

# NETVANTA 1235P/1535P

## with ActivReach

The NetVanta 1235P/1535P family of switches with ActivReach technology deliver voice, data, video and Power over Ethernet (PoE) over all grades of cabling—CAT5, CAT3 or even legacy copper. The NetVanta 1235P and 1535P switches with ActivReach enable fast, secure and cost-effective (pay as your growth) Local Area Network (LAN) deployments.

Through their innovative design, the NetVanta 1235P and 1535P support standard IEEE Ethernet or ActivReach for voice, data and PoE connectivity in a variety of cabling environments. In addition, these full-featured business-class switches were designed with Voice over IP (VoIP) applications in mind with the ability to supply Legacy PoE, 802.3af (PoE), or PoE over ActivReach to power IP phones, as well as Gigabit-to-the-desktop deployments (NetVanta 1535P).

### ActivReach Technology

ADTRAN's ActivReach technology allows speeds of 10/100 Mbps native Ethernet over voice-grade copper and over extended distances. Configurable per-port, ActivReach 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, businesses can benefit from VoIP and UC technologies utilizing a building's existing voice-grade wiring. In addition, with speeds up to 100 Mbps, ActivReach also provides a cost-effective means for desktop connectivity where CAT5 cabling does not already exist.

### VoIP Over Voice-Grade Wiring

When businesses decide to upgrade their voice infrastructure from analog or digital hand-sets to Voice over IP (VoIP), many considerations must be made. For many businesses, the risk of a converged voice and data network is simply too great and IT managers are forced to run new cable to enable VoIP and cutting-edge Unified Communications (UC). ActivReach provides the ability to deliver 10/100 Mbps Ethernet and PoE at distances up to 488 meters (1,600 feet), taking advantage of the existing cable plant infrastructure to deliver flawless voice quality over longer distances without impacting the existing data network.

### Voice, Data and PoE Over a Single Twisted-Pair

In many older office buildings, retail stores, hotels, hospitals and distribution facilities, the only cabling plant infrastructure is CAT3 cabling primarily used for legacy phone systems. The cost to upgrade this infrastructure to CAT5 can cost \$150 - \$250 per drop. ActivReach provides an alternative to costly cabling upgrades. With bi-directional networking speeds of up to 100 Mbps, ActivReach is the only technology that can provide data networking speeds over existing voice-grade wiring. In addition, with the ability to power IP phones, apply QoS policies to properly prioritize voice traffic, and separate voice and data traffic across multiple VLANs, the NetVanta 1235P and 1535P switches provide the ability to deploy a complete solution for voice and desktop connectivity.

### KEY FEATURES

- 24-port multi-layer, Fast Ethernet and Gigabit switches
- Extends Ethernet reach over one, two, or four-pair of voice-grade cabling at distances up to 1,600 ft
- 802.3af (PoE), Legacy PoE, and PoE over ActivReach
- Line rate Layer 2 and Layer 3 Lite capabilities
- "Voice aware" with VoIP Setup Wizard, advanced QoS features and LLDP/LLDP-MED support
- Business-class security with RADIUS, TACACS+, 802.1x and port security
- Choice of Wall Plate or Standard Media Converters

### APPLICATIONS

- VoIP over voice-grade (CAT3) cabling
- Converged voice, data and POE over CAT3 cabling
- Gigabit to the desktop deployments
- Single cable, multiple ports
- Extended reach deployments



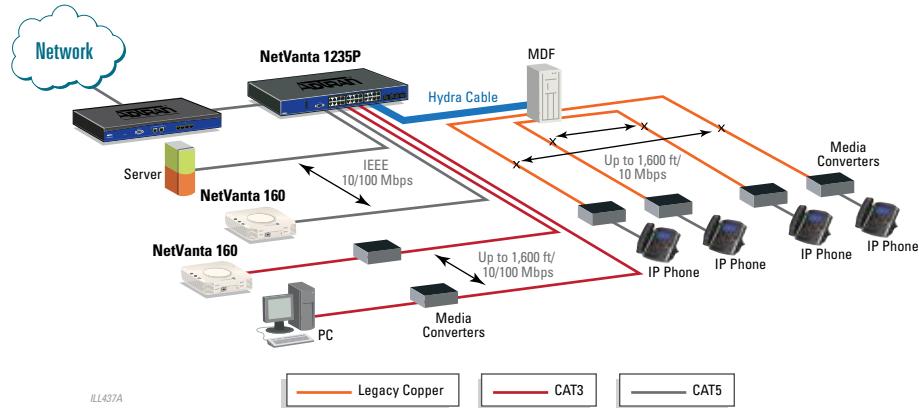
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## Upgrade to Gigabit to the Desktop

The NetVanta 1535P is a true L2/L3-lite Gigabit switch, which provides the ability to deploy a converged voice and data network over existing CAT3 cabling in addition to providing an easy upgrade path to Gigabit networking speeds without the need to change the hardware. Each Ethernet port can be configured for ActivReach Ethernet speeds of 10/100 Mbps in ActivReach mode or standard IEEE 10/100/1000Base-T Ethernet. Therefore, infrastructure upgrades can be performed incrementally and the same switch port—previously configured for ActivReach—can be configured to provide 10/100Base-T or 10/100/1000Base-T standard IEEE Ethernet once new cabling is put in place, thereby maximizing total cost of ownership (TCO).

## Single Cable, Multiple Ports

With ActivReach technology, another possibility becomes a reality. Over certain distances, it is possible to split the individual pairs within a multi-pair CAT3 or CAT5 cable to run PoE and data over each individual pair. Thus, a single CAT5 100 Mbps uplink with PoE can become four 100 Mbps uplinks with PoE. In this scenario, cost is minimized considerably since no new cabling has to be put in place and the only additional hardware needed are ActivReach Media Converters.

## Support Extended Reach Deployments

When deploying a brand-new network or performing a network upgrade, it is not uncommon to come across situations that require cabling longer than the 100 meters (328 feet) supported by standard IEEE Ethernet today. Having only one or two of these types of endpoints hardly justifies the cost of an additional business-class switch and networking infrastructure to support. With ActivReach, businesses can connect extended reach endpoints up to a distance of 1,600 feet (488 meters) delivering 10/100 Mbps throughput and PoE. ActivReach can be disabled per port. This allows the NetVanta 1535P, a true 24-port Gigabit Ethernet switch, to deliver gigabit speeds to the majority of endpoints within 100 meters of the switch and enable ActivReach for the few long-distance endpoints that need a high-speed (up to 100 Mbps) uplink.

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