

# Dell PowerConnect 3400 Series Switches



**Dell™ PowerConnect™ 3424 and 3448 stackable Fast Ethernet switches offer advanced management and security features for high-performance workgroup connectivity.**

## Rack-Dense Wire-Speed Performance

The PowerConnect 3400 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, 3424P & 3448P only). These Dell designed switches deliver impressive switching capacities of up to 12.8 Gbps (3424 & 3424P) and 17.6 Gbps (3448 & 3448P). The 3400 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 3400 series switches support a number of industry-standard management interfaces such as web-based management, Command Line Interface (CLI), and Simple Network Management Protocol (SNMP v1/v2c/v3). For large network environments, Dell's OpenManage™ Network Manager provides management control to more easily configure large numbers of deployed switches. 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 the PowerConnect 3400 series switches help protect the network from accidental or malicious interference. MAC-based port security 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. Others, who do not have proper credentials, will not have access to the network.

## Advanced Switching Features

The PowerConnect 3424 and 3448 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, enabling 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 and IP multicast support. These capabilities help increase deployment flexibility, better enable VoIP deployments and help protect networking infrastructure investments.

## Power-Over-Ethernet

The PowerConnect 3424P and 3448P 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 (3448P 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 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 3400 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 provide rapid reconvergence in the event of network outages even across large networks with many VLANs.



Dell PowerConnect 3424, 3424P



Dell PowerConnect 3448, 3448P

GET MORE SIMPLICITY AND PERFORMANCE. GET MORE OUT OF NOW.





# Dell PowerConnect 3400 Series Switches

## DELL ENTERPRISE SERVICES

By utilizing the proven advantages of our direct model, including tailored service and support, low cost and a single point of accountability, Dell Services can provide you with fast, effective, affordable service offerings at any point in your IT process. Whether you need support, deployment, training and certification programs, or professional consulting services, individually or bundled as a total package, Dell promises to be your single point of accountability at all times.

### Professional Services

Dell Professional Services enables Dell customers to optimize ROI by utilizing complex technology through the design, development and deployment of innovative, robust and scalable business-critical solutions. With each engagement, we utilize our proven methodology and project management expertise to understand your business objectives, design plans that are flexible to adapt to your current environment and then deliver the desired results.

### Deployment Services

We bring you deployment assistance that delivers true value from beginning to end. Dell can tailor systems to our customers' specifications by customizing the hardware and software configuration during the initial system-build to reduce redundancy and time. We can manage the delivery, installation and disposal of your assets with the same eye for efficiency.

### Training and Certification

Our approach to Training and Certification allows you to outsmart your competitors—not outspend them—with industry standard learning across Dell hardware and industry standard software. Dell can assist you wherever you need us, whether on-site, on-line or in a classroom setting, to help your organization take full advantage of information technology.

### Enterprise Support Services

Technology is a significant investment and Dell can help you minimize costly downtime. Through our Premier Enterprise Support Services (PESS) offerings, Dell provides tiered support service packages with the flexibility to customize the offering to meet your specific needs. Registered File Watch users receive email notification for software updates. Users can define the "criticality" rating to help you determine which updates are most important for you. Signing up for File Watch is quick and easy. Simply visit your Premier Support site at <http://premiersupport.dell.com> and click on the "File Watch" link in the "Communication" section of the main menu. Once registered, you will receive email notification of product announcements or newly posted system downloads.

### Standard Warranty and Service Plan

- Three-year limited warranty<sup>1</sup> supplemented with three years of Next Business Day part or unit advance exchange<sup>2</sup> hardware replacement
- 7-day/24-hour Lifetime Telephone Technical Support for troubleshooting and diagnosis of Dell hardware
- 7-day/24-hour Online Support Services
- Lifetime firmware upgrades (available for download via [support.dell.com](http://support.dell.com))

### Optional Support

You can upgrade to three or five years of part or unit advance exchange<sup>2</sup> hardware replacement, with either Same Day or Next Business Day response. You may also choose three or five years of On-Site Hardware Support Service, with either Same Day or Next Business Day response.<sup>2</sup>

## FEATURES

### Port configuration

### Dell™ PowerConnect™ 3424 and 3424P

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™

### PowerConnect 3448 and 3448P

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

### Quality of service

Layer 2 trusted mode (IEEE 802.1p tagging); Layer 3 trusted mode (DSCP); 4 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

### VLAN

VLAN support for tagging and port-based as per IEEE 802.1Q; Up to 256 VLANs supported;  
Dynamic VLAN with GVRP support; Private VLANs

### 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;  
7.05 lbs for 3424; 16.52 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;  
7.49 lbs for 3448; 17.99 lbs for 3448P

### Peripheral products

Dell SFP Transceivers (1000SX and 1000LX);  
RPS-600 Redundant Power Supply for 3424;  
EPS-470 Extended Power Supply for 3424P

Dell SFP Transceivers (1000SX and 1000LX);  
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

<sup>1</sup>For a copy of our guarantees or limited warranties, please write Dell USA L.P., Attn: Warranties, One Dell Way, Round Rock, TX 78682. For more information, visit [www.dell.com/us/en/gen/services/service\\_service\\_plans.htm](http://www.dell.com/us/en/gen/services/service_service_plans.htm).

<sup>2</sup>Technician, replacement part or unit (depending on service contract) will be dispatched if necessary following phone-based troubleshooting in advance of receipt of returned defective unit. Service may be provided by third-party provider. Subject to parts availability, geographical restrictions and terms of service contract. Service timing dependent upon time of day call placed to Dell. Defective unit must be returned. Replacements may be refurbished. U.S. only.

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