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Ascend's Pipeline Product Family

Ascend's Pipeline Product Family

The most comprehensive product line for:

- **Telecommuting**
- **Remote access**
- **Internet access**
- **Small Office/Home Office (SOHO)**

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  - Internet & Remote LAN Access

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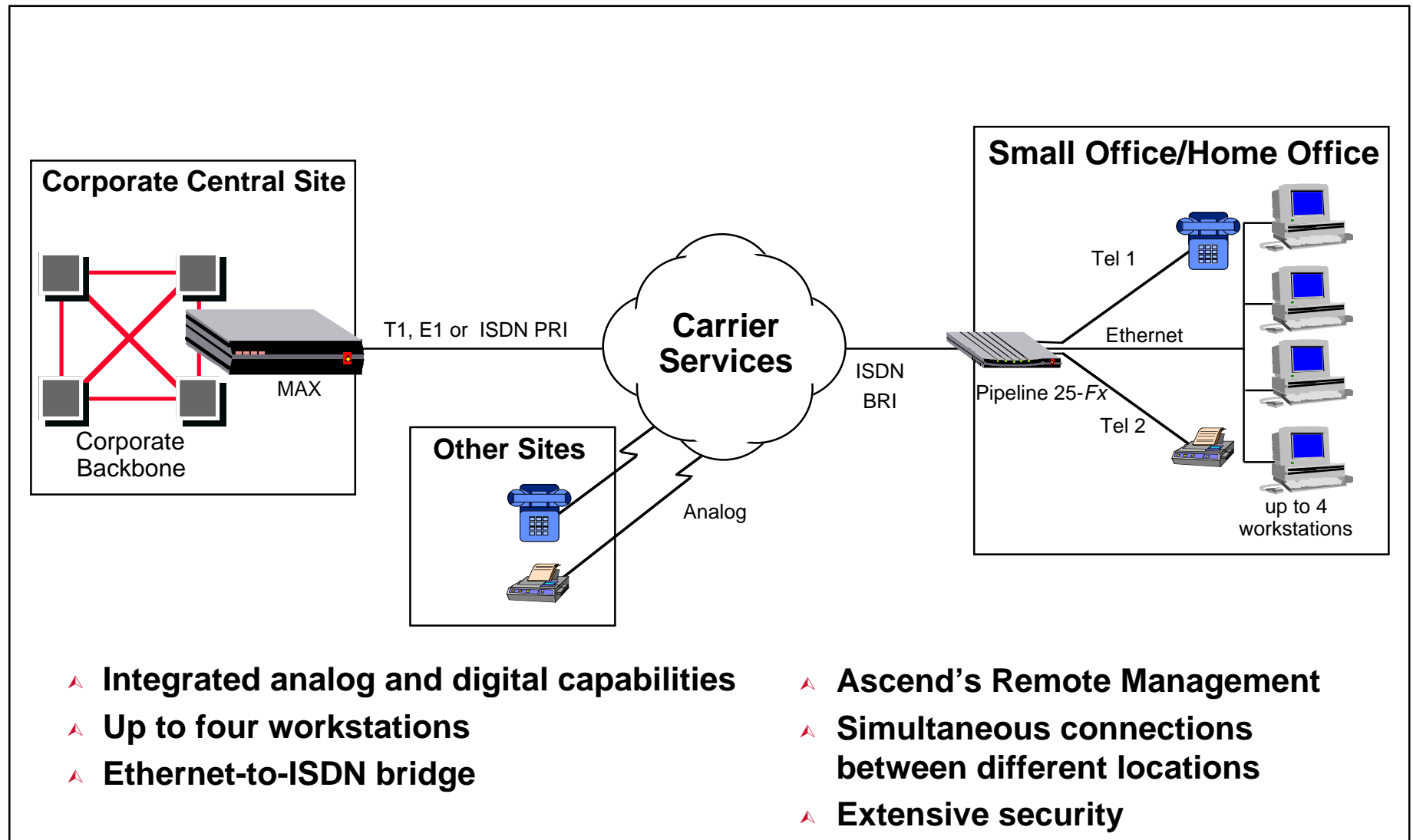- **Competitive Products Overview**
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Pipeline Product Family
Overview

⮝ **High speed dial-up access**

- ISDN, SW56

⮝ **Leased line access**

- Frame Relay, DDS56

⮝ **Routing and bridging**

⮝ **Security and management**

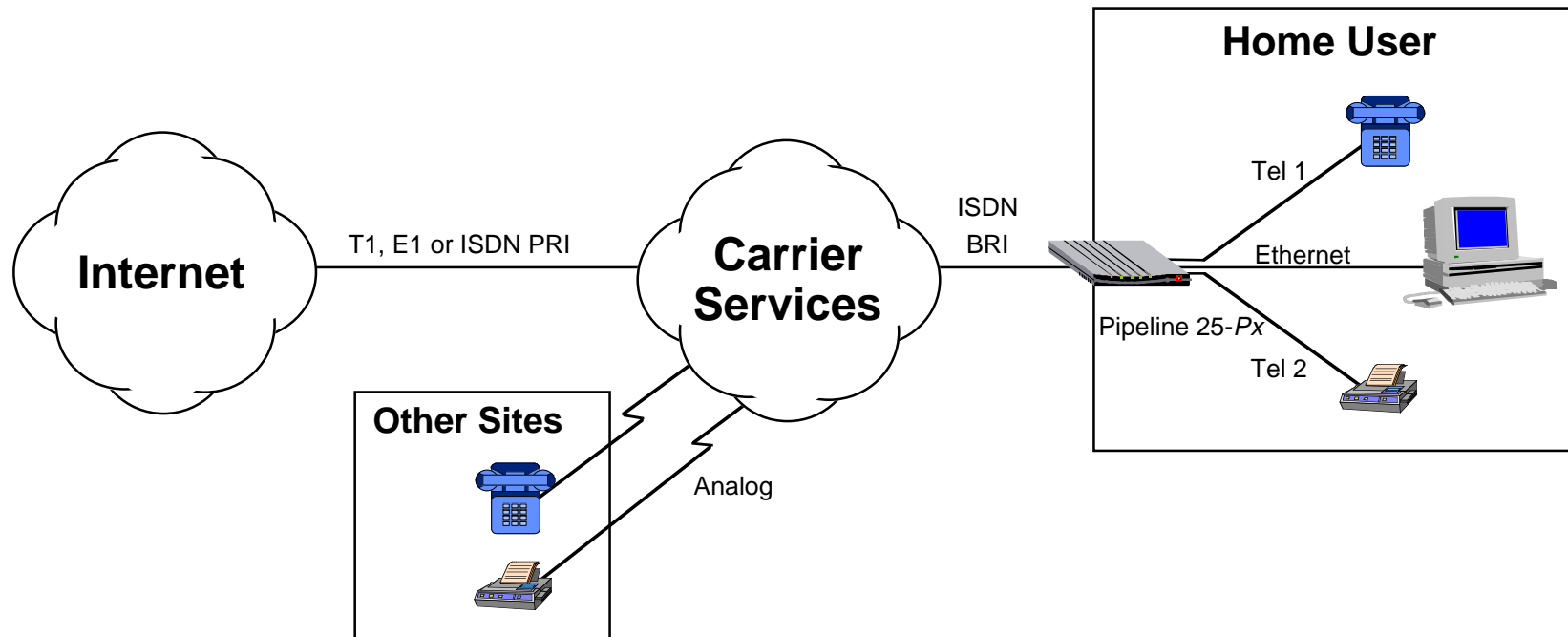⮝ **Bandwidth management**

⮝ **Java-based Pipeline Configurator**

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Pipeline 25-*Fx*
Telecommuting & Small Office/Home Office

Corporate Central Site

MAX

Corporate
Backbone

T1, E1 or ISDN PRI

Carrier Services

Other Sites

Analog

ISDN
BRI

Small Office/Home Office

Tel 1

Ethernet

Pipeline 25-*Fx*

Tel 2

up to 4
workstations

- **Integrated analog and digital capabilities**
- **Up to four workstations**
- **Ethernet-to-ISDN bridge**

- **Ascend's Remote Management**
- **Simultaneous connections between different locations**
- **Extensive security**

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Pipeline 25-*Px*
Internet Access

Internet

T1, E1 or ISDN PRI

Carrier Services

ISDN BRI

Home User

Tel 1

Ethernet

Pipeline 25-*Px*

Tel 2

Other Sites

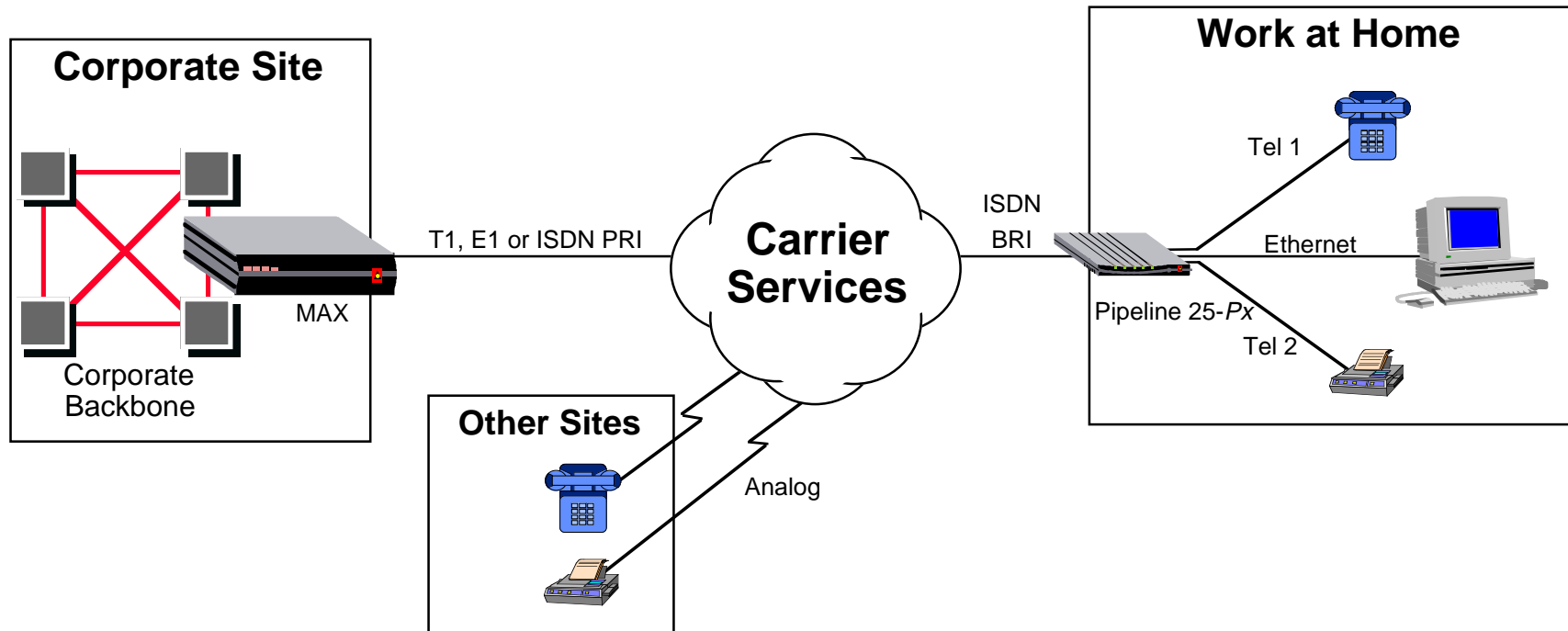Analog

- Single user - single destination
- ADIA for a "dynamically assigned" IP address
- High-speed ISDN access
- Integrated analog and digital capabilities
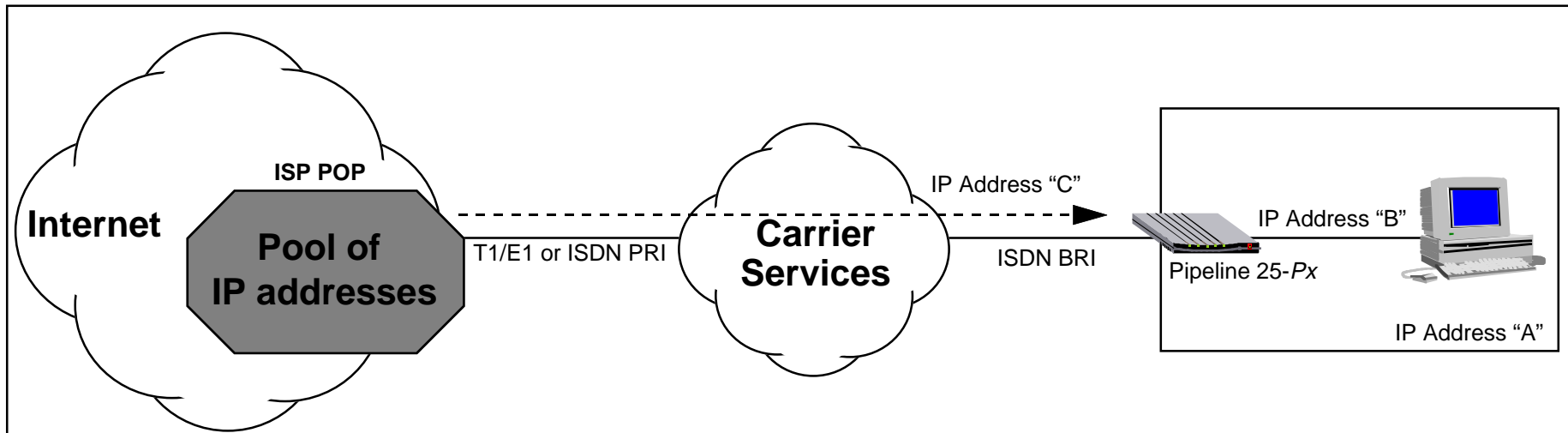- Ascend's Remote Management
- Extensive security

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Pipeline 25-*Px*
Telecommuting

Corporate Site

Corporate Backbone

MAX

T1, E1 or ISDN PRI

Carrier Services

ISDN BRI

Work at Home

Tel 1

Ethernet

Pipeline 25-*Px*

Tel 2

Other Sites

Analog

- ⚠ **Single user, single destination**
- ⚠ **ADIA for a "dynamically assigned" IP address**
- ⚠ **High-Speed ISDN access**

- ⚠ **Integrated analog and digital capabilities**
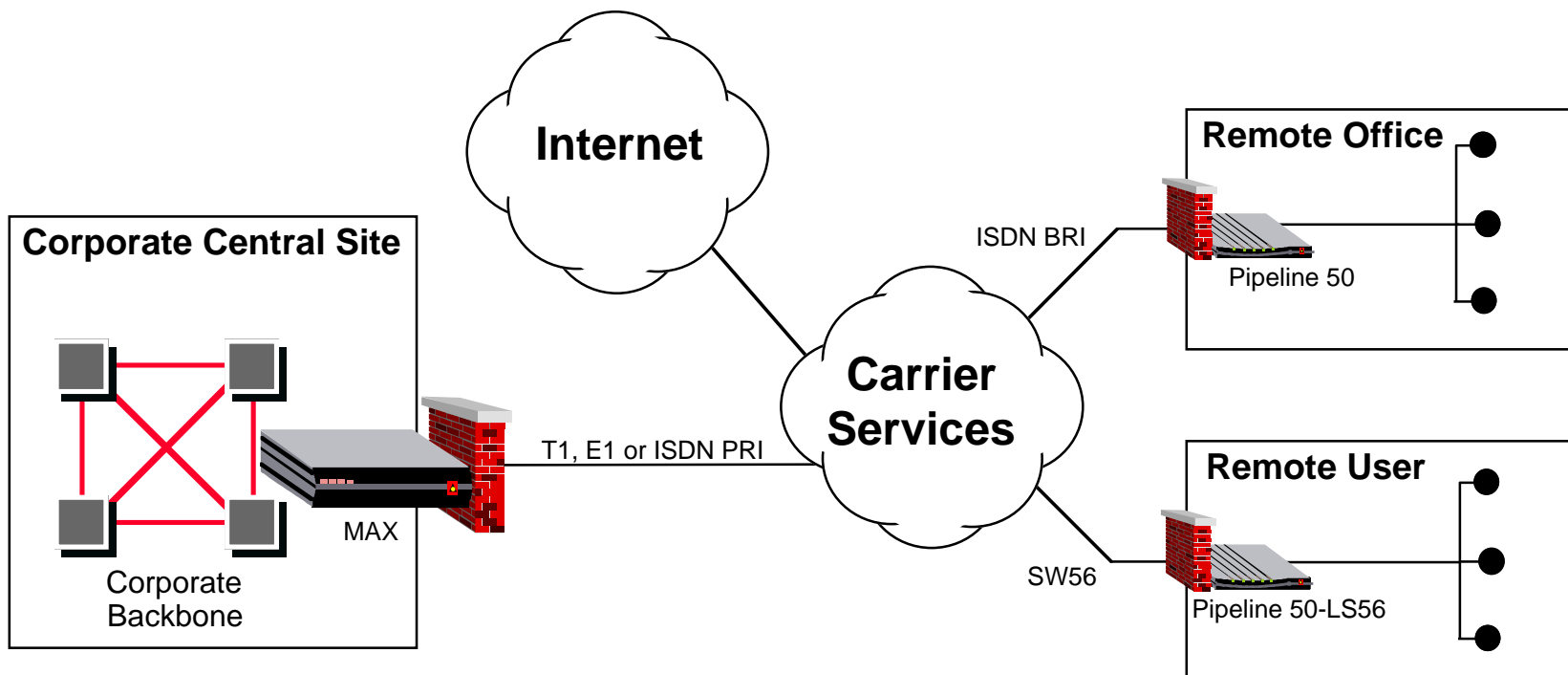- ⚠ **Ascend's Remote Management**
- ⚠ **Extensive security**

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Pipeline 25-*Px*
Ascend's Dynamic IP Access (ADIA)

Internet

ISP POP

Pool of IP addresses

T1/E1 or ISDN PRI

Carrier Services

IP Address "C"

ISDN BRI

Pipeline 25-*Px*

IP Address "B"

IP Address "A"

- ⋏ Pipeline 25-Px dials into an ISP POP (or a corporate central site) with address "A" on the workstation and address "B" on its Ethernet interface
- ⋏ The POP assigns address "C" from a pool of available addresses to the WAN interface of the Pipeline 25-Px
- ⋏ Pipeline 25-Px uses ADIA to switch between addresses "B" and "C" to pass traffic from the workstation's IP address "A" to the network and back from the network to the workstation
- ⋏ ADIA is not proprietary - it works with Pipeline 25-Px to Ascend, or Pipeline 25-Px to other vendors' products
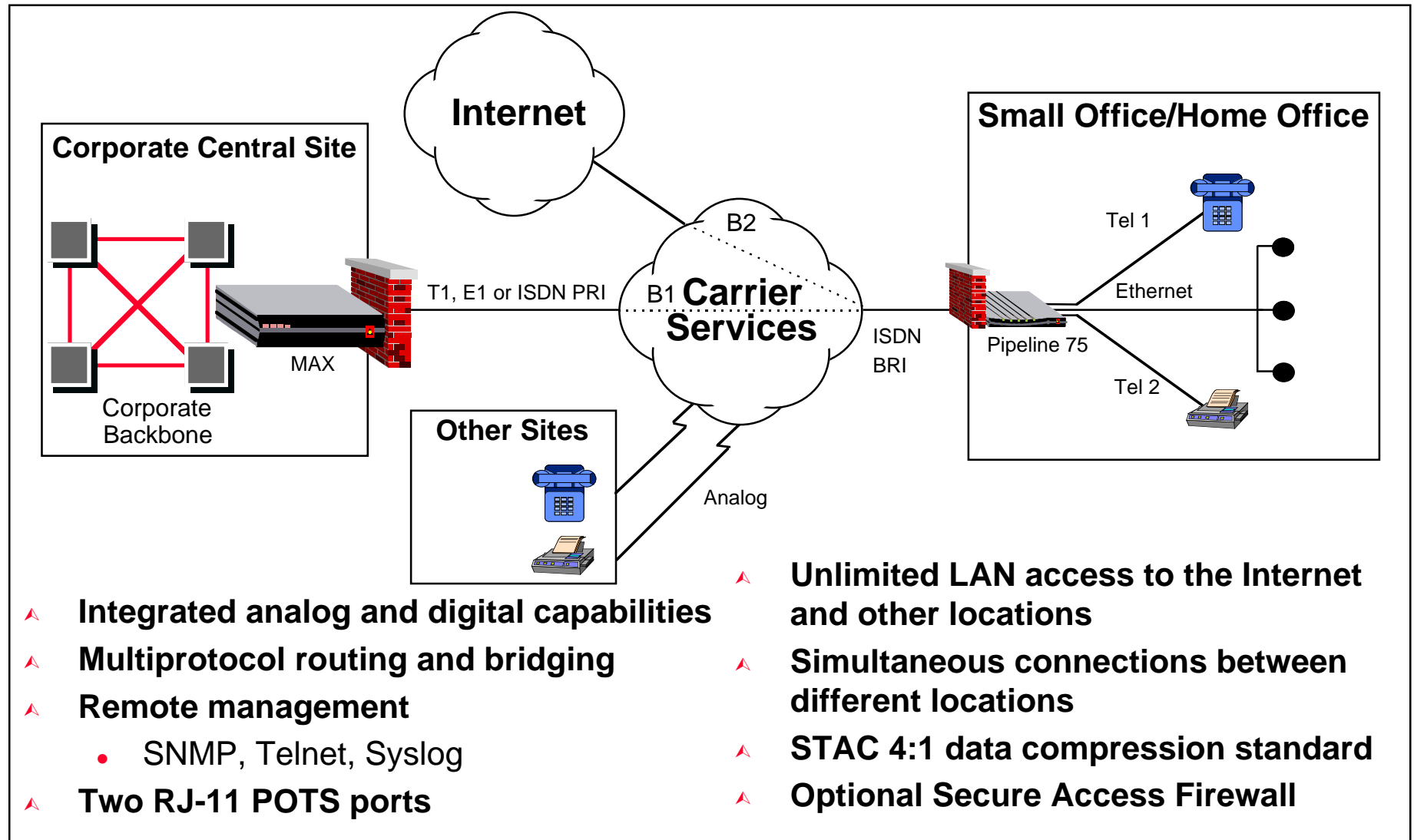
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Pipeline 50
Internet & Remote LAN Access

Internet

Corporate Central Site

Remote Office

ISDN BRI

Pipeline 50

MAX

T1, E1 or ISDN PRI

Carrier Services

Corporate Backbone

Remote User

SW56

Pipeline 50-LS56

- **Multiprotocol routing and bridging**
- **Ascend's Remote Management**
  - SNMP, Telnet, Syslog
- **Unlimited LAN Access to the Internet and other locations**

- **STAC 4:1 data compression standard**
- **Simultaneous connections between different locations**
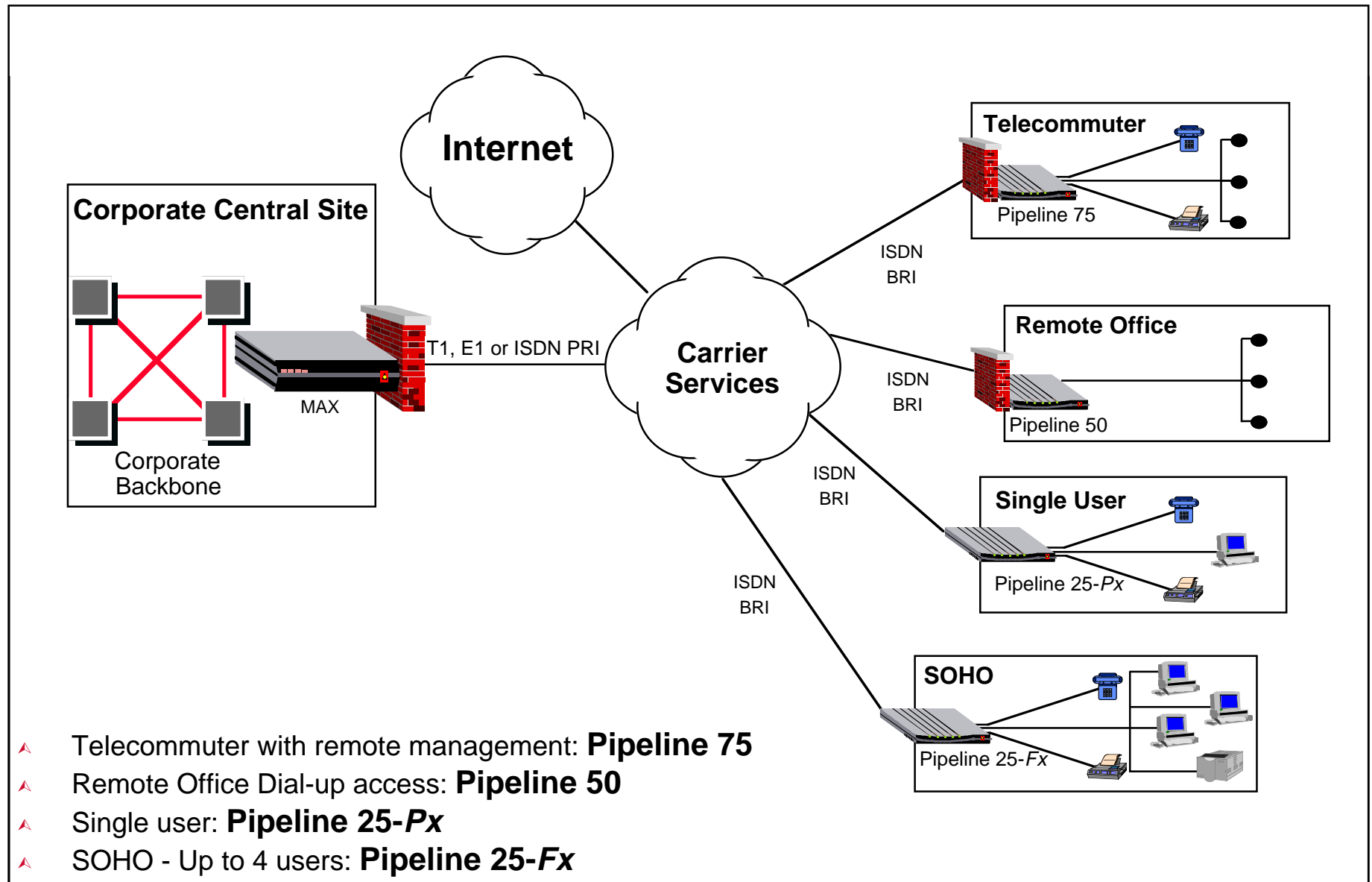- **Optional Secure Access Firewall**

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Pipeline 75
Telecommuting

Internet

Corporate Central Site

Corporate
Backbone

MAX

T1, E1 or ISDN PRI

B1 **Carrier
Services**

B2

ISDN
BRI

Other Sites

Analog

Small Office/Home Office

Tel 1

Ethernet

Pipeline 75

Tel 2

- ⋏ **Integrated analog and digital capabilities**
- ⋏ **Multiprotocol routing and bridging**
- ⋏ **Remote management**
  - ● SNMP, Telnet, Syslog
- ⋏ **Two RJ-11 POTS ports**

- ⋏ **Unlimited LAN access to the Internet and other locations**
- ⋏ **Simultaneous connections between different locations**
- ⋏ **STAC 4:1 data compression standard**
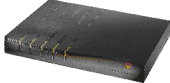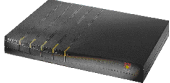- ⋏ **Optional Secure Access Firewall**

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Common Pipeline Product Features

- **ISDN BRI WAN access**

- **Ethernet LAN access**

- **Integrated bandwidth on demand**
  - B-Channels are added or subtracted based on need

- **WAN protocols: PPP, MP, MP+**

- **Comprehensive security**
  - Industry standard - PAP, CHAP

- **Remote management**
  - Ascend's Remote Management protocol

- **Flash EEPROM**
  - Simplifies software upgrades

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Ascend - Total Solutions

Internet

Carrier Services

Corporate Central Site

MAX

Corporate Backbone

T1, E1 or ISDN PRI

ISDN BRI

ISDN BRI

ISDN BRI

ISDN BRI

Telecommuter

Pipeline 75

Remote Office

Pipeline 50

Single User

Pipeline 25-*Px*

SOHO

Pipeline 25-*Fx*

- Telecommuter with remote management: **Pipeline 75**
- Remote Office Dial-up access: **Pipeline 50**
- Single user: **Pipeline 25-*Px***
- SOHO - Up to 4 users: **Pipeline 25-*Fx***

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Pipeline Family
Overview

MSRP ↑	Pipeline 25-*Fx*	Pipeline 25-*Px*	Pipeline 50	Pipeline 75 → Functionality
Starting List	$595	$695	$895	$995
Bridging	Yes	No	Yes	Yes
IP Routing	No	Yes	Yes	Yes
IPX Routing	No	No	Yes	Yes
PAP & CHAP Security	Yes	Yes	Yes	Yes
POTS	2 RJ-11	2 RJ-11	No	2 RJ-11
S/T Interface	Yes	Yes	Yes	Yes
U Interface	Yes	Yes	Yes	Yes
Number of users	Up to 4	1	Unlimited	Unlimited
PPP	Yes	Yes	Yes	Yes
MultiLink PPP (RFC 1717)	Yes	Yes	Yes	Yes
MP+	Yes	Yes	Yes	Yes
SNMP	No	No	Yes	Yes
Data Compression	No	No	Yes	Yes
Comparative List Price IP and/or IPX Routing ISDN U Interface Compression and Multiple Users	$595	$695	$895	$995

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Competitive Product Overview
Competitive Analysis

	Ascend Pipeline 25Fx	Ascend Pipeline 75	Bay Networks Clam	3Com OCR 520**	Cisco 766	Motorola Vanguard 312	Shiva AccessPort
Price							
Price-Base	**$595**	**$995**	$1,195	$1,295	$799	$1,195	$1,495
Fully Configured Price	**$595**	**$1,495**	$1,395	$1,295	$1,250	$1,495	$1,495
Key Features							
Bridging	**Yes**	**Yes**	Yes	Yes	Yes	No	Yes
IP Routing	**No**	**Yes**	Yes	Yes	Yes	Yes	Yes
IPX Routing	**No**	**Yes**	Yes	Yes	Yes	$300 Option	Yes
Analog phone jacks (RJ11)	**2**	**2**	1 ($200)	1	2	2	2
Advanced Calling features	**Yes**	**Yes**	No	No	Yes	Yes	Limited
Multi-User/Unlimited	**4**	**Unlimited**	Yes	Yes	4 (>4 =$300)	Yes	Yes
Multilink PPP Support	**Yes**	**Yes**	No	No	Yes	Yes	Yes
SNMP Support	**No**	**Yes**	Yes	Yes	Yes	Yes	Yes
Stac Data Compression	**No**	**Yes**	Yes	Proprietary	$150	Proprietary	No
Security							
PAP & CHAP	**Yes**	**Yes**	Yes	Yes	Yes	Yes	Yes
Token-based Security	**Yes**	**Yes**	No	No	No	No	No
Dynamic Firewall Support	**No**	**Optional**	No	No	No	No	No

** Office Connect Remote 520

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Competitive Product Overview
Competitive Analysis

	Ascend Pipeline 50	Bay Networks Clam	3Com AB 500	3Com OCR 520**	Motorola Vanguard 311	Cisco 1004	Shiva AccessPort
Price							
Price-Base	**$895**	$1,195	$1,595	$1,295	$995	$1,400	$1,495
Fully Configured Price	**$1,395**	$1,195	$1,595	$1,295	$1,295		$1,495
Key Features							
Bridging	**Yes**	Yes	No	Yes	No	Yes	Yes
IP Routing	**Yes**	Yes	No	Yes	Yes	Optional $	Yes
IPX Routing	**Yes**	Yes	No	Yes	$300 Option	Optional $	Yes
Multi-User/Unlimited	**Unlimited**	Yes	Yes	Yes	Unlimited	Yes	Yes
PPP Support	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
MP Support	**Yes**	No	No?	No	Yes	Yes	Yes
SNMP Support	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Stac Data Compression	**Yes**	Yes	No	Not STAC	Not Stac	No?	No
Security							
PAP & CHAP	**Yes**	Yes	Yes	Yes	Yes	Yes	Yes
Token-based Security	**Yes**	No	No	No	No	No	No
Dynamic Firewall Support	**Optional**	No	No	No	No	No	No

Prices current as of 11/96 and subject to change.

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