

GET N^X TO IT

GTX 1000

The modular router that brings it all together: performance, price, flexibility and security for VPNs.



At N^X Networks, we set out to design a router that would enable businesses to implement a Virtual Private Network (VPN) in a more cost-effective, secure and comfortable way than ever before.

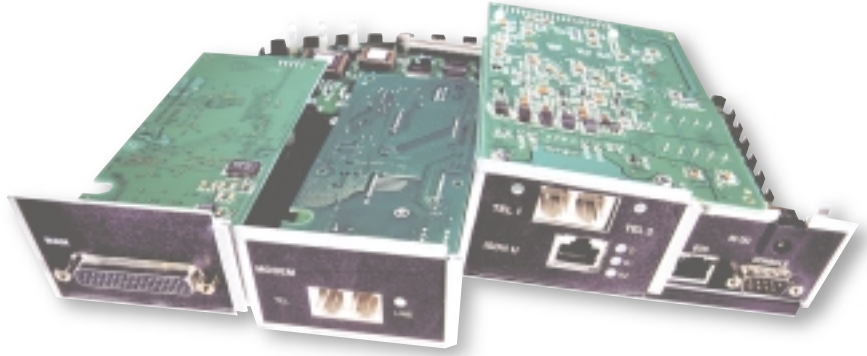
The result: the GTX 1000 — a modular remote access router backed by a lifetime warranty that raises the bar for VPN performance, flexibility, security and ease of use.

HIGHLIGHTS:

- ✗ **VPN Complete** – With a range of security features: IPSEC/IKE and Firewall
- ✗ **Unmatched Flexibility** – A “modular” router designed to allow the mix and match of LAN/WAN protocols and media
- ✗ **ISP Ideal** – Deployed as the Customer Premise Equipment solution through Internet Service Providers
- ✗ **Easy to Use** – A range of options designed to assist every style of user. Includes set-up via browser, interview-menu and CLI
- ✗ **Investment Protection** – A wide choice of LAN/WAN interface modules allows upgrades or changes in configurations without replacing the entire system
- ✗ **Lifetime Warranty** – Hardware is guaranteed for a lifetime

FEATURES:

- ✗ **Superior performance** – Instant connections with zero packet loss
- ✗ **Authenticated Access** – RADIUS, PAP/CHAP
- ✗ **Firewall Security** – Stateful Packet Inspection, NAT
- ✗ **Standards Based Interoperability** – Works with existing routers, firewalls and LAN/WAN hardware. Broad range of WAN services and routing software
- ✗ **Failsafe Rerouting** – Automatic fall-back shared and alternative connection is automatically established to reduce network outage or circuit failure
- ✗ **Enhanced Reliability** – Bandwidth reservation capability prioritizes delivery of mission critical data based upon criteria set by network manager



MAXIMUM VPN SECURITY AND PERFORMANCE

The GTX 1000 includes a comprehensive range of security features and protocols, including routing, fault monitoring and recovery and fail-over (WAN reroute). These capabilities operate with networks where remote locations are assigned either dynamic or static IP addresses as detailed below:

- ✗ **IPSEC/IKE** – Developed by the Internet Engineering Task Force (IETF), it is the emerging standard for secure Internet applications including e-commerce and VPNs
- ✗ **DES, 3DES** – Supported using a 56-, 112- or 168-bit encryption
- ✗ **IP Tunneling to transmit IP packets** – Tunneling is a dedicated and secure mechanism that hides address and routing details as a packet traverses an external network
- ✗ **RADIUS (Remote Authentication Dial-In User Service)** – Offers centralized access control of remote user profiles, passwords, accounting and other security capabilities for firewall management
- ✗ **Firewall with Dynamic IP Filtering** – Via an adaptive layer packet screening policy. This software examines all incoming packets and determines whether or not they are to be passed to or from the network or dropped. In conjunction with the centralized authentication and authorization capabilities of RADIUS, Dynamic IP Filtering manages access to a network for authorized users on a session-by-session basis
- ✗ **CHAP and PAP (Challenge Handshake Authentication Protocol and Password Authentication Protocol)** – These sessions establish authorization protocols, validate and identify remote users and require the exchange of passwords between users and servers before sessions can be established
- ✗ **NAT and Double NAT** – Network Address Translation remapping of network addresses provides valuable fundamental security and eases network administration
- ✗ **Bandwidth Reservation for Mission Critical Data** – With bandwidth reservation, important traffic can be delivered with a higher priority than general traffic — good news anywhere but especially valuable in mission critical environments. Here's how it works: administrators allocate or "reserve" a fixed portion of an interface bandwidth to desirable type of traffic. This system classifies packets according to their payload class of service. Once classified, packets in a transmit queue are reordered to honor bandwidth guarantees. Simply put, bandwidth reservation provides high performance paths through the network — ensuring that mission critical data gets through on time



DESIGNING A VPN WITH A MODULAR APPROACH

Each GTX 1000 contains up to four LAN/WAN interface connections to meet the requirements of today's most demanding VPN or enterprise. This flexible approach allows the selection of up to three modules that can be added or changed at any time to adapt to a changing network environment. Modules are linked via appropriate routing and security software contained in the base unit. Interface modules are highlighted in the chart at right.

INTERFACE MODULE DESCRIPTION

DIAL MODEM	ISDN	WAN	ETHERNET
Choice of two PSTN interface modules available at either 33.6k or 56k. Modules also for international support: France, Germany, Italy, Spain, UK.	Choice of four ISDN interface modules provide S/T or U interfaces. The U interface modules contain an internal NT-1. Optional POTS line.	A universal serial WAN interface module supports synchronous speeds up to 2.048 Mbps and asynchronous speeds up to 115kpbs. Choice of three additional modules available: (1) DDS -CSU/DSU; (2) E1/Fractional E1; and (3) T1/Fractional T1 with an integral DSU/CSU. Copper Mountain compatible SDSL.	One fixed 10Base-T connection is included on the base unit. One additional Ethernet interface can be added.

Note: All models include a 9-pin console connector for status, configuration or network management/monitoring purposes.

EASY CONFIGURATION AND MANAGEMENT —

A RANGE OF OPTIONS TO ASSIST EVERY STYLE OF USER

ACCESS	TOOL	FOR
Netscape	Quick Web	Non-technical user
Microsoft Explorer	Easy step-by-step instructions via the Internet	Non-technical user
Quick-configuration interview/menu	Interview/menu driven – allows for definition of options and adjustment of parameters	Technical users with limited knowledge of networking
Command Line Interface (CLI)	Extensive options and choices for elaborate configurations	Experienced technical users

Remote configuration is also provided via SNMP or Telnet signed packets across a network to examine or alter configuration parameters.

PART NUMBER GTX 1000 SOFTWARE FEATURE SETS

GTX 1000-IP	TCP/IP, PPP, RIP v1/v2, PAP/CHAP, FR, ISDN, DHCP Client, DHCP Client Server, NAT, BRS, FTP Download, ASCII Config, Syslog, X.25/XTP, QW, QC, QF
GTX 1000-IP-PLUS	GTX 1000-IP set above plus Firewall, IP Tunneling, Dynamic Filters, BGP, (M)OSPF, DVMRP
GTX 1000-IP-SEC	GTX 1000-IP-PLUS set above plus IPSEC/IKE DES, SH-1, MD-5, DH-1024, DSA
GTX 1000-IP-SECA	GTX 1000-IP-SEC set above plus 3DES, Blowfish, DH-2048, DSA
GTX 1000-IP-ENT	GTX 1000-IP-SEC set plus IPX/NLSP, AT2, ASRT, DLSW, SDLC, SDLC Relay
GTX 1000-IP-ENTA	GTX 1000-IP-SECA set above plus IPX/NLSP, AT2, ASRT, DLSw, SDLC, SDLC Relay

GTX 1000 SPECIFICATIONS

PROCESSOR	MC 68360, 33 MHz
MEMORY DRAM FLASH	4 MB (expandable to 8,16, 24, 36) 2 MB
INTERFACES	3 modular slots: Ethernet 10Base-T, Console, RS-232
DIMENSIONS	10.25" x 7.75" x 2.0" inches (26.0 x 19.7 x 5.1 cm)
WEIGHT	1.25-2.25 lb.
POWER	90-264 VAC 50-60 Hz 18 VA
STANDARDS AND AGENCY APPROVALS	FCC Part 15, Class B, CISPR-22, Class B FCC Part 68 C-UL, CS03, EN 60950, CE Mark, JATE
NETWORK MANAGEMENT	SNMP, Telnet, TFTP
WARRANTY	Lifetime hardware warranty



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