

Secure VPN on PortMaster 3

Standards-based, multi-service access concentration

Adding security to data communications is taking on new importance as enterprises like yours look to establish extranets and intranets and to outsource remote access to other providers. Virtual Private Networks (VPNs) provide the authentication, access control and strong encryption you need to enable reliable and secure access to mission-critical data. A myriad of competing protocols offering different levels of security

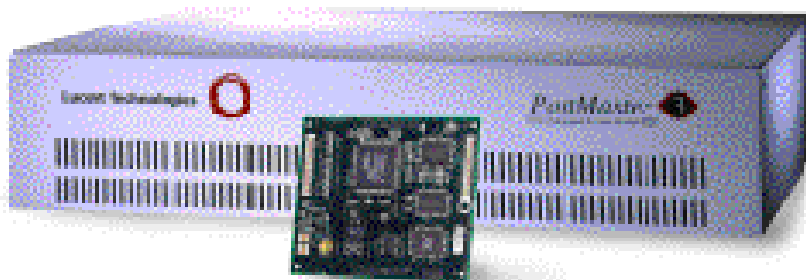
and performance, along with an equally confusing set of hardware and software products, complicates successful implementation. And, if you're like most enterprises, protecting the investment in your existing network infrastructure is crucial.

Through a combination of hardware and software enhancements to its proven PortMaster® 3 remote access concentrator, Lucent

Technologies makes secure, standards-based, site-to-site VPN tunneling simple and economical. Regardless of transport ... Internet Protocol (IP), or Frame Relay ... PortMaster 3 delivers remote access concentration, routing, and secure VPN tunnel termination on a single, multi-purpose platform.

The Lucent PortMaster 3 solution supports two established Internet Engineering Task Force (IETF) standards, Layer 2 Tunneling Protocol (L2TP) and IP Security (IPSec). L2TP is a tunneling protocol used to encapsulate traditional protocols, such as IP and IPX. IPSec is recognized as the industry standard for strong data security, and is application and operating system independent.

Support for L2TP Network Server (LNS) applications is enabled on the PortMaster 3 beginning with release 3.9 of the ComOS® operating system. Acting as an LNS, the PortMaster 3 can terminate up to 64 simulta-



neous sessions per chassis. It separates physical WAN access points, allowing you to outsource remote access to another service provider while still maintaining centralized access control.

Because software-only IPSec solutions do not scale well or meet the performance requirements of typical network implementations, Lucent offers an IPSec encryption daughter card to deliver near wire-speed Data Encryption Standard (DES) and Triple DES encryption/decryption functionality. Benchmark testing has validated throughput at 1.5 Mbps for large packet sizes, 1.1 Mbps for small packet sizes.

To simplify VPN implementation, Lucent Technologies PMVision™ management software is included and ships with default configurations. Because it features a Java™-based graphical user interface and menu-driven approach, PMVision drastically reduces the time required for set up and management.

Lucent offers a full range of high-performance, standards-based VPN solutions to match your connectivity needs. Lucent Technologies PortMaster products, Lucent Managed Firewall, VPN Gateway and IPSec clients ensure end-to-end and edge-to-edge data security.

PortMaster 3 VPN Specifications

IPSec Encryption Acceleration daughter card; 100MHz MIPS processor, 1.1 Mbps throughput in ESP mode at small packet sizes, 1.5 Mbps at large packet sizes.

IETF IPSec RFCs, including:
HMAC: Keyed Hashing for Message Authentication, RFC 2104
Security Architecture for Internet Protocol, RFC 2401
IP Authentication Header (AH), RFC 2402
IP Encapsulating Security Payload (ESP), RFC 2406
Use of HMAC-MD5-96 within ESP and AH, RFC 2403
Use of HMAC-SHA-1-96 within ESP and AH, RFC 2404
ESP DES-CBC Cipher Algorithm with Explicit IV, RFC 2405
ESP CBC-Mode Cipher Algorithms, RFC 2451
IETF L2TP RFC Internet draft-ietf-ppptext-12rp-13
IP Encapsulation within IP (IPIP), RFC 2003

LAN, WAN and routing protocols, including TCP, IP, IPX, UDP, ICMP, ARP, IPX/SPX, IPX/SPX spoofing, RIP, OSPF, BGP4

NAT support

T1 or E1 interfaces, single or dual