

Nokia IP VPN Solutions

Nokia 10i



Nokia for Business



Nokia 10i VPN Gateway is a high-performance, fully integrated gateway designed to meet the needs of distributed enterprises with remote users.

People are mobile, and, as a result, the workplace has evolved 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 and mobile connectivity to connect users to fixed resources of business-critical information. Part of the Nokia IP VPN gateway family, Nokia 10i is designed to meet the needs of small offices requiring high availability, supporting up to 50 tunnels and 75 Mbps AES-256 throughput.

Nokia 10i is built with no moving parts and 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.

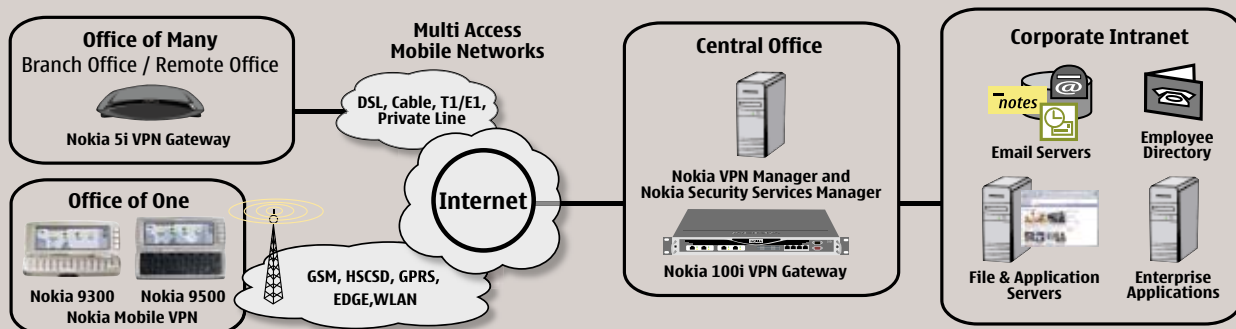
Within sites, Nokia 10i is equipped with Nokia patented IP Clustering to ensure high availability for VPN, firewall and routing. As a result, traffic on the gateway is automatically optimized with Dynamic Load Balancing, Automatic Session Failover, and Zero-Downtime Upgrades for maximum uptime.

Finally, Meta-Hop ensures companies can truly be mobile by extending the secure network to mobile devices and laptops. Using Nokia VPN Manager and Nokia Security Services Manager, IT administrators can centrally manage client policies and configurations using over-the-air provisioning.

When paired with Nokia VPN Manager, the gateway provides administrators with an easy-to-use, centralized management solution to deploy, deliver, and update VPN policies and configurations for gateways and clients. Nokia 10i 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 IP VPN Solution Overview



NOKIA
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□ Technical Specifications

Performance and Capacity <ul style="list-style-type: none"> AES-256 SHA-1 (1 node) = 90 Mbps AES-256 SHA-1 (2 node) = 160 Mbps Stateful Firewall (1 node) = 80 Mbps IKE Main Mode Tunnels = 50 3 integrated 10/100BaseT interfaces 	Policy-based Type of Service <ul style="list-style-type: none"> Differentiated Services (DiffServ) - DiffServ with IPSEC
VPN <ul style="list-style-type: none"> IPSEC (RFC2401 – 12) - Diffie-Hellman Groups 1, 2, 5 (RFC2412, DIFF76) Encapsulation Protocols - Backup IKE Peer Mode (RFC2406) - Dead peer detection (RFC 3706) - AH Tunnel and Transport Mode (RFC2402) Remote Access - IPSEC (RFC3457) Data Encryption - AES 128, 192, and 256-bit (RFC3602) - L2TP (RFC2888, 2661) - PPTP (RFC2637) - L2TP within IPSEC (RFC3193) - DES 56-bit and 3DES 168-bit (RFC2405) NAT Traversal (RFCs 3947 & 3948) Message Authentication - HMAC-SHA-1 (RFC2404) - HMAC-MD5 (RFC2403) Split Tunneling Key Management (RFC2409) - Hub & Spoke - Full Mesh - Custom - IKE Main Mode - IKE Quick Mode - Perfect Forward Secrecy (RFC2409, RFC2412) 	Meta-Hop and High Availability <ul style="list-style-type: none"> Intelligent VPN - Self-Learning - Self-Healing VRPP 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
Routing <ul style="list-style-type: none"> BGPv4 (RFC1711) - BGPv4 with MD5 (RFC2385) OSPFv2 (RFC2328, STD0054) RIPv1/v2 (RFC2453, STD0056) - RIPv2 with MD5 Static Routes Routing over IPSEC 	PKI and Authentication Services <ul style="list-style-type: none"> 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 Dir - Entrust Authority - Verisign PKI - Baltimore UniCERT - RSA Keon - Microsoft CA - Sun ONE Certificate Server
Addressing <ul style="list-style-type: none"> 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 	Management <ul style="list-style-type: none"> Nokia VPN Manager Key Features <ul style="list-style-type: none"> 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
Clients <ul style="list-style-type: none"> Nokia Mobile VPN Client 3.0 (for Windows 2000, Windows XP and Windows Mobile 2003 Second Edition) Native Microsoft Windows L2TP/IPSEC client support 	Dimensions and Power <ul style="list-style-type: none"> Width – 7.2" (183.5 mm) Height – 1.8" (43.0 mm) Depth – 5.8" (144.5 mm) Weight – 0.8 lbs. (363 g) Power input 100V, 120V, 230V
Firewall <ul style="list-style-type: none"> Stateful Inspection Demilitarized Zone (DMZ) Protocol Support (partial list) - HTTP, HTTPS - SMTP, IMAP, POP3 - Telnet, SSH - NetBIOS over TCP - ICMP, SNMP, DNS, NTP Application Gateways - FTP - TFTP - RTP (RealAudio/ RealVideo) - IRC Chat - Stateful TCP, UDP and ICMP Flows 	Environment / Certification <ul style="list-style-type: none"> Temperature: 5°C to -40°C Humidity: 10% to -90% (non-condensing) Storage temperature: -20°C to 60°C 

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