NetVanta 1535P
Layer 3 Lite Gigabit Ethernet Switch with ActivReach Ethernet

Product Features

- **28-port multi-layer Gigabit Ethernet switch**

- **24 10/100/1000Base-T or ActivReach Ethernet and four SFP optical ports**

- **Two standard 1 Gbps SFP ports and two enhanced 2.5 Gbps SFP ports**

- **802.3af (PoE), Legacy PoE, and PoE over ActivReach**

- **Non-blocking, up to 62 Gbps switching capacity**

- **Layer 2 and Layer 3 Lite capabilities**

- **Desktop security audit**

- **DHCP network forensics**

- **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**

- **iSCSI optimized for Storage Area Networks (SANs) solutions**

- **Wi-Fi access controller for centralized management of NetVanta Wireless Access Points (WAPs)**

- **Cable and SFP diagnostics provides easy to use troubleshooting tools for copper and fiber cable**

- **Familiar CLI and Web GUI**

- **Next business day advance replacement**

- **Limited Lifetime Warranty**

The NetVanta® 1535P is a managed, 28-port PoE, Layer 3 Lite, Gigabit Ethernet switch with ActivReach Ethernet technology designed for ease-of-deployment, as well as fast, secure, cost-effective Local Area Network (LAN) switching. Through its innovative design, the NetVanta 1535P allows for ultimate flexibility utilizing standard 10/100/1000Base-T Ethernet or ActivReach Ethernet for PoE and connectivity in a variety of cabling environments. In addition, this scalable, full-featured business-class switch was designed with Voice-over-IP (VoIP) applications in mind with the ability to supply Legacy Power over Ethernet (PoE), 802.3af (PoE), or PoE over ActivReach to power IP phones, as well as Gigabit-to-the-desktop deployments. Experience the ease of management with an easy-to-use Web-based Graphical User Interface (GUI) and familiar Command Line Interface (CLI).

ActivReach Ethernet Technology
In addition to standard 10/100/1000Base-T capabilities, the NetVanta 1535P features ADTRAN's ActivReach Ethernet technology which allows speeds of 10/100 Mbps native Ethernet over voice-grade copper and over significant distances. Configurable per-port, ActivReach Ethernet is capable of delivering up to 15.4 W of PoE, as well as 10/100 Mbps of full-duplex link connectivity utilizing four-pair, two-pair or even a single-pair of CAT3 or higher cabling at distances of up to 1,600 feet. With ActivReach, the NetVanta 1535P is designed to easily deploy cutting-edge VoIP and UC technologies utilizing a building's existing voice-grade wiring. In addition, with speeds up to 100 Mbps, ActivReach Ethernet also provides an extremely cost-effective means for desktop connectivity where CAT5 cabling does not already exist.

Hardware
The NetVanta 1535P rackmount switch provides 28 Gigabit Ethernet ports, consisting of 24 fixed ports capable of 10/100/1000Base-T Ethernet or ActivReach Ethernet and four Small Formfactor Pluggable (SFP) ports.Together the four SFP ports can provide up to 14 Gbps of bandwidth between interconnected NetVanta 1535P switches. When using ActivReach mode, a Media Converter is used at the end-point to terminate ActivReach Ethernet and convert it to standard 10/100Base-T Ethernet and 802.3af (PoE) or Legacy PoE on the device-side. The Media Converter is powered using ActivReach and requires no external power supply.

Multi-layer Switching
The NetVanta 1535P supports advanced multilayer (Layer 2 and Layer 3 Lite) switching with up to 16 static routes allowing it to easily scale from SMBs to enterprise-size 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 1535P 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.

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Quality of Service

NetVanta switches also support QoS to prioritize mission-critical traffic like VoIP and control network congestion. The NetVanta 1535P 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 1535P provides standards-based 802.3af (PoE) and Legacy PoE for powering IP phones, Wireless Access Points (WAPs), or other devices requiring LAN power. In addition, PoE over ActivReach is supported to power devices over voice-grade cabling and over greater distances when used with the ActivReach Media Converter.

Security

Rest assured, with the NetVanta 1535P your network is protected. This product 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 be assured 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 1535P allows ports to be enabled or disabled based on time of day. This ability to schedule available ports allows for added security and reduces power consumption during off hours saving on utility cost.
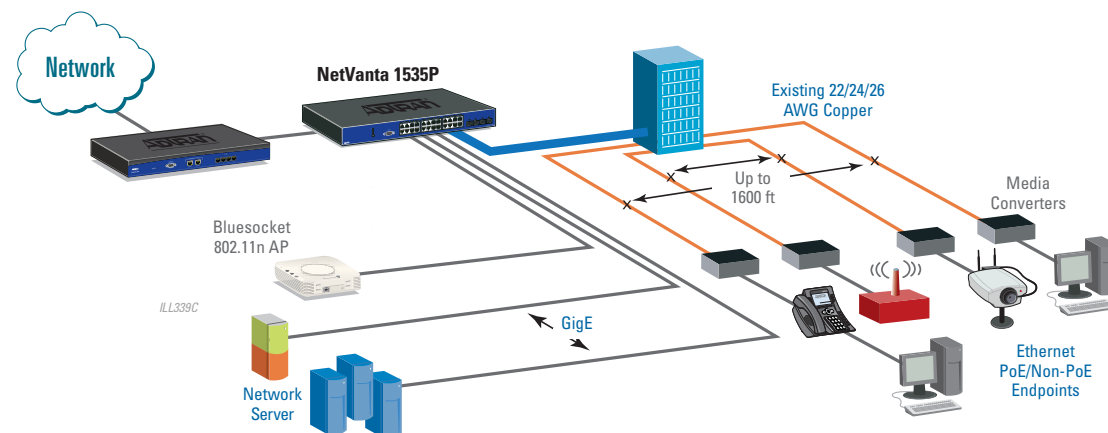
iSCSI Optimized

All ADTRAN NetVanta Gigabit Ethernet switches are optimized for iSCSI Storage Area Networks (SANs) deployments. Network administrators can take advantage of features such as Jumbo frame support (up to 9K), 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 Command Line Interface (CLI) that mimics the widely deployed, industry *de facto* standard and an intuitive Web-based Graphical User Interface (GUI) with step-by-step configuration wizards. For automating setup and configuration, the NetVanta 1535P supports Auto-Config which provides the ability to automatically obtain the switch configuration via DHCP.

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

Network

NetVanta 1535P

Existing 22/24/26 AWG Copper

Up to 1600 ft

Media Converters

Bluesocket 802.11n AP

ILL339C

GigE

Network Server

Ethernet PoE/Non-PoE Endpoints

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Product Specifications

Physical Interface

Ethernet Ports
- 24 –10/100/1000Base-T or ActivReach Ethernet
- 2–Standard 1 Gbps SFP ports
- 2–Enhanced 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
- 62 Gbps

Layer 2 Support
- 802.1D Spanning Tree
- 802.1w Rapid STP
- 802.3ad Link Aggregation
- 8,000 MAC Addresses
- Jumbo Frames (9K)
- IGMP Snooping
- 802.3x Flow Control

Layer 3 Support
- 16 Static Routes
- 8 Layer 3 Interfaces
- UDP Relay
- 225 ARP Entries
- IPv6 Management

Diagnostics
- Port Mirroring
- LLDP (802.1AB)
- 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
- 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

ADTRAN®

TL9000
TL19 1270

TL 9000
TELECOMMUNICATIONS
ISO 9001:2000
QUALITY
ISO 14001
ENVIRONMENT

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

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Product Specifications

Storm Control
- Broadcast, Unicast, and Multicast

PoE
- 802.3af (PoE), Legacy PoE, and PoE over ActivReach
- 370 Watts (Total)

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 Forensics
- DHCP Network

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 °F to 122 °F (0 °C to 50 °C)
- **Storage temperature:** -4 °F to 158 °F (-20 °C to 70 °C)
- **Relative humidity:** Up to 95% non-condensing

Physical
NetVanta 1535P Chassis
- **Chassis:** 1U, 19" Rackmountable Metal Enclosure
- **Dimensions:** 1.7 in x 17.2 in x 12.8 in (H x W x D) (43 mm x 437 mm x 325 mm)
- **Weight:** 9.5 lbs (4.3 kg)
- **AC Power:** 110-230 VAC, 50/60 Hz
- **Power:** 500 Watts, 4.9 A Max

ActivReach Media Converter

Environment
- **Operating temperature:** 32 °F to 104 °F (0 °C to 40 °C)
- **Storage temperature:** -4 °F to 158 °F (-20 °C to 70 °C)
- **Relative humidity:** Up to 95% non-condensing

Physical
- **Dimensions:** 2.1 in x 3.6 in x 1.2 in (H x W x D) (53 mm x 92 mm x 31 mm)
- **Weight:** 3.52 oz (0.1 kg)
- **Power:** 1.8 W (ActivReach only) Agency

Agency Approvals
- FCC Part 15 Class A and B, UL 1950/CSA, RoHS

Ordering Information

Equipment	Part No.
NetVanta 1535P	**1702595G10**
NetVanta ActivReach Media Converter	**1702595G12**
NetVanta 36" Hydra Cable (for 10 Mbps applications)	**1702595G14**
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**