

TSU NetVanta Router Module

IP Routing for TSU Multiplexers

Product Features

- IP Routing for TSU Multiplexers
- Stateful inspection firewall for network security
- Quality of Service (QoS) for delay sensitive traffic like VoIP
- Command Line Interface (CLI) that mimics industry *de facto* standard
- Network Address Translation (NAT) for IP Address Concealing
- Optional VPN for secure corporate connectivity across the Internet
- Feature-rich ADTRAN Operating System (OS)
- Industry-leading five-year North American warranty

Maximize the potential of your TSU Multiplexer by adding a TSU™ NetVanta® Router Module. Based on the NetVanta 3000 Series of access routers, the TSU NetVanta Router Module provides advanced routing features, protects your network with its stateful inspection firewall, and as an additional option, VPN functionality to your TSU Multiplexer. This adds greater capability to the already highly flexible and versatile TSU family of multiplexers and associated expansion modules.

Powered by the ADTRAN® Operating System (OS), the TSU NetVanta Router Module supports static and default routes, and for fast, accurate network convergence, it also supports routing protocols including BGP, OSPF, and RIP.

The ADTRAN OS provides a powerful, high performance stateful inspection firewall. It will examine all incoming and outgoing packets against the security policies established by the IT manager. In addition, the firewall can identify and protect against common Denial of Service (DoS) attacks, such as TCP syn flooding, IP spoofing, ICMP redirect, ping-of-death, and IP reassembly problems.

Quality of Service (QoS) is also supported for delay sensitive traffic like VoIP or video. The TSU NetVanta Router Module uses Low Latency Queuing, DiffServ marking and packet recognition, and allows for Frame Relay Fragmentation to avoid Latency.

In addition, with the ADTRAN OS upgrade, Enhanced Feature Pack, the TSU NetVanta Router Module adds the support for IPsec compliant Virtual Private Networking (VPN). This module will support up to five simultaneous VPN tunnels, while supporting encryption algorithms like DES, 3DES, and AES. With this upgrade, this module is fully

interoperable with ADTRAN's IPsec VPN equipped NetVanta products: Ethernet Switches, Access Routers, and VPN/Firewall appliances, and other IPsec-compliant gateways.

For the novice user, the ADTRAN OS allows this module to be managed using a web-based graphical interface, and for the more experienced user, a standard Command Line Interface (CLI) that mimics the widely adopted, industry *de facto* standard. The sequence of commands to configure similar devices is almost identical therefore eliminating training cost associated to re-learning a new operating system or costly industry certifications. The CLI also allows for configuration scripts to be used, saved, and downloaded for quick and easy backups or as a recovery mechanism.

The TSU NetVanta Router Module offers a powerful solution when used in conjunction with additional voice and data modules available for the TSU Multiplexer family. Interfaces for analog voice, digital voice, subrate data, high-speed data, Basic Rate ISDN extension and 64k extension can be used in the same chassis with the router, without a change in software or hardware. This powerful combination of modularity and flexibility is unprecedented in the industry, and benefits both the end user seeking to consolidate costs, as well as the service provider seeking to consolidate services.

The TSU NetVanta Router Module is backed by an industry-leading, five-year North American warranty, and ADTRAN's world-class 24-hour technical support. With this module being one of more than 30 modules available, ADTRAN TSU Multiplexers are the T1 integrated access solution of choice.





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ADTRAN is an ISO 9001:2000 certified supplier.



ADTRAN is a TL 9000 3.0 certified supplier.

64202350L2-8A December 2004
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Product Specifications

Physical Interface

- Auto-sensing 10/100Base-T full duplex (RJ-45)
- Control Port (RJ-45)

Firewall

- Stateful Inspection Firewall
- Denial of Service (DoS) Protection
- NAT compatible SIP ALG

Quality of Service (QoS)

- Low Latency and Weighted Fair Queuing (WFQ)
- DiffServ Packet Marking and Recognition
- Frame Relay Fragmentation

Network Address Translation

- Basic NAT (1:1)
- NAT (Many:1)
- Application Level Gateways (ALGs)

DHCP

- Client and Server
- Relay

Management

- Familiar Command Line Interface (CLI)
- Web-based GUI
- SYSLOG logging
- Email alerts (SMTP)
- Access control policies
- SSH management
- RADIUS authentication
- Policy statistics

Routed Protocol

- IP
- Bridging (other protocols)

Routing Protocol

- BGP
- OSPF
- RIP
- Static

Optional Virtual Private Network (VPN)

IPSec Mode

- Tunnel

Encryption

- DES, 3DES, and AES

Hash Algorithms

- MD5-HMAC
- SHA1-HMAC

Diffie Hellman Group Support

- Group 1: MODP 768
- Group 2: MODP 1024

Authentication Mechanisms

- XAUTH
- Digital certificates
- Pre-shared keys

Key Management

- IKE (ISAKMP/Oakley)

IKE Modes

- Main
- Aggressive

Dead Peer Detection

NAT Traversal V2

Environment

- **Operating Temperature:** 0° to 50 °C (32° to 122 °F)
- **Storage Temperature:** -20° to 70 °C (-4° to 158 °F)
- **Relative Humidity:** Up to 95%, non-condensing

Agency Approvals

- FCC Part 15, Class A
- UL/CUL/IEC 60950
- EN 55022
- EN 55024
- EN 61000-3-2
- EN 6100-3-3

Physical

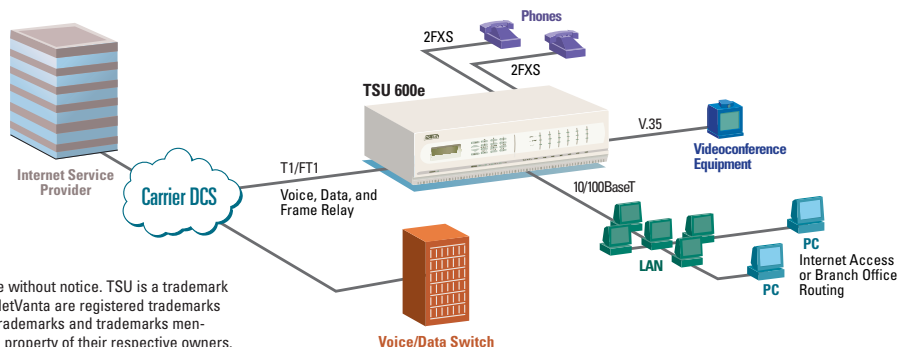
- **Standard TSU Expansion Module Form Factor:** Plug-in (accepts most plug-on modules)
- **Weight:** 1.5 lbs

Product Includes

- 6-foot Ethernet cable
- RJ-45 to DB-9 adapter
- Quick Start Guide
- Documentation CD

Ordering Information

Equipment	Part #
NetVanta TSU Router Module	
Standard Feature Pack	1202350L1
Enhanced Feature Pack	4202350L2
Enhanced Feature Pack Upgrade	1950860L2



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