



# NetVanta 6240

## IP Business Gateway

### Product Features

- Ideal for business trunking and hosted IP services that give your customers peace of mind to focus on their business, and not their network
- Seamless voice and data integration over VoIP-based network architectures
- Quad T1 and Ethernet IP Business Gateway
- Up to 24 analog POTS interfaces
- Compatible with industry leading softswitches and call agents
- Dynamic bandwidth allocation affords more efficient utilization
- Standardized G.729 voice compression requires less bandwidth per voice call
- Integral full-featured IP router for data support and Internet access
- Stateful inspection firewall for network security
- Quality of Service (QoS) for delay sensitive traffic like VoIP
- Supports 802.1q Virtual LAN (VLAN) Trunking
- Voice Quality Monitoring (VQM)
- Command Line Interface (CLI) mimics industry *de facto* standard
- Network Address Translation (NAT) for IP address concealment
- Feature-rich ADTRAN Operating System (AOS)
- Rugged metal case
- Optional battery backup
- Industry-leading five-year warranty

ADTRAN® offers a wide variety of solutions for converged voice/data services. The NetVanta 6240 Series of Multi-T1 IP Business Gateways are designed for carrier Ethernet and SIP/MGCP Voice over IP (VoIP) networks. These products feature all of the same robust routing and voice features of the widely deployed Total Access® IP Business Gateways, along with a host of new features and functions that enable cost effective, reliable IP service delivery. These devices use the AOS to simplify management and administration. Multiple models offer flexibility for varied applications from PRI delivery and trunking services to Hosted IP PBX offerings.

The NetVanta® 6240 Series offers up to four T1s. User interfaces include up to 24 FXS ports for analog voice delivery, up to ten FXO ports, and two 10/100Base-T Ethernet interface(s) for access to the NetVanta 6240 router or WAN access.

The NetVanta 6240 Series can be coupled with a NetVanta Power over Ethernet (PoE) switch to provide connectivity to a variety of network devices and personal computers, as well as to power IP phones and Wireless Access Points (WAPs).

### VoIP Gateway

The NetVanta 6240 Series utilizes SIP or MGCP for VoIP applications, providing interoperability with industry-leading softswitches, feature servers, and gateways. Acting as a gateway, these devices convert IP signaling from the carrier into traditional TDM analog and digital voice services. This functionality allows the NetVanta 6240 Series to deliver voice services to both IP phones and traditional telephony equipment simultaneously. For customers implementing a hosted PBX or IP Centrex service, the NetVanta 6240 Series is ideal for providing customers additional analog ports necessary to support their remaining analog phones, fax machines, or modems. The NetVanta 6240 Series supports many popular calling features such as caller ID, call hold, forward, transfer, and call waiting. Voice Activity Detection (VAD) and silence suppression are supported and the flexible design allows the NetVanta 6240 Series to support additional CODECs as the market requires.

### Remote Survivability

In addition, the NetVanta 6240 Series can act as a registrar and Back-to-Back User Agent (B2BUA) or as a SIP-transparent proxy to facilitate remote survivability and NAT traversal. In the event of a service interruption on the wide area network or if the carrier's call agent were to become unavailable, calls may continue locally at the customer premise between IP-based or analog phones.

### QoS, Security, Routing, and Voice Quality Monitoring

The NetVanta 6240 Series uses the AOS to provide a stateful inspection firewall; NAT; DHCP server/client; and feature-rich, standards-based, IP routing functionality supporting BGP, OSPF, and RIP routing protocols. Inherent QoS methods ensure appropriate classification and prioritization of VoIP traffic. These methods include Low Latency Weighted Fair Queuing; class based weighted fair queuing, support for Differentiated Services (DiffServ) protocol, Frame Relay Fragmentation (FRE12), and Frame Relay traffic shaping. VQM captures Mean Opinion Score (MOS), jitter, delay, and packet loss statistics necessary to troubleshoot VoIP calls over the WAN to help ensure superior call quality.

### Management

The NetVanta 6240 Series can be remotely managed by either the ADTRAN n-Command® MSP or n-Command Enterprise Edition management platforms. ADTRAN n-Command platforms offer the ability to discover devices, make mass configuration changes or firmware upgrades, backup/restore configuration, and generate inventory reports for asset management. The ADTRAN n-Command MSP also offers VoIP VQM and reporting, as well as an industry leading, easy-to-use, Graphical User Interface (GUI).

NetVanta 6240 products are housed in a rugged metal enclosure; available in wallmount, rackmount, and desktop mountings; and offer a battery backup system for up to eight hours of uninterrupted service upon a customer-site power outage. NetVanta 6240 products are backed by an industry leading five-year warranty, free firmware updates, and ADTRAN's world-class technical support.

## IP Business Gateway

### Product Specifications

#### Physical Interfaces

##### WAN

- Quad T1/FT1
- RJ-48C

##### LAN

- Dual auto-sensing 10/100Base-T
- Full duplex
- RJ-45
- May also be used as the WAN interface
- Supports 802.1q VLAN trunking

##### Digital Voice

- RJ-48C
- T1 CAS and PRI support
- Signaling Methods
- E&M Wink ■ E&M Immediate ■ Feature Group D

##### Analog Voice

- 8, 16, and 24 FXS POTS via 50-pin amphenol
- 68.5 Vrms with 20VDC offset maximum ring voltage
- Sinusoidal ringer waveform
- 48 V, nominal on-hook battery voltage
- 30 mA, nominal loop current
- **FXS 2-wire impedances**
  - 600 Ω  900 Ω
  - 600 Ω +2.16μF  900 Ω +2.16μF
- **FXO 2-wire impedances**
  - 600 Ω +2.16μF  900 Ω +2.16μF
- Integral 2 FXO (optional)
- Up to 10 FXO available (see ordering options)
- Signaling Methods
  - Loop Start  Ground Start

##### Craft

- DB-9

##### Processor and Memory

- **RAM:** 128 Mb RAM
- **Expandable RAM:** 512 Mb (optional)
- **Flash:** 128 Mb Flash

##### VoIP Protocol

- SIP
- MGCP (FXS interfaces only)

#### Packet-based Voice Resources

- CODECs
  - G.711-64k PCM  G.729ab-8k CS-ACELP
- G.168 Echo Cancellation
- Up to 64ms Echo-tail length
- Supports 30 or 60 Channels (see ordering options)
- Supports 30 or 60 T.38 sessions

#### Media Stream

- RTP/UDP/IP (RFC 3550)
- RTP payload for DTMF digits (RFC 2833/4733)
- Supports port-to-port hairpin call
- SDP (RFC 2327)

#### NAT Traversal and Remote Survivability

- B2BUA
- SIP Registrar for IP phones
- SIP transparent proxy with survivability

#### Tone Services

- Local DTMF Detection
- Local Tone Generation
  - Dialtone  Busy
  - Call Waiting  Alternate Call Waiting
  - Receiver Off Hook
- Ringing
  - Distinctive Ring

#### Calling Feature Support (varies with feature server/gateway)

- Caller ID
  - Name and Number (MDMF, SDMF)
  - Call Waiting IAD
- Voicemail
  - Stutter dialtone
  - Visual Message Waiting Indicator (VMWI)
- Call Hold
- Call Forward
  - Busy Line  No Answer
- Call Transfer
  - Blind, Attended
- Call Waiting
- Distinctive Ring
- Do Not Disturb
- Three-way Calling
- Call Return
- Speed Dial
- 3-way Conferencing (3WC)

## Security

### Firewall

- Stateful Inspection Firewall
- Denial of Service (DOS) Protection
- Access Control Lists
- Application Level Gateways
- Packet Filtering

### Network Address Translation

- Basic NAT (1:1) and NAT (Many:1)

### Quality of Service (QoS)

- Low Latency and Weighted Fair Queuing (WFQ)
- DiffServ packet marking and recognition
- Frame Relay Fragmentation
- Traffic Monitoring (NetFlow 9)

### Voice Quality Monitoring (VQM)

- Mean Opinion Score (MOS) prediction
- Jitter, Delay and Packet Loss
- Past and Active Calls

### Protocols

- BGP
- Multilink Frame Relay
- OSPF
- PPP
- RIP (v1 and v2)
- Multilink PPP
- GRE
- HDLC
- IGMP V2
- PAP and CHAP
- Frame Relay
- Multi-VRF

### Routed Protocols

- IP

### DHCP

- Client
- Relay
- Server

### Management and Utilities

- Familiar Command Line Interface (CLI)
- Web-based GUI (HTTP/HTTPS)
- n-Command support
- SNMP v2 and v3
- SYSLOG logging
- Telnet, Craft/Console Port, SSH, Ping, Trace route, NTP
- TCL Scripting

### Firmware Upgrade

- FTP
- X-Modem
- TFTP
- HTTP

### Environment

- **Operating Temperature:** 0° to 50 °C (32° to 122 °F)
- **Storage Temperature:** -20° to 70 °C (-40° to 158 °F)
- **Relative Humidity:** Up to 95%, non-condensing
- **Maximum Altitude:** 10,000 feet

### Physical and Power

#### Chassis

- Wallmount
- 1U Rackmount (rack units must be separated by 1U top and bottom)
- Desktop metal enclosure

#### Dimensions:

- NetVanta 6240 – 1.72" H x 17.25" W x 10.25"

#### Weight

- NetVanta 6240 – 6.5 lbs.

#### Power

- 120 VAC, 60 Hz AC Power Supply

#### Battery Backup

- Optional eight-hour system

#### LEDs

- Front
  - Status
  - Voice
  - Net 1–4
  - LAN 1–2
  - Power
- Back
  - Ethernet Link
  - Ethernet Activity
  - Link

### Agency Approvals

- FCC Part 15, Class A
- UL 60950-1
- CSA C22.2 No 950-95
- FCC Part 68
- Industry Canada CS03
- ETL and Canadian ETL (C-ETL)

### Warranty

- Five years (North America)

### Battery Backup Options

- Wallmount



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# NetVanta 6240



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## Ordering Information

Equipment	Part #
<b>NetVanta 6240 30 Channel DSP Options</b>	
NetVanta 6240 8 FXS	4740202G10
NetVanta 6240 8 FXS, 2 FXO	4740202G11
NetVanta 6240 16 FXS	4740204G10
NetVanta 6240 16 FXS, 2 FXO	4740204G11
NetVanta 6240 24 FXS	4740206G10
NetVanta 6240 24 FXS, 2 FXO	4740206G11
NetVanta 6240 16 FXS, 10 FXO	4740207G11

<b>NetVanta 6240 60 Channel DSP Options</b>	
NetVanta 6240 8 FXS	4740202G20
NetVanta 6240 8 FXS, 2 FXO	4740202G21
NetVanta 6240 16 FXS	4740204G20
NetVanta 6240 16 FXS, 2 FXO	4740204G21
NetVanta 6240 24 FXS	4740206G20
NetVanta 6240 24 FXS, 2 FXO	4740206G21
NetVanta 6240 16 FXS, 10 FXO	4740207G21

<b>NetVanta 6240 Battery Backup Systems</b>	
Eight hour, Wallmount	1175044L1
Eight hour, Wallmount with Hinged Battery Access door	1175044L2

<b>NetVanta Expandable Memory</b>	
512 Mb DDR2 Expandable Memory	1200829G1



Total Access Wallmount 1175044L1



Total Access Wallmount 1175044L2



TL19.1270



ADTRAN is an ISO 9001, ISO 14001, and a TL 9000 certified supplier.

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