

VPN (Virtual Private Network) Firewall

Introduction

A well-designed VPN uses several Security methods for keeping your connection and data secure:

- **Firewalls**
- **Encryption**
- **IPSec**
- **AAA Server**

A firewall provides a strong barrier between your private network and the Internet via an ISDN or broadband connection. You can set firewalls to restrict the number of open ports, what type of packets is passed through and which protocols are allowed through.

VPN features

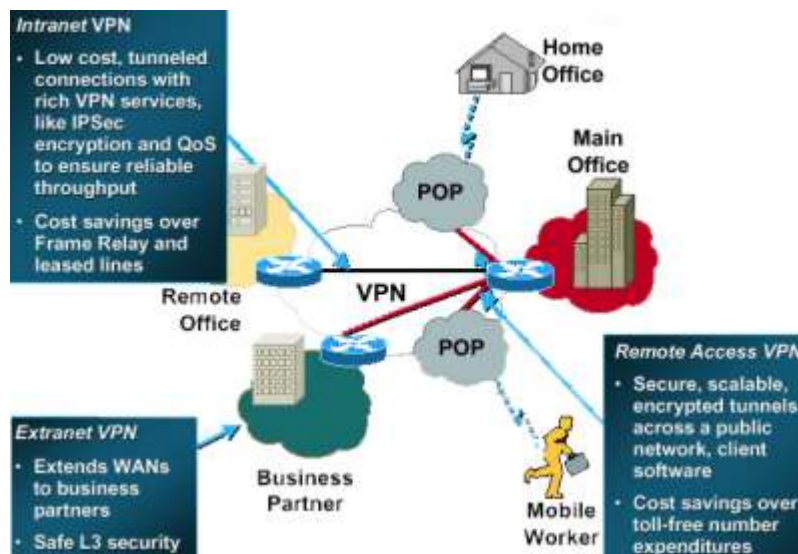
- Security
- Reliability
- Scalability
- Network management
- Policy management

VPN Types

Remote-Access VPN

There are two common types of VPN. **Remote-access**, also called a **virtual private dial-up network (VPDN)**, is a user-to-LAN connection used by a company that has employees who need to connect to the private network from various remote locations. Typically, a corporation that wishes to set up a large remote-access VPN will outsource to an **enterprise service provider (ESP)**. The ESP sets up a **network access server (NAS)** and provides the remote users with desktop client software for their computers. The telecommuters can then dial a toll-free number to reach the NAS and use their VPN client software to access the corporate network.

A good example of a company that needs a remote-access VPN would be a large firm with hundreds of sales people in the field. Remote-access VPNs permit secure, **encrypted** connections between a company's private network and remote users through a third-party service provider.



Site-to-Site VPN

Through the use of dedicated equipment and large-scale encryption, a company can connect multiple fixed sites over a public network such as the Internet. Site-to-site VPNs can be one of two types:

- **Intranet-based** - If a company has one or more remote locations that they wish to join in a single private network, they can create an intranet VPN to connect LAN to LAN.
- **Extranet-based** - When a company has a close relationship with another company (for example, a partner, supplier or customer), they can build an extranet VPN that connects LAN to LAN, and that allows all of the various companies to work in a shared environment.

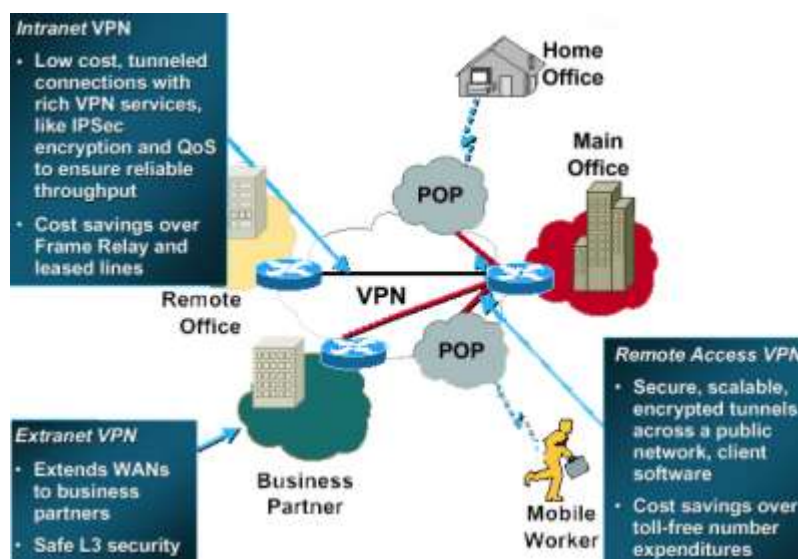


Image courtesy Cisco Systems, Inc.
Examples of the types of VPN