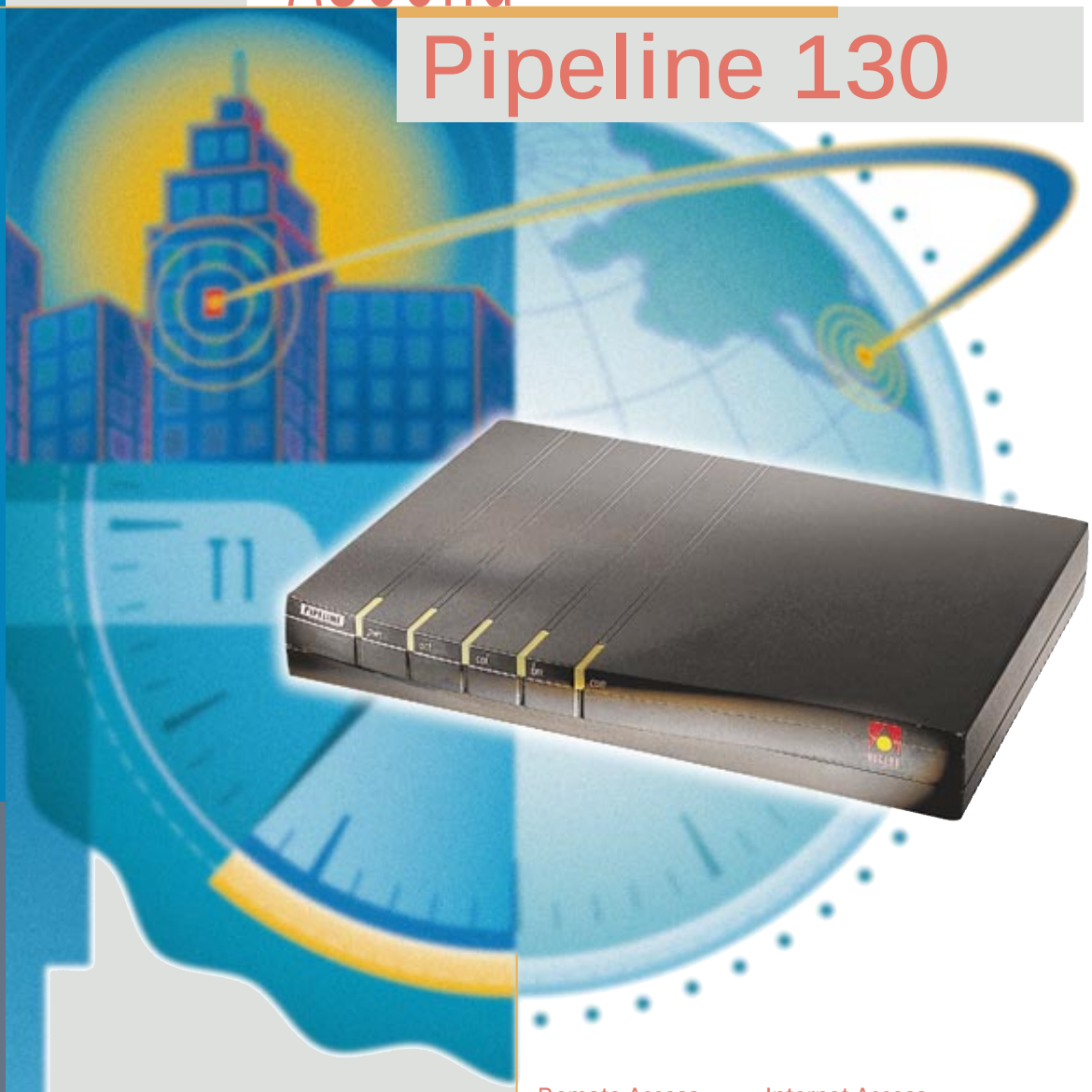
product information

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 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 and IPX
- Bridges all protocols (BCP standard bridging)
- PPP, frame relay (RFC 1490), MP, 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; certified for use in over 20 countries worldwide
- T1 and fractional T1; can be programmed to operate at any multiple of 56 or 64 Kbits/s
- 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 Kbits/s to 1.544 Mbits/s.
- RFC 1490 frame relay encapsulation
- Annex D Link Management

Standards-based frame relay

Remote offices and Internet users can connect to inexpensive frame relay services at speeds ranging from 56 Kbits/s to T1.

- RFC 1490 frame relay encapsulation
- Annex D Link Management

Backup mission-critical applications

With the Pipeline 130 you guarantee your network's safety even if a primary circuit fails. The Pipeline 130 also provides supplemental bandwidth during times of peak demand.

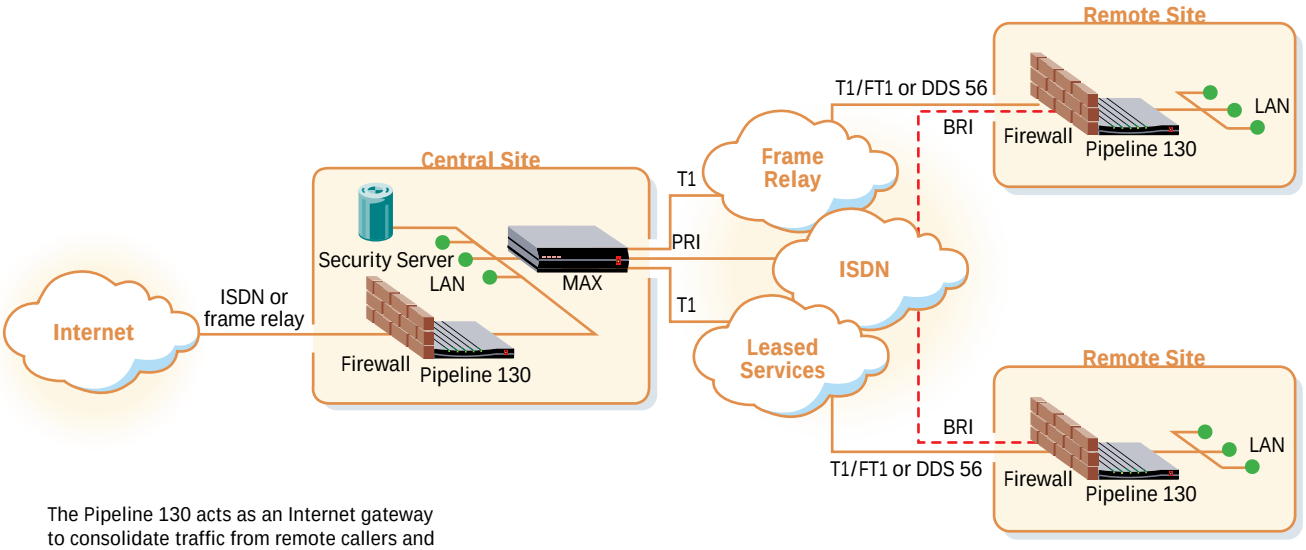
- Backup for frame relay and dedicated leased lines via ISDN BRI or Switched 56 connections

Bandwidth on demand maximizes performance and decreases costs

Dial-up connections are automatically established and removed, as required, for transparent client-server computing across the WAN. Inverse multiplexing aggregates multiple channels for greater bandwidth.

- Inverse multiplexing protocols, MultiLink Protocol (MP) and MultiLink Protocol Plus (MP+), use both BRI channels for 128 Kbits/s data rate
- Ascend's Dynamic Bandwidth Allocation™ increases or decreases dial-up bandwidth as required
- Industry-standard STAC compression boosts throughput to 512 Kbits/s

Internet Gateway



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

Ascend Secure Access Firewall

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 Enigma Logic
- Callback assures connections are made with known users
- Transmit and receive packet filtering
- TELNET password

Integrated management features provide end-to-end network control

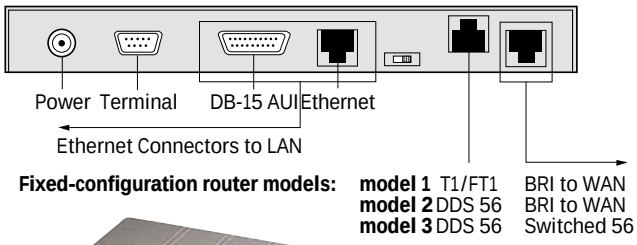
Manage all the functions of the Pipeline 130 through your choice of interfaces, either locally or remotely.

- SNMP MIBs
- Password-protected Telnet remote management
- Local management via VT-100 terminal
- WAN loopbacks
- PPP LQM (Link Quality Management)
- Flash memory for easy software upgrades

Ascend Secure Access Firewall is a software option that uses state-of-the-art firewall technology and delivers a comprehensive, fully integrated security system 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 transparency, dynamic firewall and monitoring and logging.

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

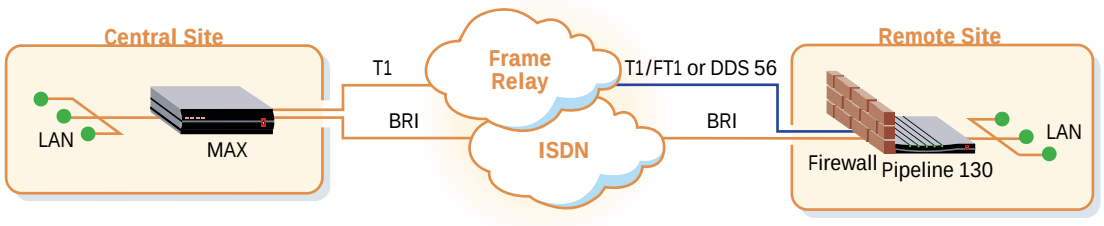
Pipeline 130 Back Panel



Pipeline 130



Migration from Dial-up to Dedicated Network Services



As your network usage and bandwith requirements grow, migrate from ISDN to Frame Relay or dedicated leased line services at speeds ranging from 56 Kbits/s to T1.

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 Mbits/s Ethernet (AUI, 10Base-T)
WAN Interfaces	BRI U Interface with DDS 56 (model: P130-UBRI-L56) BRI U Interface with T1/FT1 (model: P130-UBRI-FT1)
Software Upgrade	Via built-in flash RAM DDS 56 and SW56 Interfaces (model: P130-LS 56-2N)
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: 5-9o% (non-condensing)
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, 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.™