saAspvcService 3 }

saSoftPVccEntry OBJECT-TYPE
    SYNTAX SaSoftPVccEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Each entry in this table represents a Soft
        Permanent Virtual Channel Connection (Soft PVCC)
        originating at a switch interface.

        A Soft PVCC is a VCC that is:
        - provisioned at the originating (source)
          interface of the connection
        - established by signalling procedures
          across a network to a destination interface.

        A row in the atmVclTable must be created,
```

defining a VCL on the source interface, prior to creating an saSoftPVccEntry row. The row in the atmVclTable must be active prior to activating the SASoftPVccEntry row.

The contents of this table reflect only the characteristics unique to a Soft PVCC. The traffic parameters are defined in the VCL row for the source interface, as specified in the ATOMMIB (RFC1695) and the forthcoming addition, the Supplemental ATOMMIB.

Note that the atmSigDescrParamTable contains some objects such as the AAL parameters, Broadband high layer information and Broadband low layer information elements which are used to carry end-to-end information. For this reason, these objects are not relevant to Soft PVCCs.

When a row is made active, an attempt is made to set up a switched connection to an interface at the destination switch. No objects (other than SASoftPVccRowStatus) can be set while the row is active.

At the destination, the VCL may be defined (but not cross-connected) prior to arrival of the Setup request.

The combination of ifIndex, atmVclVpi, and atmVclVci specified in the index clause of this entry serves to identify the VCL on the source interface. The SASoftPVccLeafReference object aids in distinguishing between leaves of a point-to-multipoint Soft PVCC."

```

INDEX { saAspvcPifIndex, saAspvcPvpi, saAspvcPvci, saSoftPVccLeafRef }
::= { saSoftPVccTable 1 }
```

```

saSoftPVccEntry ::=
    SEQUENCE {
        saSoftPVccLeafRef          INTEGER,
        saSoftPVccTargetAddress    OCTET STRING,
        saSoftPVccTargetSelectType INTEGER,
        saSoftPVccTargetVpi        INTEGER,
        saSoftPVccTargetVci        INTEGER,
        saSoftPVccLastReleaseCause  INTEGER,
        saSoftPVccLastReleaseDiagnostic OCTET STRING,
        saSoftPVccOperStatus        INTEGER,
        saSoftPVccRestart           INTEGER,
        saSoftPVccRetryInterval    INTEGER,
```

saSoftPVccRetryTimer INTEGER, saSoftPVccRetryThreshold INTEGER, saSoftPVccRetryFailures INTEGER, saSoftPVccRetryLimit INTEGER, saSoftPVccRowStatus INTEGER, saSoftPVccRemoteHandle INTEGER }		and saSoftPVccTargetVci prior to activation of the row. These values are then to be used at the destination." DEFVAL { required } ::= { saSoftPVccEntry 3 }
saSoftPVccLeafRef OBJECT-TYPE SYNTAX INTEGER MAX-ACCESS read-only STATUS current DESCRIPTION "Leaf Reference for point to multi-point connections" DEFVAL { 1 } ::= { saSoftPVccEntry 1 }		saSoftPVccTargetVpi OBJECT-TYPE SYNTAX INTEGER (0..4095) MAX-ACCESS read-write STATUS current DESCRIPTION "The VPI value of the VCL used at the target interface. This value is not relevant when the value of SASoftPVccTargetSelectType is 'any'." DEFVAL { 0 } ::= { saSoftPVccEntry 4 }
saSoftPVccTargetAddress OBJECT-TYPE SYNTAX OCTET STRING MAX-ACCESS read-write STATUS current DESCRIPTION "The target ATM Address of this Soft PVCC." ::= { saSoftPVccEntry 2 }		saSoftPVccTargetVci OBJECT-TYPE SYNTAX INTEGER (0..65535) MAX-ACCESS read-write STATUS current DESCRIPTION "The VCI value of the VCL used at the target interface. This value must be filled in when the SASoftPVccTargetSelectType is set to 'required'. This value is not relevant when the value of SASoftPVccTargetSelectType is 'any'." ::= { saSoftPVccEntry 5 }
saSoftPVccTargetSelectType OBJECT-TYPE SYNTAX INTEGER { required(1), any(2) } MAX-ACCESS read-create STATUS current DESCRIPTION "Indicates whether the target VPI/VCI values are to be used at the destination. If the value 'any' is specified, the destination switch will choose the VPI/VCI values. In such a case, once the Soft PVCC saSoftPVccOperStatus value is 'connected', the value of this object changes to 'required', such that the same VPI/VCI values will continue to be used even if the connection is subsequently torn down and re-established. The VPI/VCI values chosen will be available for reading in SASoftPVccTargetVpi and saSoftPVccTargetVci. If the value 'required' is specified, then values must be supplied for objects saSoftPVccTargetVpi		saSoftPVccLastReleaseCause OBJECT-TYPE SYNTAX INTEGER(1..127) MAX-ACCESS read-only STATUS current DESCRIPTION "Value of the Cause field of the Cause Information Element in the last RELEASE signalling message received for this Soft PVCC. Indicates the reason for the Release." ::= { saSoftPVccEntry 6 }
		saSoftPVccLastReleaseDiagnostic OBJECT-TYPE SYNTAX OCTET STRING (SIZE(0..8)) MAX-ACCESS read-only STATUS current DESCRIPTION "Value of the first 8 bytes of diagnostic information from the Cause field of the Cause Information Element in the last RELEASE signalling message received for this Soft PVCC."

```

::= { saSoftPVccEntry 7 }

saSoftPVccOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        other(1),
        establishmentInProgress(2),
        connected(3),
        retriesExhausted(4)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Describes the status of the Soft PVCC. When the
        row is not 'active', the value of this
        object is 'other'."
    ::= { saSoftPVccEntry 8 }

saSoftPVccRestart OBJECT-TYPE
    SYNTAX  INTEGER {
        restart(1),
        noop(2)
    }
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "When the value is set to 'restart' the Soft PVCC
        is released if necessary and a new setup procedure
        is begun. As a result of this action, the
        saSoftPVccOperStatus object transitions to
        'establishmentInProgress' (if not already in this state)
        and the saSoftPVccRetryFailures object is cleared

        When the value is set to 'noop' no operation is
        performed. When read, the value 'noop' is returned."
    ::= { saSoftPVccEntry 9 }

saSoftPVccRetryInterval OBJECT-TYPE
    SYNTAX  INTEGER (0..3600)
    UNITS    "seconds"
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Defines the period to wait before attempting
        to establish the Soft PVC after the first failed call
        attempt. Zero represents an infinite interval
        indicating no retries."
    DEFVAL { 10 }
    ::= { saSoftPVccEntry 10 }

```

```

saSoftPVccRetryTimer OBJECT-TYPE
    SYNTAX  INTEGER (0..86400)
    UNITS    "seconds"
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Indicates the current value of the retry timer for
        this connection. When the value reaches zero an attempt
        will be made to establish the Soft PVCC. When the timer
        is not running, the value zero shall be returned."
    ::= { saSoftPVccEntry 11 }

saSoftPVccRetryThreshold OBJECT-TYPE
    SYNTAX  INTEGER (0..65535)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Indicates the number of consecutive call setup attempts
        for the same Soft PVCC which need to fail before the
        saSoftPvcCallFailures object is incremented. A value of
        zero indicates that an infinite number of call attempts
        are required to increment the saSoftPvcCallFailures object
        and thus disables alarms for the Soft PVCC."
    DEFVAL { 1 }
    ::= { saSoftPVccEntry 12 }

saSoftPVccRetryFailures OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Indicates how many attempts to establish the connection
        have failed. This count is reset whenever a connection
        is successfully established or the Soft PVCC is restarted."
    ::= { saSoftPVccEntry 13 }

saSoftPVccRetryLimit OBJECT-TYPE
    SYNTAX  INTEGER (0..65535)
    MAX-ACCESS  read-write
    STATUS  current
    DESCRIPTION
        "Sets a maximum limit on how many consecutive unsuccessful
        call setup attempts can be made before stopping the attempt
        to set up the connection. If this limit is reached then
        management action will be required (e.g. setting
        saSoftPVccRestart to 'restart') to initiate a new attempt
        to establish the connection. A value of zero indicates

```

```

        no limit - the attempts will continue until successful."
DEFVAL { 0 }
::= { saSoftPVccEntry 14 }

saSoftPVccRowStatus OBJECT-TYPE
    SYNTAX INTEGER {
        create(1),
        created(2),
        delete(3)
    }
    MAX-ACCESS read-create
    STATUS current
    DESCRIPTION
        "Used to create and delete a Soft PVCC. When this
        object is set to 'active' an attempt is made to
        set up the Soft PVCC. When this object has the value
        'active' and is set to another value, any
        set-up or connection in-progress is released."
    ::= { saSoftPVccEntry 15 }

saSoftPVccRemoteHandle OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Service Handle. This maps to the service instance
        identifier in the Ascend Vendor-Specific B-HLI.

        This field should used for ASPVC-ORIG, and should not
        be used for SPVC-ORIG. For SPVC-ORIG the VP/VC fields
        of this table should be used to specify the remote VP/VC"
    ::= { saSoftPVccEntry 16 }

```

```

-----
--          A-SPVC Termination Information
-- A row in this table will be automatically created for each service that
-- is configured with a dialType of ASPVC-TERM.
--
-- This table provides the additional management information necessary to
-- manage ASPVC terminator functions.
--
-----

saAspvcTerminateTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAspvcTerminateEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Table of A-SPVC terminate services.
        Contains a record per service termination.
        All A-SPVC terminations are represented by
        a service type and a service identifier"
    ::= { saAspvcService 4 }

saAspvcTerminateEntry OBJECT-TYPE
    SYNTAX SaAspvcTerminateEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Contains objects relevant to A-SPVC terminate services"
    INDEX {
        saAspvcPifIndex,
        saAspvcPvpi,
        saAspvcPvci,
        saAspvcTerminateLeafRef }
    ::= { saAspvcTerminateTable 1 }

SaAspvcTerminateEntry ::=
    SEQUENCE {
        SAAspvcTerminateLeafRef
            INTEGER,
        SAAspvcTerminateHandle
            INTEGER,
        SAAspvcTerminateClearCounts
            INTEGER,
        SAAspvcTerminateRejects
            INTEGER,
        SAAspvcTerminateReason
            INTEGER
    }

```

```

saAspvcTerminateLeafRef OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Leaf Reference for point to Multi-point terminators"
    ::= { saAspvcTerminateEntry 1 }

```

```

saAspvcTerminateHandle OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Unique Termination handle assigned to this service.
        This handle should be used by the corresponding ASPVC-ORIG
        function to specify the remote service"
    ::= { saAspvcTerminateEntry 2 }

```

```

saAspvcTerminateClearCounts OBJECT-TYPE
    SYNTAX INTEGER {
        yes(1),
        no(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Clear Counts for this Terminator"
    ::= { saAspvcTerminateEntry 3 }

```

```

saAspvcTerminateRejects OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of Times a call has been rejected by
        this terminator"
    ::= { saAspvcTerminateEntry 4 }

```

```

saAspvcTerminateReason OBJECT-TYPE
    SYNTAX INTEGER {
        aal(1),
        td(2),
        bbc(4),
        qos(8)
    }
    MAX-ACCESS read-only

```

```

STATUS current
DESCRIPTION
    "Bit-Mask of reasons for call setup reject."
    ::= { saAspvcTerminateEntry 5 }

```

```

-----
--                                     A-SPVC Root Service Table
--
-- A row in this table will be automatically created each time a row is
-- created in the Service Table. This table provides alternate
-- indexing of the drop-side PVCL's to aid network management
-- applications such as the embedded UI of the SA product.
--
-----

```

```

saAspvcRootServiceTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAspvcRootServiceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Cross-reference listing of provisioned A-SPVC services.
        Indexed from root ifIndex to provide screening
        at root/port level for UI"
    ::= { saAspvcService 5 }

```

```

saAspvcRootServiceEntry OBJECT-TYPE
    SYNTAX SaAspvcRootServiceEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Primary value of table is alternate indexing"
    INDEX {
        saAspvcRootIndex,
        saAspvcAtmIfIndex,
        saAspvcAtmVpi,
        saAspvcAtmVci}
    ::= { saAspvcRootServiceTable 1 }

```

```

SaAspvcRootServiceEntry ::=
    SEQUENCE {
        SAAaspvcRootIndex
        INTEGER,
        SAAaspvcAtmIfIndex

```

```

        INTEGER,
        SAAspvcAtmVpi
        INTEGER,
        SAAspvcAtmVci
        INTEGER
    }

saAspvcRootIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "ifIndex of Root Interface for Service"
    ::= { saAspvcRootServiceEntry 1 }

saAspvcAtmIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "ifIndex of ATM interface for service"
    ::= { saAspvcRootServiceEntry 2 }

saAspvcAtmVpi OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Internal VPI for service"
    ::= { saAspvcRootServiceEntry 3 }

saAspvcAtmVci OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Internal VCI for service"
    ::= { saAspvcRootServiceEntry 4 }

```

```

-----
--                               A-SPVC ATM VCL Provisioning
--
-- This group of simple objects allow creation of PVCL (drop-side native
-- ATM UNI) inter-working functions.
-----

saAspvcPvcIProvIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "ifIndex of new drop-side UNI connection"
    ::= { saAspvcPvcIProv 1 }

saAspvcPvcIProvVpi OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "VPI of new drop-side UNI connection"
    ::= { saAspvcPvcIProv 2 }

saAspvcPvcIProvVci OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "VCI of new drop-side UNI connection"
    ::= { saAspvcPvcIProv 3 }

saAspvcPvcIProvServiceType OBJECT-TYPE
    SYNTAX INTEGER {
        uni-pvc(1),
        uni-pvp(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Type of new drop-side UNI connection (pvc or pvp)"
    ::= { saAspvcPvcIProv 4 }

saAspvcPvcIProvCmd OBJECT-TYPE
    SYNTAX INTEGER {
        noop(1),
        add-uni-iwf(2),
        del-uni-iwf(3)
    }

```

```

MAX-ACCESS read-write
STATUS current
DESCRIPTION
    "Add/Delete a drop-side UNI connection"
::= { saAspvcPvclProv 5 }

saAspvcPvclProvResp OBJECT-TYPE
    SYNTAX INTEGER {
        ok(1),
        in-use(2),
        not-present(3)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Results of processing ProvCmd"
    ::= { saAspvcPvclProv 6 }

-----
--
--           A-SPVC ATM VCL Table
--
-- This table allows users to provision PVCL's for subsequent routing
-- out of the node as PVC/PVP/ASPVC/SPVC/etc.
--
-----

saAspvcPvclTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAspvcPvclEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Table of drop-side ATM VCLs. Each VCL may be
        routed out of the node as a PVC, PVP,
        ASPVC_ORIG, ASPVC_TERM, SPVC, or SPVP"
    ::= { saAspvcService 6 }

saAspvcPvclEntry OBJECT-TYPE
    SYNTAX SaAspvcPvclEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Contains objects relevant to A-SPVC services"
    INDEX { saAspvcPvclIfIndex, saAspvcPvclVpi, saAspvcPvclVci }
    ::= { saAspvcPvclTable 1 }

SaAspvcPvclEntry ::=
    SEQUENCE {

```

```

        SAAspvcPvclIfIndex
            INTEGER,
        SAAspvcPvclVpi
            INTEGER,
        SAAspvcPvclVci
            INTEGER,
        SAAspvcPvclServiceType
            INTEGER,
        SAAspvcPvclServiceRate
            INTEGER,
        SAAspvcPvclUserRate
            INTEGER,
        SAAspvcPvclURateStatus
            INTEGER
    }

```

```

saAspvcPvclIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The ifIndex of the PVCL for this service"
    ::= { saAspvcPvclEntry 1 }

saAspvcPvclVpi OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The VPI of the PVCL for this service"
    ::= { saAspvcPvclEntry 2 }

saAspvcPvclVci OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The VCI of the PVCL for this service"
    ::= { saAspvcPvclEntry 3 }

saAspvcPvclServiceType OBJECT-TYPE
    SYNTAX INTEGER {
        uni-pvc(1),
        uni-pvp(2)
    }
    MAX-ACCESS read-only

```

```

STATUS current
DESCRIPTION
    "Reflects original Row Status value
    (this object needs to be read-only !!!)"
::= { saAspvcPvclEntry 4 }

```

```

saAspvcPvclServiceRate OBJECT-TYPE
    SYNTAX  INTEGER {
        rate-64Kb(1),
        rate-384Kb(2),
        rate-1536Kb(3),
        rate-1Mb(4),
        rate-2Mb(5),
        rate-5Mb(6),
        rate-10Mb(7),
        rate-40Mb(8),
        rate-50Mb(9),
        rate-100Mb(10),
        rate-150Mb(11),
        user-defined(12)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Selects canned service rate"
    ::= { saAspvcPvclEntry 5 }

```

```

saAspvcPvclUserRate OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "User defined rate"
    ::= { saAspvcPvclEntry 6 }

```

```

saAspvcPvclURateStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        ok(1),
        bad(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Results of processing user entered rate"
    ::= { saAspvcPvclEntry 7 }

```

```

-----
--
--                               A-SPVC Switched Circuit Table
--
-- A row is automatically populated in this table for each service that is
-- configured with a dialType of SPVC-ORIG, ASPVC-ORIG, or ASPVC-TERM.

```

```

-- This table provides additional information relevant to
-- switched circuits.
-----

```

```

saAspvcScTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF SaAspvcScEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Table of switched circuit status items"
    ::= { saAspvcService 7 }

```

```

saAspvcScEntry OBJECT-TYPE
    SYNTAX  SaAspvcScEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Contains switched circuit status"
    INDEX { saAspvcPvclIfIndex, saAspvcPvclVpi, saAspvcPvclVci,
saAspvcScLeafRef }
    ::= { saAspvcScTable 1 }

```

```

SaAspvcScEntry ::=
    SEQUENCE {
        SAAspvcScLeafRef
            INTEGER,
        SAAspvcScCause
            INTEGER,
        SAAspvcScIfIndex
            INTEGER,
        SAAspvcScVpi
            INTEGER,
        SAAspvcScVci
            INTEGER,
        SAAspvcScLocation
            INTEGER,
        SAAspvcScDiag
            OCTET STRING
    }

```

```

saAspvcScLeafRef OBJECT-TYPE
    SYNTAX  INTEGER
    MAX-ACCESS read-only

```

```

STATUS    current
DESCRIPTION
    "Leaf Reference for this switched circuit"
::= { saAspvcScEntry 1 }

saAspvcScCause OBJECT-TYPE
    SYNTAX      INTEGER {
        none (0),          -- non std, SA proprietary
        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
        b-cap-unavailable (58), -- bearer capability not available
        service-unavailable (63), -- Service or option unavailable
        b-cap-not-implemented (65), -- bearer capability not implemented
        combination-unsupported (73), -- unsupported comb.
        -- of traffic parameters
        aal-params-un supp-31 (78), -- UNI 3.1: AAL parameters
        -- cannot be supported
        invalid-call-reference (81), -- invalid call reference
        no-channel (82), -- identified channel does not exist
        dest-incompatible (88), -- incompatible destination
        invalid-endpoint-ref (89), -- invalid endpoint reference
        invalid-transit-net (91), -- invalid transit network selection
        too-many-add-pty-req (92), -- too many add party requests
        aal-params-un supp-30 (93), -- UNI 3.0:AAL parameters
        -- cannot be supported

```

```

info-element-missing (96), -- mandatory info element is missing
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 expire
invalid-message-len (104), -- incorrect message length
protocol-error (111), -- protocol error, unspecified
optional-element-error (127), -- opt info el content error
        -- (non-std)

```

```

no-route-next-node (128), -- pnni
dtl-not-my-node (160) -- pnni
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Last received cause code for this service."
::= { saAspvcScEntry 2 }

```

```

saAspvcScIfIndex OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The ifIndex of the Switched VCL for this service."
    ::= { saAspvcScEntry 3 }

```

```

saAspvcScVpi OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The VPI of the Switched VCL for this service."
    ::= { saAspvcScEntry 4 }

```

```

saAspvcScVci OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS read-only
    STATUS      current
    DESCRIPTION
        "The VCI of the Switched VCL for this service."
    ::= { saAspvcScEntry 5 }

```

```

saAspvcScLocation OBJECT-TYPE
    SYNTAX      INTEGER {
        user (0),
        private-nwk-serving-loc-user (1),

```

```
        public-nwk-serving-loc-user (2),
        transit-nwk (3),
        public-nwk-serving-rem-user (4),
        private-nwk-serving-rem-user (5),
        intl-nwk (7),
        nwk-beyond-intw-point (10)
    }
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "Location of the cause originator"
    ::= { saAspvcScEntry 6 }

saAspvcScDiag    OBJECT-TYPE
    SYNTAX        OCTET STRING (SIZE(32))
    MAX-ACCESS    read-only
    STATUS        current
    DESCRIPTION
        "diagnostic info, if any"
    ::= { saAspvcScEntry 7 }
```

```

--=====
--                               A-SPVC PVC-Term Table
--
-- A row is automatically populated in this table for each service that is
-- configured with a dialType of PVC-Term. The dialType is always paired
-- with a PVC-Orig for locally cross-connected IWFs. The table is really
-- just a place holder, the PVC-Orig's table (PvcTable)
-- does the real work.
--=====

saAspvcPvcTermTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAspvcPvcTermEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Table of A-SPVC services configured with
        dial-type of PVC-Term"
    ::= { saAspvcService 8 }

saAspvcPvcTermEntry OBJECT-TYPE
    SYNTAX SaAspvcPvcTermEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Contains objects provisioning PVCs
        that are locally x-connected IWFs.
        Indexed by drop side."
    INDEX { saAspvcPifIndex, saAspvcPvpi, saAspvcPvci }
    ::= { saAspvcPvcTermTable 1 }

SaAspvcPvcTermEntry ::=
    SEQUENCE {
        SAAspvcPvcTermIfIndex
            INTEGER,
        SAAspvcPvcTermVpi
            INTEGER,
        SAAspvcPvcTermVci
            INTEGER
    }

saAspvcPvcTermIfIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The ifIndex of the VCL we are to which we are connecting"
    ::= { saAspvcPvcTermEntry 1 }

```

```

saAspvcPvcTermVpi OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The VPI of the VCL we are to which we are connecting"
    ::= { saAspvcPvcTermEntry 2 }

saAspvcPvcTermVci OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The VCI of the VCL we are to which we are connecting"
    ::= { saAspvcPvcTermEntry 3 }

--=====
--                               A-SPVC Traffic Descriptor Table
--
-- Each time a row is created in the service table.
-- Two rows will be created in this table to provide user control
-- over forward and backward traffic descriptors.
-- Two columnar objects in the Service Table provide table
-- indices back into this table for the forward and reverse entries.
--
--=====

saAspvcLastTdIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Last Traffic Descriptor Index"
    ::= { saAspvcTrafficDesc 1 }

saAspvcTdTable OBJECT-TYPE
    SYNTAX SEQUENCE OF SaAspvcTdEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "List of Traffic Descriptors used by A-SPVC services"
    ::= { saAspvcTrafficDesc 2 }

```

```

saAspvcTdEntry OBJECT-TYPE
    SYNTAX SaAspvcTdEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Traffic Descriptor Table"
    INDEX { saAspvcTdIndex }
    ::= { saAspvcTdTable 1 }

```

```

SaAspvcTdEntry ::=
    SEQUENCE {
        SAAspvcTdIndex
            INTEGER,
        SAAspvcTdPcr01
            INTEGER,
        SAAspvcTdPcr0
            INTEGER,
        SAAspvcTdScr01
            INTEGER,
        SAAspvcTdScr0
            INTEGER,
        SAAspvcTdMbs01
            INTEGER,
        SAAspvcTdMbs0
            INTEGER,
        SAAspvcTdCdvT
            INTEGER,
        SAAspvcTdCongestAction
            INTEGER,
        SAAspvcTdBufferSize
            INTEGER,
        SAAspvcTdUpcEnable
            INTEGER
    }

```

```

saAspvcTdIndex OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Table Index"
    ::= { saAspvcTdEntry 1 }

```

```

saAspvcTdPcr01 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION

```

```

        "Peak Cell Rate for CLP=0+1"
    ::= { saAspvcTdEntry 2 }

```

```

saAspvcTdPcr0 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Peak Cell Rate for CLP=0"
    ::= { saAspvcTdEntry 3 }

```

```

saAspvcTdScr01 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Sustained Cell Rate for CLP=0+1"
    ::= { saAspvcTdEntry 4 }

```

```

saAspvcTdScr0 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Sustained Cell Rate for CLP=0"
    ::= { saAspvcTdEntry 5 }

```

```

saAspvcTdMbs01 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Maximum Burst Size for CLP=0+1"
    ::= { saAspvcTdEntry 6 }

```

```

saAspvcTdMbs0 OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Maximum Burst Size for CLP=0"
    ::= { saAspvcTdEntry 7 }

```

```

saAspvcTdCdvT OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Cell Delay Variation Tolerance"
    ::= { saAspvcTdEntry 8 }

saAspvcTdCongestAction OBJECT-TYPE
    SYNTAX INTEGER {
        none(1),
        setEFCI(2),
        earlyPacketDiscard(3),
        dropCLP1(4),
        setEFCIandEPD(5),
        setEFCIandCLP1(6)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Action taken on Forward Congestion"
    ::= { saAspvcTdEntry 9 }

saAspvcTdBufferSize OBJECT-TYPE
    SYNTAX INTEGER {
        shallow(1),
        medium(2),
        high(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Buffer size allocated for this connection"
    ::= { saAspvcTdEntry 10 }

saAspvcTdUpcEnable OBJECT-TYPE
    SYNTAX INTEGER {
        off(1),
        on(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "When enabled non-conforming cells are tagged or discarded, when
        disabled policing is in monitor mode only"
    ::= { saAspvcTdEntry 11 }

END

```

Sahara Network Call Control MIB

sa-NCC-MIB DEFINITIONS ::= BEGIN

IMPORTS

OBJECT-TYPE FROM SNMPv2-SMI
 saSignallingFROM OASIS-SYSINFO-MIB
 TimeTicks FROM RFC1155-SMI;

-- groups in SA-SIG-ILMI-MIB

saNcc OBJECT IDENTIFIER ::= { saSignalling 6 }

 --
 -- SA P2P SVC Table
 --

saNccP2PSvcTable OBJECT-TYPE
 SYNTAX SEQUENCE OF SaNccP2PSvcEntry
 MAX-ACCESS not-accessible
 STATUS current
 DESCRIPTION
 "A table containing information about tandem circuits."
 ::= { saNcc 1 }

saNccP2PSvcEntry OBJECT-TYPE
 SYNTAX SaNccP2PSvcEntry
 MAX-ACCESS not-accessible
 STATUS current
 DESCRIPTION
 "The objects relevant to a SVC calls"
 INDEX {
 saNccP2PSvcSrcIfIndex,
 saNccP2PSvcSrcVpi,
 saNccP2PSvcSrcVci,
 saNccP2PSvcDstIfIndex,
 saNccP2PSvcDstVpi,
 saNccP2PSvcDstVci}
 ::= { saNccP2PSvcTable 1 }

SaNccP2PSvcEntry ::= SEQUENCE
 {
 saNccP2PSvcSrcIfIndex INTEGER,
 saNccP2PSvcSrcVpi INTEGER,
 saNccP2PSvcSrcVci INTEGER,
 saNccP2PSvcDstIfIndex INTEGER,
 saNccP2PSvcDstVpi INTEGER,
 saNccP2PSvcDstVci INTEGER,
 saNccP2PSvcAdminStatus INTEGER,
 saNccP2PSvcCallingParty OCTET STRING,
 saNccP2PSvcCallingPartyNmbPlan INTEGER,
 saNccP2PSvcCalledParty OCTET STRING,
 saNccP2PSvcCalledPartyNmbPlan INTEGER,
 saNccP2PSvcCreationTime TimeTicks
 }

saNccP2PSvcSrcIfIndex OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Source Interface Index; this is the value of ifIndex
 for this side of the connection"
 ::= { saNccP2PSvcEntry 1 }

saNccP2PSvcSrcVpi OBJECT-TYPE
 SYNTAX INTEGER (0..4095)
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Source VPI"
 ::= { saNccP2PSvcEntry 2 }

saNccP2PSvcSrcVci OBJECT-TYPE
 SYNTAX INTEGER (0..65535)
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Source VCI"
 ::= { saNccP2PSvcEntry 3 }

saNccP2PSvcDstIfIndex OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 " Destination Interface Index; this is the value of ifIndex
 for this side of the connection"
 ::= { saNccP2PSvcEntry 4 }

saNccP2PSvcDstVpi OBJECT-TYPE SYNTAX INTEGER (0..4095) MAX-ACCESS read-only STATUS current DESCRIPTION " Destination VPI " ::= { saNccP2PSvcEntry 5 } saNccP2PSvcDstVci OBJECT-TYPE SYNTAX INTEGER (0..65535) MAX-ACCESS read-only STATUS current DESCRIPTION " Destination VCI " ::= { saNccP2PSvcEntry 6 } saNccP2PSvcAdminStatus OBJECT-TYPE SYNTAX INTEGER { up(1), down(2) } MAX-ACCESS read-write STATUS current DESCRIPTION " Administrative Status " ::= { saNccP2PSvcEntry 7 } saNccP2PSvcCallingParty OBJECT-TYPE SYNTAX OCTET STRING (SIZE(0 8 20)) MAX-ACCESS read-only STATUS current DESCRIPTION "The calling party number for this call. 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." ::= { saNccP2PSvcEntry 8 } saNccP2PSvcCallingPartyNmbPlan OBJECT-TYPE SYNTAX INTEGER{ e164 (1), atm-endsystem (2), unknown(3) } MAX-ACCESS read-only STATUS current	DESCRIPTION "The numbering plan corresponding to saSvcCallingParty object." ::= { saNccP2PSvcEntry 9 } saNccP2PSvcCalledParty OBJECT-TYPE SYNTAX OCTET STRING (SIZE(8 20)) MAX-ACCESS read-only STATUS current DESCRIPTION "The called party number for this call. E.164 addresses are coded as 1-15 ASCII octets. Atm-endsystem addresses are coded as 20 octet binary addresses." ::= { saNccP2PSvcEntry 10 } saNccP2PSvcCalledPartyNmbPlan OBJECT-TYPE SYNTAX INTEGER{ e164 (1), atm-endsystem (2), unknown(3) } MAX-ACCESS read-write STATUS current DESCRIPTION "The numbering plan corresponding to this entry's local gateway address object." ::= { saNccP2PSvcEntry 11 } saNccP2PSvcCreationTime OBJECT-TYPE SYNTAX TimeTicks MAX-ACCESS read-only STATUS current DESCRIPTION "The value of sysUpTime when the circuit was created" ::= { saNccP2PSvcEntry 12 } saNccEvent OBJECT-TYPE SYNTAX INTEGER MAX-ACCESS read-write STATUS current DESCRIPTION "for testing sncc" ::= { saNcc 2 } END
--	---

```
-- *****
```

SCCS MIB

```
-- *****
```

```
OASIS-SCCS-MIB DEFINITIONS ::= BEGIN
```

IMPORTS

```
    OBJECT-TYPE                FROM SNMPv2-SMI
    saSCCSStats, saBrdNum FROM OASIS-SYSINFO-MIB
    Counter                    FROM RFC1155-SMI;
```

```
saSccsPerCallStats          OBJECT IDENTIFIER ::= { saSCCSStats 2 }
saSccsGlobalStats           OBJECT IDENTIFIER ::= { saSCCSStats 3}
```

```
saSccsPerCallStatsControl  OBJECT-TYPE
    SYNTAX                    INTEGER {
        enable(1),
        disable(2)
    }
    MAX-ACCESS                read-write
    STATUS                    current
    DESCRIPTION
        "Enables/Disables per Call debug info (saSCCSCallTable). "
    ::= { saSCCSStats 1}
```

```
--=====
-- Call Control Block Info
-- contains informations about calls managed by SCCS layer.
--=====
```

```
SaSCCSCallTable  OBJECT-TYPE
    SYNTAX          SEQUENCE OF SaSCCSCallEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        "SCCS Call Table "
    ::= { saSccsPerCallStats 1}
```

```
saSCCSCallEntry  OBJECT-TYPE
    SYNTAX          SaSCCSCallEntry
    MAX-ACCESS      not-accessible
    STATUS          current
    DESCRIPTION
        " "
```

```
INDEX { saSccsCBIndex }
::= { saSCCSCallTable 1}
```

```
saSCCSCallEntry ::= SEQUENCE
{
```

```
    saSccsCBIndex          INTEGER,
    saSccsCCBStatus        INTEGER,
    saSccsState            INTEGER,
    saSccsNewEvent         INTEGER,
    saSccsUserId           INTEGER,
    saSccsSide            INTEGER,
    saSccsCallType        INTEGER,
    saSccsRole            INTEGER,
    saSccsSuInstId        INTEGER,
    saSccsSpInstId        INTEGER,
    saSccsAppInstId       INTEGER,
    saSccsPvclIfIndex     INTEGER,
    saSccsPvclVpi         INTEGER,
    saSccsPvclVci         INTEGER,
    saSccsSvclIfIndex     INTEGER,
    saSccsSvclVpi         INTEGER,
    saSccsSvclVci         INTEGER,
    saSccsIfIndex         INTEGER,
    saSccsProtocol        INTEGER
}
```

```
SaSccsCBIndex  OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Call Control Block Index"
    ::= {saSCCSCallEntry 1}
```

```
saSccsCCBStatus  OBJECT-TYPE
    SYNTAX          INTEGER {
        free(1),
        used(2)
    }
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Status of the Call Control Block (Used / Free)"
    ::= {saSCCSCallEntry 2}
```

SaScCsState OBJECT-TYPE
 SYNTAX INTEGER {
 orig-init(1),
 orig-call-initiated(2),
 orig-status-ind-rcvd(3),
 orig-release-initiated(4),
 orig-active(5),

 dest-init(6),
 dest-validating-conn(7),
 dest-connect-sent(8),
 dest-release-initiated(9),
 dest-active(10)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "SCCS State of the call "
 ::= {saSCCSCallEntry 3}

saScCsNewEvent OBJECT-TYPE
 SYNTAX INTEGER {
 orig-setup-req(1),
 orig-conn-cfm(2),
 orig-rel-ind(3),
 orig-status-ind(4),
 orig-release(5),

 dest-conn-ind(6),
 dest-conn-rej(7),
 dest-conn-accept-a(8),
 dest-conn-accept-p(9),
 dest-conn-req(10),
 dest-rel-ind(11),
 dest-status-ind(12),
 dest-release(13),
 dest-rel-cfm(14)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "SCCS State Machine event"
 ::= {saSCCSCallEntry 4}

saScCsUserId OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "SCCS User ID (SPVCM, NCC..)"
 ::= {saSCCSCallEntry 5}

saScCsSide OBJECT-TYPE
 SYNTAX INTEGER {
 network(2),
 user(3)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "SCCS SIDE: User or Network "
 ::= {saSCCSCallEntry 6}

saScCsCallType OBJECT-TYPE
 SYNTAX INTEGER {
 active(2),
 passive(3)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "ACTIVE or PASSIVE"
 ::= {saSCCSCallEntry 7}

saScCsRole OBJECT-TYPE
 SYNTAX INTEGER {
 originating(2),
 destination(3)
 }
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "Originator or Terrminator"
 ::= {saSCCSCallEntry 8}

saScCsSuInstId OBJECT-TYPE
 SYNTAX INTEGER
 MAX-ACCESS read-only
 STATUS current
 DESCRIPTION
 "SCCS Service User Instance ID at AMT interface"
 ::= {saSCCSCallEntry 9}

```

saScCsSpInstId    OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "SCCS Service Provider Instance ID at AMT interface"
    ::= {saSCCSCallEntry 10}

```

```

saScCsAppInstId   OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "SCCS Application Instance ID; assigned by SCCS users"
    ::= {saSCCSCallEntry 11}

```

```

saScCsPvclIfIndex OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "ifIndex for PVCL leg"
    ::= {saSCCSCallEntry 12}

```

```

saScCsPvclVpi     OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "VPI for PVCL leg"
    ::= {saSCCSCallEntry 13}

```

```

saScCsPvclVci     OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "VCI for PVCL leg"
    ::= {saSCCSCallEntry 14}

```

```

saScCsSvclIfIndex OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "ifIndex for SVCL leg"
    ::= {saSCCSCallEntry 15}

```

```

saScCsSvclVpi     OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "VPI for SVCL leg"
    ::= {saSCCSCallEntry 16}

```

```

saScCsSvclVci     OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "VCI for SVCL leg"
    ::= {saSCCSCallEntry 17}

```

```

saScCsIfIndex     OBJECT-TYPE
    SYNTAX          INTEGER
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "IfIndex on which the call was established"
    ::= {saSCCSCallEntry 18}

```

```

saScCsProtocol    OBJECT-TYPE
    SYNTAX          INTEGER {
        other(1),
        autoConfig(2),
        ituDss2(3),
        atmUni3Dot0(4),
        atmUni3Dot1(5),
        atmUni4Dot0(6),
        atmIispUni3Dot0(7),
        atmIispUni3Dot1(8),
        atmIispUni4Dot0(9),
        atmPnni1Dot0(10),
        atmBici2Dot0(11),
        atmUniPvcOnly(12),
        atmNniPvcOnly(13)
    }
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Protocol Variant"
    ::= {saSCCSCallEntry 19}

```

```

=====
--          SCCS Global Statistics
=====

saSccsNumSCCSUsers  OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of Registered SCCS Users"
    ::= { saSccsGlobalStats 1 }

SASccsTotalNumCBs   OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Total Number of Call Control Blocks"
    ::= { saSccsGlobalStats 2 }

SASccsNumFreeCBs    OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of Free Call Control Blocks"
    ::= { saSccsGlobalStats 3 }

SASccsNumAppSetupReqs  OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of SETUP requests issued by SCCS users "
    ::= { saSccsGlobalStats 4 }

SASccsNumAppReleaseReqs OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of Release requests issued by SCCS users"
    ::= { saSccsGlobalStats 5 }

SASccsNumAppConnectReqs OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current

```

```

DESCRIPTION
    "Number of CONNECT requests issued by SCCS users"
    ::= { saSccsGlobalStats 6 }

SASccsNumAppRspAccepts OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of Response Calls by SCCS users
        that were ACCEPTED "
    ::= { saSccsGlobalStats 7 }

SASccsNumAppRspRejects OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of Response Calls by SCCS users that were REJECTED
"
    ::= { saSccsGlobalStats 8 }

SASccsNumAppSetupInds  OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of SETUP indications passed up to SCCS Users"
    ::= { saSccsGlobalStats 9 }

SASccsNumAppReleaseInds OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of RELEASE indications passed up to SCCS Users"
    ::= { saSccsGlobalStats 10 }

SASccsNumAppCallInitiatedInds OBJECT-TYPE
    SYNTAX          Counter
    MAX-ACCESS      read-only
    STATUS          current
    DESCRIPTION
        "Number of Call-Initiated indications
        passed up to SCCS Users"
    ::= { saSccsGlobalStats 11 }

SASccsNumAppConnectInds OBJECT-TYPE
    SYNTAX          Counter

```

MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of CONNECT indications passed up to SCCS Users"
::= { saSccsGlobalStats 12 }		
SASccsNumAppStatusInds	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of STATUS_IND indications passed up to SCCS Users"
::= { saSccsGlobalStats 13 }		
SASccsNumAmtMsgsRcvd	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Total Number of Messages received at the AMT interface"
::= { saSccsGlobalStats 14 }		
SASccsNumAmtConnIndRcvd	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of Conn Indication Messages received at the AMT interface"
::= { saSccsGlobalStats 15 }		
SASccsNumAmtStIndRcvd	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of Status Ind Messages received at the AMT interface"
::= { saSccsGlobalStats 16 }		
SASccsNumAmtConnCfmRcvd	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of Conn Cfm Messages received at the AMT interface"
::= { saSccsGlobalStats 17 }		
SASccsNumAmtRelIndRcvd	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of Release Ind Messages received at the AMT interface"
::= { saSccsGlobalStats 18 }		
SASccsNumAmtRelCfmRcvd	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of Release Cfm Messages received at the AMT interface"
::= { saSccsGlobalStats 19 }		
SASccsNumAmtRstIndRcvd	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of Restart Ind Messages received at the AMT interface"
::= { saSccsGlobalStats 20 }		
SASccsNumAmtConnReqs	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of Conn Requests Messages issued at the AMT interface"
::= { saSccsGlobalStats 21 }		
SASccsNumAmtRelReqs	OBJECT-TYPE	
SYNTAX	Counter	
MAX-ACCESS	read-only	
STATUS	current	
DESCRIPTION		"Number of Release Request Messages issued at the AMT interface"
::= { saSccsGlobalStats 22 }		

SASccsNumAmtStReqs	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of Amt Status Requests "
::= { saSccsGlobalStats 23 }	
SASccsNumAmtConnRsps	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of Conn Response Messages issued at the AMT interface"
::= { saSccsGlobalStats 24 }	
SASccsNumVcmFailures	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of VCM calls that returned an error code"
::= { saSccsGlobalStats 25 }	
SASccsNumVcmCallouts	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of times VCM called the sccs callout function."
::= { saSccsGlobalStats 26 }	
SASccsNumCommsGetBuffCalls	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of times a COMMS buffer was allocated. Doesn't have to match the saSccsNumCommsRetBuffCalls count"
::= { saSccsGlobalStats 27 }	
SASccsNumCommsRetBuffCalls	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of times a COMMS buffer was Freed up."

Doesn't have to match the
saSccsNumCommsGetBuffCalls count"

```
::= { saSccsGlobalStats 28 }
```

SASccsNumAccsInternalRelInd	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of Internally generated RelInds."
::= { saSccsGlobalStats 29 }	
SASccsNoRoute	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of times a route could not be found "
::= { saSccsGlobalStats 30 }	
SASccsClearAll	OBJECT-TYPE
SYNTAX	INTEGER {
	none(1),
	clear-all(2)
	}
MAX-ACCESS	read-write
STATUS	current
DESCRIPTION	
	"Clear all stats"
::= { saSccsGlobalStats 31 }	
SASccsNumOrigActiveCalls	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of calls in the active state that were originated from this box"
::= { saSccsGlobalStats 32 }	
SASccsNumDestActiveCalls	OBJECT-TYPE
SYNTAX	Counter
MAX-ACCESS	read-only
STATUS	current
DESCRIPTION	
	"Number of calls in the active state that were established in response to call setup"
::= { saSccsGlobalStats 33 }	

```

saSccsNumAmtStaIndRcvd      OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of Status indications passed up to SCCS Users"
    ::= { saSccsGlobalStats 34 }

saSccsNumAmtStaCfmRcvd      OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of Status Confirms passed up to SCCS Users"
    ::= { saSccsGlobalStats 35 }

saSccsNumAmtAddPtyIndRcvd   OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of Add Party Indications passed up to SCCS Users"
    ::= { saSccsGlobalStats 36 }

saSccsNumAmtAddPtyCfmRcvd   OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of Add Party Confirms passed up to SCCS Users"
    ::= { saSccsGlobalStats 37 }

saSccsNumAmtDrpPtyIndRcvd   OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of Drop Party Indications passed up to SCCS Users"
    ::= { saSccsGlobalStats 38 }

saSccsNumAmtDrpPtyCfmRcvd   OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of Drop Party Confirms passed up to SCCS Users"
    ::= { saSccsGlobalStats 39 }

```

```

saSccsNumAmtAddPrjIndRcvd   OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of Add-Party-Reject indications passed up to SCCS
        Users"
    ::= { saSccsGlobalStats 40 }

saSccsNumAmtLijIndRcvd      OBJECT-TYPE
    SYNTAX Counter
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "Number of LIJ indications passed up to SCCS Users"
    ::= { saSccsGlobalStats 41 }

```

END

SA CR MIB

sa-CR-MIB DEFINITIONS ::= BEGIN

IMPORTS

```

    OBJECT-TYPE FROM SNMPv2-SMI
    saSignalling FROM OASIS-SYSINFO-MIB;

```

-- groups in SA-CR-ILMI-MIB

saCR OBJECT IDENTIFIER ::= { saSignalling 7 }

-- SA Static ATM Call Route Table

saAtmRouteTable OBJECT-TYPE

```

    SYNTAX SEQUENCE OF SaAtmRouteEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Static ATM call route table"
    ::= { saCR 1 }

```

```

saAtmRouteEntry OBJECT-TYPE
    SYNTAX SaAtmRouteEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "Static ATM call route entry"
    INDEX {saAtmRoutePortIndex, saAtmRoute, saAtmRouteLen}
    ::= { saAtmRouteTable 1 }

```

```

SaAtmRouteEntry ::= SEQUENCE
{
    saAtmRoutePortIndex    INTEGER,
    saAtmRoute              OCTET STRING,
    saAtmRouteLen           INTEGER,
    saAtmRoutePri           INTEGER,
    saAtmRouteAdminStatus  INTEGER,
    saAtmRouteOperStatus   INTEGER,
    saAtmRouteRowStatus    INTEGER
}

```

```

saAtmRoutePortIndex OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Index of the ATM port over which this
         ATM route is reachable"
    ::= { saAtmRouteEntry 1}

```

```

saAtmRoute OBJECT-TYPE
    SYNTAX      OCTET STRING
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "ATM static route"
    ::= { saAtmRouteEntry 2}

```

```

saAtmRouteLen OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "ATM static route length, in bits"
    ::= { saAtmRouteEntry 3}

```

```

saAtmRoutePri OBJECT-TYPE
    SYNTAX      INTEGER
    MAX-ACCESS  read-write

```

```

STATUS      current
DESCRIPTION
    "ATM static route priority, used to support parallel links"
    ::= { saAtmRouteEntry 4}

```

```

saAtmRouteAdminStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        valid(1),
        invalid(2)
    }
    MAX-ACCESS  read-write
    STATUS      current
    DESCRIPTION
        "Administrative status of the ATM static route.
         Setting this object to invalid
         helps the user keep the entry around without deleting it"
    ::= { saAtmRouteEntry 5}

```

```

saAtmRouteOperStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        up(1),
        down(2)
    }
    MAX-ACCESS  read-only
    STATUS      current
    DESCRIPTION
        "Operational status of the ATM static route. "
    ::= { saAtmRouteEntry 6}

```

```

saAtmRouteRowStatus OBJECT-TYPE
    SYNTAX      INTEGER {
        create(1),
        created(2),
        delete(3)
    }
    MAX-ACCESS  read-create
    STATUS      current
    DESCRIPTION
        "create/delete control for row"
    ::= { saAtmRouteEntry 7}

```

END

-- *****

ILMI MIB

```
-- *****
```

```
ATM-FORUM-TC-MIB DEFINITIONS ::= BEGIN
```

```
IMPORTS
```

```
    Counter, IpAddressFROM RFC1155-SMI
    DisplayStringFROM RFC1213-MIB
    TRAP-TYPE          FROM RFC-1215
--    OBJECT-TYPE      FROM RFC-1212
    enterprises        FROM RFC1155-SMI
    OBJECT-TYPE FROM SNMPv2-SMI
    TEXTUAL-CONVENTIONFROM SNMPv2-TC;
```

```
-- Textual Conventions
```

```
-- Boolean values use this data type from RFC-1903, "Textual Conventions
-- for Version 2 of the Simple Network Management Protocol (SNMPv2)"
TruthValue ::= INTEGER { true(1), false(2) }
```

```
-- CLNP address values use this data type from RFC-1238, "CLNS MIB for
-- use with Connectionless Network Protocol (ISO 8473) and End System
-- to Intermediate System (ISO 9542)"
--ClnpAddress ::= OCTET STRING (SIZE (1..21))
```

```
ClnpAddress ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "CLNP Address"
    SYNTAX OCTET STRING (SIZE (1..21))
```

```
-- ATM Service Categories use this data type (See [TM4.0]):
```

```
AtmServiceCategory ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "ATM Service Category."
    SYNTAX INTEGER {
        other(1),
        cbr(2),
        rtvbr(3),
        nrtvbr(4),
        abr(5),
        ubr(6)
    }
```

```
-- ATM End-System Addresses use this data type:
--AtmAddress ::= OCTET STRING (SIZE (8 | 20))
```

```
AtmAddress ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "Atm Address"
    SYNTAX OCTET STRING (SIZE (8 | 20))
```

```
-- Network-Prefixes for an ATM Address use this data type:
```

```
-- NetPrefix ::= OCTET STRING (SIZE (8 | 13))
```

```
NetPrefix ::= TEXTUAL-CONVENTION
    STATUS current
    DESCRIPTION
        "Network Prefix"
    SYNTAX OCTET STRING (SIZE (8 | 13))
```

```
-- In both the AtmAddress and NetPrefix conventions,
-- Native E.164 addresses are represented as 8 octets
-- using the format specified in section
-- 3.1.1.3 of the ATM Forum UNI Signalling 4.0 specification.
-- In contrast, an NSAP-encoded address is 20 octets, and an NSAP-encoded
-- network prefix is 13 octets long.
```

```
-- MIB Groups
```

```
-- a subtree for defining ATM Forum MIB object types
atmForum OBJECT IDENTIFIER ::= { enterprises 353 }
```

```
-- a subtree for defining administrative object types
atmForumAdmin OBJECT IDENTIFIER ::= { atmForum 1 }
atmfTransmissionTypes OBJECT IDENTIFIER ::= { atmForumAdmin 2 }
atmfMediaTypes OBJECT IDENTIFIER ::= { atmForumAdmin 3 }
atmfTrafficDescrTypes OBJECT IDENTIFIER ::= { atmForumAdmin 4 }
atmfSrvRegTypes OBJECT IDENTIFIER ::= { atmForumAdmin 5 }
```

```
-- a subtree for defining ATM Interface MIB object types
atmForumUni OBJECT IDENTIFIER ::= { atmForum 2 }
atmfPhysicalGroup OBJECT IDENTIFIER ::= { atmForumUni 1 }
atmfAtmLayerGroup OBJECT IDENTIFIER ::= { atmForumUni 2 }
atmfAtmStatsGroup OBJECT IDENTIFIER ::= { atmForumUni 3 }
atmfVpcGroup OBJECT IDENTIFIER ::= { atmForumUni 4 }
atmfVccGroup OBJECT IDENTIFIER ::= { atmForumUni 5 }
atmfAddressGroup OBJECT IDENTIFIER ::= { atmForumUni 6 }
atmfNetPrefixGroup OBJECT IDENTIFIER ::= { atmForumUni 7 }
atmfSrvRegRegistryGroup OBJECT IDENTIFIER ::= { atmForumUni 8 }
atmfVpcAbrGroup OBJECT IDENTIFIER ::= { atmForumUni 9 }
atmfVccAbrGroup OBJECT IDENTIFIER ::= { atmForumUni 10 }
atmfAddressRegistrationAdminGroup OBJECT IDENTIFIER ::= { atmForumUni 11 }
```

-- Object Identifier definitions

-- Transmission Types: These values are no longer used

```
atmfUnknownType      OBJECT IDENTIFIER ::= { atmfTransmissionTypes 1 }
atmfSonetSTS3c       OBJECT IDENTIFIER ::= { atmfTransmissionTypes 2 }
atmfDs3              OBJECT IDENTIFIER ::= { atmfTransmissionTypes 3 }
atmf4B5B             OBJECT IDENTIFIER ::= { atmfTransmissionTypes 4 }
atmf8B10B            OBJECT IDENTIFIER ::= { atmfTransmissionTypes 5 }
atmfSonetSTS12c      OBJECT IDENTIFIER ::= { atmfTransmissionTypes 6 }
atmfE3               OBJECT IDENTIFIER ::= { atmfTransmissionTypes 7 }
atmfT1               OBJECT IDENTIFIER ::= { atmfTransmissionTypes 8 }
atmfE1               OBJECT IDENTIFIER ::= { atmfTransmissionTypes 9 }
```

-- Media Types: These values are no longer used

```
atmfMediaUnknownType OBJECT IDENTIFIER ::= { atmfMediaTypes 1 }
atmfMediaCoaxCable   OBJECT IDENTIFIER ::= { atmfMediaTypes 2 }
atmfMediaSingleMode  OBJECT IDENTIFIER ::= { atmfMediaTypes 3 }
atmfMediaMultiMode   OBJECT IDENTIFIER ::= { atmfMediaTypes 4 }
atmfMediaStp         OBJECT IDENTIFIER ::= { atmfMediaTypes 5 }
atmfMediaUtp         OBJECT IDENTIFIER ::= { atmfMediaTypes 6 }
```

-- Traffic Descriptor Types: These types are combined with a five element parameter vector to describe a Traffic Descriptor.

-- Traffic Descriptors along with a Best Effort Indicator are used to indicate a Conformance Definition as defined in [TM4.0].

-- These types are no longer used

```
atmfNoDescriptor     OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 1 }
atmfPeakRate         OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 2 }
```

-- The No CLP/No SCR Type

-- Indicates the CBR.1 Conformance Definition if Best Effort is No

-- Indicates the UBR.1 and UBR.2 Conformance Definitions if

-- Best Effort is Yes

```
atmfNoClpNoScr       OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 3 }
-- The use of the parameter vector for this type:
-- Parameter #1 - peak cell rate in cells/second for CLP=0+1 traffic
-- Parameter #2 - CDVT in tenths of microseconds
-- Parameters #3, #4 and #5 are unused
```

-- These types are no longer used

```
atmfClpNoTaggingNoScr OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 4 }
atmfClpTaggingNoScr   OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 5 }
```

-- The SCR/No CLP Type

-- Indicates the VBR.1 Conformance Definition

```
atmfNoClpScr         OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 6 }
```

-- The use of the parameter vector for this type:

-- Parameter #1 - peak cell rate in cells/second for CLP=0+1 traffic

-- Parameter #2 - sustainable cell rate in cells/second for CLP=0+1 traffic

-- Parameter #3 - maximum burst size in cells

-- Parameter #4 - CDVT in tenths of microseconds

-- Parameter #5 - unused

-- The CLP without Tagging/SCR Type

-- Indicates the VBR.2 Conformance Definition

```
atmfClpNoTaggingScr  OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 7 }
```

-- The use of the parameter vector for this type:

-- Parameter #1 - peak cell rate in cells/second for CLP=0+1 traffic

-- Parameter #2 - sustainable cell rate in cells/second for CLP=0 traffic

-- Parameter #3 - maximum burst size in cells

-- Parameter #4 - CDVT in tenths of microseconds

-- Parameter #5 - unused

-- The CLP with Tagging/SCR Type

-- Indicates the VBR.3 Conformance Definition

```
atmfClpTaggingScr    OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 8 }
```

-- The use of the parameter vector for this type:

-- Parameter #1 - peak cell rate in cells/second for CLP=0+1 traffic

-- Parameter #2 - sustainable cell rate in cells/second for CLP=0

-- traffic, excess tagged as CLP=1

-- Parameter #3 - maximum burst size in cells

-- Parameter #4 - CDVT in tenths of microseconds

-- Parameter #5 - unused

-- The ABR Type

-- Indicates the ABR Conformance Definition

```
atmfClpNoTaggingMcr  OBJECT IDENTIFIER ::= { atmfTrafficDescrTypes 9 }
```

-- The use of the parameter vector for this type:

-- Parameter #1 - peak cell rate in cells/second

-- parameter #2 - CDVT in tenths of microseconds

-- Parameter #3 - minimum cell rate in cells/second

-- Parameter #4 - unused

-- Parameter #5 - unused

-- Textual Conventions

-- All representations of ATM addresses in this MIB Module use

-- the data type:

-- AtmmAddress ::= OCTET STRING (SIZE (0 .. 32)) *** S Rajesh ***

-- Note this data type is used only by the deprecated object

-- atmfPortAddress. Another definition (a refined one) is

-- specified in the Textual Conventions MIB.

```
--          The Physical Port Group
-- This group is current for all ATM Interface devices.
--
-- The Physical Port Table
```

```
atmfPortTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF AtmfPortEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table of physical layer status and parameter
        information for the ATM Interface's physical interface."
    ::= { atmfPhysicalGroup 1 }
```

```
atmfPortEntry OBJECT-TYPE
    SYNTAX  AtmfPortEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "An entry in the table, containing information about
        the physical layer of an ATM Interface."
    INDEX   { atmfPortIndex }
    ::= { atmfPortTable 1 }
```

```
AtmfPortEntry ::=
    SEQUENCE {
        atmfPortIndex
            INTEGER,
        atmfPortAddress
            AtmAddress,
        atmfPortTransmissionType
            OBJECT IDENTIFIER,
        atmfPortMediaType
            OBJECT IDENTIFIER,
        atmfPortOperStatus
            INTEGER,
        atmfPortSpecific
            OBJECT IDENTIFIER,
        atmfPortMyIfName
            DisplayString,
        atmfPortMyIfIdentifier
            INTEGER
    }
```

```
atmfPortIndex OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS read-only
```

```
STATUS current
DESCRIPTION
    "The value of 0 which has the special meaning of
    identifying the ATM Interface over which this message
    was received."
    ::= { atmfPortEntry 1 }
```

```
atmfPortAddress OBJECT-TYPE
    SYNTAX  AtmAddress
    MAX-ACCESS read-only
    STATUS obsolete
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 2.0
        of the UNI specification. The Address Group, defined
        in theAddress Registration MIB should be used instead."
    ::= { atmfPortEntry 2 }
```

```
atmfPortTransmissionType OBJECT-TYPE
    SYNTAX  OBJECT IDENTIFIER
    MAX-ACCESS read-only
    STATUS deprecated
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 3.1
        of the UNI specification. Appropriate Network Management
        MIBs should be used instead."
    ::= { atmfPortEntry 3 }
```

```
atmfPortMediaType OBJECT-TYPE
    SYNTAX  OBJECT IDENTIFIER
    MAX-ACCESS read-only
    STATUS deprecated
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 3.1
        of the UNI specification. Appropriate Network Management
        MIBs should be used instead."
    ::= { atmfPortEntry 4 }
```

```
atmfPortOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        other(1),
        inService(2),
        outOfService(3),
        loopBack(4)
    }
    MAX-ACCESS read-only
```

```

STATUS deprecated
DESCRIPTION
    "This object should not be implemented except as
    required for backward compatibility with version 3.1
    of the UNI specification. Appropriate Network Management
    MIBs should be used instead."
::= { atmPortEntry 5 }

atmPortSpecific OBJECT-TYPE
    SYNTAX  OBJECT IDENTIFIER
    MAX-ACCESS read-only
    STATUS deprecated
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 3.1
        of the UNI specification. Appropriate Network Management
        MIBs should be used instead."
    ::= { atmPortEntry 6 }

atmPortMyIfName OBJECT-TYPE
    SYNTAX  DisplayString
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "A textual name of this interface. If this system is
        manageable through SNMP, and supports the object
        ifName, the value of this object must be identical
        with that of ifName for the ifEntry of the lowest
        level physical interface for this port. This interface
        must be uniquely named on this system to distinguish
        parallel links with a neighboring system. If this
        interface does not have a textual name, the value of
        this object is a zero length string."
    ::= { atmPortEntry 7 }

atmPortMyIfIdentifier OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A unique value for each ATM interface. The scheme used to
        number the ATM interfaces on an ATM device is
        implementation specific. One way to generate this value is
        to use the ifIndex that an SNMP manager would use to
        identify the port. This interface must be uniquely
        numbered on this system to distinguish parallel
        links with a neighboring system."
    ::= { atmPortEntry 8 }

```

```

-- Note: The typical IME will support only one
--       of the following two objects
atmMyIpAddress OBJECT-TYPE
    SYNTAX  IpAddress
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "An IP Address to which a Network Management Station
        can send Network Management protocol messages, e.g. SNMP
        messages to UDP port 161, in order to access network
        management information concerning the operation of the
        ATM device local to this IME. If this object is supported,
        but the Network Management Agent has not been configured
        with an IP Address, the IME should return 0.0.0.0."
    ::= { atmPhysicalGroup 2 }

atmMyOsiNmNsapAddress OBJECT-TYPE
    SYNTAX  ClnpAddress
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "An NSAP Address to which a Network Management Station
        can send Network Management protocol messages in order
        to access network management information concerning
        the operation of the ATM device local to this IME.
        If this object is supported,
        but the Network Management Agent has not been configured
        with an NSAP Address, the IME should return 0.0.0.0"
    ::= { atmPhysicalGroup 3 }

atmMySystemIdentifier OBJECT-TYPE
    SYNTAX  OCTET STRING (SIZE (6))
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "A 48 bit identifier, taken from the IEEE universally
        administered MAC address space, which uniquely
        identifies the ATM device local to this IME."
    ::= { atmPhysicalGroup 4 }

--
--       The ATM Layer Group
-- This group is current for all ATM Interfaces.
--
-- ATM-layer specific information for the ATM Interface.

atmAtmLayerTable OBJECT-TYPE

```

```

SYNTAX SEQUENCE OF AtmfAtmLayerEntry
MAX-ACCESS not-accessible
STATUS current
DESCRIPTION
    "A table of ATM layer status and parameter information
    for the ATM Interface."
 ::= { atmAtmLayerGroup 1 }

```

```

atmfAtmLayerEntry OBJECT-TYPE
    SYNTAX AtmfAtmLayerEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "An entry in the table, containing information about
        the ATM layer of an ATM Interface."
    INDEX { atmAtmLayerIndex }
    ::= { atmAtmLayerTable 1 }

```

```

AtmfAtmLayerEntry ::=
    SEQUENCE {
        atmAtmLayerIndex
            INTEGER,
        atmAtmLayerMaxVPCs
            INTEGER,
        atmAtmLayerMaxVCCs
            INTEGER,
        atmAtmLayerConfiguredVPCs
            INTEGER,
        atmAtmLayerConfiguredVCCs
            INTEGER,
        atmAtmLayerMaxVpiBits
            INTEGER,
        atmAtmLayerMaxVciBits
            INTEGER,
        atmAtmLayerUnitType
            INTEGER,
        atmAtmLayerUniVersion
            INTEGER,
        atmAtmLayerDeviceType
            INTEGER,
        atmAtmLayerIlmiVersion
            INTEGER,
        atmAtmLayerNniSigVersion
            INTEGER,
        atmAtmLayerMaxSvpcVpi
            INTEGER,
        atmAtmLayerMaxSvccVpi
            INTEGER,

```

```

        atmAtmLayerMinSvccVci
            INTEGER
    }

```

```

atmfAtmLayerIndex OBJECT-TYPE
    SYNTAX INTEGER (0..2147483647)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The value of 0 which has the special meaning of
        identifying the ATM Interface over which this message
        was received."
    ::= { atmAtmLayerEntry 1 }

```

```

atmfAtmLayerMaxVPCs OBJECT-TYPE
    SYNTAX INTEGER (0..4096)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The maximum number of switched and permanent VPCs
        supported on this ATM Interface. For virtual interfaces
        (i.e. Virtual Path Connections), the maximum number of
        VPCs PNNI may communicate over is set to zero."
    ::= { atmAtmLayerEntry 2 }

```

```

atmfAtmLayerMaxVCCs OBJECT-TYPE
    SYNTAX INTEGER (0..268435456)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The maximum number of switched and permanent VCCs
        supported on this ATM Interface."
    ::= { atmAtmLayerEntry 3 }

```

```

atmfAtmLayerConfiguredVPCs OBJECT-TYPE
    SYNTAX INTEGER (0..4096)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The number of permanent VPCs configured for use on
        this ATM Interface. For virtual interfaces
        (i.e. Virtual Path Connections used by PNNI),
        the maximum number of VPCs
        is set to zero."
    ::= { atmAtmLayerEntry 4 }

```

```

atmfAtmLayerConfiguredVCCs OBJECT-TYPE
    SYNTAX INTEGER (0.. 268435456)

```

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The number of permanent VCCs configured for use on
    this ATM Interface."
::= { atmfAtmLayerEntry 5 }

atmfAtmLayerMaxVpiBits OBJECT-TYPE
    SYNTAX INTEGER (0..12)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The maximum number of active VPI bits on this ATM
        Interface. For virtual interfaces (i.e. Virtual Path
        Connections used by PNNI),
        this value has no meaning and is set to zero."
    ::= { atmfAtmLayerEntry 6 }

atmfAtmLayerMaxVciBits OBJECT-TYPE
    SYNTAX INTEGER (0..16)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The maximum number of active VCI bits on this
        ATM Interface."
    ::= { atmfAtmLayerEntry 7 }

atmfAtmLayerUniType OBJECT-TYPE
    SYNTAX INTEGER {
        public(1),
        private(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The type of the ATM device, either public or private."
    ::= { atmfAtmLayerEntry 8 }

atmfAtmLayerUniVersion OBJECT-TYPE
    SYNTAX INTEGER {
        version2point0(1),
        version3point0(2),
        version3point1(3),
        version4point0(4),
        unsupported(5)
    }
    MAX-ACCESS read-only

```

```

STATUS current
DESCRIPTION
    "An indication of the latest version of the ATM Forum UNI
    Signalling Specification that is supported on this ATM
    Interface. If this value is not present, a version
    of the UNI earlier than 3.1 is supported.

    If the peer IME's value of this object is the same as,
    or later than the local IME's value, then the version
    corresponding to the local IME's value should be
    attempted. Otherwise, if the peer IME's value of this
    object is earlier, and supported locally, then the
    local IME should attempt the version corresponding to
    the peer IME's value. Otherwise, compatibility of the
    two IMEs cannot be assumed."
    ::= { atmfAtmLayerEntry 9 }

atmfAtmLayerDeviceType OBJECT-TYPE
    SYNTAX INTEGER {
        user(1),
        node(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "This object determines the type of the ATM device.
        This object is used in automatic ATM Interface-Type
        determination procedure such that a correct
        operational ATM Interface-type can be determined.
        An ATM End System shall take the value of user(1),
        and an ATM network node shall take the value of node(2)."
    ::= { atmfAtmLayerEntry 10 }

atmfAtmLayerIlmiVersion OBJECT-TYPE
    SYNTAX INTEGER {
        unsupported(1),
        version4point0(2)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "An indication of the latest version of the ATM Forum
        ILMI Specification that is supported on this ATM
        Interface.

        If the peer IME's value of this object is the same as,
        or later than the local IME's value, then the version

```

corresponding to the local IME's value should be attempted. Otherwise, if the peer IME's value of this object is earlier, and supported locally, then the local IME should attempt the version corresponding to the peer IME's value. Otherwise, compatibility of the two IMEs cannot be assumed.

If this object is not present, a version of the ILMI earlier than 4.0 is supported."

::= { atmAtmLayerEntry 11 }

atmAtmLayerNniSigVersion OBJECT-TYPE

SYNTAX INTEGER {
 unsupported(1),
 iisp(2),
 pnniVersion1point0(3)
}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"An indication of the latest version of the ATM Forum PNNI Signalling Specification that is supported on this ATM Interface. Note that the PNNI routing version is not determined through ILMI.

If the peer IME's value of this object is the same as, or later than the local IME's value, then the version corresponding to the local IME's value should be attempted. Otherwise, if the peer IME's value of this object is earlier, and supported locally, then the local IME should attempt the version corresponding to the peer IME's value. Otherwise, compatibility of the two IMEs cannot be assumed."

::= { atmAtmLayerEntry 12 }

atmAtmLayerMaxSvccVpi OBJECT-TYPE

SYNTAX INTEGER (0..4096)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The maximum VPI that the signalling stack on the ATM interface is configured to support for allocation to switched virtual path connections."

::= { atmAtmLayerEntry 13 }

atmAtmLayerMaxSvccVpi OBJECT-TYPE

SYNTAX INTEGER (0..4096)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The maximum VPI that the signalling stack on the ATM interface is configured to support for allocation to switched virtual channel connections."

::= { atmAtmLayerEntry 14 }

atmAtmLayerMinSvccVci OBJECT-TYPE

SYNTAX INTEGER (0..65536)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"This is the minimum VCI value that the signalling stack is configured to support for allocation to switched virtual channel connections. The same value applies to all SVCC VPI values for which the signalling stack is configured."

::= { atmAtmLayerEntry 15 }

-- The ATM Statistics Group
-- This group is deprecated and should not be implemented except as
-- required for backward compatibility with version 3.1 of the UNI
-- specification.

atmAtmStatsTable OBJECT-TYPE

SYNTAX SEQUENCE OF AtmAtmStatsEntry

MAX-ACCESS not-accessible

STATUS deprecated

DESCRIPTION

"This group is deprecated and should not be implemented except as required for backward compatibility with version 3.1 of the UNI specification."

::= { atmAtmStatsGroup 1 }

atmAtmStatsEntry OBJECT-TYPE

SYNTAX AtmAtmStatsEntry

MAX-ACCESS not-accessible

STATUS deprecated

DESCRIPTION

"This object should not be implemented except as required for backward compatibility with version 3.1 of the UNI specification."

INDEX { atmAtmStatsIndex }

::= { atmAtmStatsTable 1 }

AtmAtmStatsEntry ::=

SEQUENCE {

```

        atmfAtmStatsIndex
            INTEGER,
        atmfAtmStatsReceivedCells
            Counter,
        atmfAtmStatsDroppedReceivedCells
            Counter,
        atmfAtmStatsTransmittedCells
            Counter
    }

atmfAtmStatsIndex OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  deprecated
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 3.1
        of the UNI specification."
    ::= { atmfAtmStatsEntry 1 }

atmfAtmStatsReceivedCells OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  deprecated
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 3.1
        of the UNI specification."
    ::= { atmfAtmStatsEntry 2 }

atmfAtmStatsDroppedReceivedCells OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  deprecated
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 3.1
        of the UNI specification."
    ::= { atmfAtmStatsEntry 3 }

atmfAtmStatsTransmittedCells OBJECT-TYPE
    SYNTAX  Counter
    MAX-ACCESS  read-only
    STATUS  deprecated
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 3.1
        of the UNI specification."

```

```

    ::= { atmfAtmStatsEntry 4 }

--
-- The Virtual Path Group
-- This group is current for all ATM Interfaces.
--
-- Information concerning Virtual Path Connections

atmfVpcTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF AtmfVpcEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "A table of status and parameter information on the
        virtual path connections which cross this ATM
        Interface. There is one entry in this table for each
        permanent virtual path connection."
    ::= { atmfVpcGroup 1 }

atmfVpcEntry OBJECT-TYPE
    SYNTAX  AtmfVpcEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "An entry in the table, containing information about a
        particular virtual path connection."
    INDEX   { atmfVpcPortIndex, atmfVpcVpi }
    ::= { atmfVpcTable 1 }

AtmfVpcEntry ::=
    SEQUENCE {
        atmfVpcPortIndex
            INTEGER,
        atmfVpcVpi
            INTEGER,
        atmfVpcOperStatus
            INTEGER,
        atmfVpcTransmitTDType
            OBJECT IDENTIFIER,
        atmfVpcTransmitTDParam1
            INTEGER,
        atmfVpcTransmitTDParam2
            INTEGER,
        atmfVpcTransmitTDParam3
            INTEGER,
        atmfVpcTransmitTDParam4
            INTEGER,
        atmfVpcTransmitTDParam5

```

```

        INTEGER,
        atmVpcReceiveTDType
        OBJECT IDENTIFIER,
        atmVpcReceiveTDPParam1
        INTEGER,
        atmVpcReceiveTDPParam2
        INTEGER,
        atmVpcReceiveTDPParam3
        INTEGER,
        atmVpcReceiveTDPParam4
        INTEGER,
        atmVpcReceiveTDPParam5
        INTEGER,
        atmVpcQoSCategory
        INTEGER,
        atmVpcTransmitQoSClass
        INTEGER,
        atmVpcReceiveQoSClass
        INTEGER,
        atmVpcBestEffortIndicator
        TruthValue,
        atmVpcServiceCategory
        AtmServiceCategory
    }

atmVpcPortIndex OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The value of 0 which has the special meaning of
        identifying the ATM Interface over which this message
        was received."
    ::= { atmVpcEntry 1 }

atmVpcVpi OBJECT-TYPE
    SYNTAX  INTEGER (0..4095)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The VPI value of this Virtual Path Connection at the
        local ATM Interface."
    ::= { atmVpcEntry 2 }

atmVpcOperStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        unknown(1),
        end2endUp(2),

```

```

        end2endDown(3),
        localUpEnd2endUnknown(4),
        localDown(5)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The present actual operational status of the VPC.

        A value of end2endUp(2) or end2endDown(3) would be
        used if the end-to-end status is known. If only local
        status information is available, a value of
        localUpEnd2endUnknown(4) or localDown(5) would be
        used."
    ::= { atmVpcEntry 3 }

atmVpcTransmitTDType OBJECT-TYPE
    SYNTAX  OBJECT IDENTIFIER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The type of traffic management, applicable to the
        transmit direction of this VPC. The type may indicate
        none, or a type with one or more parameters. These
        parameters are specified as a parameter vector, in the
        corresponding instances of the objects:
        atmVpcTransmitTDPParam1,
        atmVpcTransmitTDPParam2,
        atmVpcTransmitTDPParam3,
        atmVpcTransmitTDPParam4, and
        atmVpcTransmitTDPParam5."
    ::= { atmVpcEntry 4 }

atmVpcTransmitTDPParam1 OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The first parameter of the transmit parameter vector
        for this VPC, used according to the value of
        atmVpcTransmitTDType."
    ::= { atmVpcEntry 5 }

atmVpcTransmitTDPParam2 OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only

```

```

STATUS current
DESCRIPTION
    "The second parameter of the transmit parameter vector
    for this VPC, used according to the value of
    atmfvpcTransmitTDType."
::= { atmfvpcEntry 6 }

atmfVpcTransmitTDParam3 OBJECT-TYPE
SYNTAX INTEGER (0..2147483647)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The third parameter of the transmit parameter vector
    for this VPC, used according to the value of
    atmfvpcTransmitTDType."
::= { atmfvpcEntry 7 }

atmfVpcTransmitTDParam4 OBJECT-TYPE
SYNTAX INTEGER (0..2147483647)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The fourth parameter of the transmit parameter vector
    for this VPC, used according to the value of
    atmfvpcTransmitTDType."
::= { atmfvpcEntry 8 }

atmfVpcTransmitTDParam5 OBJECT-TYPE
SYNTAX INTEGER (0..2147483647)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The fifth parameter of the transmit parameter vector
    for this VPC, used according to the value of
    atmfvpcTransmitTDType."
::= { atmfvpcEntry 9 }

atmfVpcReceiveTDType OBJECT-TYPE
SYNTAX OBJECT IDENTIFIER
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The type of traffic management, applicable to the
    traffic in the receive direction of this VPC. The type
    may indicate none, or a type with one or more
    parameters. These parameters are specified as a
    parameter vector, in the corresponding instances of

```

```

the objects:
    atmfvpcReceiveTDParam1,
    atmfvpcReceiveTDParam2,
    atmfvpcReceiveTDParam3,
    atmfvpcReceiveTDParam4, and
    atmfvpcReceiveTDParam5."
::= { atmfvpcEntry 10 }

atmfVpcReceiveTDParam1 OBJECT-TYPE
SYNTAX INTEGER (0..2147483647)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The first parameter of the receive parameter vector
    for this VPC, used according to the value of
    atmfvpcReceiveTDType."
::= { atmfvpcEntry 11 }

atmfVpcReceiveTDParam2 OBJECT-TYPE
SYNTAX INTEGER (0..2147483647)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The second parameter of the receive parameter vector
    for this VPC, used according to the value of
    atmfvpcReceiveTDType."
::= { atmfvpcEntry 12 }

atmfVpcReceiveTDParam3 OBJECT-TYPE
SYNTAX INTEGER (0..2147483647)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The third parameter of the receive parameter vector
    for this VPC, used according to the value of
    atmfvpcReceiveTDType."
::= { atmfvpcEntry 13 }

atmfVpcReceiveTDParam4 OBJECT-TYPE
SYNTAX INTEGER (0..2147483647)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The fourth parameter of the receive parameter vector
    for this VPC, used according to the value of
    atmfvpcReceiveTDType."
::= { atmfvpcEntry 14 }

```

atmfVpcReceiveTDParm5 OBJECT-TYPE

SYNTAX INTEGER (0..2147483647)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The fifth parameter of the receive parameter vector for this VPC, used according to the value of atmfVpcReceiveTDType."

::= { atmfVpcEntry 15 }

atmfVpcQoSCategory OBJECT-TYPE

SYNTAX INTEGER {
other(1),
deterministic(2),
statistical(3),
unspecified(4)
}

MAX-ACCESS read-only

STATUS obsolete

DESCRIPTION

"This object should not be implemented except as required for backward compatibility with version 2.0 of the UNI specification."

::= { atmfVpcEntry 16 }

atmfVpcTransmitQoSClass OBJECT-TYPE

SYNTAX INTEGER (0..255)

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"This object should not be implemented except as required for backward compatibility with version 3.1 of the UNI specification."

::= { atmfVpcEntry 17 }

atmfVpcReceiveQoSClass OBJECT-TYPE

SYNTAX INTEGER (0..255)

MAX-ACCESS read-only

STATUS deprecated

DESCRIPTION

"This object should not be implemented except as required for backward compatibility with version 3.1 of the UNI specification."

::= { atmfVpcEntry 18 }

atmfVpcBestEffortIndicator OBJECT-TYPE

SYNTAX TruthValue

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The object is examined when atmfVpcTransmitTDType or atmfVpcReceiveTDType for the associated connection is equal to atmfNoClpNoScr. If this object is set to false(2), the network is requested to apply the CBR.1 conformance definition. If this object is set to true(1), the network is requested to apply the UBR.1 conformance definition."

::= { atmfVpcEntry 19 }

atmfVpcServiceCategory OBJECT-TYPE

SYNTAX AtmServiceCategory

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The service category of this virtual path connection."

::= { atmfVpcEntry 20 }

-- The Virtual Path ABR Group
-- This group contains per-VPC information, support for which is optional.
--
-- Attributes of ABR Virtual Path connections

atmfVpcAbrTable OBJECT-TYPE

SYNTAX SEQUENCE OF AtmfVpcAbrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A table of operational parameters related to the ABR virtual path connections which cross this ATM Interface. There is one entry in this table for each ABR virtual path connection."

Each virtual path connection represented in this table must also be represented by an entry in the atmfVpcTable."

::= { atmfVpcAbrGroup 1 }

atmfVpcAbrEntry OBJECT-TYPE

SYNTAX AtmfVpcAbrEntry

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"An entry in the table, containing information about a

```

        particular ABR virtual path connection."
INDEX { atmfvpcAbrPortIndex, atmfvpcAbrVpi }
 ::= { atmfvpcAbrTable 1 }

AtmfVpcAbrEntry ::=
SEQUENCE {
    atmfvpcAbrPortIndex
        INTEGER,
    atmfvpcAbrVpi
        INTEGER,
    atmfvpcAbrTransmitIcr
        INTEGER,
    atmfvpcAbrTransmitNrm
        INTEGER,
    atmfvpcAbrTransmitTrm
        INTEGER,
    atmfvpcAbrTransmitCdf
        INTEGER,
    atmfvpcAbrTransmitRif
        INTEGER,
    atmfvpcAbrTransmitRdf
        INTEGER,
    atmfvpcAbrTransmitAdtf
        INTEGER,
    atmfvpcAbrTransmitCrm
        INTEGER
}

atmfVpcAbrPortIndex OBJECT-TYPE
SYNTAX INTEGER (0..2147483647)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The value of 0 which has the special meaning of
identifying
    the ATM Interface over which this message was received."
 ::= { atmfvpcAbrEntry 1 }

atmfVpcAbrVpi OBJECT-TYPE
SYNTAX INTEGER (0..4095)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The VPI value of this ABR Virtual Path Connection at the
    local ATM Interface."
 ::= { atmfvpcAbrEntry 2 }

atmfVpcAbrTransmitIcr OBJECT-TYPE

```

```

SYNTAX INTEGER (0..16777215)
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Initial Cell Rate: This is the rate at which the
    source starts, both initially and after an idle period.
    The unit is cells per second. The value must not be
    larger than PCR, and is usually lower."
 ::= { atmfvpcAbrEntry 3 }

atmfVpcAbrTransmitNrm OBJECT-TYPE
SYNTAX INTEGER {
    nrm2(1),
    nrm4(2),
    nrm8(3),
    nrm16(4),
    nrm32(5),
    nrm64(6),
    nrm128(7),
    nrm256(8)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The maximum number of data cells a source may send
    for each forward RM-cell. The default value is nrm32(5)."
 ::= { atmfvpcAbrEntry 4 }

atmfVpcAbrTransmitTrm OBJECT-TYPE
SYNTAX INTEGER {
    trm0point78125(1),
    trm1point5625(2),
    trm3point125(3),
    trm6point25(4),
    trm12point5(5),
    trm25(6),
    trm50(7),
    trm100(8)
}
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Upper bound on the time between forward RM-cells for
    an active source (in milliseconds). The default value
    is trm100(8)."
 ::= { atmfvpcAbrEntry 5 }

atmfVpcAbrTransmitCdf OBJECT-TYPE

```

```

SYNTAX  INTEGER {
    cdf0(1),
    cdfOneOver64(2),
    cdfOneOver32(3),
    cdfOneOver16(4),
    cdfOneOver8(5),
    cdfOneOver4(6),
    cdfOneOver2(7),
    cdfOne(8)
}
MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
    "Cutoff Decrease Factor: This field controls the rate
    decrease associated with lost or delayed backward RM
    cells.  Larger values result in faster rate decrease.
    The default value is cdfOneOver16(4)."
```

::= { atmfvpcAbrEntry 6 }

atmfVpcAbrTransmitRif OBJECT-TYPE

```

SYNTAX  INTEGER {
    rifOneOver32768(1),
    rifOneOver16384(2),
    rifOneOver8192(3),
    rifOneOver4096(4),
    rifOneOver2048(5),
    rifOneOver1024(6),
    rifOneOver512(7),
    rifOneOver256(8),
    rifOneOver128(9),
    rifOneOver64(10),
    rifOneOver32(11),
    rifOneOver16(12),
    rifOneOver8(13),
    rifOneOver4(14),
    rifOneOver2(15),
    rifOne(16)
}
MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
    "Rate Increment Factor: Controls the rate at
    which the rate increases, when a backward
    RM-cell is received with CI=0 and
    NI=0.  Larger values lead to faster rate increase.
    The default value is rifOneOver16(12)."
```

::= { atmfvpcAbrEntry 7 }

atmfVpcAbrTransmitRdf OBJECT-TYPE

```

SYNTAX  INTEGER {
    rdfOneOver32768(1),
    rdfOneOver16384(2),
    rdfOneOver8192(3),
    rdfOneOver4096(4),
    rdfOneOver2048(5),
    rdfOneOver1024(6),
    rdfOneOver512(7),
    rdfOneOver256(8),
    rdfOneOver128(9),
    rdfOneOver64(10),
    rdfOneOver32(11),
    rdfOneOver16(12),
    rdfOneOver8(13),
    rdfOneOver4(14),
    rdfOneOver2(15),
    rdfOne(16)
}
MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
    "Rate Decrease Factor: Controls the rate decrease
    which occurs when backward RM-cells with CI=1, are
    received.  Larger values lead to faster rate
    decrease.  The default value is rdfOneOver16(12)."
```

::= { atmfvpcAbrEntry 8 }

atmfVpcAbrTransmitAdtf OBJECT-TYPE

```

SYNTAX  INTEGER (1..1023)
MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
    "ACR Decrease Time Factor: Time permitted between
    sending RM-cells, before the allowed rate (ACR) is
    decreased to ICR.  Range is 10 ms to 10.23 seconds.
    The unit is 10 milliseconds.  For example, the default
    value of 50 corresponds to a time factor of 500 ms.
    Larger values allow a source to retain its current
    rate longer, during periods of relative inactivity.
    The default is 50 (0.5 seconds)."
```

::= { atmfvpcAbrEntry 9 }

atmfVpcAbrTransmitCrm OBJECT-TYPE

```

SYNTAX  INTEGER (0..8388608)
MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
```

```

        "RM Cells Before Cutoff: Limits the number of forward
        RM-cells which may be sent in the absence of received
        backward RM-cells."
 ::= { atmfvccAbrEntry 10 }

--
-- The Virtual Channel Group
-- This group is current for all ATM Interfaces.
--
-- Information concerning Virtual Channel Connections

atmfVccTable OBJECT-TYPE
    SYNTAX SEQUENCE OF AtmfVccEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table of status and parameter information on the
        virtual channel connections which are visible at this
        ATM Interface. There is one entry in this table for
        each permanent virtual channel connection, including
        reserved VCCs that are supported; e.g., signalling,
        OAM flows, and ILMI, but not unassigned cells."
    ::= { atmfvccGroup 1 }

atmfVccEntry OBJECT-TYPE
    SYNTAX AtmfVccEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "An entry in the table, containing information about a
        particular virtual channel connection."
    INDEX { atmfvccPortIndex, atmfvccVpi, atmfvccVci }
    ::= { atmfvccTable 1 }

AtmfVccEntry ::=
    SEQUENCE {
        atmfvccPortIndex
            INTEGER,
        atmfvccVpi
            INTEGER,
        atmfvccVci
            INTEGER,
        atmfvccOperStatus
            INTEGER,
        atmfvccTransmitTDType
            OBJECT IDENTIFIER,
        atmfvccTransmitTDPParam1
            INTEGER,

```

```

        atmfvccTransmitTDPParam2
            INTEGER,
        atmfvccTransmitTDPParam3
            INTEGER,
        atmfvccTransmitTDPParam4
            INTEGER,
        atmfvccTransmitTDPParam5
            INTEGER,
        atmfvccReceiveTDType
            OBJECT IDENTIFIER,
        atmfvccReceiveTDPParam1
            INTEGER,
        atmfvccReceiveTDPParam2
            INTEGER,
        atmfvccReceiveTDPParam3
            INTEGER,
        atmfvccReceiveTDPParam4
            INTEGER,
        atmfvccReceiveTDPParam5
            INTEGER,
        atmfvccQoSClass
            INTEGER,
        atmfvccTransmitQoSClass
            INTEGER,
        atmfvccReceiveQoSClass
            INTEGER,
        atmfvccBestEffortIndicator
            TruthValue,
        atmfvccTransmitFrameDiscard
            TruthValue,
        atmfvccReceiveFrameDiscard
            TruthValue,
        atmfvccServiceCategory
            AtmServiceCategory
    }

```

```

atmfVccPortIndex OBJECT-TYPE
    SYNTAX INTEGER (0..2147483647)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The value of 0 which has the special meaning of
        identifying the ATM Interface over which this message
        was received."
    ::= { atmfvccEntry 1 }

atmfVccVpi OBJECT-TYPE
    SYNTAX INTEGER (0..4095)

```

```

MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The VPI value of this Virtual Channel Connection at
    the local ATM Interface. For virtual interfaces (i.e.
    Virtual Path Connections), this value has no meaning
    and is set to zero "
 ::= { atmVccEntry 2 }

atmVccVci OBJECT-TYPE
    SYNTAX INTEGER (0..65535)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The VCI value of this Virtual Channel Connection at
        the local ATM Interface."
    ::= { atmVccEntry 3 }

atmVccOperStatus OBJECT-TYPE
    SYNTAX INTEGER {
        unknown(1),
        end2endUp(2),
        end2endDown(3),
        localUpEnd2endUnknown(4),
        localDown(5)
    }
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The present actual operational status of the VCC. A
        value of end2endUp(2) or end2endUp(3) is used if the
        end to end status is known.

        If only local status is known a value of
        localUpEnd2endUnknown(4) or localDown(5) is used."
    ::= { atmVccEntry 4 }

atmVccTransmitTDType OBJECT-TYPE
    SYNTAX OBJECT IDENTIFIER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The type of traffic management, applicable to the
        transmit direction of this VCC. The type may indicate
        none, or a type with one or more parameters. These
        parameters are specified as a parameter vector, in the
        corresponding instances of the objects:
        atmVccTransmitTDParam1,

```

```

        atmVccTransmitTDParam2,
        atmVccTransmitTDParam3,
        atmVccTransmitTDParam4, and
        atmVccTransmitTDParam5."
    ::= { atmVccEntry 5 }

atmVccTransmitTDParam1 OBJECT-TYPE
    SYNTAX INTEGER (0..2147483647)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The first parameter of the transmit parameter vector
        for this VCC, used according to the value of
        atmVccTransmitTDType."
    ::= { atmVccEntry 6 }

atmVccTransmitTDParam2 OBJECT-TYPE
    SYNTAX INTEGER (0..2147483647)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The second parameter of the transmit parameter vector
        for this VCC, used according to the value of
        atmVccTransmitTDType."
    ::= { atmVccEntry 7 }

atmVccTransmitTDParam3 OBJECT-TYPE
    SYNTAX INTEGER (0..2147483647)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The third parameter of the transmit parameter vector
        for this VCC, used according to the value of
        atmVccTransmitTDType."
    ::= { atmVccEntry 8 }

atmVccTransmitTDParam4 OBJECT-TYPE
    SYNTAX INTEGER (0..2147483647)
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The fourth parameter of the transmit parameter vector
        for this VCC, used according to the value of
        atmVccTransmitTDType."
    ::= { atmVccEntry 9 }

```

```

atmfVccTransmitTDParm5 OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The fifth parameter of the transmit parameter vector
        for this VCC, used according to the value of
        atmfVccTransmitTDType."
    ::= { atmfVccEntry 10 }

atmfVccReceiveTDType OBJECT-TYPE
    SYNTAX  OBJECT IDENTIFIER
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The type of traffic management, applicable to the
        traffic in the receive direction of this VCC. The type
        may indicate none, or a type with one or more
        parameters. These parameters are specified as a
        parameter vector, in the corresponding instances of
        the objects:
        atmfVccReceiveTDParm1,
        atmfVccReceiveTDParm2,
        atmfVccReceiveTDParm3,
        atmfVccReceiveTDParm4, and
        atmfVccReceiveTDParm5."
    ::= { atmfVccEntry 11 }

atmfVccReceiveTDParm1 OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The first parameter of the receive parameter vector
        for this VCC, used according to the value of
        atmfVccReceiveTDType."
    ::= { atmfVccEntry 12 }

atmfVccReceiveTDParm2 OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The second parameter of the receive parameter vector
        for this VCC, used according to the value of
        atmfVccReceiveTDType."
    ::= { atmfVccEntry 13 }

```

```

atmfVccReceiveTDParm3 OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The third parameter of the receive parameter vector
        for this VCC, used according to the value of
        atmfVccReceiveTDType."
    ::= { atmfVccEntry 14 }

atmfVccReceiveTDParm4 OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The fourth parameter of the receive parameter vector
        for this VCC, used according to the value of
        atmfVccReceiveTDType."
    ::= { atmfVccEntry 15 }

atmfVccReceiveTDParm5 OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The fifth parameter of the receive parameter vector
        for this VCC, used according to the value of
        atmfVccReceiveTDType."
    ::= { atmfVccEntry 16 }

atmfVccQoSCategory OBJECT-TYPE
    SYNTAX  INTEGER {
        other(1),
        deterministic(2),
        statistical(3),
        unspecified(4)
    }
    MAX-ACCESS  read-only
    STATUS  obsolete
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 2.0
        of the UNI specification."
    ::= { atmfVccEntry 17 }

atmfVccTransmitQoSClass OBJECT-TYPE
    SYNTAX  INTEGER (0..255)
    MAX-ACCESS  read-only

```

```

STATUS deprecated
DESCRIPTION
    "This object should not be implemented except as
    required for backward compatibility with version 3.1
    of the UNI specification."
::= { atmfvccEntry 18 }

atmfVccReceiveQoSClass OBJECT-TYPE
    SYNTAX INTEGER (0..255)
    MAX-ACCESS read-only
    STATUS deprecated
    DESCRIPTION
        "This object should not be implemented except as
        required for backward compatibility with version 3.1
        of the UNI specification."
    ::= { atmfvccEntry 19 }

atmfVccBestEffortIndicator OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The object is examined when
        atmfvccTransmitTDType or
        atmfvccReceiveTDType for the associated
        connection is equal to atmfvccNoClpNoScr.
        If this object is set to false(2), the
        network is requested to apply the CBR.1
        conformance definition. If this object
        is set to true(1), the network is requested to apply the
        UBR.1 conformance definition."
    ::= { atmfvccEntry 20 }

atmfVccTransmitFrameDiscard OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "If set to true(1), this object indicates that
        the network is requested to treat data for
        this connection (in the transmit direction)
        as frames (e.g. AAL5 CPCS_PDU's) rather
        than as individual cells. While the precise
        implementation is network-specific, this treatment may
        for example involve discarding entire frames during
        congestion, rather than a few cells from many frames.
        The default value is false(2)."
    ::= { atmfvccEntry 21 }

atmfVccReceiveFrameDiscard OBJECT-TYPE
    SYNTAX TruthValue
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "If set to true(1), this object indicates that the network
        is requested to treat data for this connection (in the
        receive direction) as frames (e.g. AAL5 CPCS_PDU's) rather
        than as individual cells. While the precise
        implementation is network-specific, this treatment may
        for example involve discarding entire frames during
        congestion, rather than a few cells from many frames.
        The default value is false(2)."
    ::= { atmfvccEntry 22 }

atmfVccServiceCategory OBJECT-TYPE
    SYNTAX AtmServiceCategory
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The service category of this virtual channel connection."
    ::= { atmfvccEntry 23 }

--
-- The Virtual Channel ABR Group
-- This group contains per-VCC information, support for which is optional.
--
-- Attributes of ABR Virtual Channel connections

atmfVccAbrTable OBJECT-TYPE
    SYNTAX SEQUENCE OF AtmfVccAbrEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "A table of operational parameters related to the ABR
        virtual channel connections which cross this ATM
        Interface. There is one entry in this table for each
        ABR virtual channel connection.

        Each virtual channel connection represented
        in this table must also be represented by
        an entry in the atmfvccTable."
    ::= { atmfvccAbrGroup 1 }

```

```

atmfVccAbrEntry OBJECT-TYPE
    SYNTAX  AtmfVccAbrEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "An entry in the table, containing information about a
        particular ABR virtual channel connection."
    INDEX   { atmfVccAbrPortIndex, atmfVccAbrVpi, atmfVccAbrVci }
    ::= { atmfVccAbrTable 1 }

```

```

AtmfVccAbrEntry ::=
    SEQUENCE {
        atmfVccAbrPortIndex
            INTEGER,
        atmfVccAbrVpi
            INTEGER,
        atmfVccAbrVci
            INTEGER,
        atmfVccAbrTransmitIcr
            INTEGER,
        atmfVccAbrTransmitNrm
            INTEGER,
        atmfVccAbrTransmitTrm
            INTEGER,
        atmfVccAbrTransmitCdf
            INTEGER,
        atmfVccAbrTransmitRif
            INTEGER,
        atmfVccAbrTransmitRdf
            INTEGER,
        atmfVccAbrTransmitAdtf
            INTEGER,
        atmfVccAbrTransmitCrm
            INTEGER
    }

```

```

atmfVccAbrPortIndex OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The value of 0 which has the special meaning
        of identifying the ATM Interface over
        which this message was received."
    ::= { atmfVccAbrEntry 1 }

```

```

atmfVccAbrVpi OBJECT-TYPE

```

```

SYNTAX  INTEGER (0..4095)
MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
    "The VPI value of this ABR Virtual Channel Connection
    at the local ATM Interface. For virtual interfaces
    (i.e. Virtual Path Connections), this value has
    no meaning and is set to zero "
    ::= { atmfVccAbrEntry 2 }

```

```

atmfVccAbrVci OBJECT-TYPE
    SYNTAX  INTEGER (0..65535)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The VCI value of this ABR Virtual Channel
        Connection at the local ATM Interface."
    ::= { atmfVccAbrEntry 3 }

```

```

atmfVccAbrTransmitIcr OBJECT-TYPE
    SYNTAX  INTEGER (0..16777215)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "Initial Cell Rate: This is the rate at which the
        source starts, both initially and after an idle period.
        The unit is cells per second. The value must not be
        larger than PCR, and is usually lower."
    ::= { atmfVccAbrEntry 4 }

```

```

atmfVccAbrTransmitNrm OBJECT-TYPE
    SYNTAX  INTEGER {
        nrm2(1),
        nrm4(2),
        nrm8(3),
        nrm16(4),
        nrm32(5),
        nrm64(6),
        nrm128(7),
        nrm256(8)
    }
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "The maximum number of data cells a source may send
        for each forward RM-cell. The default value is nrm32(5)."
    ::= { atmfVccAbrEntry 5 }

```

atmfVccAbrTransmitTrm OBJECT-TYPE

```

SYNTAX  INTEGER {
    trm0point78125(1),
    trm1point5625(2),
    trm3point125(3),
    trm6point25(4),
    trm12point5(5),
    trm25(6),
    trm50(7),
    trm100(8)
}
MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
    "Upper bound on the time between forward RM-cells for
    an active source (in milliseconds). The default value
    is trm100(8)."
```

::= { atmfVccAbrEntry 6 }

atmfVccAbrTransmitCdf OBJECT-TYPE

```

SYNTAX  INTEGER {
    cdf0(1),
    cdfOneOver64(2),
    cdfOneOver32(3),
    cdfOneOver16(4),
    cdfOneOver8(5),
    cdfOneOver4(6),
    cdfOneOver2(7),
    cdfOne(8)
}
MAX-ACCESS  read-only
STATUS  current
DESCRIPTION
    "Cutoff Decrease Factor: This field controls the rate
    decrease associated with lost or delayed backward RM
    cells. Larger values result in faster rate decrease.
    The default value is cdfOneOver16(4)."
```

::= { atmfVccAbrEntry 7 }

atmfVccAbrTransmitRif OBJECT-TYPE

```

SYNTAX  INTEGER {
    rifOneOver32768(1),
    rifOneOver16384(2),
    rifOneOver8192(3),
    rifOneOver4096(4),
    rifOneOver2048(5),
    rifOneOver1024(6),
    rifOneOver512(7),
```

```

    rifOneOver256(8),
    rifOneOver128(9),
    rifOneOver64(10),
    rifOneOver32(11),
    rifOneOver16(12),
    rifOneOver8(13),
    rifOneOver4(14),
    rifOneOver2(15),
    rifOne(16)
}
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Rate Increment Factor: Controls the rate at which the rate increases, when a backward RM-cell is received with CI=0 and NI=0. Larger values lead to faster rate increase. The default value is rifOneOver16(12)."

::= { atmfVccAbrEntry 8 }

atmfVccAbrTransmitRdf OBJECT-TYPE

```

SYNTAX  INTEGER {
    rdfOneOver32768(1),
    rdfOneOver16384(2),
    rdfOneOver8192(3),
    rdfOneOver4096(4),
    rdfOneOver2048(5),
    rdfOneOver1024(6),
    rdfOneOver512(7),
    rdfOneOver256(8),
    rdfOneOver128(9),
    rdfOneOver64(10),
    rdfOneOver32(11),
    rdfOneOver16(12),
    rdfOneOver8(13),
    rdfOneOver4(14),
    rdfOneOver2(15),
    rdfOne(16)
}
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Rate Decrease Factor: Controls the rate decrease which occurs when backward RM-cells with CI=1, are received. Larger values lead to faster rate decrease. The default value is rdfOneOver16(12)."

::= { atmfVccAbrEntry 9 }

```

atmfVccAbrTransmitAdtf OBJECT-TYPE
    SYNTAX  INTEGER (1..1023)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "ACR Decrease Time Factor: Time permitted between
        sending RM-cells, before the allowed rate (ACR) is
        decreased to ICR. Range is 10 ms to 10.23 seconds.
        The unit is 10 milliseconds. For example, the default
        value of 50 corresponds to a time factor of 500 ms.
        Larger values allow a source to retain its current
        rate longer, during periods of relative inactivity.
        The default is 50 (0.5 seconds)."
```

::= { atmfVccAbrEntry 10 }

```

atmfVccAbrTransmitCrm OBJECT-TYPE
    SYNTAX  INTEGER (0..8388608)
    MAX-ACCESS  read-only
    STATUS  current
    DESCRIPTION
        "RM Cells Before Cutoff: Limits the number of forward
        RM-cells which may be sent in the absence of received
        backward RM-cells."
```

::= { atmfVccAbrEntry 11 }

```

atmfNetPrefixTable OBJECT-TYPE
    SYNTAX  SEQUENCE OF AtmfNetPrefixEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "A table implemented by the user-side IME, containing the
        network-prefix(es) for ATM-layer addresses in effect on
        the user side of the UNI."
```

::= { atmfNetPrefixGroup 1 }

```

atmfNetPrefixEntry OBJECT-TYPE
    SYNTAX  AtmfNetPrefixEntry
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "Information about a single network-prefix for
        ATM-layer addresses in effect on the user-side IME.
        Note that the index variable atmNetPrefixPrefix is a
        variable-length string, and as such the rule for
        variable-length strings in section 4.1.6 of RFC 1212
        applies."
```

INDEX { atmfNetPrefixPort, atmfNetPrefixPrefix }

```

 ::= { atmfNetPrefixTable 1 }
```

```

AtmfNetPrefixEntry ::=
    SEQUENCE {
        atmfNetPrefixPort
            INTEGER,
        atmfNetPrefixPrefix
            NetPrefix,
        atmfNetPrefixStatus
            INTEGER
    }
```

```

atmfNetPrefixPort OBJECT-TYPE
    SYNTAX  INTEGER (0..2147483647)
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "A unique value which identifies the UNI port for
        which the network prefix for ATM addresses is in
        effect. The value of 0 has the special meaning of
        identifying the local UNI."
```

::= { atmfNetPrefixEntry 1 }

```

atmfNetPrefixPrefix OBJECT-TYPE
    SYNTAX  NetPrefix
    MAX-ACCESS  not-accessible
    STATUS  current
    DESCRIPTION
        "The network prefix for ATM addresses which is in
        effect on the user side of the ATM UNI port."
```

::= { atmfNetPrefixEntry 2 }

```

atmfNetPrefixStatus OBJECT-TYPE
    SYNTAX  INTEGER {
        valid(1),
        invalid(2)
    }
    MAX-ACCESS  read-create
    STATUS  current
    DESCRIPTION
        "An indication of the validity of the network prefix
        for ATM addresses on the user side of the UNI port.
        To configure a new network prefix in this table, the
        network-side IME must set the appropriate instance of this
        object to the value valid(1). To delete an existing
        network prefix in this table, the network-side IME must
        set the appropriate instance of this object to the
        value invalid(2)."
```

If circumstances occur on the user-side IME which cause a prefix to become invalid, the user-side IME modifies the value of the appropriate instance of this object to invalid(2).

Whenever the value of this object for a particular prefix becomes invalid(2), the conceptual row for that prefix may be removed from the table at any time, either immediately or subsequently."

```
::= { atmNetPrefixEntry 3 }
```

```
-- The Address Group
```

```
--
```

```
-- The Address Table is implemented by the network-side IME.
```

```
atmAddressTable OBJECT-TYPE
```

```
SYNTAX SEQUENCE OF AtmAddressEntry
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

"A table implemented by the network-side IME, containing the ATM-layer addresses in effect on the user side of the UNI."

```
::= { atmAddressGroup 1 }
```

```
atmAddressEntry OBJECT-TYPE
```

```
SYNTAX AtmAddressEntry
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

"Information about a single ATM-layer address in effect on the user-side IME. Note that the index variable atmAddressAtmAddress is a variable-length string, and as such the rule for variable-length strings in section 4.1.6 of RFC 1212 applies."

```
INDEX { atmAddressPort, atmAddressAtmAddress }
```

```
::= { atmAddressTable 1 }
```

```
AtmAddressEntry ::=
```

```
SEQUENCE {
```

```
atmAddressPort
```

```
INTEGER,
atmAddressAtmAddress
AtmAddress,
atmAddressStatus
INTEGER,
atmAddressOrgScope
INTEGER
}
```

```
atmAddressPort OBJECT-TYPE
```

```
SYNTAX INTEGER (0..2147483647)
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

"A unique value which identifies the UNI port for which the ATM address is in effect. The value of 0 has the special meaning of identifying the local UNI."

```
::= { atmAddressEntry 1 }
```

```
atmAddressAtmAddress OBJECT-TYPE
```

```
SYNTAX AtmAddress
```

```
MAX-ACCESS not-accessible
```

```
STATUS current
```

```
DESCRIPTION
```

"The ATM address which is in effect on the user side of the ATM UNI port."

```
::= { atmAddressEntry 2 }
```

```
atmAddressStatus OBJECT-TYPE
```

```
SYNTAX INTEGER {
valid(1),
invalid(2)
}
```

```
MAX-ACCESS read-create
```

```
STATUS current
```

```
DESCRIPTION
```

"An indication of the validity of the ATM address at the user side of the UNI port. To configure a new address in this table, the user-side IME must set the appropriate instance of this object to the value valid(1). To delete an existing address in this table, the user-side IME must set the appropriate instance of this object to the value invalid(2).

If circumstances occur on the network-side IME which cause an address to become invalid, the network-side IME modifies the value of the appropriate instance of this object to invalid(2).

Whenever the value of this object for a particular address becomes invalid(2), the conceptual row for that address may be removed from the table at any time, either immediately or subsequently."

```
::= { atmAddressEntry 3 }
```

atmAddressOrgScope OBJECT-TYPE

```
SYNTAX  INTEGER {
    localNetwork(1),
    localNetworkPlusOne(2),
    localNetworkPlusTwo(3),
    siteMinusOne(4),
    intraSite(5),
    sitePlusOne(6),
    organizationMinusOne(7),
    intraOrganization(8),
    organizationPlusOne(9),
    communityMinusOne(10),
    intraCommunity(11),
    communityPlusOne(12),
    regional(13),
    interRegional(14),
    global(15)
}
```

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"This object indicates the organizational scope for the referenced address. The information of the referenced address shall not be distributed outside the indicated scope. If the user-side IME does not specify a value for the atmAddressOrgScope object, the network shall set the value of this object to localNetwork(1), if the registered address is an ATM group address, or to global(15), if the registered address is an individual address. Refer to Annex 6.0 of ATM Forum UNI Signalling 4.0 for guidelines regarding the use of organizational scopes.

This organization hierarchy may be mapped to ATM network's routing hierarchy such as PNNI's routing level and the mapping shall be configurable in nodes. Use of this object in a public network is for further study.

The default values for organizational scope are localNetwork(1) for ATM group addresses, and global(15) for individual addresses."

```
::= { atmAddressEntry 4 }
```

```
--          The Address Registration Admin Group
```

```
--
```

```
-- The Address Registration Admin Table is current for all IMES.
```

atmAddressRegistrationAdminTable OBJECT-TYPE

```
SYNTAX  SEQUENCE OF AtmAddressRegistrationAdminEntry
```

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"A table of Address Registration administrative information for the ATM Interface."

```
::= { atmAddressRegistrationAdminGroup 1 }
```

atmAddressRegistrationAdminEntry OBJECT-TYPE

```
SYNTAX  AtmAddressRegistrationAdminEntry
```

MAX-ACCESS not-accessible

STATUS current

DESCRIPTION

"An entry in the table, containing Address Registration administrative information for the ATM Interface."

```
INDEX   { atmAddrRegAdminIndex }
```

```
::= { atmAddressRegistrationAdminTable 1 }
```

AtmAddressRegistrationAdminEntry ::=

```
SEQUENCE {
```

```
    atmAddrRegAdminIndex
```

```
    INTEGER,
```

```
    atmAddrRegAdminStatus
```

```
    INTEGER
```

```
}
```

atmAddrRegAdminIndex OBJECT-TYPE

```
SYNTAX  INTEGER (0..2147483647)
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"The value of 0 which has the special meaning of identifying the ATM Interface over which this message was received."

```
::= { atmAddressRegistrationAdminEntry 1 }
```

atmfAddrRegAdminStatus OBJECT-TYPE

```
SYNTAX  INTEGER {
    supported(1),
    unsupported(2)
}
```

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"An indication of whether or not Address Registration is supported on this ATM Interface. Supported(1) indicates that this ATM Interface supports address registration. Unsupported(2) indicates that this ATM Interface does not support address registration."

::= { atmfAddressRegistrationAdminEntry 2 }

of the reconfigured VCC at this ATM Interface."

::= 2

END

-- Traps

atmfVpcChange TRAP-TYPE

ENTERPRISE atmForum

VARIABLES { atmfVpcPortIndex, atmfVpcVpi, atmfVpcOperStatus}

DESCRIPTION

"An atmfVpcChange trap indicates that a permanent VPC has been added or deleted at this ATM Interface or that the attributes of an existing VPC have been modified. The variables included in the trap identify the VPI value of the reconfigured VPC at this ATM Interface."

::= 1

atmfVccChange TRAP-TYPE

ENTERPRISE atmForum

VARIABLES

{atmfVccPortIndex,
atmfVccVci,
atmfVccVpi,
atmfVccOperStatus }

DESCRIPTION

"An atmfVccChange trap indicates that a permanent VCC has been added or deleted at this ATM Interface or that the attributes of an existing VCC have been modified. The variables included in the trap identify the VCI and VPI values

The Ascend Broadband Access CESV2 MIB

ATMF-CES DEFINITIONS

IMPORTS

```
enterprises
    FROM RFC1155-SMI
OBJECT-TYPE, MODULE-IDENTITY, Counter32, Gauge32
    FROM SNMPv2-SMI
MODULE-COMPLIANCE, OBJECT-GROUP
    FROM SNMPv2-CONF;
```

```
atmForum OBJECT IDENTIFIER ::= { enterprises 353 }
atmForumNetworkManagement OBJECT IDENTIFIER ::= { atmForum 5 }
atmfCESmib OBJECT IDENTIFIER ::= { atmForumNetworkManagement 2 }
atmfCES MODULE-IDENTITY
    LAST-UPDATED "9610170000Z"
    ORGANIZATION "ATM Forum Circuit Emulation Working Group"
    CONTACT-INFO "The ATM Forum
```

2570 West El Camino Real, Suite 304
Mountain View, CA 94040-1313 USA
Phone: +1 415-949-6700
Fax: +1 415-949-6705
info@atmforum.com"

DESCRIPTION

"The MIB Module to describe the DS1/E1 Circuit Emulation Interworking Function (Version 1.0)
Note: The new Version 2 CES MIB replaces this earlier Version 1 CES MIB which exists as the (deprecated) first branch from the overall atmfCESmib object."

```
::= { atmfCESmib 2 }
```

```
-- An OBJECT IDENTIFIER for all ATM Forum circuit emulation MIBs
-- has been assigned as a branch from the ATM Forum Network
-- Management tree. This MIB for the version 2 ATM Forum Circuit
-- Emulation specification is attached as the second branch from the
-- overall atmfCESmib object.
-- The following TEXTUAL-CONVENTIONS are used to link the CES
-- interworking function to ATM interface port, plus the
-- associated VPI and VCI.

-- VpiInteger ::= TEXTUAL-CONVENTION
--     STATUS current
--     DESCRIPTION
--         "An integer large enough to hold a VPI"
--     SYNTAX INTEGER (0..4095)

-- VciInteger ::= TEXTUAL-CONVENTION
--     STATUS current
--     DESCRIPTION
--         "An integer large enough to hold a VCI"
--     SYNTAX INTEGER (0..65535)

-- CESConnectionPort ::= TEXTUAL-CONVENTION
--     STATUS current
--     DESCRIPTION
--         "Indicates the port associated with a Circuit Emulation
--         connection. Objects of this type are always defined as
--         part of a set that includes
--             fooPort      CESConnectionPort
--             fooVpi       VpiInteger
--             fooVci       VciInteger
--     The interpretation of these objects is as follows:
--     1. If no connection exists, 'fooPort' has a value of 0.
--         Because Interface table entries always have 'ifIndex'
--         values greater than 0, 'fooPort' reliably serves as a
--         'connection exists' flag.
```

```
--      If no connection exists, `fooVpi' and `fooVci' are
--      not relevant and have a value of 0.
--      2. If a PVC or SVC exists, `fooPort' is defined to have
--      the value of the MIB-II/RFC1573 `ifIndex' of the ATM
--      interface associated with the VCC. The ifType
--      associated with such an ifIndex value is either
--      atm(37) or atmLogical(80). `fooVpi' and `fooVci'
--      will contain its VPI/VCI."
--      SYNTAX  INTEGER (0..2147483647)
```

```
-- AtmAddr ::= TEXTUAL-CONVENTION
--      DISPLAY-HINT "1x"
--      STATUS   current
--      DESCRIPTION
--      "The ATM address used by the network entity. The address
--      types are: no address (0 octets), E.164 (8 octets), and
--      NSAP-encoded ATM Endsystem Address (20 octets).
--      Note: The E.164 address is encoded in BCD format."
--      SYNTAX  OCTET STRING (SIZE(0|8|20))
```

```
-- This is the MIB module for the ATM Forum Circuit Emulation
-- Service Interoperability Specification Version 2.0.
```

```
-- This MIB contains four tables:
--      CES Configuration Table
--      CES Mapping Table
--      CES Statistics Table
--      CES Active SVC Table
```

CES Configuration Table

```
atmfCESObjects OBJECT IDENTIFIER ::= {atmfCES 1}
```

```
atmfCESConfTable OBJECT-TYPE
```

```
    SYNTAX SEQUENCE OF AtmfCESConfEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The CES configuration table used to manage interworking
        between CBR interfaces or channels and ATM Virtual
        Channel Links (VCLs). The reverse mapping is shown in
        the atmfCESMappingTable."
    ::= { atmfCESObjects 1 }
```

```
atmfCESConfEntry OBJECT-TYPE
```

```
    SYNTAX AtmfCESConfEntry
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
```

```
"An entry in the CES configuration table. There is one
entry in the table per CES entity, mapping one CBR
interface, channel, or bundle to an ATM VCL.
Creation of a row in this table with a non-zero
atmfCESAtmIndex causes a corresponding entry in the
atmVclTable of the ATM-MIB (RFC1695) to be created."
```

```
INDEX { atmfCESCbrIndex }
```

```
::= { atmfCESConfTable 1 }
```

```
AtmfCESConfEntry ::= SEQUENCE {
    atmfCESCbrIndex      INTEGER,
    atmfCESAtmIndex      INTEGER,
    atmfCESAtmVpi        INTEGER,
    atmfCESAtmVci        INTEGER,
    atmfCESCbrService    INTEGER,
    atmfCESCbrClockMode  INTEGER,
    atmfCESCas           INTEGER,
    atmfCESPartialFill   INTEGER,
    atmfCESBufMaxSize    INTEGER,
    atmfCESCdvRxT        INTEGER,
    atmfCESCellLossIntegrationPeriod INTEGER,
    atmfCESConnType      INTEGER,
    atmfCESLocalAddr     OCTET STRING (SIZE(0|8|20)),
    atmfCESAdminStatus   INTEGER,
    atmfCESOperStatus    INTEGER,
    atmfCESConfRowStatus INTEGER
}
```

```
atmfCESCbrIndex OBJECT-TYPE
```

```
    SYNTAX INTEGER
    MAX-ACCESS not-accessible
    STATUS current
    DESCRIPTION
        "The value of this object is equal to MIB II's ifIndex
        value of the CBR interface, channel, or bundle that
        is being cross-connected to an ATM VCL."
    ::= { atmfCESConfEntry 1 }
```

```
atmfCESAtmIndex OBJECT-TYPE
```

```
    SYNTAX INTEGER
    MAX-ACCESS read-only
    STATUS current
    DESCRIPTION
        "The value of this object is equal to MIB II's
        ifIndex value of the ATM Port interface mapped through
        this CES IWF to a CBR interface. This value is
        overwritten whenever an active or passive SVC is
        established.
        The distinguished value zero indicates that no ATM
```

```

        interface has been specified."
 ::= { atmfcESConfEntry 2 }

atmfcESAtmVpi OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The value of this object is equal to the VPI used by the
        ATM VCL mapped through this CES IWF to a CBR interface.
        This value is overwritten whenever an active or passive
        SVC is established. The value is not relevant if no ATM
        interface has been specified (i.e., atmfcESAtmIndex is
        set to zero)."
 ::= { atmfcESConfEntry 3 }

atmfcESAtmVci OBJECT-TYPE
    SYNTAX INTEGER
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "The value of this object is equal to the VCI used by the
        ATM VCL mapped through this CES IWF to a CBR interface.
        This value is overwritten whenever an active or passive
        SVC is established.
        The distinguished value zero indicates that no ATM VCL
        has been specified."
 ::= { atmfcESConfEntry 4 }

atmfcESCbrService OBJECT-TYPE
    SYNTAX INTEGER {
        unstructured(1),
        structured(2)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Define if DSx/Ex service is as structured or
        unstructurednot. A structured(2) interface is some
        nx64kbKbps. An unstructured (1) interface is 1.544Mbps,
        2.048Mbps, 6.312Mbps, 44.736 Mbps, or 34.368 Mbps.
        unstructured(1) passes all bits through the ATM network.
        structured(2) passes data bits through the ATM network,
        and may also pass signalling bits
        At this time, only unstructured mode is defined for the
        44.736 Mbps and 34.368 Mbps services."
 ::= { atmfcESConfEntry 5 }

```

```

atmfcESCbrClockModeOBJECT-TYPE
    SYNTAX INTEGER {
        synchronous(1),
        srts(2),
        adaptive(3)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "Define if DSx/Ex service clocking mode. This maps into
        transmit clock source of CBR interface.
        For structured modes this value, if present, must be set
        to synchronous(1)."
    DEFVAL { synchronous }
 ::= { atmfcESConfEntry 6 }

atmfcESCas OBJECT-TYPE
    SYNTAX INTEGER {
        basic(1),
        e1Cas(2),
        ds1SfCas(3),
        ds1EsfCas(4),
        j2jt2Cas(5)
    }
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "This parameter selects which AAL1 Format should be used:
        Basic does not carry CAS bits, and uses a single 125 usec
        frame. e1Cas, ds1SfCas, ds1EsfCas and j2jt2Cas carry CAS
        bits in a multiframe structure for E1, DS1 SF, DS1 ESF
        and J2JT2 respectively. This applies to structured
        interfaces only. Default is basic (1). For unstructured
        interfaces this value, if present, must be set to the
        default of basic (1)."
    DEFVAL { basic }
 ::= { atmfcESConfEntry 7 }

atmfcESPartialFill OBJECT-TYPE
    SYNTAX INTEGER (0 .. 47)
    MAX-ACCESS read-write
    STATUS current
    DESCRIPTION
        "If partial cell fill is used, the number of user octets
        per cell must be set with this parameter. Setting this
        parameter to zero disables partial cell fill, and causes
        all cells to be completely filled before they are sent."
    DEFVAL { 0 } -- Partial Cell Fill not used

```

<pre> ::= { atmfcESConfEntry 8 } atmfcESBufMaxSize OBJECT-TYPE SYNTAX INTEGER (1..65536) UNITS "10 usec" MAX-ACCESS read-write STATUS current DESCRIPTION "Define maximum size in 10 microsecond increments of the reassembly buffer. Some implementations may want allow the maximum buffer size to be programmed to a size less than the physical limit to reduce the maximum delay through a circuit." DEFVAL { 128 } ::= { atmfcESConfEntry 9 } </pre>	<pre> } MAX-ACCESS read-write STATUS current DESCRIPTION "The type of ATM connectivity between associated CES IWF's. Valid values are: other - none of the types specified below pvc - supporting connectivity is a permanent virtual connection activeSvc - attempt calls whenever none established passiveSvc - accept calls" ::= { atmfcESConfEntry 12 } </pre>
<pre> atmfcESCdvRxt OBJECT-TYPE SYNTAX INTEGER (1..65535) UNITS "10 usec" MAX-ACCESS read-write STATUS current DESCRIPTION "The maximum cell arrival jitter in 10 usec increments that the reassembly process will tolerate in the cell stream without producing errors on the CBR service interface." DEFVAL { 100 } ::= { atmfcESConfEntry 10 } </pre>	<pre> atmfcESLocalAddr OBJECT-TYPE SYNTAX OCTET STRING (SIZE(0 8 20)) MAX-ACCESS read-write STATUS current DESCRIPTION "The ATM address of the local CES IWF process. This address is an optional object. This address may be used by the automatic SVC establishment procedures to identify the intended recipient CES IWF of an incoming automatic SVC call request. Optionally, the MAX-ACCESS of this object may be read-only, for those implementations where it is not desired to manually configure this address." ::= { atmfcESConfEntry 13 } </pre>
<pre> atmfcESCellLossIntegrationPeriod OBJECT-TYPE SYNTAX INTEGER (1000 .. 65535) UNITS "msec" MAX-ACCESS read-write STATUS current DESCRIPTION "The time in milliseconds for the cell loss integration period. If a cells are continuously lost for this period of time, atmfcESCellLossStatus is set to loss (2). The default definition is 2500." DEFVAL { 2500 } ::= { atmfcESConfEntry 11 } </pre>	<pre> atmfcESAdminStatus OBJECT-TYPE SYNTAX INTEGER { up(1), down(2) } MAX-ACCESS read-write STATUS current DESCRIPTION "The desired administrative status of the CES interworking function. The up and down states indicate that the traffic flow is enabled or disabled respectively across the CES interworking function. This is an optional object." ::= { atmfcESConfEntry 14 } </pre>
<pre> atmfcESConnType OBJECT-TYPE SYNTAX INTEGER { other(1), pvc(2), activeSvc(3), passiveSvc(4) } </pre>	<pre> atmfcESOperStatus OBJECT-TYPE SYNTAX INTEGER { up(1), down(2), unknown(3) } </pre>

```

    }
    MAX-ACCESSread-only
    STATUS current
    DESCRIPTION
        "The operational status of the CES interworking function.
        The up and down states indicate that the traffic flow is
        enabled or disabled respectively across the CES
        interworking function. The unknown state indicates that
        the state of the CES interworking function cannot be
        determined. The state will be down or unknown if the
        supporting CBR or ATM interfaces are down or unknown,
        respectively. This is an optional object."
    ::= { atmfcESConfEntry 15 }

```

atmfcESConfRowStatus OBJECT-TYPE

```

    SYNTAX INTEGER
    MAX-ACCESSread-write
    STATUS current
    DESCRIPTION
        "This object is used to create new rows in this table,
        modify existing rows, and to delete existing rows."
    ::= { atmfcESConfEntry 16 }

```

CES Mapping Table

atmfcESMappingTable OBJECT-TYPE

```

    SYNTAX SEQUENCE OF AtmfcESMappingEntry
    MAX-ACCESSnot-accessible
    STATUS current
    DESCRIPTION
        "The CES mapping table used to show the mapping from ATM
        VCLs to CBR interfaces or channels. The mapping and
        interworking functions are configured in the
        atmfcESConfTable."
    ::= { atmfcESObjects 2 }

```

atmfcESMappingEntry OBJECT-TYPE

```

    SYNTAX AtmfcESMappingEntry
    MAX-ACCESSnot-accessible
    STATUS current
    DESCRIPTION
        "An entry in the CES mapping table. There is one entry in
        the table corresponding to each active row in the
        atmfcESConfTable for which there is a non-zero
        atmfcESAtmIndex."
    INDEX { atmfcESAtmIndex,
        atmfcESAtmVpi,
        atmfcESAtmVci }

```

```

::= { atmfcESMappingTable 1 }

```

```

AtmfcESMappingEntry ::= SEQUENCE {
    atmfcESMappingCbrIndex INTEGER
}

```

atmfcESMappingCbrIndexOBJECT-TYPE

```

    SYNTAX INTEGER
    MAX-ACCESSread-only
    STATUS current
    DESCRIPTION
        "The value of this object is equal to MIB II's ifIndex
        value of the CBR interface, channel, or bundle that is
        being cross-connected to an ATM VCL. Examples of the
        ifType value for the CBR entity are ds1(18), ds3(30),
        ds0(81), or ds0bundle(82)."
    ::= { atmfcESMappingEntry 1 }

```

CES Statistics Table

atmfcESStatsTable OBJECT-TYPE

```

    SYNTAX SEQUENCE OF AtmfcESStatsEntry
    MAX-ACCESSnot-accessible
    STATUS current
    DESCRIPTION
        "The CES AAL1 statistical data table."
    ::= { atmfcESObjects 3 }

```

atmfcESStatsEntryOBJECT-TYPE

```

    SYNTAX AtmfcESStatsEntry
    MAX-ACCESSnot-accessible
    STATUS current
    DESCRIPTION
        "An entry in the CES AAL1 Stats table. There is one
        entry in this table corresponding to each entry in
        the atmfcESConfTable."
    AUGMENTS { atmfcESConfEntry }
    ::= { atmfcESStatsTable 1 }

```

```

AtmfcESStatsEntry ::= SEQUENCE {
    atmfcESReassCells Counter32,
    atmfcESHdrErrorsCounter32,
    atmfcESPointerReframesCounter32,
    atmfcESPointerParityErrors Counter32,
    atmfcESAal1SeqErrorsCounter32,
    atmfcESLostCellsCounter32,
    atmfcESMisinsertedCellsCounter32,
    atmfcESBufUnderflowsCounter32,
    atmfcESBufOverflows Counter32,
}

```

```
atmfCESCellLossStatus INTEGER
}
```

atmfCESReassCells OBJECT-TYPE

```
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "This count gives the number of cells played out to the
    CES Service Interface. It excludes cells that were
    discarded for any reason, including cells that were not
    used due to being declared misinserted, or discarded
    while the reassembler was waiting to achieve
    synchronization."
 ::= { atmfCESStatsEntry 1 }
```

atmfCESHdrErrors OBJECT-TYPE

```
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "The count of the number of AAL1 header errors detected,
    including those corrected. Header errors include
    correctable and uncorrectable CRC, plus bad parity."
 ::= { atmfCESStatsEntry 2 }
```

atmfCESPointerReframes OBJECT-TYPE

```
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "This records the count of the number of events in which
    the AAL1 reassembler found that an SDT pointer is not
    where it is expected, and the pointer must be reacquired.
    This count is an optional object and is only meaningful
    for structured CES modes, as unstructured CES modes do
    not use pointers. For unstructured CES modes, this count,
    if present, should indicate zero."
 ::= { atmfCESStatsEntry 3 }
```

atmfCESPointerParityErrors OBJECT-TYPE

```
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "This records the count of the number of events in which
    the AAL1 reassembler detects a parity check failure at
    the point where a structured data pointer is expected.
```

This count is an optional object and is only meaningful for structured CES modes, as unstructured CES modes do not use pointers. For unstructured CES modes, this count, if present, should indicate zero."

```
 ::= { atmfCESStatsEntry 4 }
```

atmfCESAal1SeqErrors OBJECT-TYPE

```
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Number of times that the sequence number of an incoming
    AAL1 Type 1 SAR-PDU causes a transition from the æsyncÆ
    state to the æout of sequenceÆ state, as defined by ITU-T
    I.363.1. This count is an optional object."
 ::= { atmfCESStatsEntry 5 }
```

atmfCESLostCells OBJECT-TYPE

```
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Number of lost cells, as detected by the AAL1 sequence
    number processing, for example. This records the count of
    the number of cells detected as lost in the network prior
    to the destination CES IWF AAL1 layer processing. This
    count is an optional object."
 ::= { atmfCESStatsEntry 6 }
```

atmfCESMisinsertedCells OBJECT-TYPE

```
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Number of AAL1 sequence violations which the
    AAL Convergence sublayer interprets as a misinserted
    cell, as defined by ITU-T I.363.1. This count is
    an optional object."
 ::= { atmfCESStatsEntry 7 }
```

atmfCESBufUnderflows OBJECT-TYPE

```
SYNTAX Counter32
MAX-ACCESS read-only
STATUS current
DESCRIPTION
    "Number of buffer underflows. This records the count of
    the number of times the CES reassembly buffer underflows.
    In the case of a continuous underflow caused by a loss of
```

ATM cell flow, a single buffer underflow should be counted. If the CES IWF is implemented with multiple buffers (such as a cell level buffer and a bit level buffer), then either buffer underflow will cause this count to be incremented."

::= { atmfcESStatsEntry 8 }

atmfcESBufOverflows OBJECT-TYPE

SYNTAX Counter32

MAX-ACCESSread-only

STATUS current

DESCRIPTION

"Number of buffer overflows. This records the count of the number of times the CES reassembly buffer overflows. If the CES IWF is implemented with multiple buffers (such as a cell level buffer and a bit level buffer, then either buffer overflow will cause this count to be incremented "

::= { atmfcESStatsEntry 9 }

atmfcESCellLossStatus OBJECT-TYPE

SYNTAX INTEGER {

noLoss(1),

loss(2)

}

MAX-ACCESSread-only

STATUS current

DESCRIPTION

"When cells are continuously lost for the number of milliseconds specified by atmfcESCellLossIntegrationPeriod, the value is set to loss (2). When cells are no longer lost, the value is set to noLoss (1)."

::= { atmfcESStatsEntry 10 }

CES Active SVC Table

atmfcESActiveSvcTable OBJECT-TYPE

SYNTAX SEQUENCE OF AtmfcESActiveSvcEntry

MAX-ACCESSnot-accessible

STATUS current

DESCRIPTION

"The table used to manage active SVCs established across ATM networks between CES entities."

::= { atmfcESObjects 4 }

atmfcESActiveSvcEntry OBJECT-TYPE

SYNTAX AtmfcESActiveSvcEntry

MAX-ACCESSnot-accessible

STATUS current

DESCRIPTION

"An entry in the CES active SVC table. There is one entry in the table corresponding to each active row in the atmfcESConfTable for which the atmfcESConnType takes the value 'activeSvc'."

INDEX { atmfcESCbrIndex }

::= { atmfcESActiveSvcTable 1 }

AtmfcESActiveSvcEntry ::= SEQUENCE {

atmfcESRemoteAddr OCTET STRING (SIZE(0|8|20)),

atmfcESFirstRetryInterval INTEGER,

atmfcESRetryTimer INTEGER,

atmfcESRetryLimit INTEGER,

atmfcESRetryFailures Gauge32,

atmfcESActiveSvcRestart INTEGER,

atmfcESActiveSvcOperStatus INTEGER,

atmfcESLastReleaseCause INTEGER,

atmfcESLastReleaseDiagnostics OCTET STRING (SIZE(0|8|20))

}

atmfcESRemoteAddr OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(0|8|20))

MAX-ACCESSread-write

STATUS current

DESCRIPTION

"The ATM address supporting the corresponding far end CES IWF process. If no address is supplied, no attempts to establish the active SVC are initiated."

::= { atmfcESActiveSvcEntry 1 }

atmfcESFirstRetryInterval OBJECT-TYPE

SYNTAX INTEGER (1..3600)

UNITS "seconds"

MAX-ACCESSread-write

STATUS current

DESCRIPTION

"The time to wait before attempting to establish the SVC after the first failed call attempt. The time to wait between subsequent call attempts may differ to implement a backoff scheme. Zero represents an infinite interval indicating no retries."

DEFVAL { 10 }

::= { atmfcESActiveSvcEntry 2 }

atmfcESRetryTimer OBJECT-TYPE

SYNTAX INTEGER (0..86400)

UNITS "seconds"

MAX-ACCESSread-only

STATUS current

DESCRIPTION

"Indicates the current value of the retry timer for this connection. When the value reaches zero an attempt will be made to establish the active SVC. When the timer is not running, the value zero shall be returned."

::= { atmfcESActiveSvcEntry 3 }

atmfcESRetryLimit OBJECT-TYPE

SYNTAX INTEGER (0..65535)

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"Sets a maximum limit on how many consecutive unsuccessful call setup attempts can be made before stopping the attempt to set up the connection. If this limit is reached then management action will be required (e.g. setting atmfcESActiveSvcRestart to 'restart') to initiate a new attempt to establish the connection. A value of zero indicates no limit - the attempts will continue until successful. This limit is an optional object. If not present, no limit on call attempts is assumed."

DEFVAL { 0 }

::= { atmfcESActiveSvcEntry 4 }

atmfcESRetryFailures OBJECT-TYPE

SYNTAX Gauge32

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Indicates how many attempts to establish the connection have failed. This count is reset whenever a connection is successfully established or the active SVC is restarted."

::= { atmfcESActiveSvcEntry 5 }

atmfcESActiveSvcRestart OBJECT-TYPE

SYNTAX INTEGER {

restart(1),

noop(2)

}

MAX-ACCESS read-write

STATUS current

DESCRIPTION

"When the value is set to 'restart' the active SVC is released if necessary and a new setup procedure is begun. As a result of this action, the

atmfcESActiveSvcOperStatus object transitions to 'establishmentInProgress' (if not already in this state) and the atmfcESRetryFailures object is cleared. When the value is set to 'noop' no operation is performed. When read, the value 'noop' is returned."

::= { atmfcESActiveSvcEntry 6 }

atmfcESActiveSvcOperStatus OBJECT-TYPE

SYNTAX INTEGER {

other(1),

establishmentInProgress(2),

connected(3),

retriesExhausted(4),

noAddressSupplied(5),

lowerLayerDown(6)

}

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Describes the status of the active SVC. Valid values are:

other - none of the types specified below

establishmentInProgress - connection is not

operational, but call attempts are ongoing

connected - connection is currently operational

retriesExhausted - retry limit has been reached and

call attempts have ceased

noAddressSupplied - no remote address has been

configured, so no call attempts are

initiated

lowerLayerDown - underlying CES IWF is not operational

When the row is not 'active', the value of this object is 'other'."

::= { atmfcESActiveSvcEntry 7 }

atmfcESLastReleaseCause OBJECT-TYPE

SYNTAX INTEGER(1..127)

MAX-ACCESS read-only

STATUS current

DESCRIPTION

"Value of the Cause field of the Cause information element in the last RELEASE signalling message received for this active SVC. Indicates the reason for the release. This is an optional object."

::= { atmfcESActiveSvcEntry 8 }

atmfcESLastReleaseDiagnostics OBJECT-TYPE

SYNTAX OCTET STRING (SIZE(0|8|20))

MAX-ACCESS read-only

```

STATUS current
DESCRIPTION
    "Value of the first 8 bytes of diagnostic information from
    the Cause field of the Cause information element in the
    last RELEASE signalling message received for this active
    SVC. This is an optional object."
::= { atmCESActiveSvcEntry 9 }

-- Conformance Information
atmCESConformanceOBJECT IDENTIFIER ::= { atmCES 2 }
atmCESGroups OBJECT IDENTIFIER ::= { atmCESConformance 1 }
atmCESCompliancesOBJECT IDENTIFIER ::= { atmCESConformance 2 }

-- Compliance Statements
atmCESCompliance MODULE-COMPLIANCE
    STATUS current
    DESCRIPTION
        "The compliance statement for SNMP entities which support
        the ATM Forum Circuit Emulation Services."
    MODULE -- this module
    MANDATORY-GROUPS {
        atmCESBasicConfigGroup,
        atmCESBasicStatsGroup,
        atmCESMappingGroup
    }

    GROUP atmCESStructConfigGroup
    DESCRIPTION
        "This group is mandatory only for IWFs that support
        Structured DS1, E1 or J2 Nx64 kbit/s Service."

    GROUP atmCESStructStatsGroup
    DESCRIPTION
        "This group is mandatory only for IWFs that support
        Structured DS1, E1 or J2 Nx64 kbit/s Service."

    GROUP atmCESSvcConfigGroup
    DESCRIPTION
        "This group is mandatory only when support for automatic
        SVC initiation procedures is provided."

    OBJECT atmCESLocalAddr
    MIN-ACCESS read-only
    DESCRIPTION
        "Support for manual configuration of the local CES
        interworking function address is not required."

    OBJECT atmCESAdminStatus

```

```

MIN-ACCESS not-accessible
DESCRIPTION
    "Support of atmCESAdminStatus is not required."

OBJECT atmCESOperStatus
MIN-ACCESS not-accessible
DESCRIPTION
    "Support of atmCESOperStatus is not required."

OBJECT atmCESPointerReframes
DESCRIPTION
    "Support for counting AAL1 Pointer Reframes is not
    required."

OBJECT atmCESPointerParityErrors
DESCRIPTION
    "Support for counting AAL1 Pointer Parity Errors is not
    required."

OBJECT atmCESAal1SeqErrors
DESCRIPTION
    "Support for counting AAL1 Sequence Errors is not
    required."

OBJECT atmCESLostCells
DESCRIPTION
    "Support for counting Lost Cells is not required."

OBJECT atmCESMisinsertedCells
DESCRIPTION
    "Support for counting Misinserted Cells is not required."

OBJECT atmCESRetryLimit
MIN-ACCESS not-accessible
DESCRIPTION
    "Support of a retry limit is not required."

OBJECT atmCESLastReleaseCause
MIN-ACCESS not-accessible
DESCRIPTION
    "Support for the Last Release Cause object is not
    required."

OBJECT atmCESLastReleaseDiagnostics
MIN-ACCESS not-accessible
DESCRIPTION
    "Support for the Last Release Diagnostics object is
    not required."

```

```

        ::= { atmCESCompliances 1 }

-- Units of Conformance

atmCESBasicConfigGroup OBJECT-GROUP
    OBJECTS {
        atmCESAtmIndex,
        atmCESAtmVpi,
        atmCESAtmVci,
        atmCESCbrService,
        atmCESCbrClockMode,
        atmCESBufMaxSize,
        atmCESCdvRXT,
        atmCESCellLossIntegrationPeriod,
        atmCESConnType,
        atmCESAdminStatus,
        atmCESOperStatus,
        atmCESConfRowStatus
    }
    STATUS current
    DESCRIPTION
        "A collection of objects providing configuration
        information for generic Circuit Emulation Service IWFs."
    ::= { atmCESGroups 1 }

atmCESBasicStatsGroup OBJECT-GROUP
    OBJECTS {
        atmCESReassCells,
        atmCESHdrErrors,
        atmCESAal1SeqErrors,
        atmCESLostCells,
        atmCESMisinsertedCells,
        atmCESBufUnderflows,
        atmCESBufOverflows,
        atmCESCellLossStatus
    }
    STATUS current
    DESCRIPTION
        "A collection of objects providing statistics information
        for generic Circuit Emulation Service IWFs."
    ::= { atmCESGroups 2 }

atmCESStructConfigGroup OBJECT-GROUP
    OBJECTS {
        atmCESCas,
        atmCESPartialFill
    }
    STATUS current

DESCRIPTION
    "A collection of objects providing configuration
    information for Structured DS1, E1 or J2 Nx64 kbit/s
    Service IWFs."
    ::= { atmCESGroups 3 }

atmCESStructStatsGroup OBJECT-GROUP
    OBJECTS {
        atmCESPointerReframes,
        atmCESPointerParityErrors
    }
    STATUS current
    DESCRIPTION
        "A collection of objects providing statistics information
        for Structured DS1, E1 or J2 Nx64 kbit/s Service IWFs."
    ::= { atmCESGroups 4 }

atmCESMappingGroup OBJECT-GROUP
    OBJECTS {
        atmCESMappingCbrIndex
    }
    STATUS current
    DESCRIPTION
        "A collection of objects providing information about the
        mapping from ATM VCLs to CBR interfaces or channels."
    ::= { atmCESGroups 5 }

atmCESSvcConfigGroup OBJECT-GROUP
    OBJECTS {
        atmCESLocalAddr,
        atmCESRemoteAddr,
        atmCESFirstRetryInterval,
        atmCESRetryTimer,
        atmCESRetryLimit,
        atmCESRetryFailures,
        atmCESActiveSvcRestart,
        atmCESActiveSvcOperStatus,
        atmCESLastReleaseCause,
        atmCESLastReleaseDiagnostics
    }
    STATUS current
    DESCRIPTION
        "A collection of objects providing SVC connection
        establishment support configuration information for CES
        IWFs."
    ::= { atmCESGroups 6 }

END

```