

Nokia IP VPN Solutions

Nokia 105i



Nokia for Business



Nokia 105i VPN Gateway is a high-performance, fully integrated gateway designed to meet the needs of mid-sized enterprises.

People are mobile and work is no longer a place. As a result, enterprises must evolve to support the employee's ability to work outside of the traditional office walls. To maximize productivity and reduce operating costs, workers must access business-critical information, whether they are on-site in an "office of many" or on their mobile devices as an "office of one."

Nokia IP VPN provides the security means to connect mobile users to fixed resources of business-critical information. Part of the Nokia IP VPN gateway family, Nokia 105i is designed to meet the needs of mid-sized enterprises requiring up to 10,000 tunnels, >300 Mbps AES-256 throughput, and flexible

expansion options including Gigabit-ethernet connectivity. Nokia 105i is diskless with high MTBF components for excellent reliability.

Nokia 105i utilizes patent-pending Meta-Hop™ technology to ensure network connectivity between sites, within sites and from clients to sites. By maintaining connectivity and adapting the network to manage network changes, administrators are assured that costs are maintained for a low Total Cost of Ownership of their IP VPN solution.

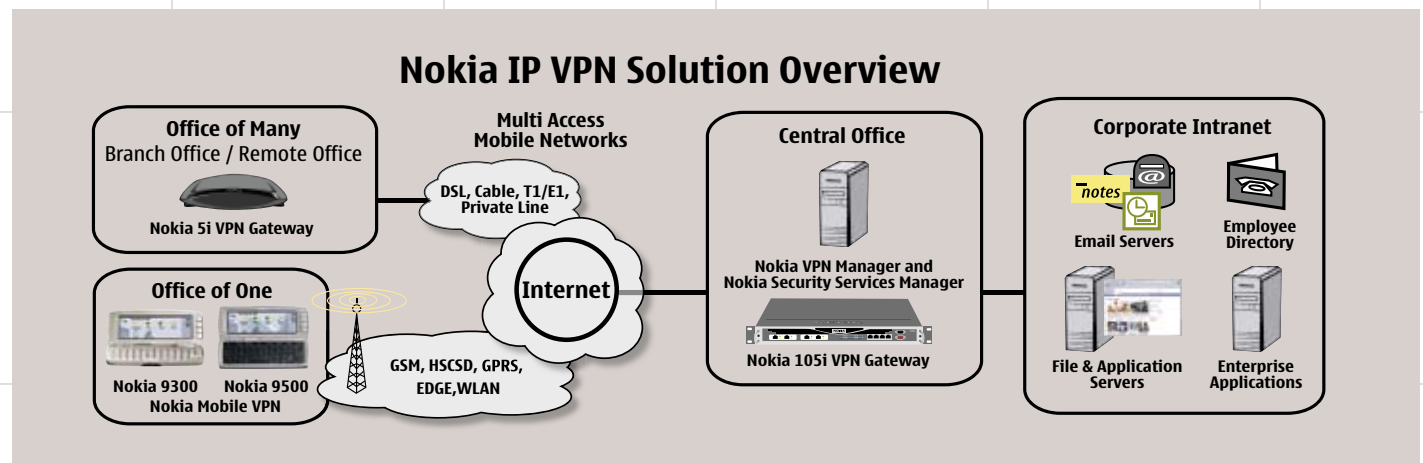
To ensure "always-on" network uptime, Meta-Hop includes adaptive networking technology between sites so administrators can grow and modify their network without having to revisit the VPN configuration. Within sites, Nokia 105i is equipped with Nokia patented IP Clustering to ensure high availability for VPN, firewall and routing.

As a result, traffic on the gateway is automatically optimized with Dynamic Load Balancing, Automatic Session Failover and Zero-Downtime Upgrades for maximum uptime.

Meta-Hop ensures that companies can truly be mobile by extending the secure network to mobile devices and laptops.

Using Nokia VPN Manager IT administrators can centrally manage client policies and configurations by updating VPN policies and configurations for both gateways and clients. Nokia 105i also features a full command-line interface, SNMPv3 monitoring and remote logging services.

Best of all, Nokia IP VPN reliability, performance and security are backed by Nokia world-class First Call—Final resolution global support and service.



NOKIA
Connecting People

Technical Specifications

Performance and Capacity*

- AES-256 SHA-1 (1 node) = 600 Mbps
- AES-256 SHA-1 (2 node) = 1.0 Gbps
- Stateful Firewall (1 node) = 1.2 Gbps
- IKE Main Mode Tunnels = 10,000
- 4 integrated 10/100/1000BaseT interfaces
- Up to 8 additional 10/100BaseT interfaces
- Up to 4 additional MMF or 10/100/1000BaseT interfaces
- Nokia Encryption Accelerator (optional)

*With Nokia Encryption Accelerator installed

VPN

- IPSEC (RFC2401 – 12)
 - Perfect Forward Secrecy (RFC2409, RFC2412)
 - Diffie-Hellman Groups 1, 2, 5 (RFC2412, DIFF76)
 - Backup IKE Peer
 - Dead peer detection (RFC 3706)
- Encapsulation Protocols
 - ESP Tunnel and Transport Mode (RFC2406)
 - AH Tunnel and Transport Mode (RFC2402)
- Data Encryption
 - AES 128, 192, and 256-bit (RFC3602)
 - DES 56-bit and 3DES 168-bit (RFC2405)
- Message Authentication
 - HMAC-SHA-1 (RFC2404)
 - HMAC-MD5 (RFC2403)
- Key Management (RFC2409)
 - IKE Main Mode
 - IKE Quick Mode
- Remote Access
 - IPSEC (RFC3457)
 - L2TP (RFC2888, 2661)
 - PPTP (RFC2637)
 - L2TP within IPSEC (RFC3193)
- NAT Traversal (RFCs 3947 & 3948)
- Split Tunneling
- Network Topologies
 - Hub & Spoke
 - Full Mesh
 - Custom

Routing

- BGPv4 (RFC1711)
 - BGPv4 with MD5 (RFC2385)
- OSPFv2 (RFC2328, STD0054)
- RIPv1/v2 (RFC2453, STD0056)
- RIPv2 with MD5
- Static Routes
- Routing over IPSEC

Addressing

- Network and Port Address Translation (RFC3022, RFC1918)
- DHCP (RFC2131 – 2, RFC3396, RFC3442)
 - Client
 - Server
- Relay with BOOTP forwarding
- Point-to-Point Protocol (RFC1661 – 2, STD0051)
 - PPP over Ethernet (RFC2561)
 - Static Address

Clients

- Nokia Mobile VPN Client 3.0
 - Native Microsoft Windows L2TP/IPSEC client support
- (for Windows 2000, Windows XP and Windows Mobile 2003 Second Edition)

Firewall

- Stateful Inspection
 - ICMP, SNMP, DNS, NTP
- Demilitarized Zone (DMZ)
- Protocol Support (partial list)
 - HTTP, HTTPS
 - SMTP, IMAP, POP3
 - Telnet, SSH
 - NetBIOS over TCP
- Application Gateways
 - FTP
 - TFTP
 - RTP (RealAudio/ RealVideo)
 - IRC Chat
 - Stateful TCP, UDP and ICMP Flows

Policy-based Type of Service

- Differentiated Services (DiffServ)
 - DiffServ with IPSEC

Meta-Hop and High Availability

- Intelligent VPN
 - Self-Learning
 - Self-Healing
- VRRP
- IP Clustering
 - Dynamic Load Balancing
 - Active Session Failover
 - Zero-Downtime Upgrades
 - Linear Scalability
- Services: VPN, Routing, Firewall
- Prioritized External Interface Backup
 - Ethernet (including DSL/Cable)
 - Dial (including V.92/ISDN)
- Backup Hub
- High Reliability Hardware Design
 - Flash-based System

PKI and Authentication Services

- Nokia AOS Certificate Authority
 - X.509v3 digital certificates
 - CRLv2 certificate revocation
 - LDAPv3 certificate storage
 - PKCS#7, PKCS#10 certificate enrollment
 - SCEP client
- Nokia Security Service Manager Enrollment Gateway
- Password Authentication with CRACK
- 3rd Party Authentication Services
 - RADIUS
 - SecurID
 - LDAPv3
 - Microsoft Active Directory
 - Entrust Authority
 - Verisign PKI
 - Baltimore UniCERT
 - RSA Keon
 - Microsoft CA
 - Sun ONE Certificate Server

Management

- Nokia VPN Manager
- Key Features
 - SSLv3-secured Java GUI
 - Staging and Over-the-Air Provisioning
 - Rapid Deployment with Templates
 - Topology Mgmt with Partitions
 - Group Mgmt with Realms
 - Upgrades and Backup with Scheduled Operations
 - Generate Nokia Mobile VPN Policy Files
 - Performance Monitor
 - Platform Req'ts: Microsoft Windows 2000, XP, 2003 Server or Red Hat Enterprise Linux 3.0
- SSHv2-secured AOS CLI
- SNMPv1/v2/v3 (USM) (RFC3411 – 15, STD0062)
 - MIB-II (RFC1213)
 - IP MIB (RFC2011)
 - TCP MIB (RFC2012)
 - UDP MIB (RFC2013)
 - Interfaces Group MIB (RFC2863)
 - IP Forwarding Table MIB (RFC2096)
 - Host Resources MIB (RFC2667)
 - Nokia VPN IPSEC MIB
 - Nokia VPN L2TP/PPTP MIB
 - Nokia VPN Configuration MIB
 - Nokia AOS Cluster MIB
- Syslog Logging
- NTPv3 Client
- Out-of-Band Mgmt via Modem

Base System Configuration

- 1GB System RAM, expandable to 2GB
- 4 integrated 10/100/1000 Ethernet interfaces
- Integrated PCMCIA slot

Optional PMC Cards

- 4-port 10/100 BASE-TX, copper
- 2-port 10/100/1000 BASE-T, copper
- 2-port 1000 BASE-SX, MMF

Dimensions

- Height – 1.75 in (4.4 cm) – 1U
- Width – 17 in (43.2 cm) without mounting brackets – 1U; or 19 in (48.2 cm) with mounting brackets
- Depth – 17 in (43.2 cm)
- Depth – 17.5 in (44.5 cm)
- at handles, standard bracket position
- Weight – 18 lbs (8.2 kg) with mounting brackets
- Front access for upgrades and maintenance

Power Requirement

- AC Input 100-120V / 200-240V
- Frequency 50 / 60 Hz
- AC Input Current 3A

Americas

Tel: 1 877 997 9199

Email: ipsecurity.na@nokia.com

www.nokiaforbusiness.com



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