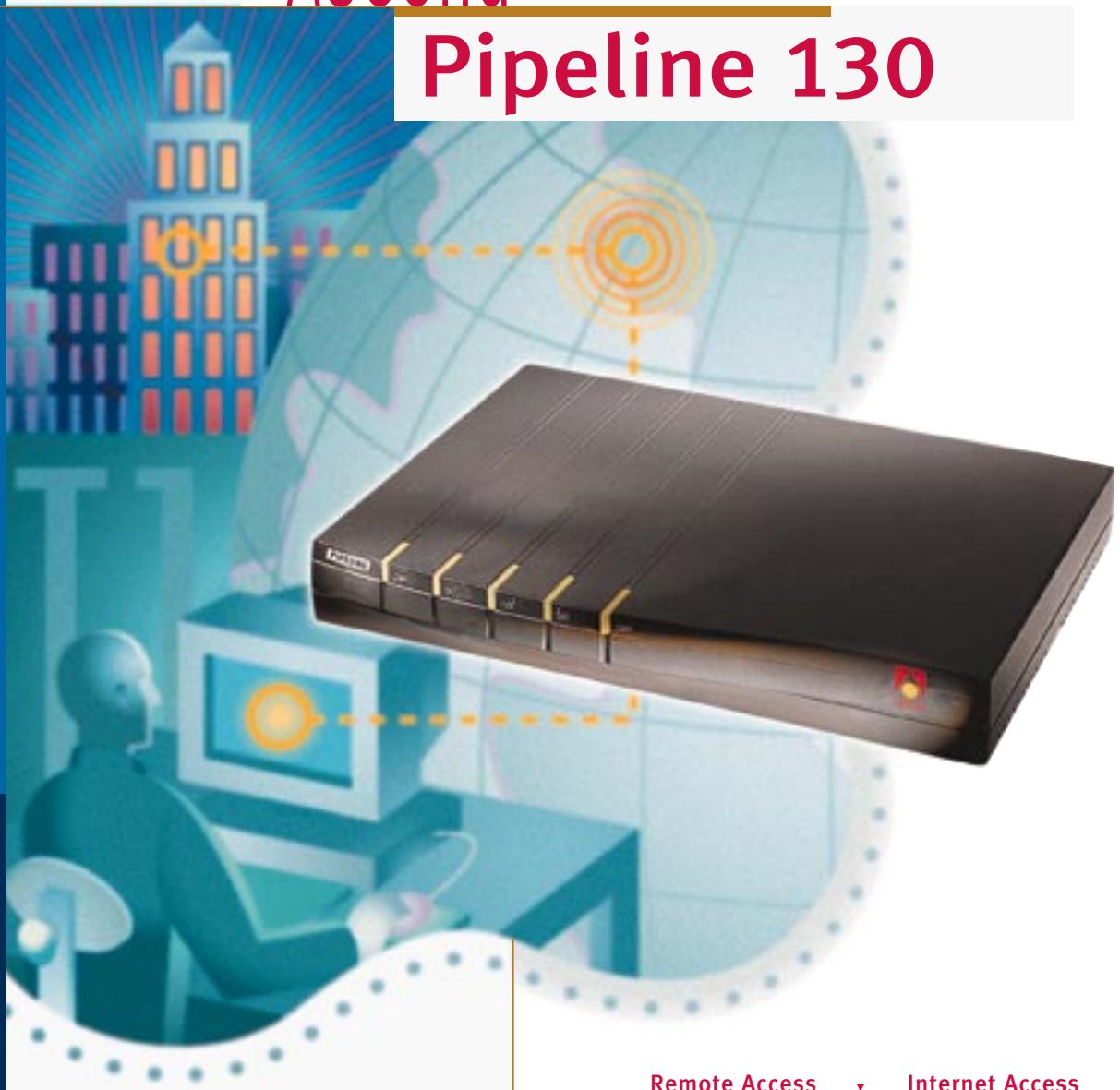
PRODUCT INFORMATION

Ascend Pipeline 130



You can't predict the future of networking. But you can protect your network investment with the Pipeline 130 family of remote access routers.

Remote Access ▾ Internet Access

The Ascend Pipeline® 130 is a family of dedicated and dial-up remote access routers designed for corporate sites with expanding Internet connectivity needs or remote offices connecting to the corporate LAN. The integrated functionality of the Pipeline 130 router provides an easy migration path from ISDN to Frame Relay or dedicated leased-line services as well as backup for mission-critical applications.

Pipeline 130 routers deliver an unprecedented level of performance that until now has required multiple products from multiple vendors. With the Pipeline 130 you can keep up with today's constantly evolving networking environment while safeguarding your investment.

Pipeline 130 Built-in Capabilities

- Frame Relay
- ISDN
- Dedicated leased lines
- Integrated CSU/DSU
- Optional dynamic firewall
- Multiprotocol bridging and routing

ASCEND

Fully-Integrated Remote Networking Solutions

Multiprotocol routing and bridging ensures network interoperability

Robust support for standard protocols ensures efficient connectivity and multivendor interoperability.

- Routes TCP/IP, IPX or AppleTalk
- Bridges all protocols (BCP standard bridging)
- PPP, Frame Relay (RFC 1490), Multilink Protocol (MP) and Multilink Protocol Plus™ (MP+)
- Transmit and receive packet filtering

Supports dial-up and dedicated WAN services for flexible remote networking

Two WAN ports give you the flexibility to connect to a broad range of WAN services. Each Pipeline 130 model comes with a different combination of WAN interfaces.

- Supports two simultaneous connections to different locations
- ISDN Basic Rate Interface (BRI); certified for use in over 20 countries worldwide
- T1 and fractional T1; can be programmed to operate at any multiple of 56 or 64 Kbps
- Leased DDS 56 4-wire connection
- Switched 56 4-wire connection
- Integrated NT1 and CSU/DSU; eliminates the additional cost of external units
- Standards-based Frame Relay
- Remote offices and Internet users can connect to inexpensive Frame Relay services at speeds ranging from 56 Kbps to 1.544 Mbps
- RFC 1490 Frame Relay encapsulation
- Annex D Link Management
- V.35 Interface model available

Standards-based Frame Relay support for high-speed access

Remote offices and Internet users can connect to inexpensive Frame Relay services at speeds ranging from 56 Kbps to 1.544 Mbps.

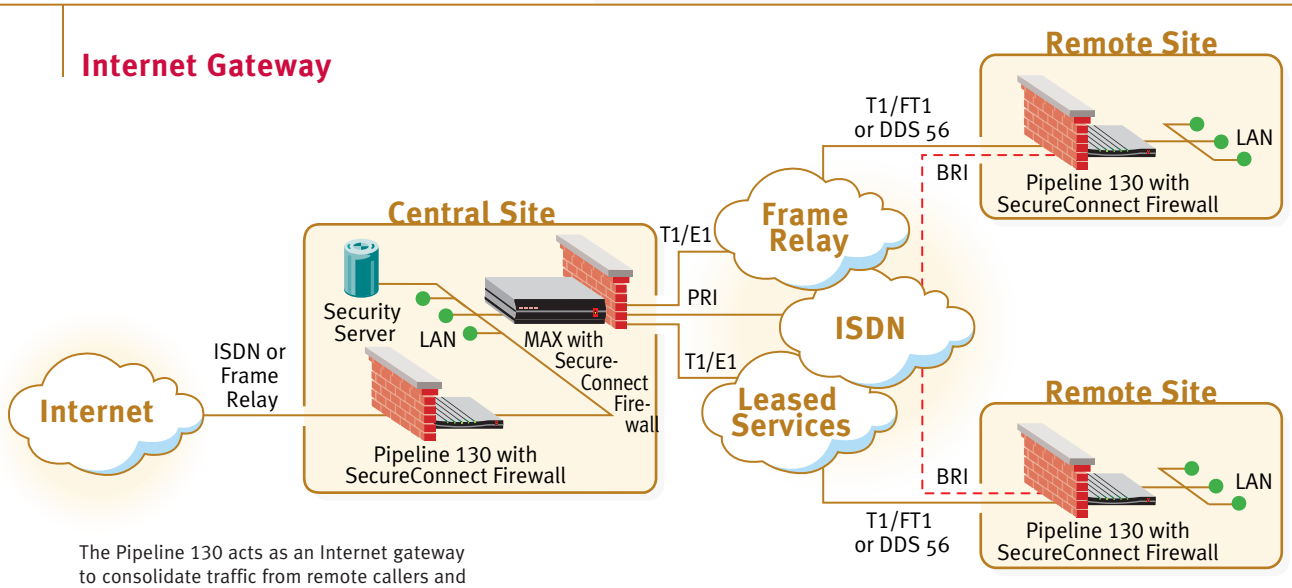
- RFC 1490 Frame Relay encapsulation
- Annex D Link Management
- Backup for Frame Relay and dedicated leased lines via ISDN BRI or Switched 56 connections

SmoothConnect ensures easy and cost-effective connectivity

SmoothConnect™ provides all the features and functionality that make it easy and cost-effective to connect to a corporate headquarters or the Internet. It allows even novice users to configure and setup their Pipeline for access, removing the barriers that used to make remote connectivity cumbersome. In addition, SmoothConnect reduces costs by making efficient use of protocols and bandwidth. This new functionality includes the following ease-of-use and cost savings features:

- The Java-based Pipeline Configurator (JBPC) is a state-of-the-art configuration utility for graphical point-and-click Pipeline setup and configuration
- Touch tone configuration of ISDN B-channel telephone numbers using an analog telephone
- AutoSwitch and AutoSPID detection automatically detects the ISDN switch type and SPID numbers
- Ascend's patented Dynamic Bandwidth Allocation™ saves money by increasing/decreasing bandwidth as needed for the duration of your connection
- Integrated idle timer allows Pipeline users to remain connected without paying for telecommunications resources when they aren't being used

Internet Gateway



The Pipeline 130 acts as an Internet gateway to consolidate traffic from remote callers and corporate LAN users onto the Internet.

ISDN BRI Backup and/or Overflow

- Network Address Translation (NAT) eliminates the need to pay for a dedicated TCP/IP address by allowing the Pipeline to accept a dynamically assigned address from a central-site pool of addresses
- Dynamic Host Configuration Protocol (DHCP) spoofing allows network managers to configure and dynamically assign IP addresses across multiple clients from the Pipeline
- Data compression that boosts throughput over BRI up to 512 Kbps to handle bandwidth-intensive files

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)
- Encrypted token card security
- Callback assures connections are made with known users
- Transmit and receive packet filtering
- Telnet password
- Optional SecureConnect™ Firewall

Integrated management features provide end-to-end network control

Manage all the functions of the Pipeline 130 through your choice of interfaces, either locally or remotely.

- SNMP MIBs
- Ascend NavisAccess™ for extensive and complete control of all device components and services
- Password-protected telnet remote management
- Local management via VT-100 terminal
- WAN loopbacks
- PPP Link Quality Management (LQM)
- Flash memory for easy software upgrades

Network Address Translation

Pipeline 50, 75, 85, 130 and 220 users no longer need to pay for a dedicated IP address with the Network Address Translation (NAT) capability. When a Pipeline user connects to the Internet or any other IP network, a network address can be transparently assigned to the user for the duration of the connection session. And when NAT is used in conjunction with Dynamic Host Configuration Protocol (DHCP) spoofing, IP address management becomes a breeze. Network managers can configure and dynamically assign IP addresses to multiple workstations on the remote office LAN in one easy step.

Ascend's SecureConnect Solution

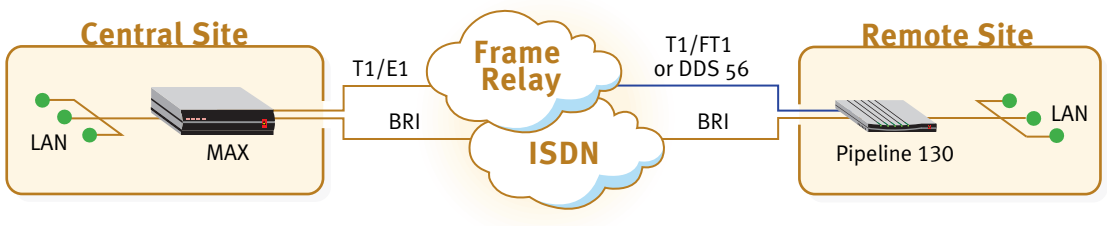
Protect corporate resources with Ascend's SecureConnect

Ascend's SecureConnect offers a combination of dynamic firewall and authentication in one rock-solid security solution. SecureConnect is ideal for companies who want to secure their information assets at the corporate LAN, remote offices and telecommuters' home offices. It also provides the data integrity, privacy and data origin authentication needed when using the Internet to establish corporate intranets. In addition, the Pipeline 130 includes standard security features such as PAP, CHAP, CLID and token card security to deliver the most complete, cost-effective security solution available on the market today for securing the edge of your network. See the SecureConnect datasheet or visit the Ascend Web site for more information.

Pipeline 130



Migration from Dial-up to Dedicated Network Services



As your network usage and bandwidth requirements grow, migrate from ISDN to Frame Relay or dedicated leased line services at speeds ranging from 56 Kbps to 1.544 Mbps.

Future Growth

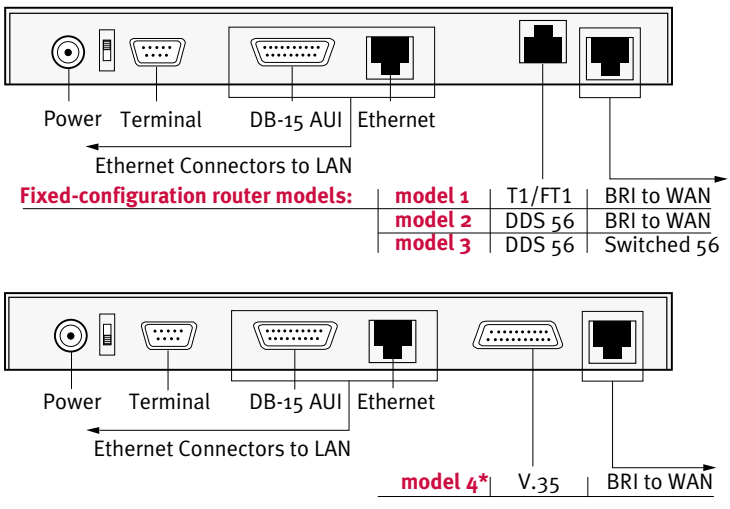
Hardware Specifications

Dimensions	8.63 in x 6.19 in x 1.25 in [22 cm x 15.7 cm x 3.2 cm]
Weight	2.5 Lbs [1.13 kg]
LAN Interface	10 Mbps Ethernet (AUI, 10Base-T)
WAN Interfaces	BRI U Interface with T1/FT1 (model: P130-UBRI-FT1) BRI U Interface with DDS 56 (model: P130-UBRI-L56) DDS 56 and SW56 Interfaces (model: P130-LS-56-2N) BRI U Interface with V.35 (Requires separate V.35 cable) (model: P130-UBRI-V35) BRI S/T Interface with V.35 (model: P130-SBRI-V35)
Software Upgrade	Via built-in flash RAM
Power Requirements	90-130VAC, 0.4A 220-240VAC, 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% (noncondensing)
Safety Certifications	CSA 950, NTRL/UL 1950 TUV EN 60 950
EMI/RF	FCC Part 68, FCC Part 15

Software Specifications

Protocols Supported	TCP/IP, IPX routing, AppleTalk, BCP standard bridging of all protocols, NAT, DHCP spoofing
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 cards, packet filtering, optional SecureConnect Firewall
Firewall	Integrated dynamic firewall (optional)
Management	NavisAccess network management software, SNMP, Telnet, Syslog, Ascend's remote management protocol, serial cable connection (Db9)

Pipeline 130 Back Panels



*Back panel is the same for both S/T and U interface.

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Ascend Communications, Inc. develops, manufactures and sells wide area networking solutions for telecommunications carriers, Internet service providers, and corporate customers worldwide. For more information about Ascend and its products, please visit the Ascend Web site at http://www.ascend.com, or e-mail info@ascend.com.

Ascend markets the B-STDX, CBX, GRF, GX, IP, MAX, Multiband, MultiDSL, Navis, Pipeline, SA, SecureConnect and STDX families of products. Ascend products are available in more than 40 countries worldwide.

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