

DELL™ POWERCONNECT™ 3500 SERIES SWITCHES



Dell PowerConnect 3524 and 3548 stackable Fast Ethernet switches offer advanced management and security features for high-performance workgroup connectivity.

RACK-DENSE WIRE-SPEED PERFORMANCE

The PowerConnect 3500 series is a family of four 24- and 48-port Fast Ethernet Layer 2 switches. These Layer 2 switches deliver resilient stacking, advanced security, enterprise-class management features and Power-over-Ethernet (PoE, 3524P and 3548P only). These Dell-designed switches deliver impressive switching capacities of up to 12.8 Gbps (3524 and 3524P) and 17.6 Gbps (3548 and 3548P). The 3500 series can be deployed in a wide number of different network deployment scenarios, including Fast Ethernet edge client connectivity and wiring closet deployments. Because these switches adhere stringently to industry standards, they can be deployed with other industry-standard compliant networking devices, from security appliances to routers and even to other switches. Each rack-mountable switch is 1U high and delivers a high-performance rack-dense switching solution.

EASY, POWERFUL MANAGEMENT

PowerConnect 3500 series switches support a number of industry-standard management interfaces such as web-based management, Command Line Interface (CLI), LLDP, LLDP-MED, and Simple Network Management Protocol (SNMP v1/v2c/v3). For large network environments, Dell's OpenManage™ Network Manager provides management control to help configure large numbers of deployed switches more easily. This powerful application is included at no additional charge with our managed switches and provides one-to-many configuration changes, trap/event monitoring, network discovery, topological mapping and many other features to assist you in managing your network.

ROBUST SECURITY

Advanced security features of PowerConnect 3500 series switches help protect the network from accidental or malicious interference. The switches' IP and MAC-based Access Control Lists (ACLs) are designed to prevent unauthorized MAC addresses from accessing the network. SNMPv3, SSL, and SSH encryption offer the added security of encrypting switch management traffic. RADIUS and TACACS+ support enables centralized, remote authentication of administrative access to the switch. Management access filtering provides a mechanism to limit network hosts that have access to the switches using a wide array of options, such as MAC address, IP address, and VLAN. Edge authentication using IEEE 802.1x provides a meaningful security solution which is centralized and easier to manage than standard ACLs. Now, users can be added to a RADIUS database and allowed access to the network. Those who do not have proper credentials will not have access to the network. The 3500 series also supports DHCP snooping for DCHP protection.

ADVANCED SWITCHING FEATURES

The PowerConnect 3524 and 3548 switches support a variety of standards-based advanced switching features, allowing a network administrator to optimize traffic flow in the network. Up to 256 VLANs are supported, helping to enable limitation of broadcast domains as well as improved network security. Network traffic prioritization is a key requirement for deploying emerging applications like videoconferencing and Voice-over-IP. These switches support the industry-standard IEEE 802.1p protocol and prioritize traffic based upon Layer 2 and Layer 3 information. Other advanced features include port mirroring, dynamic link aggregation (LACP), STP, IP multicast support, and dedicated voice VLAN support for voice-centric environments. These capabilities help increase deployment flexibility, better enable VoIP deployments, and help protect networking infrastructure investments.

POWER-OVER-ETHERNET

The PowerConnect 3524P and 3548P offer Power-over-Ethernet capabilities to power network-attached devices, such as wireless LAN access points, VoIP handsets, video cameras, and badge readers that are compliant with the IEEE 802.3af standard. With a tremendous 470W of power available to the switch for switching and PoE operations, both switches can provide up to 15.4W of power per port simultaneously (3548P requires EPS-470 for full 15.4W per port for all ports). An extended power supply, the EPS-470, can be connected to the switch to provide two basic but important functions. Whenever the switch power system is functioning properly, the EPS-470 will load share the power so that the full 15.4W of power per port can be provided to all ports. It also serves as a redundant power supply in the unlikely event that the main power supply should fail. With this new industry-standard PoE capability, Dell's PowerConnect switches can connect you to the power.

HIGH AVAILABILITY

The PowerConnect 3500 series offers several high availability features to meet enterprise networking needs. The switches can be resiliently stacked together to provide a highly available solution that can help the network survive a switch failure within the stack. The stack of switches consists of a master and backup switch that are continuously synched together so that a failure of the master unit or any other switch will not adversely affect the performance or connectivity of the other stacked switches. Multiple Spanning Tree Protocol and Rapid Spanning Tree Protocol support help reduce network setup time and improve network availability. These industry standard protocols help provide rapid reconvergence in the event of network outages even across large networks with many VLANs.

DELL GLOBAL SERVICES

Dell brings absolute execution to IT Services. The planning, implementation and maintenance of your IT infrastructure deserves nothing less. Variability in execution can compromise user productivity, IT resources, and ultimately, your reputation. By leveraging our heritage of process-driven excellence, Dell Services can deliver a smarter way. We don't claim to do everything. We focus on IT infrastructure services. And we take a customer-led approach, grounded in the philosophy that you know your business better than anyone.

That's why Dell does not try to take key business decisions out of your hands, or lock you into more than you need. Instead, we deliver what customers today most need — flexibility and repeatable quality. That's absolute execution. That's Dell.

Assessment, Design and Implementation Services

IT departments are continually challenged to evaluate and implement new technologies. Dell's assessment, design and implementation services can enhance performance and scalability while helping to maximize your return on investment and minimize disruption to your business.

Deployment Services

System deployment is a necessary evil that plagues nearly every organization. You must deploy new systems to help improve performance and meet user demand. With Dell's deployment services, we help simplify and speed up the deployment and utilization of new systems to maximize uptime throughout your IT environment.

Asset Recovery and Recycling Services

Proper disposal, reselling and donation of computer equipment is a time-consuming task that typically falls to the bottom of many IT to-do lists. Dell simplifies the end of life processes for IT equipment in a way that can maximize value for customers.

Support Services

Our Support services offer proactive maintenance to help prevent problems as well as rapid response and resolution of problems when they do occur. We have built a robust global infrastructure that offers multiple levels of enterprise support for systems throughout your infrastructure.

To help you get the most from your Dell systems, visit www.dell.com/services.

Services vary by region.

FEATURES	DELL™ POWERCONNECT™ 3524 AND 3524P	POWERCONNECT 3548 AND 3548P
Port Configuration	24 10/100BASE-T ports; 2 RJ-45 10/100/1000BASE-T ports (supports resilient stacking); 2 SFP slots for fiber media support; Auto-negotiation for speed, duplex mode and flow control; Auto MDI/MDIX Port mirroring; Broadcast storm control; PoE feature; Virtual Cable Tester™	48 10/100BASE-T ports; 2 RJ-45 10/100/1000BASE-T ports (supports resilient stacking); 2 SFP slots for fiber media support; Auto-negotiation for speed, duplex mode and flow control; Auto MDI/MDIX Port mirroring; Broadcast storm control; PoE feature; Virtual Cable Tester™
Performance	Switching capacity 12.8 Gbps; Forwarding rate 9.5 Mpps; Up to 8,000 MAC addresses	Switching capacity 17.6 Gbps; Forwarding rate 13.1 Mpps; Up to 8,000 MAC addresses
Management	Web-based management interface; Industry-standard CLI accessible via Telnet or Local Serial Port; SNMPv1, SNMPv2c and SNMPv3 supported; four RMON groups supported (history, statistics, alarms, and events); TFTP transfers of firmware and configuration files; Dual firmware images on-board; Multiple configuration file upload/download supported; Statistics for error monitoring and performance optimization including port summary tables; BootP/DHCP IP address management supported; Syslog remote logging capabilities; Temperature sensors for environmental monitoring; LLDP and LLDP-MED; switch stacking up to 8 units per stacking group.	
Quality of Service	Layer 2 trusted mode (IEEE 802.1p tagging); Layer 3 trusted mode (DSCP); four priority queues per port; Adjustable Weighted-Round-Robin (WRR), and strict queue scheduling	
Security	IEEE 802.1x based edge authentication; Switch access password protection; User-definable settings for enabling or disabling Web, SSH, Telnet, SSL management access; Port-based MAC address alert and lock-down; IP address filtering for management access via Telnet, HTTP, HTTPS/SSL, SSH and SNMP; RADIUS and TACACS+ remote authentication for switch management access; SSLv3 and SSHv2 encryption for switch management traffic; Management access filtering via management access profiles; DHCP Snooping	
VLAN	VLAN support for tagging and port-based as per IEEE 802.1Q; Up to 256 VLANs supported; Dynamic VLAN with GVRP support; Private VLAN Edge, Protocol VLANs, and Voice VLAN	
Switching Features	Link aggregation with up to eight aggregated links and up to eight member ports per aggregated link (IEEE 802.3ad); LACP support (IEEE 802.3ad)	
Availability	Spanning Tree (IEEE 802.1D) and Rapid Spanning Tree (IEEE 802.1w) with Fast Link Support; Multiple Spanning Trees (IEEE 802.1s)	
Chassis	17.3 x 10.1 x 1.7 inch for 3424; 17.3 x 15.2 x 1.7 inch for 3424P; 1U, rack-mounting kit included; 11 lbs for 3424; 17.6 lbs for 3424P	17.3 x 10.1 x 1.7 inch for 3448; 17.3 x 15.2 x 1.7 inch for 3448P; 1U, rack-mounting kit included; 11 lbs for 3448; 17.6 lbs for 3448P
Peripheral Products	Dell SFP Transceivers (1000SX, 1000LX, and 1000baseT); RPS-600 Redundant Power Supply for 3424; EPS-470 Extended Power Supply for 3424P	Dell SFP Transceivers (1000SX, 1000LX, and 1000baseT); RPS-600 Redundant Power Supply for 3448; EPS-470 Extended Power Supply for 3448P
Layer 2 Multicast	Static IP multicast; IGMP snooping for IP multicast support	

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