Virtual private networks enable secure, cost-effective enterprise networking

IBM

IBM eNetwork Software for virtual private networks

Highlights

Exploits the public Internet backbone for intra- and inter-company communication

Links your IT assets with Web technology for secure e-business solutions

Extends enterprise data across TCP/IP networks while substantially reducing network access costs

Provides cryptographic data protection using the IETF's comprehensive Internet security framework, IPSec protocol

Supports open, standards-based technologies for flexibility and scalability

Builds "tunnels" that enable secure communication links across TCP/IP networks

Works with High Performance Routing, an IBM technology that increases data transfer rates and session reliability

Engineered for secure, cost-effective remote user access, branch office connections, and business partner and supplier networking

With IBM® eNetwork™ Software for virtual private networks (VPNs), enterprises around the world can now share information with clients and suppliers, while also allowing employees access to mission-critical data from wherever the job takes them. IBM eNetwork Software for VPNs uses the public Internet backbone for enterprise data communications and eliminates costly IT infrastructure upgrades. In fact, a study conducted by Infonetics Research, Inc., confirmed that VPNs can cut networking costs by as much as 80 percent in remote access charges and nearly 50 percent in leased-line charges for access to wide area networks (WANs).

Safeguard data exchanges with standard security protocols

IBM eNetwork Software VPN technology provides data security by integrating protocols adopted by the Internet Engineering Task Force (IETF). An open, reliable, and trusted security protocol, known as IPSec, is at the core of IBM's VPN-enabling products and services. IPSec provides three layers of data protection:

Authentication: to verify the identity of the host or end point

Integrity checking: to ensure that no modifications are or have been made to data packets en route across the network

Encryption: to conceal data as it travels across the network
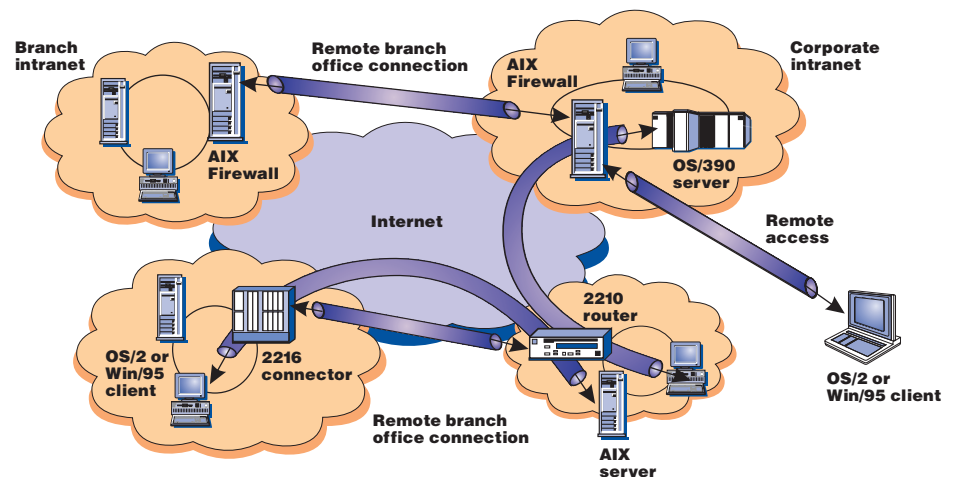
Virtual private networks allow your associates, suppliers, and clients to securely access the information they need across the public Internet

IBM products and services for virtual private networks

Software	*IBM eNetwork Firewall Version 3.2 for AIX®*
	• IPSec ready
	• Includes Windows® 95 dial-up and AIX clients
	• ACE/Server software with SecurID tokens
	IBM AIX Version 4, Release 3.1 operating system
	• IPSec ready with 3DES for IPv4, IPv6 environments
	• Scalability and capacity (32,767 threads per process)
	• Supports concurrent execution of 32- and 64-bit applications on 64-bit hardware
	IBM eNetwork Communication Server for OS/390™ Version 2, Release 5
	• IPSec ready
	• Sysplex workload balancing enhancements for TCP/IP
	IBM TCP/IP Version 4, Release 2 for the OS/2® WARP Server
	• IPSec ready
	• Dynamic IP enhancements
	• Integrated Java™ enhancements
Hardware	*IBM 2210 Nways® Multiprotocol Router, IBM 2216 Nways Multiaccess Controller, and IBM 3746 Nways Multiprotocol Controller*
	• IPSec ready
	• Firewall filters
	• L2TP support for remote access
	• Includes integrated Enterprise Extender and DLSw to transport SNA traffic over IP
Services	ISP services from IBM Global Services
	VPN consulting, design, and implementation services

In addition to IPSec, IBM supports a wide range of open, standards-based security technologies including the Secure Electronic Transaction (SET) and Secure Sockets Layer (SSL) protocols. For multiprotocol environments, IBM VPN solutions include Layer 2 Tunneling Protocol (L2TP), data link switching (DLSw), and Enterprise Extender. L2TP is an IETF standard often used for dial-up, point-to-point protocol (PPP) remote access traffic, while Enterprise Extender and DLSw transport SNA traffic over IP networks. By combining IPSec with these multiprotocol technologies, you can safeguard all of your e-business transactions.

Extend the reach of your enterprise

With IBM VPN technologies, you can securely integrate the public Internet backbone into your enterprise data communications network to allow suppliers, associates, and clients access to the information they need. VPN technologies are well suited to meet the connectivity demands placed on enterprise networks by:

• Business partners and suppliers

• Branch office connections

• Remote users

Business partners and suppliers, for example, may need inventory or production information, branch offices may need access to corporate data, while remote users may need access to sales information. Rather than rely on costly leased lines to support these scenarios, VPN technologies enable enterprises to rely on the Internet. Using an Internet Service Provider (ISP), such as IBM Global Services, users can gain access to the information they need.

For more information

To learn more about virtual private network technologies from IBM, contact your IBM representative or IBM Business Partner. Or visit our Web pages at: *http://www.software.ibm.com/enetwork/ technology/vpn/*

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