

1760 Series

Multi-Gigabit Fiber Aggregation Switches

10

Gbps



Fiber

\$

Low TCO



Benefits

- 8 and 12 10G Fiber SFP+ Ports
- Up to Two SFP28 Ports With Support for 25 Gbps
- RJ-45 Console Port and Micro USB Port for Management
- Non-Blocking Layer 2 and Layer 3 Switching Capacity Up to 340 Gbps
- Fully Managed (Web GUI, CLI, SNMP)
- Feature-Rich Adtran Switching Engine (ASE) for Enterprise Ethernet Switching
- Supports 802.1q VLANs and Trunking, STP, and IGMP
- Supports ERPS for High-Level Redundancy and Uptime Protection
- Advanced Smart Switching Features (ACLs, L2/L3/L4 DiffServ, QoS Policies, LACP Link Aggregation, Broadcast Control, and Denial of Service Protection)
- Port Queue-Level Policing and Shaping

Overview

The NetVanta 1760 Series of multi-gigabit aggregation/access switches delivers high performance for today's most bandwidth-intensive applications. The NetVanta 1760 Series includes two platforms: The NetVanta 1760-12F supporting 12 multi-rate 10G SFP+ ports and two multi-rate SFP28 25G ports, while the smaller NetVanta 1760-8F supports eight multi-rate 10G SFP+ ports and two multi-rate RJ-45 10G ports, each with USB and RJ-45 console ports. For mission-critical applications where shutting down a system cannot be allowed, the NetVanta 1760-12F supports a hot-swappable Dual AC power supply.

Layer 3 Switching

These switches offer full Layer 2 and Layer 3 switch capabilities, including static and dynamic routing with RIP (v1 & v2) and OSPF (v2 & v3).

Security

NetVanta 1760 Series switches offer a variety of data security features including MAC-based port security, 802.1x port authentication, multilevel user passwords, Secure Shell (SSH), ARP Inspection, and Secure Socket Layer (SSL) for encrypted user login. Additionally, these switches support Authentication, Authorization, and Accounting (AAA) for authentication with RADIUS and TACACS+. For added security and segmentation, the NetVanta 1760s support full IEEE 801.q VLANs for VLAN trunking and Voice VLANs.

Redundancy and Convergence

These switches support common Ethernet protocols like Spanning Tree, Rapid Spanning-Tree, Multiple Spanning Tree, and for even faster convergence, the G.8032 Ethernet Ring Protection Switching (ERPS). ERPS delivers subsecond failover capabilities to enterprise networks while ensuring interoperability based on a universal ITU specification.

Administration

The Adtran switch engine offers both a CLI and an intuitive Web-based GUI. To automate setup and configuration, NetVanta 1760 switches enable DHCP out of the box that provides the ability to discover and provision the switch configuration. Tools such as network forensics, cable, and SFP diagnostics simplify troubleshooting.

NetVanta 1760s can be remotely managed by the Adtran n-Command® MSP platform. Adtran n-Command offers the ability to discover devices, make mass configuration changes or firmware upgrades, backup/restore configurations, and generate inventory reports for asset management.

1760 SERIES

Product Specifications

Physical Interfaces

Ethernet Ports

- NetVanta 1760-8F:
 - 8 – Multi-rate SFP+ Ports (100M/1G/2.5G/5G/10G)
 - 2 – Multi-rate RJ-45 Ports (100M/1G/2.5G/5G/10G)
- NetVanta 1760-12F:
 - 12 – Multi-rate SFP+ Ports (100M/1G/2.5G/5G/10G)
 - 2 – Multi-rate SFP28 Ports (1G/2.5G/5G/10G/25G)

Console Port

- RJ-45
- Micro USB

Switching Performance

- NetVanta 1760-8F:
 - Forwarding Performance: 148.809Mpps
 - Switching Performance: 200Gbps
- NetVanta 1760-12F:
 - Forwarding Performance: 252.876Mpps
 - Switching Performance: 340Gbps
- Non-blocking Layer 2/3 Switching
- 32,000 MAC addresses
- 4,000 VLANs

Layer 2 Support

- 802.1q VLAN switching and Trunking
- 802.1d Spanning Tree
- 802.1w Spanning Tree
- 802.1s Multiple Spanning Tree
- ELPS G.8031
- ERPS G.8032 and G.8032 v2
- 802.3ad Link Aggregation
- Jumbo Frames (10240)
- IGMP v1/v2/v3 Snooping/Querier/Proxy
- MLD v1/v2 Snooping
- 802.3x Flow Control
- GVRP/MRP/MVRP
- Loop Protection Layer 3 Support

Layer 3 Support

- DHCP Server
- DHCP Relay
- UPnP
- RIP v1 & v2
- OSPF v2 & v3
- 2000 ARP Entries
- Route Table
 - IPv4 Routes 18K
 - IPv6 routes 9K

Diagnostics

- Port and Flow Mirroring
- Uni Directional Link Protection
- LLDP (802.1ab)
- LLDP-MED
- Ping, Traceroute
- sFlow
- Cable Diagnostics

Front Panel Status LEDs

- System
- LAN: Link, Activity

Quality of Service

- 802.1p, Drop Precedence Level, DSCP, Priority
- Code Point
- Eight Hardware Queues per Port
- Classification and Remarking ACLs
- Strict Priority Scheduling
- Weighted Round Robin (WRR)
- Policing and Shaping Per Port
- 802.1x Port- and Queue-based
- QoS Control List
- Drop Eligible Indicator
- Ingress and Egress Maps
- Storm Policing

VLAN

- 4K VLANs Simultaneously
- Port-based VLANs
- 802.1Q Tagged Trunked
- VLANs
- Voice VLANs
- MAC-based VLAN
- Management VLAN
- Q-in-Q VLAN
- Private VLANs
- Protocol-based VLAN

Security

- 802.1x Port Authentication
- L2 VLAN Client Isolation
- Port Security
- IP Source Guard
- RADIUS/TACACS+
- DoS Protection
- DHCP Snooping
- Hardware ACLs
- Users and Privilege Levels
- ARP Inspection

Administration

- CLI (Console/Telnet/ SSH)
- SNMP v1,v2c,v3
- Web-based GUI
- Dual image
- SYSLOG
- RMON
- sFlow
- RADIUS
- TACACS+
- NTP
- n-Command Support

Environment

- Operating Temperature: 32° to 122°F (0° to 50°C)
- Storage Temperature: -40° to 158°F (-20° to 70°C)
- Relative Humidity: Up to 95%, Non-condensing

Physical and Power

- NetVanta 1760-8F:t
 - Chassis: 1U Metal Enclosure
 - Mount: Desktop, Wall, and Rack
 - Dimensions: 1.73 in. x 8.66 in. x 9.56 in. (4.4 cm x 22 cm x 24.3 cm) (H x W x D)
 - Weight: 4.4 lbs (2.0 Kg)
 - Voltage: 100-250 VAC, 50/60 Hz
 - Max Power: 170 Watts
- NetVanta 1760-12F
 - Chassis: 1U Metal Enclosure
 - Mount: Desktop, Wall and Rack
 - Dimensions: 1.73 in. x 17.40 in. x 11.81 in. (4.4 cm x 44.2 cm x 30.0 cm) (H x W x D)
 - Weight: 8.6 lbs (3.9 Kg)
 - Voltage: 100-250 VAC, 50/60 Hz
 - Max Power: 170 Watts

Agency Approvals

- CB (IEC 62368-1)
- UL (UL 62368-1)
- FCC
- CE/EMC
- EN 300 386

Warranty

- Limited Lifetime Warranty



NetVanta 1760-12F: Front



NetVanta 1760-12F: Back



NetVanta 1760-8F: Front

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Ordering Information

Equipment	Part No.
Chassis	
NetVanta 1760-8F	17101762F1
NetVanta 1760-12F	17101763F1
SFPs	
1000Base-SX 850nm SFP	1200480E1
1000Base-LX 1310nm SFP	1200481E1
1000BaseT Copper SFP	1200485G1
2.5 Gbps Multimode SFP	1200482G1
2.5 Gbps Singlemode SFP	1200483G1
10G Base-SR 850nm SFP+	1700485F1
10G Base-LR 1310nm SFP+	1700486F1
25GBase-SR SFP28	1700487F1
25GBase-LR SFP28	1700488F1
Interconnect Cables	
SFP28 (1 meter)	1700489F1
SFP+ (1 meter)	1710484F1
SFP+ (3 meter)	1710484F3
SFP+ (5 meter)	1710484F5
Power Supply	
1760-12F Power Supply	17101760PF1
Brackets	
19" Rackmount Bracket – 8 Port	1700518F1
19" Rackmount Bracket – 24/48 Port	1700519F1
Wallmount Bracket – 24 Port	1700520F1

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