

NetVanta 1544F

Fiber, Layer 3 Gigabit Ethernet Switch

Product Features

- 28-port multi-layer Gigabit Ethernet aggregation switch
- 24-standard Gigabit SFP ports and four enhanced SFP ports
- Enhanced SFP ports support standard 1 Gbps or 2.5 Gbps data rates
- Non-blocking, up to 68 Gbps switching capacity
- Line rate Layer 2 and Layer 3 switching
- Static routes, RIP V1/V2, OSPF and BGP
- VRRP
- Hardware ACLs
- 802.1Q VLANs, Private VLANs and VLAN assignment via 802.1x
- Advanced 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
- CompactFlash® slot for auto provisioning
- Wi-Fi® access controller for centralized management of NetVanta Wireless Access Points (WAPs)
- Familiar Command Line Interface (CLI) and Web-based Graphical User Interface (GUI)
- Limited Lifetime Warranty
- Next Business Day Advance Replacement

NetVanta® 1544F is a managed, 28-port, Layer 3, Gigabit Ethernet switch designed as an access layer or network backbone switch for small to medium-sized businesses. With the combination of the advanced multi-layer switching fabric, high-bandwidth capabilities, and enhanced Quality of Service (QoS) features, the NetVanta 1544F is ideal as an aggregation switch for high-bandwidth Voice over IP (VoIP), and converged voice and data networks.

Hardware

The NetVanta 1544F rackmount switch provides 28 Gigabit Ethernet ports, consisting of 24 standard 1 Gbps Small Form-factor Pluggable (SFP) Ethernet ports and four enhanced 2.5 Gbps SFP ports. The enhanced SFP ports support standard 1 Gbps up to 2.5 Gbps data rates. Together the four enhanced SFP ports can provide up to 20 Gbps of bi-directional bandwidth between interconnected NetVanta 1544 switches.

Multi-layer Switching

The NetVanta 1544F supports advanced multi-layer (Layer 2 and Layer 3) switching. It supports static routes, RIP V1/V2, OSPF, Border Gateway Protocol (BGP) and Virtual Router Redundancy Protocol (VRRP), allowing it to easily scale from small and medium-sized businesses to enterprise-sized customers.

Standards Protocols

Based on the ADTRAN® Operating System (AOS), this device offers support for Link Aggregation (802.3ad); Port Mirroring; port-based switching features including Broadcast Storm Control, Spanning Tree (802.1D) and Rapid Spanning Tree (802.1w) for faster network convergence, link redundancy, and recovery from topology changes. Link Layer Discovery Protocol (LLDP) auto-discovers neighboring Ethernet devices, simplifying integration into multi-vendor environments.

Virtual LANs (VLANs)

All NetVanta switches support 802.1Q trunking and up to 255 VLANs to allow network managers to separate broadcast domains for efficient network performance and traffic control. NetVanta 1544F also supports dynamic VLANs assigned via 802.1x. This is an ideal way to make sure users are automatically assigned to the correct VLAN, based on the login.

Private VLANs are also available to provide extra security by isolating upstream traffic from user ports.

VoIP Ready

NetVanta 1544F 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. NetVanta 1544F 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.

Security

Rest assured, with NetVanta 1544F your network is protected. This product offers a variety of data security features including 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, RSA SecurID and TACACS+. With features such as 802.1x and port security, administrators can assure that only authorized users are allowed access to the network.

Port Scheduler

NetVanta 1544F allows ports to be scheduled, or turned on or off based on time of day. This ability to schedule available ports allows for added security.

Administration

AOS offers both a CLI that mimics the widely deployed, industry *de facto* standard and an intuitive Web-based GUI with step-by-step configuration wizards. For automating setup and configuration, NetVanta 1544F also supports features like Auto-Provisioning which allows automatic configuration scripts to be run from the integrated CompactFlash slot and Auto-Config which provides the ability to automatically obtain the switch configuration via DHCP.





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61700546G1#120 November
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Product Specifications

Physical Interfaces

Ethernet Ports

- 24 -10/100/1000 Mbps SFP Ports
- 4-1 Gbps/2.5 Gbps SFP Ports

Console Port

- DB-9, RS-232

Switching Performance

- Non-blocking Layer 2/3 Switching
- **Jumbo Frames:** Supports Frames up to 13k Bytes

Maximum Forwarding Bandwidth

- 68 Gbps

Layer 2 Support

- 802.1D Spanning Tree
- 802.1w Rapid STP
- 802.3ad Link Aggregation
- 16,000 MAC Addresses

Layer 3 Support

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

Diagnostics

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

Front Panel Status LEDs

- Power Status
- LAN: Link, Activity

Port Statistics

- Number of TX/RX Frames
- Number of Collisions
- Number of Errors

Quality of Service

- 802.1p and DiffServ
- Four Output Queues per Egress Port
- Weighted Round Robin (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

Administration

- CLI (Console/Telnet/SSH)
- Web-based GUI (HTTP/SSL)
- n-Command[®] Support
- RADIUS
- FLASH Provisioning
- TCL Scripting
- SNMP v3
- SYSLOG
- Email Alerts
- TACACS+
- Auto Config
- Port Scheduler

Network Access Control

- Port authentication (802.1x)
- Port Security

Wi-Fi Controller

- Controls up to 24 NetVanta WAPS

Environment

- **Operating Temperature:** 32° to 122° F (0° to 50° 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
- **Dimensions:** 1.7 in. x 17.2 in. x 9.2 in. (4.3 cm x 43.7 cm x 23.4 cm) (H x W x D)
- **Weight:** 6.0 lbs. (2.7 kg.)
- **AC Power:** 100–130V, 50/60 Hz
- **Power:** 80 Watts

Agency Approvals

- FCC Part 15 Class A, UL 1950/CSA, CE Mark, C-tick, RoHS

Ordering Information

Equipment	Part No.
NetVanta 1544F	1700546G1#120
<i>SFP Transceivers</i>	
NetVanta 1000BaseSX	1200480E1
NetVanta 1000BaseLX	1200481E1
NetVanta 10/100/1000Base-T	1200485G1
NetVanta 2.5Gbps Multimode	1200482G1
NetVanta 2.5Gbps Singlemode	1200483G1
<i>Interconnect Cables</i>	
NetVanta 1 Meter SFP	1200484G1
NetVanta 3 Meter SFP	1200484G3

