

NetVanta 1544P

Layer 3 Gigabit Ethernet Switch



Product Features

- 28-port multi-layer Gigabit Ethernet aggregation switch
- 24-Gigabit Ethernet ports and four Small Form-factor Pluggable (SFP) optical ports
- Four enhanced 2.5 Gbps SFP ports
- 802.3af (PoE), 802.3at (PoE+) and Legacy Power over Ethernet (PoE)
- Non-blocking, up to 68 Gbps switching capacity
- Line rate Layer 2 and Layer 3 switching
- Static routes, RIP V1/V2, OSPF and Border Gateway Protocol (BGP)
- Desktop security audit
- DHCP network forensics
- Virtual Router Redundancy Protocol (VRRP)
- 802.1Q VLANs, Private VLANs and VLAN assignment via 802.1x
- Advanced Quality of Service (QoS) with support for 802.1p and DiffServ prioritization with four queues per egress port
- Automate actions with Port Scheduler and TCL scripting
- VoIP ready with LLDP/LLDP-MED and voice VLANs
- Business-class security with RADIUS, TACACS+, 802.1x and port security
- Optimized for iSCSI Storage Area Networks (SANs) solutions
- Wi-Fi® access controller for centralized management of Wireless Access Points (WAPs)
- Cable and SFP diagnostics provides easy to use troubleshooting tools for copper and fiber cable
- Familiar Command Line Interface (CLI) and Web-based Graphical User Interface (GUI)
- Next business day advance replacement
- Limited lifetime warranty

The NetVanta® 1544P is a managed, 28-port PoE, Layer 3, Gigabit Ethernet switch designed as an access layer or network backbone switch for Small to Medium-sized Enterprises (SMEs). With the combination of the advanced multilayer switching fabric, high-bandwidth capabilities, and enhanced QoS features, the NetVanta 1544P is ideal in Gigabit-to-the-desktop deployments, and converged voice and data networks.

Hardware

The NetVanta 1544P rackmount switch provides 28 Gigabit Ethernet ports, consisting of 24 fixed 10/100/1000Base-T Ethernet ports and four 2.5 Gbps SFP ports. Together the four SFP ports can provide up to 20 Gbps of bandwidth between interconnected NetVanta 1544P switches.

Multi-layer Switching

The NetVanta 1544P supports advanced multi-layer (Layer 2 and Layer 3) switching. It supports static routes, RIP V1/V2, OSPF, BGP and VRRP, allowing it to easily scale from small businesses to enterprise-sized networks.

Standards Protocols

Based on the ADTRAN® Operating System (AOS), this device supports Link Layer Discovery Protocol (LLDP) which auto-discovers neighboring Ethernet devices, simplifying integration into multi-vendor environments.

VoIP Ready

The NetVanta 1544P has been designed specifically for VoIP. The ability to automatically configure IP phones using LLDP-MED, and the ability to separate voice traffic onto voice VLANs, helps ease the deployment of VoIP.

Quality of Service

NetVanta switches also support QoS to prioritize mission-critical traffic like VoIP and control network congestion. The NetVanta 1544P offers 802.1p and DiffServ Class of Service (CoS). It also supports frame tagging, as well as enforcement of tagged traffic received from trusted sources. Four egress queues (per port) are available for assigning traffic priorities using Weighted Round Robin (WRR) and Strict Priority Scheduling.

PoE

The NetVanta 1544P provides up to 370 watts of 802.3af (PoE), 802.3at (PoE+) and Legacy PoE for powering IP phones, WAPs, and other devices requiring LAN power.

Supplemental PoE Power

When deployed with the NetVanta 1131 RPS/EPs unit, the NetVanta 1544P supports power redundancy as well as enhanced PoE. The NetVanta 1131's EPS output provides up to 370 watts of backup PoE for redundancy, and can also provide up to 370 watts of additional PoE, effectively doubling the available PoE budget (up to 740 watts).

Security

The NetVanta 1544P offers a variety of data security features including DoS protection, MAC-based port security, multilevel user passwords, Secure Shell (SSH) and Secure Socket Layer (SSL) for encrypted user login, and Access Authentication and Authorization (AAA) for authentication with RADIUS and TACACS+. With features such as 802.1x and port security, administrators can assure that only authorized users are allowed access to the network.

AOS also features desktop auditing using DHCP in conjunction with Microsoft® Network Access Protection (NAP) to monitor the health of client computers. The two protocols work together to ensure that systems connected to the network are using appropriate corporate policies, such as firewall settings and antivirus settings.

Port Scheduler

The NetVanta 1544P allows ports to be enabled or disabled based on time of day. This ability to schedule available ports allows for added security and can provide less power consumption during off hours saving on utility cost.

iSCSI Optimized

All ADTRAN NetVanta Gigabit Ethernet switches are optimized for iSCSI SANs deployments. Network administrators can take advantage of features such as Jumbo frame support (up to 13K), separation of iSCSI network traffic utilizing VLANs, and 802.3x flow control to seamlessly integrate ADTRAN switches with iSCSI SANs devices.

Administration

AOS offers both a CLI and an intuitive Web-based GUI with step-by-step configuration wizards. For automating setup and configuration, the NetVanta 1544P supports Auto-Config which provides the ability to automatically obtain the switch configuration via DHCP.

AOS also offers network forensics to aid in troubleshooting network problems by allowing network administrators to easily locate devices on the network by MAC or IP address.





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Product Specifications

Interfaces

- Ethernet Ports
 - 24 –10/100/1000Base-T
 - 4–1.0/2.5 Gbps SFP Ports
 - Auto Rate/Duplex/MDI/MDI-X
- Console Port
 - DB-9, RS-232

Switching Performance

- Non-blocking Layer 2/3 Switching

Maximum Forwarding Bandwidth

- 68 Gbps

Layer 2 Support

- 802.1D Spanning Tree
- 802.1w Rapid STP
- 802.3ad Link Aggregation
- 16,000 MAC Addresses
- Jumbo Frames (13K)
- 802.3x Flow Control

Layer 3 Support

- Static Routes
- RIP V1/V2
- OSPF
- BGP
- RRRP
- UDP Relay
- 128 Layer 3 Interfaces
- 1k ARP Entries
- 1k Unicast Routes
- IPv6 Management

Diagnostics

- Port Mirroring
- LLDP (802.1AB)
- Ping
- LLDP-MED
- Cable Diagnostics
- SFP Diagnostics
- Troubleshooting Page

Front Panel Status LEDs

- Power Status
- LAN: Link, Activity

Port Statistics

- Number of TX/RX Frames, Collisions, Errors

Quality of Service

- 802.1p and DiffServ
- Four Output Queues Per Egress Port
- WRR
- Strict Priority Scheduling

VLAN

- Port-Based VLANs
- 802.1Q Tagged Trunked VLANs
- Voice VLANs
- Private VLAN Edge
- Dynamic 802.1x Assigned VLANs
- Support for Up to 255 Active VLANs

Storm Control

- Broadcast, Unicast, and Multicast

PoE

- 802.3af (PoE) and 802.3at (PoE+) and Legacy PoE
- 370 Watts (Total)
- Extended PoE Budget up to 740W (when Connected to NetVanta 1131)

Administration

- CLI (Console/Telnet/SSH)
- SNMP V3
- Web-Based GUI (HTTP/SSL)
- SYSLOG
- n-Command® Support
- Email Alerts
- RADIUS
- TACACS+
- TCL Scripting
- Auto Config
- Port Scheduler
- DHCP Network Forensics

Security

- Port Authentication (802.1x)
- Port Security
- DoS Protection
- Hardware ACLs
- Microsoft Desktop Auditing

Wi-Fi Controller

- Controls Up to 24 NetVanta WAPS

Environment

- Operating Temperature: 32° to 122° F (0° to 45° C)
- Storage Temperature: -4° to 158° F (-20° to 70° C)
- Relative Humidity: Up to 95%, Non-condensing

Physical

- Chassis: 1U, 19 in. Rackmountable Metal Enclosure (Rackmount Brackets Included)
- Dimensions: 1.72 in. x 17.2 in. x 10 in. (H x W x D) (4.4 cm x 43.7 cm x 25.4 cm)
- Weight: 9.5 lbs. (4.3 kg)
- AC Power: 110–230 VAC, 50/60 Hz
- Power: 500 Watts, 4.9 A Max

Agency Approvals

- FCC Part 15 Class A, UL 1950/CSA, RoHS

Ordering Information

Equipment	Part No.
NetVanta 1544P Chassis	1702545G2
NetVanta 1000BaseSX SFP Transceiver	1200480E1
NetVanta 1000BaseLX SFP Transceiver	1200481E1
NetVanta 2.5 Gbps Multimode SFP Transceiver	1200482G1
NetVanta 2.5 Gbps Singlemode SFP Transceiver	1200483G1
NetVanta 1 Meter SFP Interconnect Cable	1200484G1
NetVanta 3 Meter SFP Interconnect Cable	1200484G3
NetVanta 1131 (RPS/EPS)	1700530F1
NetVanta 1131 RPS Cable	1700532F1
NetVanta 1131 EPS Cable	1700533F1

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TL19.1270



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61702545G2-8A August
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