

# Impact

September 4, 1998

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## **IBM's eNetwork Virtual Private Network Solution: Providing Secure Internet Access to Corporate Resources**

*To improve overall efficiency and gain a competitive advantage, enterprises are moving towards Internet-enabled business processes. As a result, companies are considering Virtual Private Network (VPN) solutions that take advantage of the Internet's extensive, cost-effective access, while ensuring data security. IBM's eNetwork VPN solution can help enterprises transition to this Internet-enabled business model by providing standards-based secure access to enterprise computing resources.*

### **Why VPNs?**

Traditionally, network managers have relied upon leased lines to build wide area access to their corporate networks. While reliable and secure, these leased line networks have been expensive to build and maintain.

Businesses have eyed the Internet and other public networks as an alternative vehicle for wide area communication, but have been concerned about the inadequacy of security.

The advent of Internet Protocol (IP)-based Virtual Private Networks (VPNs) has provided businesses with the opportunity to use public networks to replace their leased lines. Aberdeen research indicates that VPNs have matured to a point where they can supply the needed security to conduct business processes over public networks. Furthermore, this strategy could yield cost savings of 20 to 80% over traditional access methods.

Enterprises also expect to realize significant productivity gains through VPN implementations, which facilitate a more rapid flow of information sharing across the organization as well as among mobile workers, suppliers and partners. Timely

information access and exchange enable enterprises to be more effective by streamlining processes, reducing cycle times, reducing inventories and increasing responsiveness to customers.

### **Typical Uses of VPNs**

VPNs are typically used in three basic ways:

- Remote/mobile user connectivity. Users gain access to corporate computing resources via local calls to an Internet Service Provider (ISP) — avoiding expensive toll calls.
- Branch office connectivity. VPNs provide greater flexibility in handling peak or bursty bandwidth requirements. Businesses can significantly reduce costs by replacing leased lines with local connections to an ISP.
- Extranet connectivity. Suppliers, partners and customers access internal resources via a public network. This approach works when all can agree upon a common VPN solution.

The VPN products market is estimated to grow from approximately \$50 million this year to more than \$1 billion in 2001 — making it one of the fastest growing segments of the networking industry.

#### **eNetwork VPN's Features**

IBM's *eNetwork VPN* is a software solution that is designed to run on existing IBM networking and server hardware, such as 2216/2210 routers, OS/390 servers, AS/400 servers, AIX servers, and eNetwork firewalls.

*eNetwork VPN* is built to the Internet Engineering Task Force's (IETF) specification for Internet Protocol Security (IPsec), the industry standard security framework that provides application transparent security for data transmission. The IPsec standard ensures a high level of security between routers as it automatically authenticates the packet, encrypts the datagram, checks its integrity and refreshes cryptographic keys.

In addition, several *eNetwork VPN* products support Layer 2 Tunneling Protocol (L2TP) as specified by the IETF. This enables the product to handle multiple protocols, such as IP, IPX and NetBIOS.

#### **eNetwork VPN's Strengths**

*eNetwork VPN* is a logical solution for companies that want to provide browser-based access to data that resides on an IBM mainframe application or database. This solution was designed to integrate smoothly with IBM's data-center and networking products such as OS/390 servers and TN3270.

Since the products are software based, users have a high degree of flexibility and investment protection. For instance, a customer can implement a VPN solution without purchasing additional hardware. Moreover, an enterprise can implement a

branch office VPN on its routers and avoid upgrading all of its existing servers and clients.

#### **Why IBM and VPNs?**

A VPN offering from IBM makes sense because approximately 70% of existing transaction data in Fortune 500 companies resides on mainframe equipment and databases. Since IBM is the major supplier of mainframe equipment, it is well positioned to integrate data center class servers and data communications equipment to an IP-based network.

In addition, IBM has the breadth of product line to provide one-stop shopping and a single point of contact for VPN and security solutions. If an enterprise already has IBM equipment, then it can obtain security for the network, servers and applications. This is appropriate for companies who want to hold one vendor accountable for all security products.

IBM's service organization can support VPN solutions as part of the entire enterprise-computing environment. In addition, IBM, with its global presence, can support remote locations around the globe.

Furthermore, IBM, with its Global Services unit, is positioned to supply the entire solution including Internet Services Provider (ISP) services.

#### **Aberdeen Conclusions**

IBM's *eNetwork VPN* solution provides a credible, standards-based VPN solution for companies with existing IBM equipment. Enterprises with an international presence will also want to consider *eNetwork VPN* because of IBM's global service and support organization. Overall, IBM's *eNetwork VPN* solution is a solid, standards-based offering that deserves serious consideration.

— David F. Dines