

# Cisco 800 Series Routers

## Applications Overview

The Cisco 800 series router is the entry-level platform that contains Cisco IOS® Software technology, extending the software's industry-leading capabilities into small offices. With the 800 series, Cisco Systems provides compact access router with enhanced security, low cost of ownership, proven reliability, and field upgradable software and memory. The Cisco 800 series is suitable for several small office applications, all of which take advantage of Cisco IOS software:

- High-speed Internet access
- Corporate telecommuting
- Virtual private networks (VPNs)
- Customer premise equipment (CPE) and managed network services
- Point of Sale

### Cisco 800 Series Benefits

- **Enhanced Security**—Cisco 800 series routers enable VPNs with enhanced security features, such as an integrated stateful firewall and IPSec encryption. These features allow small offices and telecommuters to do business over the Internet while protecting valuable resources.
- **Low Cost of Ownership**—By leveraging Cisco IOS software, the Cisco 800 series can help customers reduce operational costs for training, management, installation, and deployment. The Cisco 800 series provides key WAN and ISDN optimization features. The Cisco 803 and Cisco 804 routers offer an “all-in-one” solution that combines telephone, fax, and data communication on a single access line.

- **Proven Reliability**—Because Cisco 800 series routers are based on the same proven Cisco IOS technology used for 80 percent of the Internet, small offices can depend on them day after day, year after year.
- **Safe Investment**—The Cisco 800 series routers offer field-upgradable memory options to allow easy migration to the latest networking features when necessary. With an advanced processor and memory architecture, they can support future applications as networking needs expand.

Table 1 Cisco 800 Series Models

	WAN Ports	LAN Ports
Cisco 801	1 ISDN BRI (S/T) port	1 Ethernet port
Cisco 802	1 ISDN BRI (U) port	1 Ethernet port
Cisco 803	1 ISDN BRI (S/T) port, 2 analog phone ports	4-port Ethernet hub
Cisco 804	1 ISDN BRI (U) port, 2 analog phone ports	4-port Ethernet hub
Cisco 805	1 serial port (speeds up to 512 Kbps)	1 Ethernet port
Cisco 802 IDSL	1 IDSL port	1 Ethernet port
Cisco 804 IDSL	1 IDSL port	4-port Ethernet hub

**The Cisco 800 series offers multiple WAN connectivity options and speeds**

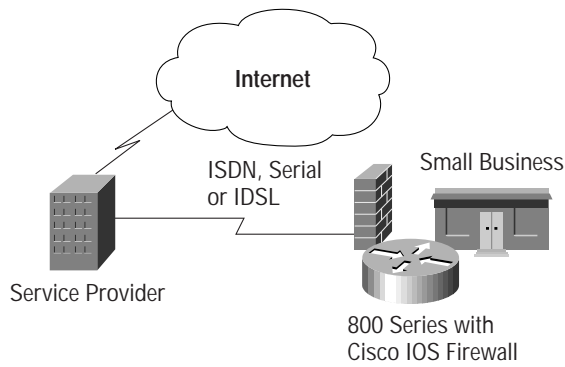
ISDN Dial	128 Kbps
ISDL (US only)	144 Kbps
Serial (Frame Relay, Leased Lines, X.25)	512 Kbps

**Applications**

**High-Speed, Secure Internet Access**

The Cisco 800 series router provides a small business small office secure and reliable access to the Internet at speeds far greater than typical analog modems. Likewise, businesses can take advantage of having a single, fast connection to the Internet that is shared by all users rather than having individual separate telephone lines and modems for Internet access.

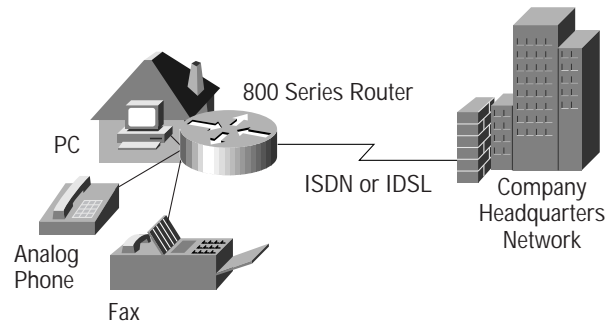
Figure 1 The Cisco 800 series provides a flexible choice of WAN connectivity options to meet the unique needs of small businesses.



**Telecommuting**

By incorporating powerful Cisco IOS features, the Cisco 800 series router provides a telecommuter with capabilities usually found only in large business networks. Telecommuters can take advantage of advanced services—such as secure Internet access and virtual private networks (VPNs)—that minimize telecommuting costs. The Cisco 800 series also enables corporations to leverage their investments and knowledge in Cisco IOS technology.

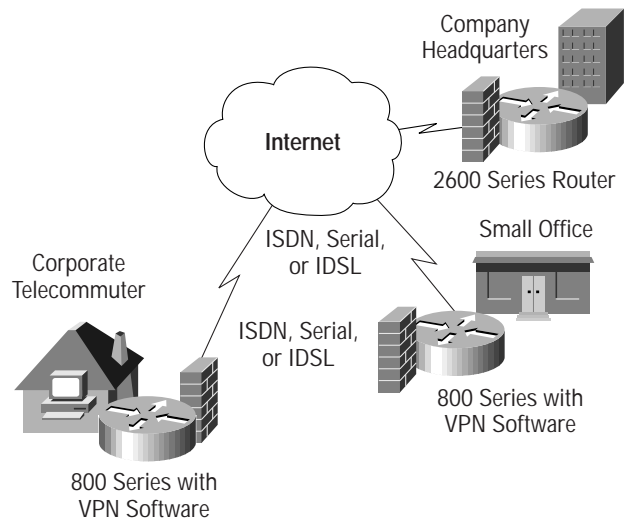
Figure 2



**Virtual Private Networks**

A VPN connects branch offices, extranet partners, and telecommuters by using a public network (such as the Internet), but provides services and capabilities similar to those offered by dedicated private lines. For VPNs to provide the same benefits as dedicated lines, they must offer similar levels of security and quality to guarantee availability. As implemented in the Cisco 800 series routers, Cisco IOS technologies offer corporate branch offices, extranet partners and telecommuters a complete solution, including an integrated Cisco IOS firewall and IPSec support, for secure access to VPNs.

Figure 3

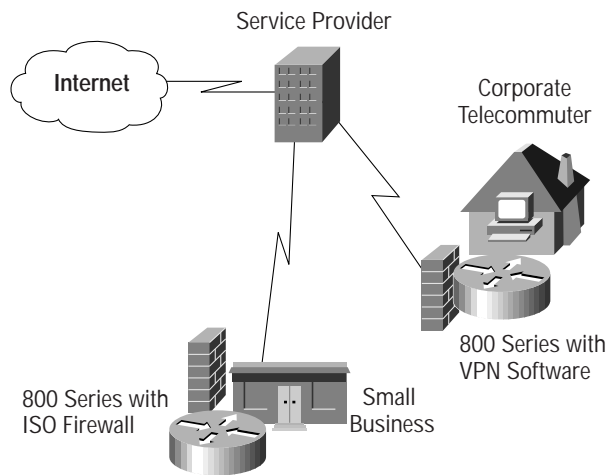


**Managed Network Services (Customer Premise Equipment)**

Service providers can sell or lease the Cisco 800 series as customer premise equipment (CPE). It is an ideal solution for small business Internet access or organizations looking to

deploy VPNs and telecommuting. The Cisco 800 series enables service providers to provide value-added services such as end-to-end security, quality-of-service guarantees, managed remote network service, and priority data transport. By integrating Cisco IOS software in an end-to-end solution, service providers can provide these value-added managed services.

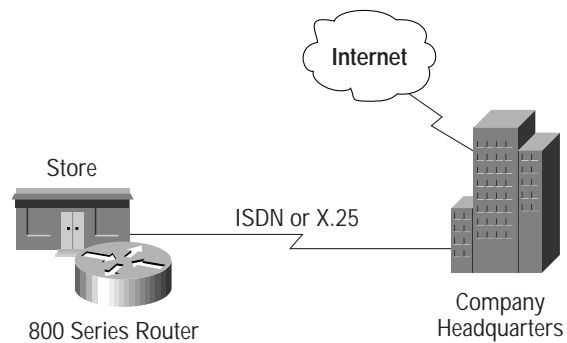
Figure 4



#### Point of Sale

The Cisco 800 series supports International Telecommunications Union (ITU)-compliant X.25 service over the ISDN D channel. With this feature, the Cisco 800 series cost-effectively supports transaction-oriented applications such as point-of-sale authorizations. The X.25 feature also allows users to take advantage of unused capacity on the D channel. In addition, the Cisco 800 series X.25 feature includes priority queuing to improve the responsiveness of traffic over this link.

Figure 5



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