DELL POWERCONNECT 8024F SWITCH

The PowerConnect 8024F switch is a 24-port 10GB Gigabit Ethernet Layer 3 switch, with four Combo Ports for mixed cabling environments.

This is Dell's first all 10 Gigabit 1U Ethernet product. The switch is designed for utilization in a variety of customer environments such as 10GB Top-of-Rack switching, 10GB Aggregation, and Switch Core applications in small to medium data centers.

DATA CENTER PERFORMANCE

The PowerConnect 8024F is a high density 10GB Ethernet switch designed for data center, aggregation, and unified fabric deployments requiring high throughput and availability. These high density 24-port 10GB switches are ready for converged Ethernet environments supporting virtualization, iSCSI storage, and 10GB traffic aggregation. The 8024F also provides full routing features in a compact 1U form factor data center friendly front-to-rear cooling.

UNIFIED FABRIC READY

The PowerConnect 8024F is one of the key components in Dell Unified Fabric Data Center solutions, and supports converged fabric requirements such as Priority Flow Control (802.1Qbb), iSCSI Optimization, and 10GB wire speed performance on all ports. iSCSI traffic can also be monitored at the fabric level, allowing the administrator to track active iSCSI sessions.

10 GB PERFORMANCE AND FLEXIBILITY

The PowerConnect 8024F brings the benefits of 10GB Ethernet to a compact and reliable switching platform, with the quality and great service of Dell. 10GB Ethernet provides a superior return on IT investment through:

- Investment Protection – 10GB Ethernet is the network fabric of the future, with an ever-expanding ecosystem of solutions and the capabilities to grow

- Energy-Efficient – Replace multiple 1GB components in your infrastructure to reduce power requirements and heat loads.

- High Performance – 480GB of throughput for wire-speed 10GB switching

ENERGY EFFICIENT

The PowerConnect 8024F is designed to be easy on budgets as well as the environment. Dell designed the PowerConnect 8024F for energy savings from the power cord to the ports, starting with redundant power supplies that can operate above 80% efficiency in all modes. We then added variable speed fans that adjust their speed for their environment through multiple temperature monitors. We also included power efficient 10GBASE-T ports that can reduce power draw by as much as 20% for short cable runs, and then provided network administrators with multiple ways to manage and monitor these power savings features via command line (CLI), web GUI, and SNMP.

HIGH AVAILABILITY

The PowerConnect 8024F is designed to be highly available with dual internal hot-swap power supplies, and removable hot-swap fan modules. The unit also incorporates dual firmware images to allow for image promotions or image redundancy in a network.

FLEXIBLE MANAGEMENT

PowerConnect switches provide numerous management options including an industry-standard CLI, remote management using the embedded web server, and support for SNMP-based management applications such as Open Manage Network Manager. The web GUI for PowerConnect switches provides very robust management with comparable control to the command-line environment, allowing the administrator to choose the best method of interacting with the switch.

TECH SPECS	DELL POWERCONNECT 8024F
Port Attributes	8024F: 24x SFP+ 10GB with 4x Combo Ports of 10GBASE-T, power efficient 10GBASE-T ports that reduce power draw by as much as 20% for short cable runs, auto-negotiation for speed, duplex mode and flow control, supports converged fabric requirements such as Priority Flow Control (802.1Qbb), iSCSI Optimization, and 10GB wire speed performance on all ports , auto-MDI/MDIX, Integrated LEDs for improved visual monitoring and analysis, cable and Transceiver Diagnostics
Performance	Total Switch Fabric Capacity up to 480 GBps, forwarding Rate 357.14 Mpps, up to 32,000 MAC Addresses, 16 MB Packet Buffer Memory
Energy Saving Features	80% or better power supply efficiency in all operational modes, power efficient 10GBASE-T ports that can reduce power draw by as much as 20% for short cable runs, includes variable speed fans that adjust their speed for their environment through multiple temperature monitors, energy Monitoring via CLI and GUI
Quality of Service	Layer 2 Trusted Mode (IEEE 802.1p tagging), Layer 3 Trusted Mode (DSCP), Layer 4 Trusted Mode (TCP/UDP), Advanced Mode using Layer 2/3/4 flow-based Policies, including metering/rate limiting, marking and bandwidth guarantees, 8 Priority Queues per Port, Adjustable, Weighted-Round-Robin (WRR) and Strict Queue Scheduling, Port-based QoS Services Mode, Flow-based QoS Services Mode
Link Aggregation	Link Aggregation with support for up to 8 member ports per aggregated lin LACP support (IEEE 802.3ad)
VLAN	Supports up to 4000 VLANs

OTHER MANAGEMENT CAPABILITIES	
Environmental	100% Lead-Free, Operating Temperature: 0º C to 40º C (0º F to 104º F), Storage Temperature: -20º C to 70º C (-4º F to 158º F), Operating Relative, Humidity: 10% to 90% non-condensing, Storage Relative Humidity: 10% to 95% non-condensing
Power	Internal Power Supply Voltage AC 110/240 V +- 10% (50/60Hz); Power Consumption Max (Watts) 160.78; Power Consumption (BTU/hr) 548.66; Maximum Wattage 160.78; Maximum Amperage (Inrush) 50Hz @90V 10.5A; 60Hz @90V 6.5A; 50Hz @264V 13.7A; 60Hz @264V 23.7A; Continuous Amperage (Watts) 50Hz @90V 1.79A; 60Hz @90V 1.8A; 50Hz @264V 0.72A; 60Hz @264V 0.75A; Power Supply Efficiency 80% or better in all operating modes.

STANDARDS SUPPORTED	
Management	RFC 854, 855, 1155, 1157,1212, 1867, 1901, 1908, 2068, 2246, 2271, 2295, 2296, 2346, 2576, 2578, 2579, 2580, 2818, 3410, 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3418, 4251, 4252, 4253, 4254, 4419, 4716, 768, 783, 791, 792, 793, 826, 951, 1321, 1534, 2030, 2131, 2132, 2865, 2866, 2868, 2869, 2869bis, 3164, 3580 and 4541 IEEE 802.1AB, 802.3, 802.3u, 802.3ab, 802.3ac, 802.3ad, 802.3ae, 802.1D, 802.1S, 802.1W, 802.1Q, 802.1v, 802.1p, 802.1X and 802.3x HTML 4.0 Specification - December, 1997, JavaScriptTM version 1.3, SSL 3.0, SSH 1.5 & 2.0, GARP – Generic Attribute Registration Protocol, GMRP – Dynamic L2 Multicast Registration, GVRP – Dynamic VLAN Registration, XMODEM, 1. Supported via 802.1S implementation, ANSI/TIA-1057 – LLDP-MED
Routing	RFC 826, 894, 896, 1027, 1256, 1321, 1519, 1765, 1812, 2082, 2131, 2328, 2453, 3046, 3101, 3768, 2474, 2475, 2597, 3246, 3260, 1112, 2236, 2710, 3376, 3810, 4601, 2365, 3973 , 802.1p user priority (outer and/or inner VLAN tag), draft-ietf-pim-sm-bsr-05, Draft-ietf-idmr-dvmrp-v3-10 – DVMRP, draft-ietf-magma-igmp-proxy-06.txt – IGMP/MLD-based Multicast Forwarding ("IGMP/MLD Proxying"), draft-ietf-magma-igmpv3-and-routing-05.txt – IGMPv3 and Multicast Routing Protocol Interaction
IPv6 Routing	RFC 1981, 2373, 2460, 2461, 2462, 2464, 2711, 2740, 3315, 3484, 3493, 3513, 3542, 3587, 3736, 4213, 4291 and 4443
Regulatory and Environmental Compliance	Regulatory Model: PowerConnect 8024F , Product Safety, EMC and Environmental Datasheets, Dell Regulatory Compliance Home Page, Dell and the Environment

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