Dell Networking X-Series

1/10GbE switches with an intuitive GUI designed to optimize cloud and onsite network applications

The Dell Networking X-Series is a family of smart managed 1GbE and 10GbE Ethernet switches designed for small and medium businesses who crave enterprise-class network control fused with consumer-like ease. X-Series switches have a variety of port counts, PoE options and deployment choices. Setup and management are greatly simplified with an intuitive GUI and hardware design. A broad set of models means deploying capacity on your terms, including the compact 8-port unit designed for desk, wall or ceiling mounting with a smart design.

Practical innovations for small networks

Powerful tools inside an elegant interface with app-like functionality make X-Series switches a pleasure to use. Familiar commands and alerts similar to PCs and servers means there is less jargon to learn and more knowledge to gain. Connect, auto-configure, and power VoIP phones and wireless access points with PoE options.

Sleek navigation with efficient and instinctual work flow

The design of everything from navigation and clicks to menu structures and help tips was inspired by the way IT pros think and work. Streamlined tools, step-by-step wizards and a concise, informative dashboard make switch configuration and calibration fast and accurate. Common tasks, alerts, port status and network visualization are on one beautiful dashboard screen.

Unmatched traffic visibility and real-time control

Optimize cloud services and onsite network applications with security and traffic priority features. See network traffic and move from monitoring to resolving in one continuous sequence. Unique multi-port selection for batch routines plus port profiles for common devices eliminate extra steps and configuration errors.

Lifetime Limited Warranty

Dell Networking X-series switches are backed by an industry-leading, lifetime warranty guaranteeing basic hardware service. X-series switches not only provide the quality, reliability and capability you expect from Dell, but also peace of mind that comes with a true lifetime warranty.
Details at Dell.com/lifetimewarranty.

Key features

- 1 GbE and 10GbE switch family
    - » Compact, fanless 1GbE 8, 18, and 26 port switches with optional Power over Ethernet (PoE/PoE+) support
    - » PoE-powered 8-port switch for flexible office placement (non-PoE model)
    - » Half rack width 26- and 18-port switches with two dedicated 1GbE SFP uplink ports
    - » Rack width 52-port switches with four dedicated 10GbE SFP+ uplink ports
    - » 10GbE 12-port model for high-speed server and storage connect, or network aggregation
    - » Layer 2+ IPV4 and IPV6 functionality including static routing
- Revolutionary GUI design for ease of setup and "actionable monitoring"
    - » Powerful tools inside an elegant interface with app-like functionality
    - » Streamlined tools, step-by-step wizards and a customizable dashboard
    - » Common tasks, alerts, port status and network visualization on a single dashboard
    - » Optimize cloud services and onsite network applications with security and traffic priority features
    - » See network traffic and move from monitoring to resolving in one continuous sequence
    - » Multi-port selection for batch routines and port profiles for common devices eliminate extra steps and configuration errors
- Tandem rack tray accommodates two half rack-width switches in 1RU (available in 2H15)
- Dell Fresh Air 2.0 capable performance with energy-efficient operation
- Patented locking plug and console port

Legend: **S** — Standard, **OA** — Option Available, **N** — Not Available

Port attributes	X1008/P	X1018/P	X1026/P	X1052/P	X4012
10/100/1000Base-T auto-sensing GbE switching	8	16	24	48	N
SFP/SFP+ fiber ports	N	2 SFP	2 SFP	4 SFP/SFP+	12 SFP/SFP+
Power over Ethernet (PoE) ports	8 PoE, up to 123W total (X1008P)	16 PoE, up to 246W total (X1018P)	24 PoE/PoE+, up to 369W total (X1026P)	24 PoE/PoE+, up to 369W total (X1052P)	N
PoE powered	S (X1008)	N	N	N	N
Power reduction for short cables or inactive connections	S	S	S	S	N
Autonegotiation for speed, duplex mode and flow control	S	S	S	S	N
Auto-MDI/MDIX mode and flow control	S	S	S	S	N

Performance	X1008/P	X1018/P	X1026/P	X1052/P	X4012
Switch fabric capacity	Up to 16Gbps	Up to 36Gbps	Up to 52Gbps	Up to 176Gbps	Up to 240Gbps
Forwarding rate	11.9Mpps	26.8Mpps	38.7Mpps	131Mpps	178.6Mpps
MAC addresses	16K	16K	16K	16K	32K
Packet buffer memory	1MB	1MB	1MB	1MB	1MB

Quality of service	X1008/P	X1018/P	X1026/P	X1052/P	X4012
Priority queues per port	4	4	4	8	8

Management	X1008/P	X1018/P	X1026/P	X1052/P	X4012
Web GUI interface and SNMP monitoring; limited CLI	S	S	S	S	S

Chassis	X1008/P	X1018/P	X1026/P	X1052/P	X4012
Dimensions (H x W x D)	1.67 in x 5.95 in x 5.95 in (42.5 mm x 151.13 mm x 151.13 mm)	X1018: 1.62 in x 8.23 in x 9.84 in (41.25 mm x 209.0 mm x 250.0 mm) X1018P: 1.62 in x 8.23 in x 17.72 in (41.25 mm x 209.0 mm x 450.0 mm)	X1026: 1.62 in x 8.23 in x 9.84 in (41.25 mm x 209.0 mm x 250.0 mm) X1026P: 1.62 in x 8.23 in x 17.72 in (41.25 mm x 209.0 mm x 450.0 mm)	X1052: 1.71 in x 17.1 in x 10.63 in (43.5 mm x 434.0 mm x 270.0 mm) X1052P: 1.71 in x 17.1 in x 16.0 in (43.5 mm x 434.0 mm x 407.0 mm)	1.62 in x 8.23 in x 9.84 in (41.25 mm x 209.0 mm x 250.0 mm)
Rack mount	N	1RU, half width	1RU, half width	1RU	1RU, half width
Unit weight	X1008: 0.80 Kg X1008P: 0.83 Kg	X1018: 1.76 Kg X1018P: 3.21 Kg	X1026: 1.88 Kg X1026P: 3.80 Kg	X1052: 3.80 Kg X1052P: 6.00 Kg	2.03 Kg
Fans	Fanless design	X1018: Fanless design X1018P: 2 (rear)	X1026: Fanless design X1026P: 2 (rear)	X1052: 2 (rear) X1052P: 4 (rear)	2 (rear)

Environmental operating conditions	X1008/P	X1018/P	X1026/P	X1052/P	X4012
100% lead-free	Yes	Yes	Yes	Yes	Yes
Operating temperature	0° to 50°C (32° to 122°F)	0° to 50°C (32° to 122°F)	0° to 50°C (32° to 122°F)	0° to 50°C (32° to 122°F)	0° to 50°C (32° to 122°F)
Storage temperature	-20° to 70°C (-4° to 158° F)	-20° to 70°C (-4° to 158° F)	-20° to 70°C (-4° to 158° F)	-20° to 70°C (-4° to 158° F)	-20° to 70°C (-4° to 158° F)
Operating relative humidity	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing	10% to 90% non-condensing
Storage relative humidity	10% to 80% non-condensing	10% to 80% non-condensing	10% to 80% non-condensing	10% to 80% non-condensing	10% to 80% non-condensing
Acoustic (max dB @ 50°C)	N	X1018: N X1018P: 54.6	X1026: N X1026P: 55.3	X1052: 56.7 X1052P: 58.2	55.6

Power	X1008/P	X1018/P	X1026/P	X1052/P	X4012
Power supply	X1008: 24W (external) X1008P: 150W (external)	X1018: 40W X1018P: 280W	X1026: 40W X1026P: 450W	X1052: 100W X1052P: 525W	100W
Power (max)	X1008: 9.9W X1008P: 141.8W	X1018: 14.7W X1018P: 289.9W	X1026: 17.5W X1026P: 452.8W	X1052: 60.2W X1052P: 475W	41.7W
Power (BTU/hr)	X1008: 33.7 X1008P: 484.1	X1018: 50.2 X1018P: 990	X1026: 59.8 X1026P: 1564.3	X1052: 205.2 X1052P: 1620.8	142.2

DELL

Transceivers

SFP, 1000BASE-T
SFP, 1000BASE-SX, 850nm wavelength, up to 550m reach
SFP, 1000BASE-LX, 1310nm wavelength, up to 10km reach
SFP, 1000BASE-ZX, 1550nm wavelength, up to 80km reach
SFP+, 10GbE, USR ("SR-Lite"), 850nm wavelength, up to 100m reach
SFP+, 10GbE, SR, 850nm wavelength, up to 300m reach
SFP+, 10GbE, LR, 1310nm wavelength, up to 10km reach
SFP+, 10GbE, ER, 1550nm wavelength, up to 40km reach

Cables

Dell Networking cable, SFP+ to SFP+, 10GbE, copper twinax direct attach cable, 0.5m, 1m, 3m, 5m and 7m*

*X4012 does not support 7m cable

Port attributes

Supports Virtual Cable Diagnostics by Marvell™ and fiber transceiver diagnostics
Integrated LEDs for improved visual monitoring and analysis

VLAN

Supports up to 4096 port-based VLANs. Honors all 4096 VLAN tags

Quality of service

Honor 802.1p values and honor IP DSCP values
Supports strict priority and configurable weighted round robin (WRR) scheduling across queues

Link aggregation

Industry-standard link aggregation adhering to IEEE 802.3ad standards (static and dynamic, LACP)
Supports 12 link aggregation groups and up to 8 ports per group

Management

Web based GUI management
Local password and restricted IP addresses
Port mirroring
Internal DHCP Server
DHCP client support
Port statistics available through industry-standard RMON
Jumbo frame support for packets up to 9,000 bytes
Broadcast storm control
Uploadable switch software via USB
Uploadable configurations via USB
Configurable as web-managed switch

IEEE standards support

IEEE 802.1D	Spanning Tree, GARP and GVRP
IEEE 802.1p	Traffic Prioritization
IEEE 802.1Q	VLAN Trunking
IEEE 802.1w	Rapid Spanning Tree Protocol
IEEE 802.1S	Multiple Spanning Tree Protocol
IEEE 802.1t	IEEE802.1D maintenance
IEEE 802.1v	VLAN Classification by Protocol & Port
IEEE 802.1x	Port Based Network Access Control
IEEE 802.3	10 Mbps Ethernet
IEEE 802.3l	10base -T
IEEE 802.3u	100Base-T Ethernet
IEEE 802.3z	1000 Mbps Ethernet
IEEE 802.3ab	1000Base-T
IEEE 802.3ac	Frame extension for VLAN tags
IEEE 802.3ad	Link Aggregation Control Protocol
IEEE 802.3ae	10 Gig Ethernet
IEEE 802.2	
IEEE 802.3x	Flow Control
IEEE 802.3l	
IEEE 802.1v	VLAN Classification by Protocol & Port
IEEE 802.1ab	LLDP
ANSI/TIA-1057-2006	LLDP-MEDW

IETF Internet drafts

draft-ietf hubmib-etherif-mib-v3-00.txt	Will obsolete RFC 2665

IETF standards supported

RFC 768	UDP
RFC 783	TFTP v2
RFC 791	IP
RFC 792	ICMP
RFC 793	TCP
RFC 813	Window & Ack Strategy
RFC 879	TCP Max. Segment Size Etc
RFC 896	IP/TCP Congestion Control
RFC 826	ARP
RFC 854	Telnet
RFC 855	Telnet Option Specification
RFC 856	Telnet Binary Transmission
RFC 858	Telnet Suppress Go-Ahead option
RFC 894	IP over Ethernet Frames
RFC 919	Broadcast Ethernet Frames
RFC 922	Broadcast Ethernet Frames with Subnets
RFC 920	Domain Requirements
RFC 950	Internet Standard subnetting procedure
RFC 951	Bootp
RFC 1027	Using ARP to implement transparent subnet gateways
RFC 1042	A Standards for transmission of IP datagrams over IEEE 802 Networks
RFC 1071	Computing the Internet Checksum
RFC 1112	Internet Gateway Management IGMPv1 snooping
RFC 1123	Requirements for Internet Hosts
RFC 1141	Incremental Updating of the Internet Checksum
RFC 1155	Structure and Identification of Management Information (SMI)
RFC 1157	Simple Network Management Protocol (SNMP) version 1
RFC 1350	Trivial File Transfer Protocol (TFTP) Rev. 2
RFC 1518	CIDR-ARCH
RFC 1519	CIDR-STRA
RFC 1533	DHCP options and BOOTP vendor extensions
RFC 1541	Dynamic Host Configuration Protocol (DHCP)
RFC 1542	Clarifications and Extensions for the Bootstrap Protocol
RFC 1612	DNS Client
RFC 1624	Computation of Internet Checksum via Incremental update
RFC 1700	Assigned Numbers
RFC 1812	Requirements for IP version 4 routers
RFC 1867	Form-based File Upload in HTML
RFC 2030	Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6 and OSI
RFC 2131	Dynamic Host Configuration Protocol
RFC 2132	DHCP Options and BootP vendor Extensions
RFC 2236	IGMPv2 snooping
RFC 2246	TLS protocol, version 1.0
RFC 2284	PPP Extensible Authentication Protocol, EAP, March 1998
RFC 2616	Hypertext Transfer Protocol -- HTTP/1.1
RFC 2818	HTTP Over TLS
RFC 2865	Radius
RFC 2866	Radius Accounting
RFC 2867	RADIUS Tunnel Accounting
RFC 2868	RADIUS Tunnel Authentication Attributes
RFC 2869	RADIUS Extensions
RFC 2925	Definitions of Managed Objects for Remote Ping Traceroute, and Lookup Operations
RFC 2933	IGMP MIB
RFC 3069	VLAN Aggregation for efficient IP Address allocation
RFC 3164	BSD Syslog Protocol
RFC 3376	IGMPv3 snooping
RFC 3580	RADIUS

IETF standards Management support

RFC 1212	MIB Definition
RFC 1213	MIB II
RFC 1215	Standard Traps
RFC 1286	Bridge MIB
RFC 1442	SMIv2 (SNMPv2 MIB)
RFC 1451	Manager-to-Manager MIB
RFC 1493	Definitions of Managed Objects for Bridges
RFC 1573	Evolution of Interfaces
RFC 1643	Etherlike MIB
RFC 1757	Remote Network Monitoring (RMON) MIB
RFC 1901	Community based SNMPv2
RFC 1907	SNMP v2 MIB
RFC 2011	Internet Protocol (IP) MIB using SMIv2
RFC 2012	Transmission Control Protocol (TCP) MIB using SMIv2
RFC 2013	User Datagram Protocol (UDP) MIB using SMIv2
RFC 2233	Interfaces Group using SMIv2
RFC 2358	Etherlike
RFC 2576	Coexistence between Version 1, Version 2, and Version 3 of the Internet-standard Network Management Framework
RFC 2579	Textual Conventions for SMIv2
RFC 2580	Conformance Statements for SMIv2
RFC 2618	RADIUS MIB
RFC 2665	Ethernet-like Interface Types MIB
RFC 2666	Identification of Ethernet Chip sets
RFC 2674	MIB for Bridge with Traffic Classes, Multicast Filtering and VLAN Extension (IEEE802.1p/q MIB)
RFC 2737	ENTITY-MIB
RFC 2819	RMON MIB
RFC 2863	Interface Evolution
RFC 3410	Applicability Statements for SNMP
RFC 3411	An Architecture for Describing Simple Network Management Protocol (SNMP) Management Frameworks
RFC 3412	Message Processing and Dispatching for the Simple Network Management Protocol (SNMP)
RFC 3413	Simple Network Management Protocol (SNMP) Applications
RFC 3414	User-based Security Model (USM) for version 3 of the Simple Network Management Protocol (SNMPv3)
RFC 3415	View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)
RFC 3584	Coexistence between Version 1, Version 2, and Version 3 of SNMP
RFC 4330	Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6 and OSI Draft-ietf-magma-snoop-01.txt draft-ietf-syslog-device-mib-01.txt draft-ietf-bridge-8021x-03.txt

IETF standard SNMP traps supported

RFC 1157	linkDown, linkupkUp, authentication Failure, coldstart, ...Traps
RFC 1215	Standard Traps
RFC 1493	newRoot, topologyChange Traps
RFC 3416	Version 2 of the Protocol Operations for the Simple Network Management Protocol (SNMP)
RFC 3417	Transport Mappings for SNMP
RFC 3418	MIB for SNMP

IEEE MIB support

LAG MIB	Support for 802.3ad functionality

OEM friendly

With an easy to remove Dell badge, your networking device can look as if it was designed by you.
Details at Dell.com/OEM.

For more information, visit Dell.com/Networking.