product information

Ascend



Your network is expanding and so are your needs. The Pipeline 75 closes the gap between telecommuters and corporate networks or the Internet.

Telecommuting ▾ Internet Access ▾ Remote Access

The Pipeline™ 75 is an Ethernet-to-ISDN bridge/router that gives telecommuters and remote offices the flexibility to step up to the latest in digital technology without leaving the analog world behind. With the Pipeline 75, you can establish seamless connections that deliver voice and data between home offices and the corporate network or the Internet. The Pipeline 75 offers a bandwidth-on-demand capability that dynamically manages these connections to give users the throughput necessary for all remote networking needs.

The integrity of dial-up connections is monitored by built-in remote management features that allow network managers to troubleshoot problems directly from the central site. Features such as SNMP, Syslog and TELNET extend your control over the network and eliminate the down time that can come with poor connectivity. The Pipeline 75 helps you achieve the most out of your remote networking environment with the features and reliability you need.

ASCEND

Remote Networking Solutions for Telecommuters and Remote Offices

Integrate analog and digital capabilities into one complete telecommuting solution

By consolidating separate transmission services over one ISDN BRI line, telecommuters no longer have the burden of maintaining separate analog and digital lines. The Pipeline 75 allows users to have a single digital line that serves all their networking needs.

- High-speed Ethernet-to-ISDN bridge/router
- Standard U interface (NI 1 compliant) eliminates the need for an external NT1 device (S/T model also available)
- Dual analog ports allow you to connect phones, modems, and fax machines over a single ISDN line
- Advanced analog calling features (Hold, Drop, Transfer and Conference)
- Sophisticated call routing directs calls to the correct analog device (phone, fax or modem)

Manage remote locations as if they were part of the central site

Remote management capabilities reduce the cost of installation and ongoing support by enabling network managers to monitor and troubleshoot remote user problems directly from the central site.

- SNMP (MIB II) support
- TELNET remote management
- The Ascend remote management protocol
- SYSLOG
- WAN loopback
- Flash memory for easy software upgrades

Bandwidth on demand maximizes performance and decreases costs

Analog and digital dial-up connections are transparently established and removed as required without any interruptions to the user.

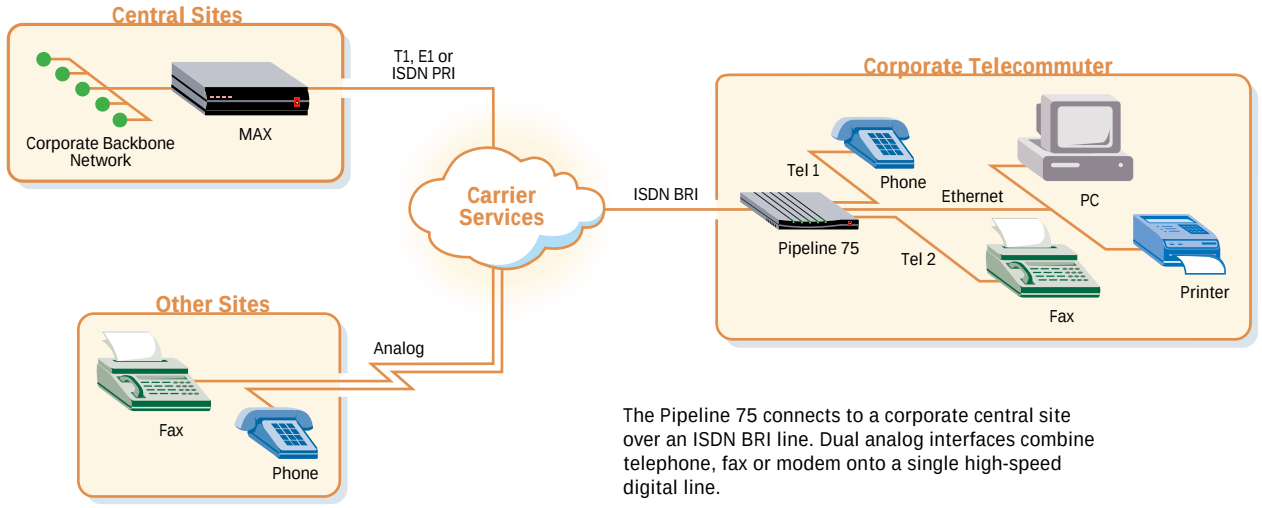
- Dynamic Bandwidth Allocation™ varies channel usage by utilizing both B-channels for high performance tasks and dropping one channel when throughput is not needed
- Inverse multiplexing uses both B-channels for 128 Kbits/s data throughput
- Data compression boosts throughput up to 512 Kbits/s
- Incoming or outgoing analog calls preempt one B-channel while maintaining one B-channel for data connections
- Two analog devices can be used simultaneously when both B-channels are available

Concurrent routing and bridging ensure efficient connectivity to all LANs and the Internet

Concurrent routing and bridging eliminate the need for two separate devices by providing one configurable solution for accessing any LAN and the Internet.

- IP and IPX routing
- BCP standard multiprotocol bridging
- PPP, Multilink PPP (MP), Multilink Protocol Plus™ (MP+)

LAN-to-LAN Access



The Pipeline 75 connects to a corporate central site over an ISDN BRI line. Dual analog interfaces combine telephone, fax or modem onto a single high-speed digital line.

Comprehensive security for iron-clad remote networking

Support for user authentication makes it easy to manage the security of large-scale remote access applications.

- Authentication profiles with PAP, CHAP and Calling Line ID (CLID)
- Token-based security including Security Dynamics and Enigima Logic
- Callback assures connections are made with known users
- Transmit and receive packet filtering
- TELNET password

Built-in Ethernet interface maximizes performance and compatibility

The Ethernet interface gives you the flexibility to connect any type of computer directly to the Pipeline 75. With 10 Mbits/s Ethernet, you can take advantage of the full throughput of an ISDN BRI line.

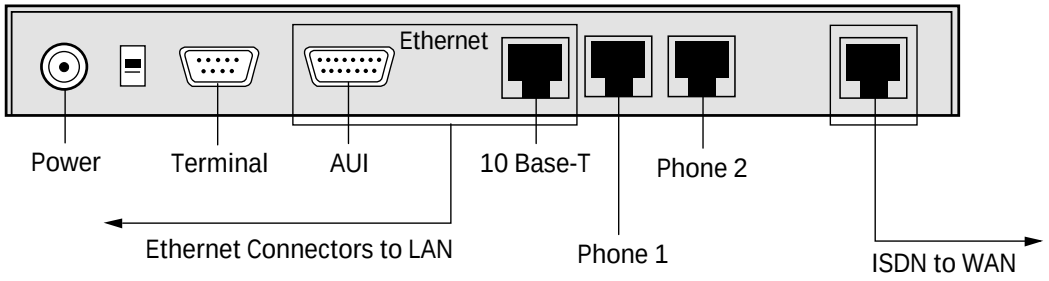
- Supports multiple platform (PC, Unix workstation, or Apple)
- Supports varying software configurations

Ascend Secure Access with Dynamic Firewall

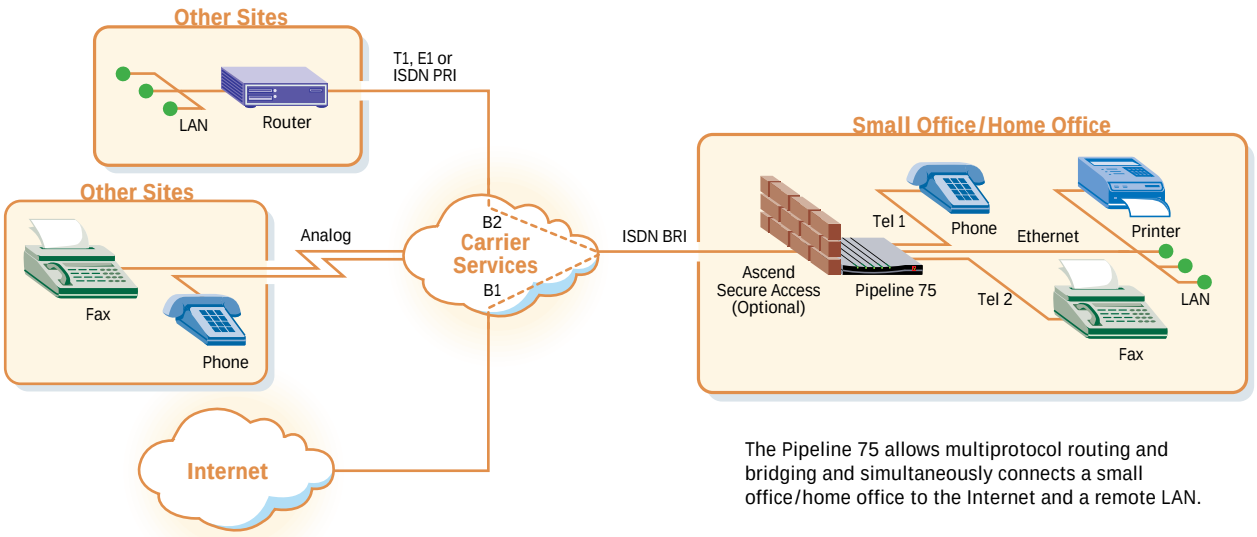
Ascend Secure Access is a software option for the Pipeline 75 that uses state-of-the-art, dynamic firewall technology to deliver comprehensive, fully integrated security for corporate networks. It protects your company's information assets at the corporate LAN, remote offices and telecommuters' home offices. It also integrates the standard security features that are offered on your Ascend remote networking system with comprehensive security features such as dynamic firewall, monitoring and logging, and transparency.

Ascend Secure Access provides a cost-effective single-vendor solution for securing your company's remote network against attacks on sensitive data.

Pipeline 75 Back Panel



Internet Access



The Pipeline 75 allows multiprotocol routing and bridging and simultaneously connects a small office/home office to the Internet and a remote LAN.

Hardware Specifications

Dimensions	8.2 in x 6.0 in x 1.20 in [20.8 cm x 15.24 cm x 3.05 cm]
Weight	2.5 lbs [1.13 kg]
LAN Interface	10 Mbits/s Ethernet (AUI, 10Base-T)
WAN Interfaces	BRI S/T Interface (model: P75-1SBRI) BRI U Interface (model: P75-1UBRI)
Software Upgrade	Via built-in flash RAM
Power Requirements	90-130VAC, 0.4A 22-24VAC, 0.2A 47-63Hz
Operating Requirements	Temperature: 32-104˚F [0-40˚C] Altitude: 0-14,800 feet [0-4,500 meters] Relative Humidity: 5-90% (non-condensing)
Safety Certifications	FCC Class B, CSA, UL
EMI/RF	FCC Part 68, FCC Part 15

Software Specifications

Protocols Supported	TCP/IP, IPX routing, BCP standard bridging of all protocols
WAN Protocols Supported	PPP, Multilink PPP (MP), Multilink Protocol Plus (MP+)
Bandwidth Management	Multilink PPP (MP), Multilink Protocol Plus (MP+), TCP header compression, STAC data compression
Security	PAP, CHAP, Callback, TELNET Password, token-based security (Security Dynamics, Enigma Logic), packet filtering
Firewall	Integrated dynamic firewall (optional)
Management	SNMP, TELNET, SYSLOG, Ascend's remote management protocol, serial cable connection (Db9)

Ascend's Remote Networking Products

MAX™ Family

Designed specifically for remote access server applications. Supports ISDN BRI, ISDN PRI, T1/E1 and Ethernet on the base unit.* Allows simultaneous calls from ISDN BRI, frame relay and/or modem users over ISDN PRI, channelized T1/E1, or ISDN BRI lines.

Pipeline™ Family

Pipeline products are designed to connect users in small or home offices to backbone networks and/or the Internet. Pipeline models support Ethernet to ISDN, Switched 56 or Leased 56 services, and Ethernet to 56 Kbits/s or 64 Kbits/s frame relay services.*

Multiband™ Family

Multiband bandwidth-on-demand controllers are designed primarily for videoconferencing applications and let users dial-up bandwidth in increments of 56/64 Kbits/s up to 4 Mbits/s, using all types of digital access lines*—Switched 56, T1/E1, ISDN BRI, ISDN PRI and network carrier services.

* Depending on model and configuration

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Ascend Communications, Inc. (NASDAQ: ASND) is a leading, worldwide provider of remote networking solutions for corporate central sites, Internet Service Provider points of presence, remote offices, mobile workers and telecommuters. Ascend develops, manufactures, markets, sells and supports products with bandwidth on demand to extend existing corporate networks for applications such as remote LAN access, Internet access, telecommuting, SOHO connectivity and videoconferencing/multimedia access. Detailed information on Ascend products, news announcements, seminars, service and support is available on Ascend's home page at the World Wide Web site http://www.ascend.com.

Ascend markets the MAX, Pipeline and Multiband families of products. Ascend products are available in more than 30 countries worldwide.

Dynamic Bandwidth Allocation™ (U.S. Patent No. 5,231,649), MAX™, Multiband™, Multilink Protocol Plus™, and Pipeline™ are trademarks of Ascend Communications, Inc. Other trade names mentioned in this publication belong to their respective owners.

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Remote Networking
Solutions That Work.™