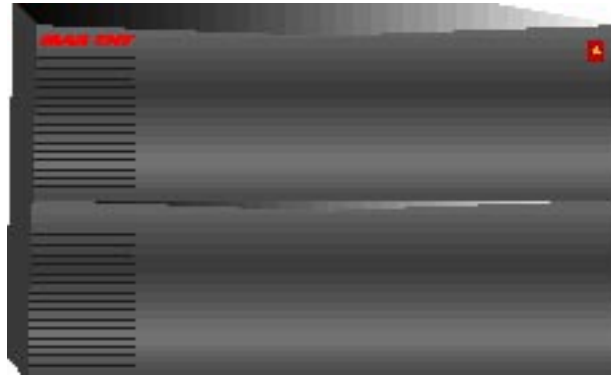




MAX TNT

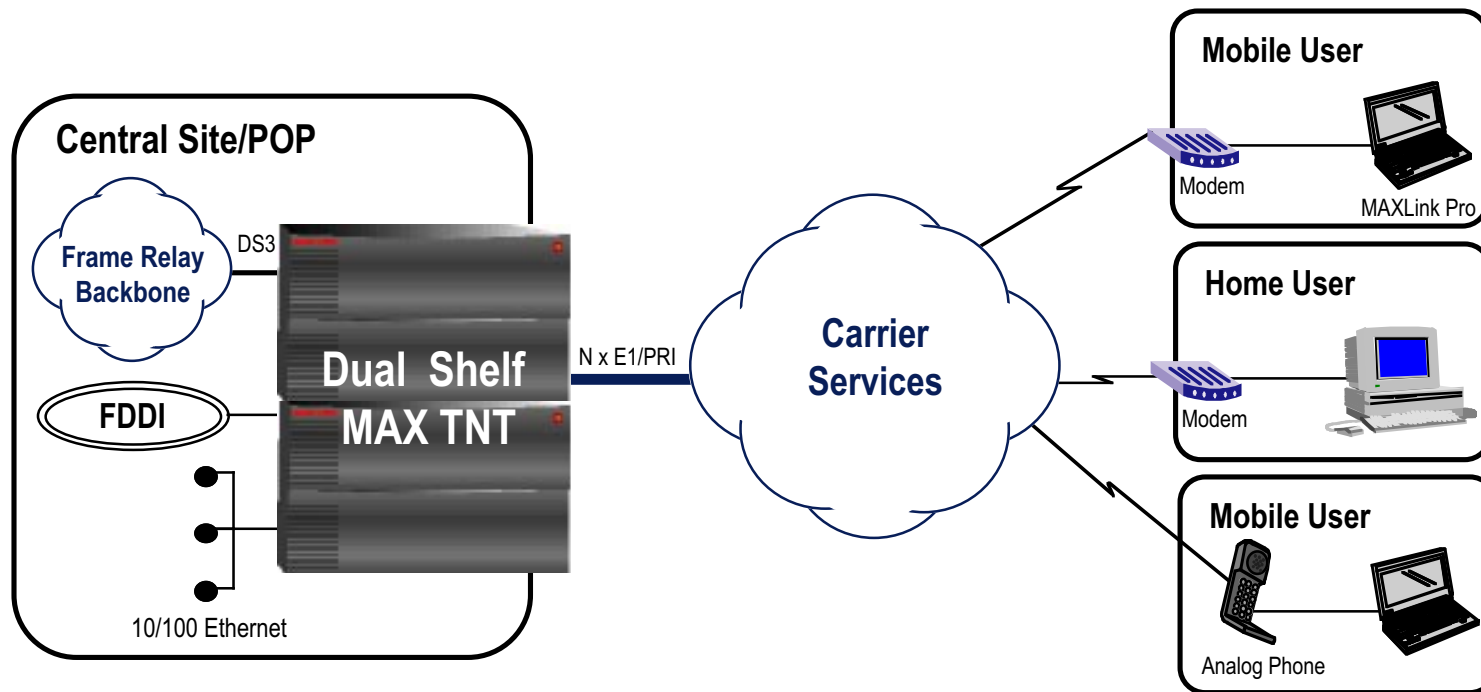
WAN Access Switch

Product Overview

- **The Industry's first Carrier Class WAN Access Switch**
 - High density: 672 sessions per 3 shelf system
 - 288 modems per shelf
- **Multi-shelf architecture provides cost-effective scalability & redundancy**
- **Supports all features and capabilities of the MAX Product Family**
- **Scales to meet the needs of the largest ISP/Carrier/Corporate Networks**
 - WAN access: T1, E1, PRI
 - Backbone access over: HSSI, 10/100Base-T Ethernet, 100Base-T FDDI, DS3
- **Redundancy**
 - Multiple power supplies
 - Hot swappable modules

Applications

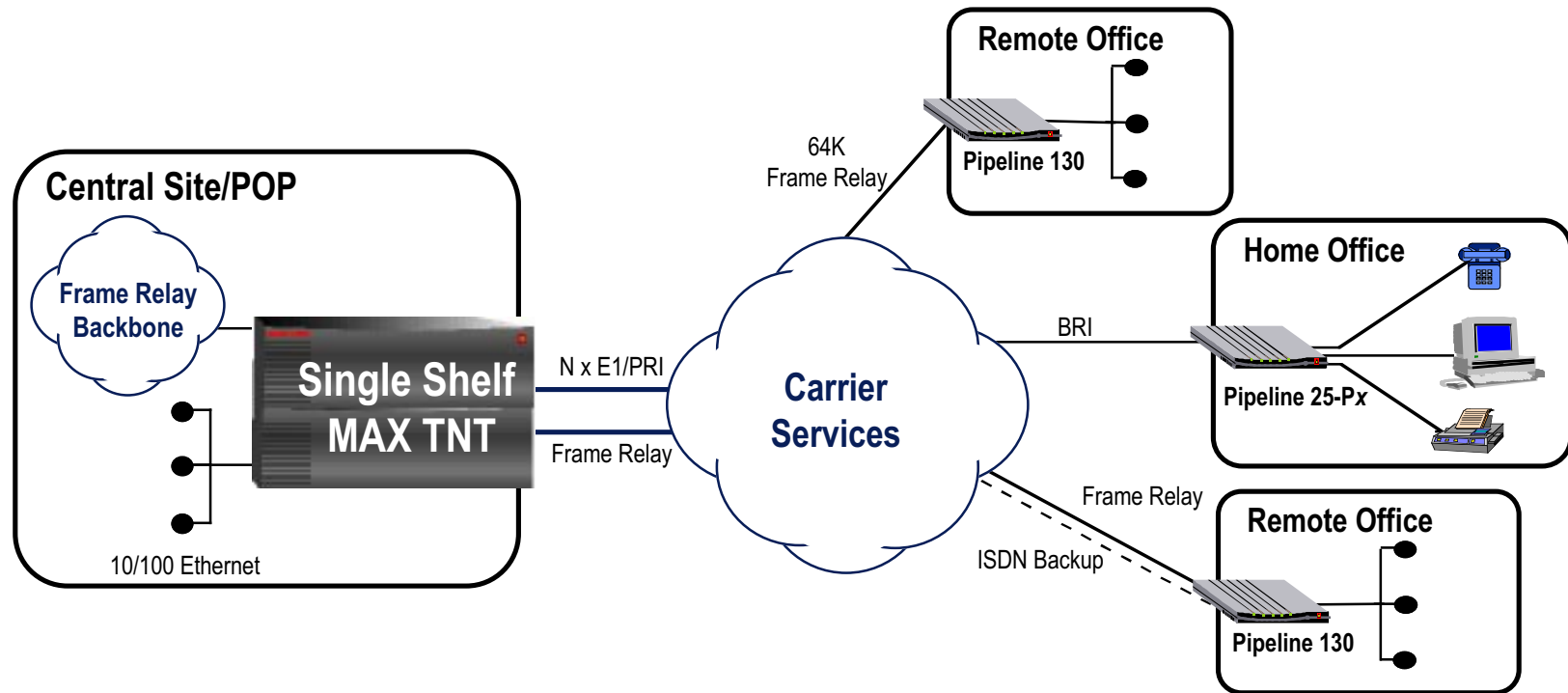
Analog Access



- ▲ 672 concurrent modem connections per 3 shelf system or 288 modems per single shelf
- ▲ High speed connection to the backbone using frame relay, FDDI or 100 Base-T

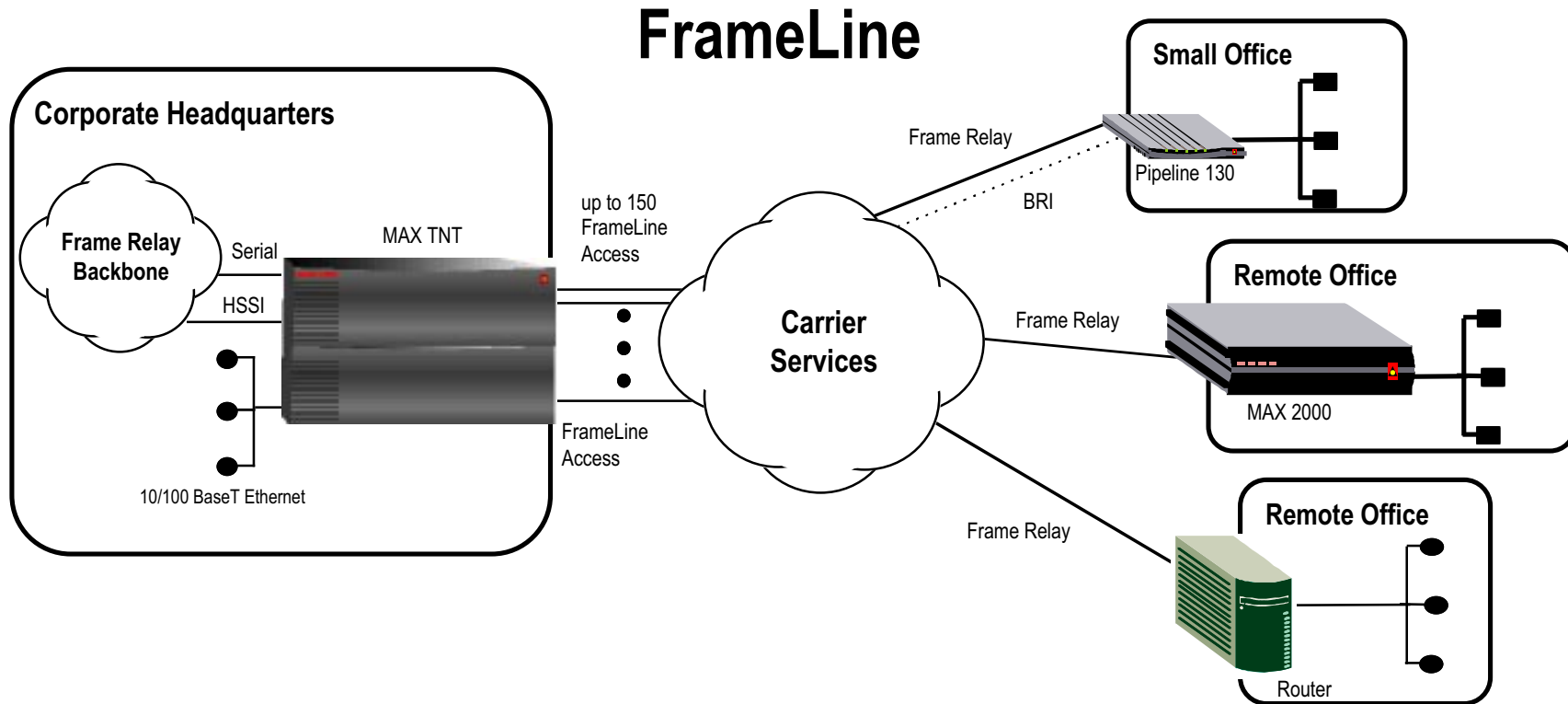
Applications

Hybrid Digital Access (Frame Relay + ISDN)



- ▲ Supports up to 672 concurrent B channels or N x 64 Kbps Frame Relay sessions on one shelf
- ▲ 28 E1/PRI access lines available

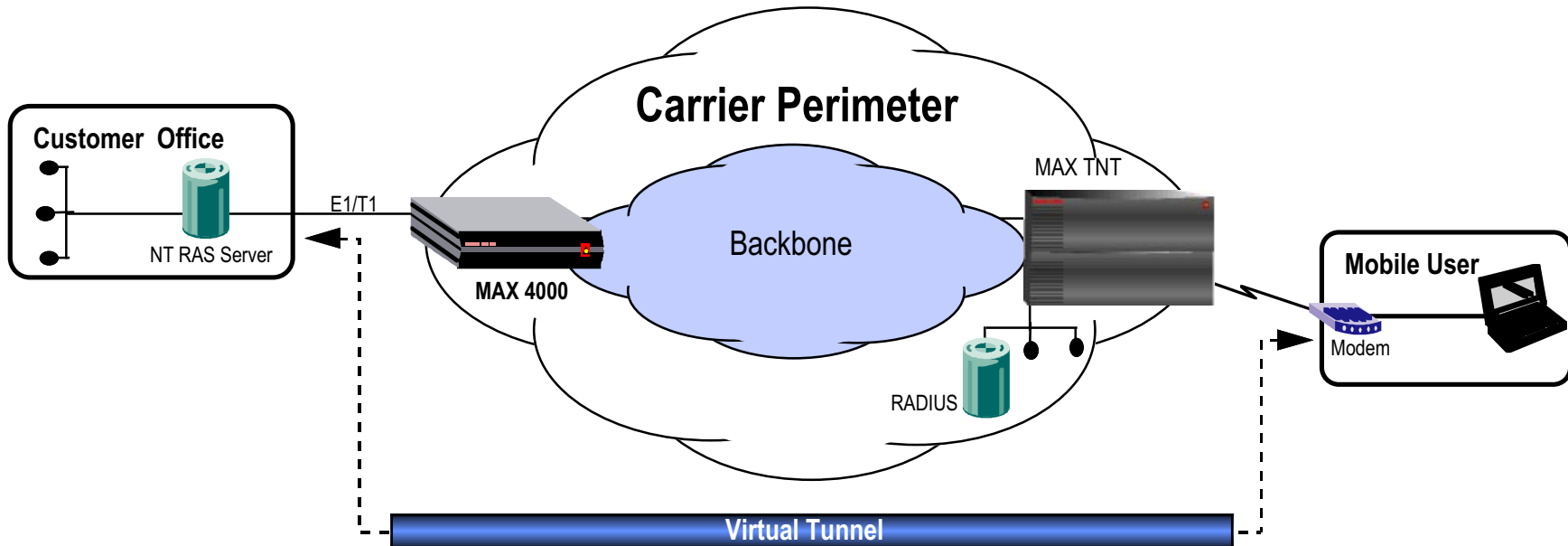
Applications



- ▲ Support up to 150 concurrent T1/E1 Frame Relay connections
- ▲ Single-shelf system
- ▲ Up to 4094 PVCs per backbone port
- ▲ 10/100 BaseT Ethernet
- ▲ Serial V.35 (8Mbps) and HSSI (52 Mbps) Frame Relay Backbone

Application

VPN – PPTP or ATMP



▲ Layer tunneling based on RFC 1701 – ATMP

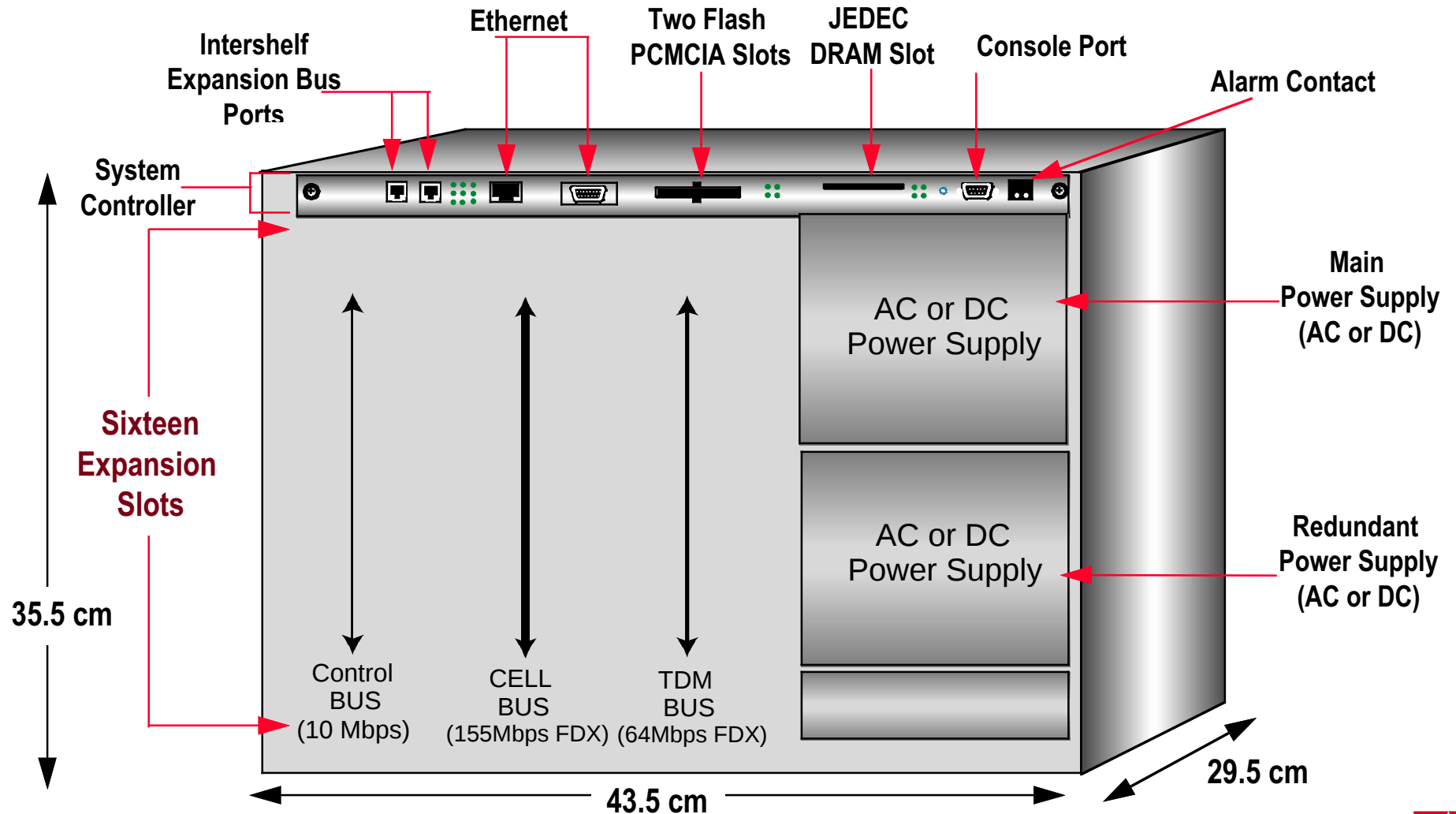
- Does not require valid IP address on corporate network

▲ Layer 2 Tunneling mechanism specific to Microsoft NT™ networks – PPTP

- Mobile user can be NT™, Windows 95™ or PPP Client
- Home Agent must be a NT Server
- Also supports NetBios & encrypts PPP packets

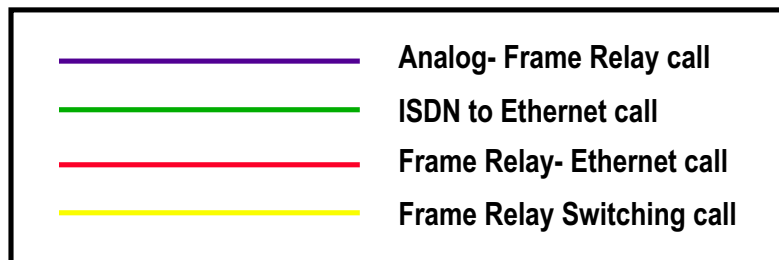
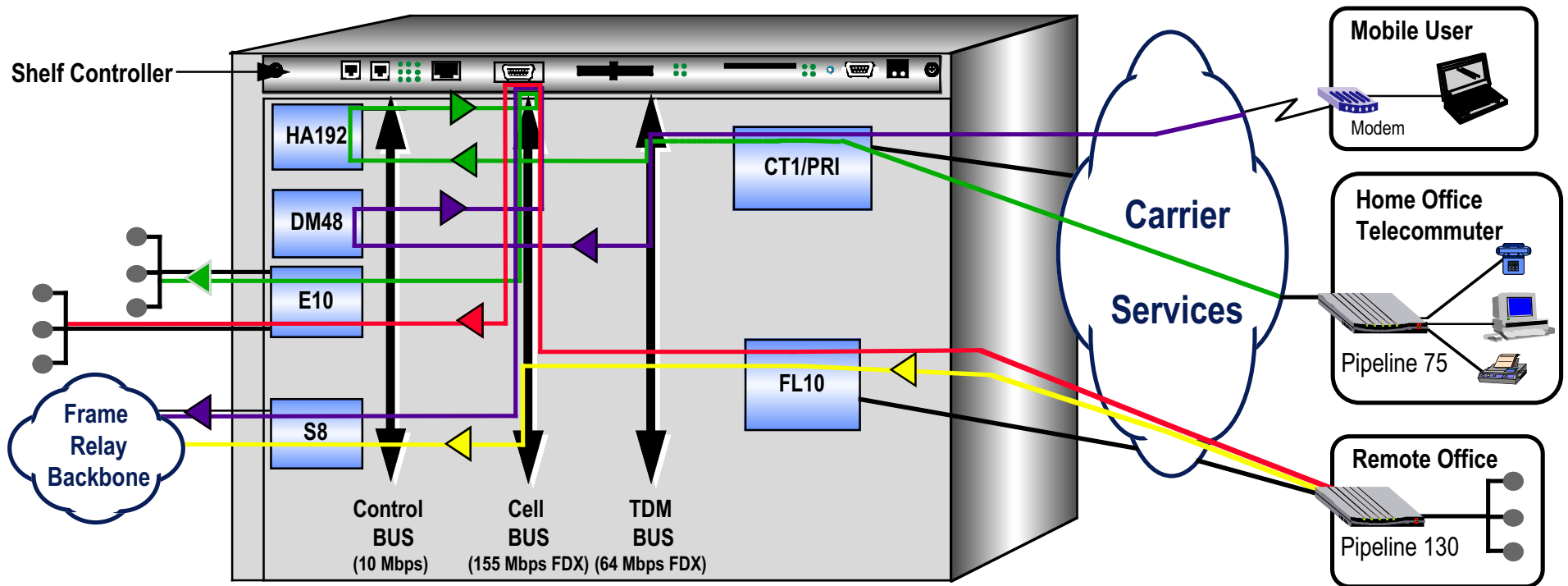
Product Functionality

Base System (Single Shelf)



Product Overview

Architecture

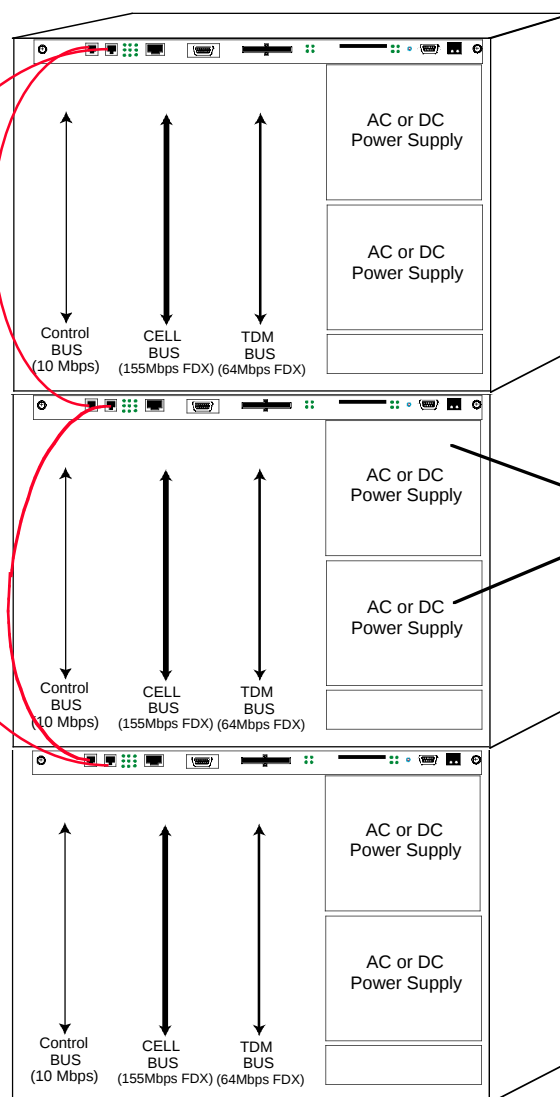


- ▲ **Separate bus architecture:**
- Control bus to manage resources
 - Cell bus - data bus, 155Mbps
 - TDM bus - digital cross connect, 1024 timeslots

TNT System Architecture

**Intershef
Expansion Bus**

42"



(Multi Shelf)

**800 Watt
Load Sharing
power Module
(AC or DC)**

Slot Cards

- ▲ High Performance CPU — per card
- ▲ Hot Swappable Modules

WAN Modules



8 Port T1/E1 PRI Module



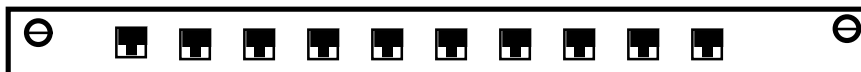
1 Port DS3 Module



1 Port HSSI



4 Port Serial Module



10 Port T1/E1 Module

LAN Modules



1 Port HSSI



4 Port Ethernet (10Base-T) + 1 Port (100Base-T)

Digital Modules



48 Port Module



192 Port Hybrid Digital Access Module

Product Functionality

Base Software Release

▲ Routing protocols

- RIP, RIP2, OSPF, BGP4 (future)
- IP and IPX routing
- Transparent bridging for other protocols

▲ WAN protocols

- PPP, SLIP, ASYNC PPP, V.120 ASYNC, ARAP

▲ Tunneling Protocols

- PPTP, ATMP

▲ Comprehensive Bandwidth Management

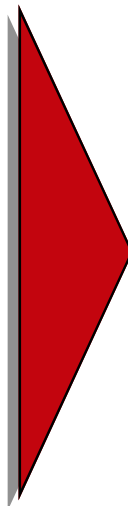
- MP, MP+, IPX spoofing, Dynamic IP Addressing

▲ Integrated Network Management

- SNMP version 2, HP OpenView, CDR, Telnet

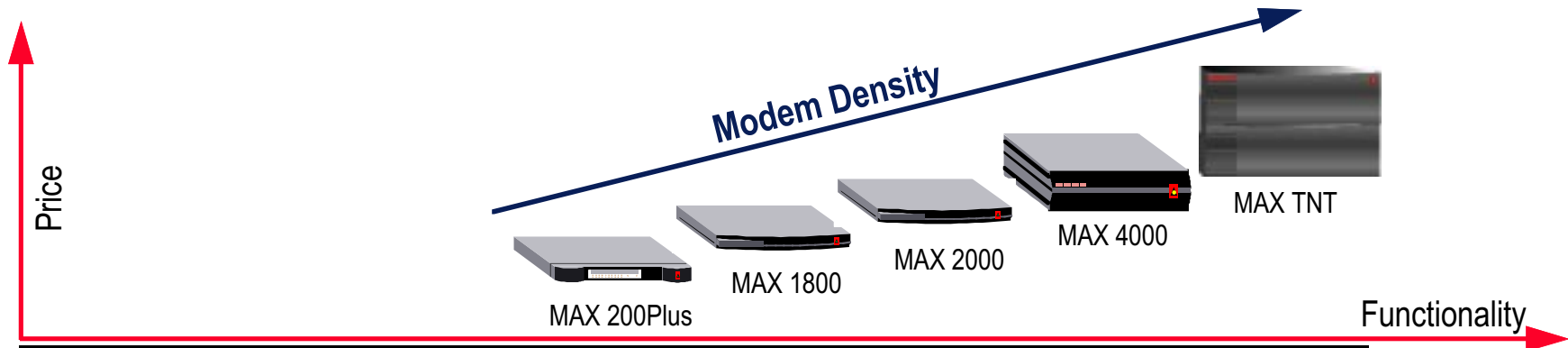
▲ Comprehensive Security

- RADIUS, TACACS, TACACS+, PAP, CHAP, Token Card, etc.
- Integrated Secure Access Firewall



***Base software is
common across
the entire MAX
product family***

MAX Product Family



Maximum # of BRI	4	8	0	32	0
Maximum # of T1/E1/PRI	0	0	1	4	28
Maximum # of modems (T1/E1)	8	16	24/24	72/72	672*
Maximum # of B Channels	8	16	24/30	96/120	672*
Maximum DS3(channelized)	No	No	No	No	1
Maximum Ethernet	1	1	1	1	30
Maximum DS3(unchannelized)	No	No	No	No	1
Serial Interface	No	1	1	1	40
# of Expansion Slots	8	2	2	6	16/48
Modems per Expansion Slots	1	8	12	12	48**
Cellular modem supported	Yes	Yes	Yes	Yes	Yes
Data Compression	Software	Hardware	Hardware	Hardware	Hardware
Modem Dial out Client Software	Standard	Optional	Optional	Optional	Optional
Remote Dial in Client Software	Standard	Optional	Optional	Optional	Optional
Hybrid Analog & Digital Access	Standard	Standard	Standard	Optional	Optional
Frame Relay Software	Future	Optional	Optional	Optional	Optional

* using multishelf configuration

** dual slot card