Ascend

Pipeline Family

FAQ

1. *Why did Ascend recently lower the price of the Pipeline 50 and 75 routers?*

   We have recently made significant cost-reducing changes to the Pipeline 50 and 75 platforms and decided to pass on the savings to end users. The cost reductions did not affect performance or decrease functionality for the Pipelines. They continue to be the most feature-rich Ethernet-to-ISDN bridge/routers on the market today.

2. *How do I attach my PC to a Pipeline?*

   Pipeline family products are bridge/router devices (except for the Pipeline 25-*Px*, which uses Ascend's Dynamic IP Access [ADIA] feature) that provide an Ethernet network connection. To hook your PC to a Pipeline, install an Ethernet network interface card (NIC) and load the appropriate drivers on your PC. Use the included 2510-0084-001 Ethernet crossover cable to connect the Ethernet card in your PC to the Pipeline. This provides a LAN connection between your PC and any member of the Pipeline family. If you have multiple workstations that you want to put on the Ethernet segment, you'll need a hub and straight-through cabling (we recommend CAT 5 cable with RJ-45 connectors).

3. *How many analog devices (modems, fax machines, telephones, etc.) can be connected to each POTS jack on a Pipeline 25-Fx, 25-Px or 75?*

   Any combination of devices that add up to a total of three REN (Ringing Equivalency Number - which usually equates to about three or four devices). Each of these devices acts as an extension off each phone jack; only two devices and two B-channels can be active at the same time.

   The greater the wiring distance, the fewer the extensions (exact specifications depend upon cable type, specification, etc.). Also, the greater the REN of the analog devices, the fewer devices the Pipelines can support off each port.

4. *Is it better to bridge or route?*

   Bridging or routing depends on your network configuration. As a rule, you must route between dissimilar network addressed LANs and bridge between similar ones. The Pipeline 50 and Pipeline 75 are especially suited for routing from a remote location into a LAN backbone. The Pipeline 25-*Px* is uniquely designed to accept a dynamically assigned IP address (through ADIA) and route from a single workstation on its Ethernet to an Internet Service Provider (ISP) or another location that is configured to assign an IP address. Obviously, not all network designs are the same. Talk with your network manager to determine your particular needs.

5. *What are the differences between a Pipeline 25-Fx, 25-Px, 50 and 75*

   The Pipeline 25-*Px* is designed for use by home Internet users, and the Pipeline 25-*Fx* is targeted for people with home offices (or small LANs). The Pipeline 75 is targeted for telecommuters or remote offices (with large LANs), whereas the Pipeline 50 is designed for LAN to LAN applications. Specific Pipeline 25-*Fx*, -*Px* and 75 features that differ from the Pipeline 50 are as follows:

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- Two analog ports – To allow people to use regular telephones, modems and fax machines with their ISDN line. The Pipeline 50's typical user doesn't need telephone jacks because most of the bandwidth will be taken by data in a LAN to LAN environment.
- Different CPU types and speed – The Pipeline 25 models use the less expensive 16 MHz Motorola 68302 CPU instead of the 25 MHz Motorola 68360 CPU in the Pipeline 50 and 75. The Pipeline 50 and 75 are designed for high-end LAN to LAN traffic applications and therefore require a faster CPU.
- Telnet/SNMP – Neither of the Pipeline 25 models support Telnet directly, or SNMP. In most home applications Telnet and SNMP are not a requirement. In telecommuting applications, however, SNMP and Telnet are required for remote management at the remote site. POTS interfaces are also required therefore, which makes the Pipeline 75 an excellent product for this application. Although direct Telnet and SNMP are not available in the Pipeline 25 models, the Ascend Remote Management Protocol lets network managers at the central site (or connected to it) take control of a remote P25 to configure it. Both of the Pipeline 25 models also can be managed indirectly by using Telnet to access an Ascend MAX (central site product) and then using the Remote Management Protocol from the MAX to the Pipeline 25-*Fx* or -*Px*.
- Compression – While the Pipeline 25-*Fx* and the Pipeline 25-*Px* no longer offer optional Stac hardware compression, the Pipeline 50 and the Pipeline 75 include compression as a standard feature and handle it via software on the main CPU.
- RIP support – There is no need for RIP (Routing Information Protocol) in either of the Pipeline 25 models because they are designed for remote users who will be dialing into a default router on a corporate backbone network or at an Internet Service Provider. The Pipeline 50 was designed for applications where there may be other routers on the network (because you are doing LAN-to-LAN internetworking) and, therefore, RIP is more likely to be a requirement. In the event that both RIP and POTS interfaces are important, the Pipeline 75 is the perfect choice.
- Routing support – The Pipeline 25-*Fx* no longer supports optional IP or IPX routing, The Pipeline 25-*Px* routes TCP/IP and uses Ascend's Dynamic IP Access (ADIA) feature that accepts a "lent" IP address for the duration of the session. This "lending" of an address is completely transparent to the user. The Pipeline 50 supports both IP ***and*** IPX routing (i.e. multiprotocol routing) as a standard feature because many LAN-to-LAN connections require it. Once again, if you need multiprotocol routing and bridging with POTS interfaces, the Pipeline 75 is the way to go.
- Options – Both the Pipeline 25-*Fx* and the Pipeline 25-*Px* are designed to allow end users who are more price conscious to only purchase those options that they need. The Pipeline 50 is designed specifically for LAN-to-LAN routing typically between remote offices – POTS integration is not a necessity for these users. The Pipeline 75 is designed as an all-inclusive product for the corporate telecommuting market where price is not as big an issue as functionality, and where an all-encompassing design is preferred.

6. *What's the difference between the Pipeline 25-Fx and a terminal adapter?*

   The Pipeline 25-*Fx* is an Ethernet to ISDN bridge and is a much more intelligent device than a terminal adapter/ISDN modem. The Pipeline 25-*Fx* incorporates internal bridging software to significantly improve performance and data throughput. This makes it faster than an ISDN terminal adapter that must conduct a synchronous to asynchronous conversion. The Pipeline 25-*Fx* is synchronous end-to-end; no conversion is needed. Lastly, the Pipeline 25-*Fx* supports up to four workstations on the Ethernet LAN segment so that the cost of the Pipeline 25-*Fx* can be spread out between each one of the devices on the LAN. A terminal adapter is required for every PC that will be connected to an ISDN line. Because the Pipeline 25-*Fx* attaches to the LAN via Ethernet, it is platform independent and can easily work with any type of PC, Macintosh, or UNIX workstation (or any combination of these devices). To determine whether or not the Pipeline 25-*Fx* bridge is right for you, see Question 4, "Is it better to bridge or to route" above.

7. *How does the Pipeline realignment and reduction in price affect the Pipeline 130?*

   It really doesn't affect the Pipeline 130 at all. The Pipeline 130 continues to be the most cost effective Frame Relay router on the market today.

8. *Can these Pipelines place concurrent data calls to different destinations?*

   The Pipeline 25-*Fx* is designed to support up to four user-specified call locations via the "Call Profile configuration menu. The Pipeline 50, 75, and 130 support up to eight different Call Profiles. The two B-channels of an ISDN BRI line limit the number of concurrent different locations to two. The Pipeline 25-*Px* allows a single workstation to route TCP/IP to a single destination with Ascend's Dynamic IP Address (ADIA). Yes, you can "split the B-channels" and simultaneously access two different locations with the Pipeline 25-*Fx*, 50, and 75. The Pipeline 130's prime function is as a Frame Relay router and allows you to specify up to eight different DLCI's with an ISDN BRI backup/overflow.

9. *Is there an easy way to configure my Pipeline?*

   Yes, there is! You can use the Java-Based Pipeline Configurator (JBPC) to configure your Pipeline over the same Ethernet cable used to pass network traffic. This graphical utility allows you to configure your Pipeline in a point-and-click environment. With the included QuickStart Utility, most people can have their unit up and running in less than 15 minutes. The JBPC is available on the Pipeline Companion CD-ROM and shipped with all new Pipeline units. If you're already a proud Pipeline owner, you can download the JBPC and a whole bunch of other really cool stuff from Ascend's FTP site at "ftp.ascend.com." The directory is "\pub\Software-Releases\pl_cdrom."

10. *All this sounds great, but what I really want is integrated ISDN and Frame Relay in the same box...*

    The Pipeline 130 is designed specifically to handle both the best of ISDN dial-up features with the speed, reliability, and affordability of Frame Relay.

    Concurrent ISDN and Frame Relay support allows the Pipeline 130 to provide:

    - Backup and redundancy.
    - A migration path from dial-up to Frame Relay as network usage and bandwidth increases.
    - Lower cost of ownership: ISDN is a switched service that allows users to pay for bandwidth based on actual usage. Frame Relay costs 30 percent less, on average, than a dedicated leased line of the same speed.

Remote Networking
Solutions That Work.™

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