



Force10 Networks is the pioneer in resilient Gigabit and 10 Gigabit Ethernet switching and routing. The Force10 E-Series switch/routers provide best-in-class resiliency, unmatched scalability, line-rate performance and full L2 switching and IPv4/IPv6 routing. Based on revolutionary system architecture that combines fully distributed hardware and modular software, the E-Series switch/routers ensure predictable application performance, increase network availability and reduce operating costs.

Best-in-Class Resiliency

Massive Scalability

**1,260 Gigabit Ethernet or
224 Ten Gigabit Ethernet
Ports per Chassis**

**Full L2 Switching and
IPv4/IPv6 Routing**

- Patented multi-processor design delivers best-in-class resiliency and security
- Up to 1,260 Gigabit Ethernet ports or 224 Ten Gigabit Ethernet ports per chassis, enabling unprecedented network scalability
- Innovative Force10 ASICs and E-Series architecture deliver non-blocking, line-rate forwarding with access control lists (ACLs) across all line cards
- Fault-tolerance simplifies maintenance and maximizes system availability
- Robust Force10 FTOS™ software delivers full functionality Layer 2 (L2) switching and Layer 3 (L3) routing for applications spanning the LAN, MAN and WAN

Scalable Performance

To simplify network operation and maintenance, the E300, E600 and E1200 allow hot-swap of all key components and share the same switch fabric modules (SFMs) and FTOS software. In addition, the E1200 and E600 share common line cards and route processor modules (RPMs).

The Force10 E-Series sets a new standard for high performance switch/routers with unmatched scalability to 1,260 Gigabit Ethernet or 224 Ten Gigabit Ethernet ports per chassis, consistent performance with ACLs on all ports, and full L2 switching and L3 routing. These groundbreaking products simplify network applications from server/cluster consolidation, grid computing, campus backbones, next-generation Internet Exchanges, and Metro Ethernet services.

The Force10 E-Series E1200/E600 provides 56.25 Gigabits per second per slot and the E300 delivers 25 Gigabits per second per slot. All deliver predictable line-rate performance with any combination of features enabled, deterministic low latency and jitter, robust L2/L3 functionality, and the resiliency to thwart denial of service (DoS) attacks. Built upon the powerful and cost-effective Force10 architecture, the E-Series sets the industry standard both for resiliency and performance.



E1200

- 1.6875 Tbps non-blocking switch fabric
- 1/2 rack chassis (19" rack width)
- 1 billion packets per second
- 14 line card slots
- 1+1 redundant RPMs
- 8:1 redundant SFMs
- 1+1 redundant DC power entry modules (E1200/E1200i-DC)
- 2+1 and 2+2 redundant AC power supplies (E1200i-AC)



E300

- 400 Gbps non-blocking switch fabric
- 1/6 rack chassis (19" rack width)
- 196 million packets per second
- 6 line card slots
- 1+1 redundant RPMs
- 1:1 redundant SFMs
- 3+1 and 2+2 redundant AC power supplies
- 1+1 redundant DC power entry modules



E600

- 900 Gbps non-blocking switch fabric
- 1/3 rack chassis (19" rack width)
- 500 million packets per second
- 7 line card slots
- 1+1 redundant RPMs
- 4:1 redundant SFMs
- 3+1 and 2+2 redundant AC power supplies
- 1+1 redundant DC power entry modules

Highest Ethernet Density

The Force10 E-Series delivers unparalleled Gigabit Ethernet and 10 Gigabit Ethernet port densities. The E600/E1200 support 90 Gigabit Ethernet ports or 16 10 Gigabit Ethernet ports per line card slot and up to 7 and 14 line card slots per chassis respectively. The E300 supports 48 Gigabit Ethernet ports or eight 10 Gigabit Ethernet port per line card slot and up to six line card slots per chassis.

High Density Interfaces

Ports Per Chassis	E300	E600	E1200
High Density Gigabit Ethernet	288	630	1,260
Line-Rate Gigabit Ethernet	132	336	672
High Density 10 Gigabit Ethernet	48	112	224
Line-Rate 10 Gigabit Ethernet	12	28	56

Line-Rate Performance

With three custom Force10 ASICs and advanced ternary content addressable memory (TCAM) on every line card, the Force10 E-Series provides line-rate, non-blocking forwarding performance across all ports, even with all features enabled simultaneously. These features include:

- Extended ACLs for packet filtering and policy routing
- Multi-field packet lookup and classification for QoS
- Packet metering and marking for rate limiting and policing
- Congestion control using WRED and WFQ

Full L2 Switching and L3 Routing

Force10 ASICs, E-Series architecture and FTOS software work in unison to give robust L2 switching and L3 routing functionality to the E-Series with the scalability and security required for applications spanning the LAN, MAN and Internet-connected WAN. The Force10 E-Series L2 and L3 features include:

- RIP, OSPF, IS-IS and BGP IPv4 unicast routing protocols
- PIM-SM, PIM-DM, SSM and MSDP IPv4 multicast routing protocols
- OSPF, IS-IS and BGP IPv6 unicast routing protocols
- Prefix-based distributed forwarding table on every line card
- Forwarding table support for up to 512K IPv4 and 32K IPv6 routes
- VLAN redundancy, Rapid Spanning Tree and VLAN stacking

Resiliency: The Force10 E-Series Architecture

With the power of the E-Series architecture, the Force10 E-Series delivers breakthrough resiliency at performance levels never before realized. The Force10 E-Series architecture is the result of patented technological innovation in switch fabric, backplane, ASIC and system control plane design.

Separate System Control Plane

The E-Series architecture includes distinct data and control planes. The system control plane is augmented with three processors on each route processor module (RPM). The first processor handles Layer 2 control protocols, the second, Layer 3, and the third, management functions. This patented architecture allows faults to be contained while protecting other parts of the system. For example, it protects against spanning tree loops and DoS attacks providing unparalleled resiliency.

Designed to meet the needs of Internet-scale networks, the E-Series system control plane supports millions of routing table entries, up to 512K IPv4 forwarding table entries, and thousands of ACLs on every line card. The RPM's innovative control traffic rate limiting and filtering functionality empowers network administrators to suppress harmful DoS attacks and prevent flooding of unwanted traffic onto the network. And dedicated 100 Mbps switched paths from the RPMs to every line card eliminate sluggish forwarding table updates that could otherwise jeopardize network stability.

Distributed ASIC-based Forwarding

The Force10 ASICs, along with advanced TCAMs on every line card, give absolutely predictable line-rate forwarding for every packet regardless of the number, type or complexity of features enabled across the chassis. Unlike low-performance, processor-based forwarding architectures, there is no "slow-path" or software-based forwarding in the E-Series. The Force10 ASICs look up and act upon all information related to forwarding and applying policy to a packet before the entire packet is received, independent of table lengths, IP address prefix lengths or packet size. This hardware forwarding enables the E-Series to provide the deterministic low latency and jitter required by VoIP and streaming media applications.

Non-blocking 1.6875 Tbps Switch Fabric

The E-Series switch fabric provides non-blocking connectivity along with advanced queuing, multicast and jumbo frame support. The E600/E1200's cost-effective N:1 redundant switch fabric design reduces SFM sparing costs while providing 56.25 Gigabits per second of non-blocking bandwidth to each line card slot.

Passive Copper Backplane

The E-Series architecture's reliable and cost-efficient backplane is the industry's first high speed, non-optical backplane to scale to 5 Tbps data rates in a single 1/2 rack E1200 switch/router chassis. Unlike optical backplane interconnect systems or active copper backplanes, the E-Series backplane has no single point of failure and eliminates costly electrical-optical-electrical conversions. The resulting system simplicity afforded by the backplane means bulletproof reliability and minimum cost — available on all three platforms. The massive backplane capacity of E-Series chassis bought today also translates to enough bandwidth per slot (E600 and E1200) to support 40 and 100 GbE standards when they become available.

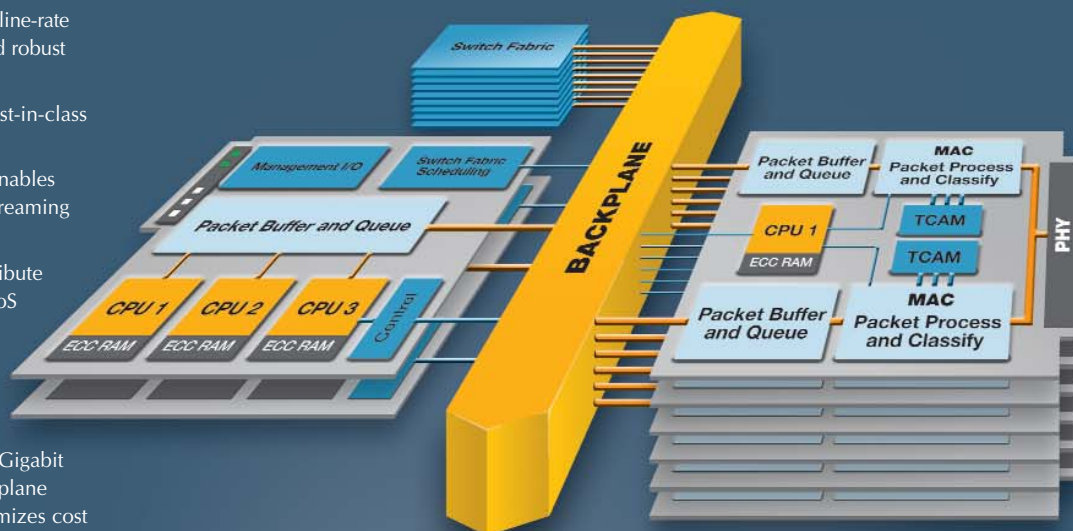
Fault Tolerance and High Availability

The E-Series architecture supports redundancy, availability and serviceability features to maximize network uptime. All key systems in the E-Series are redundant, including the RPMs, SFMs and power. All memory systems are ECC/parity protected. System-wide environmental monitoring and persistent configuration synchronization enable FTOS to detect, report and correct faults with a minimum of system interruption. In addition, serviceability features include hot-swap of all key components, cable management, and front-side access to all cabling and cards minimize mean time to repair.

The Force10 E-Series Architecture

The Force10 E-Series architecture delivers line-rate performance, cost-effective scalability, and robust L2 switching and L3 routing:

- Three CPU route processor delivers best-in-class resiliency and security
- Scalable, non-blocking switch fabric enables the low latency and jitter critical for streaming media applications
- High performance Force10 ASICs distribute packet forwarding, ACL processing, QoS and buffering to every line card
- Robust L2/L3 multiprocessor control plane with innovative control traffic filtering and rate limiting capabilities
- Cost-effective, reliable — 40 and 100 Gigabit Ethernet ready — passive copper backplane maximizes system reliability and minimizes cost
- High availability features include hot-swap of all key components and system-wide environmental monitoring, maximizing system uptime and serviceability



Force10 FTOS™ Software

FTOS, the Force10 Operating System, is the operating system that runs on Force10 switch/router product lines. FTOS is based on NetBSD, with application code developed and maintained by Force10 software engineers. A hardware abstraction layer (HAL) is used to make FTOS applications portable across product lines, without having to rewrite the application software for each platform.

- Separate OS and application functions limit application scope and provide inherent platform stability
- Memory protection prevents processes from corrupting each other
- Preemptive process scheduling prevents processes from monopolizing the CPU
- Application processes for each Layer 2 and 3 protocol, as well as management functions, security services and other FTOS features

FTOS is a distributed, multi-processor operating system customized for high-availability and fault tolerance. FTOS delivers an extensive range of high performance L2 switching and L3 routing features including robust IP routing control plane, hardware and software fault tolerance, highly granular traffic management and accounting, industry standard command line interface (CLI), and system diagnostics.

FTOS Provides:

- Stable, scalable L2 switching and L3 routing in a protected environment
- Fault tolerance with modular processes allocated to multiple system processors
- Simplified management with SNMP and an industry-standard CLI
- Full suite of debug and Syslog capabilities

E-Series Switch Fabric Module



E-Series Route Processor Module



FTOS Key Features

L2 Switching

- 4,096 VLANs
- 16M VLANs with VLAN stacking
- Up to 896K MAC addresses
- Link aggregation
- 802.1p prioritization
- Resilient ring protocol (FRRP)
- STP (802.1D), MSTP (802.1s), RSTP (802.1w) and PVST+

L3 Routing

- Robust protocols: RIP, OSPF, IS-IS and BGP
- Multicast with IGMP, PIM-SM, PIM-DM, SSM, MBGP and MSDP
- Full Internet route table support
- VRRP
- Dual stack IPv4 and IPv6 forwarding
- Graceful restart of OSPF, BGP and PIM

Services

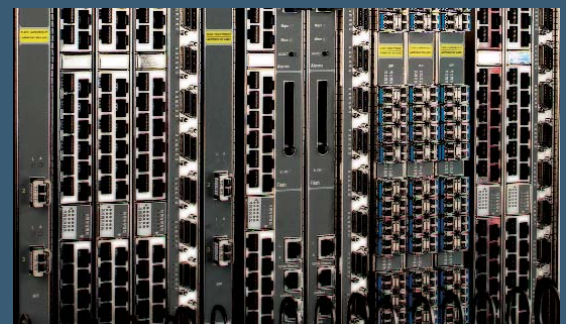
- QoS for L2 and L3
- Congestion control with WRED and WFQ
- Egress rate shaping, ingress rate policing
- Committed access rate support — two-rate, three-color model
- Port mirroring

Management

- Ping, traceroute, Telnet, SSH
- RADIUS, TACACS+
- FTP, TFTP client, SCP
- DNS client, BootP/DHCP relay
- Accounting and statistics
- SNMPv1/v2/v3
- HP OpenView support
- RMON
- Out-of-band console/AUX and FE management ports
- GUI-based EMS

The New Standard of Scalability and Performance

From server/cluster consolidation and grid computing to campus backbones, next-generation Internet Exchanges and Metro Ethernet services, the breakthrough Force10 E-Series ensures predictable application performance, increases network availability and reduces operating costs. The Force10 E-Series provides an unprecedented combination of resiliency, scalable performance and full-featured routing and switching.



E-Series Specifications

Ordering Information

ORDER NUMBER	DESCRIPTION
CH-E300	E300 6-slot chassis with backplane
CH-E600I	E600i 7-slot chassis with backplane
CH-E1200	E1200 14-slot DC power chassis with backplane
CH-E1200I-DC	E1200i-DC 14-slot DC power chassis with backplane
CH-E1200I-AC	E1200i-AC 14-slot AC power chassis with backplane
CC-E300-FAN	E300 fan subsystem
CC-E600-FAN	E600i fan subsystem
CC-E1200-FAN	E1200 fan subsystem
CC-E1200I-FAN	E1200i-AC fan subsystem
LC-EF3-RPM	E300 Route Processor Module (RPM) (series EF3)
LC-EF-RPM	E600/E1200 Route Processor Module (RPM) (series EF)
CC-E-SFM3	E-Series Switch Fabric Module 3 (SFM3)
CC-E300-PWR-DC	E300 DC Power Entry Module (PEM)
CC-E300-1200W-AC	E300 1200 W/800 W AC Power Supply Module (PSM)
CC-E600-PWR-DC	E600 DC PEM
CC-E600-2500W-AC	E600 2500 W/1500 W AC PSM
CC-E1200-PWR-DC	E1200 DC PEM
CC-E1200I-2800W-AC	E1200i-AC 2800 W AC PSM
LC-EF-10GE-4P	E600/E1200 4-port 10 GbE line card – XFP modules required (series EF)
LC-EG-10GE-4P	E600/E1200 4-port 10 GbE high capacity line card – XFP modules required (series EG)
LC-EF-10GE-16P	E600/E1200 16-port 10 Gigabit Ethernet line card – XFP modules required (series EF)
LC-EG-10GE-16P	E600/E1200 16-port 10 GbE high capacity line card – XFP modules required (series EG)
LC-EF-1GE-48P	E600/E1200 48-port GbE line card – SFP modules required (series EF)
LC-EG-1GE-48P	E600/E1200 48-port GbE high capacity line card – SFP modules required (series EG)
LC-EF-GE-48T	E600/E1200 48-port 10/100/1000Base-T line card with RJ45 interfaces (series EF)
LC-EG-GE-48T	E600/E1200 48-port 10/100/1000Base-T high capacity line card with RJ45 interfaces (series EG)
LC-EF-GE-48T1	E600/E1200 48-port high density 10/100/1000Base-T line card with RJ45 interfaces (series EF)
LC-EF-GE-90M	E600/E1200 90-port high density 10/100/1000Base-T line card with MRJ21 interfaces (series EF)
LC-EG-OC-48C-4P	E600/E1200 4-port OC-3c/OC-12c/OC-48c POS line card – SFP modules required (series EG)
LC-EF3-10GE-2P	E300 2-port 10 GbE line card – XFP modules required (series EF3)
LC-EG3-10GE-2P	E300 2-port 10 GbE high capacity line card – XFP modules required (series EG3)
LC-EF3-10GE-8P	E300 8-port 10 GbE line card – XFP modules required (series EF3)
LC-EG3-10GE-8P	E300 8-port 10 GbE high capacity line card – XFP modules required (series EG3)
LC-EF3-1GE-24P	E300 24-port GbE line card – SFP modules required (series EF3)
LC-EG3-1GE-24P	E300 24-port GbE high capacity line card – SFP modules required (series EG3)
LC-EF3-GE-48T	E300 48-port high density 10/100/1000Base-T line card with RJ45 interfaces (series EF3)
SW-EF-LATEST	FTOS software

Chassis

E1200/E1200i-DC

14 line card slots
 Size: 21 RU, 36.75 h x 17.4 w x 21" d
 (93.3 h x 44.2 w x 53.3 cm d)
 Weight (factory-installed components):
 99 lbs (44.9 kg)
 Weight fully loaded: 321 lbs (145.6 kg)
 ISO 7779 A-weighted sound pressure level:
 77.93 dBA low fan speed,
 84.83 dBA maximum at 73.4°F (23°C)
 DC Power
 Nominal input voltage: –44 to –60 VDC
 Maximum thermal output: 16,907 BTU/h (4,955 W)
 Maximum current draw per DC PEM: 150 A
 Maximum power consumption: 5,255 W



E1200i-AC

14 line card slots
 Size: 24 RU, 42 h x 17.4 w x 22.25" d
 (106.68 h x 44.20 w x 56.51 cm d)
 Weight (factory-installed components):
 139 lbs (63.05 kg)
 Weight fully loaded: 394 lbs (178.7 kg)
 ISO 7779 A-weighted sound pressure level:
 77.93 dBA low fan speed,
 84.83 dBA maximum at 73.4°F (23°C)
 AC Power
 Nominal input voltage:
 200-240 VAC 50/60 Hz
 Maximum thermal output:
 18,899 BTU/h (5,539 W)
 Maximum input current per module:
 14.6 A at 200 VAC 12.2 A at 240 VAC
 Maximum system power input:
 5.9 KVA at 200/240 VAC
 Maximum power consumption:
 5,839 W at 200/240 VAC



E600

7 line card slots
 Size: 16 RU, 28 h x 17.4 w x 21.45" d
 (71.1 h x 44.2 w x 54.4 cm d)
 Weight (factory-installed components):
 81 lbs (36.7 kg)
 Weight fully loaded: 242 lbs (109.8 kg)
 ISO 7779 A-weighted sound pressure level:
 70.42 dBA at 73.4°F (23°C)
 AC Power
 Nominal input voltage:
 120-240 VAC 50/60 Hz
 Maximum thermal output:
 10,925 BTU/h (3,202 W) at 100/120 VAC
 10,009 BTU/h (2,934 W) at 200/240 VAC
 Maximum input current per module:
 11.5 A at 100 VAC 9.6 A at 120 VAC
 8.0 A at 200 VAC 6.7 A at 240 VAC
 Maximum system power input:
 3.5 KVA at 100/120 VAC
 3.2 KVA at 200/240 VAC
 Maximum power consumption:
 3,452 W at 100/120 VAC
 3,184 W at 200/240 VAC
 DC Power
 Nominal input voltage: –44 to –60 VDC
 Maximum thermal output: 8,923 BTU/h (2,615 W)
 Maximum current draw per DC PEM: 100 A
 Maximum power consumption: 2,865 W



E300

6 line card slots
 Size: 8 RU, 14 h x 17.4 w x 22.78" d
 (35.6 h x 44.2 w x 57.8 cm d)
 Weight (factory-installed components):
 90 lbs (40.8 kg)
 Weight fully loaded: 170 lbs (77.1 kg)
 ISO 7779 A-weighted sound pressure level:
 79.21 dBA at 73.4°F (23°C)
 AC Power
 Nominal input voltage:
 100-240 VAC 50/60 Hz
 Maximum thermal output:
 7,031 BTU/h (2,061 W) at 100/120 VAC
 6,523 BTU/h (1,912 W) at 200/240 VAC
 Maximum input current per module:
 7.2 A at 100 VAC 6.0 A at 120 VAC
 5.1 A at 200 VAC 4.2 A at 240 VAC
 Maximum system power input:
 2.2 KVA at 100/120 VAC
 2.1 KVA at 200/240 VAC
 Maximum power consumption:
 2,161 W at 100/120 VAC
 2,012 W at 200/240 VAC
 DC Power
 Nominal input voltage: –44 to –60 VDC
 Maximum thermal output: 5,630 BTU/h (1,650 W)
 Maximum current draw per DC PEM: 60 A
 Maximum power consumption: 1,750 W



E-Series Specifications

Common

19" front, 19" middle (optional) and 23" middle
(E600/E1200 only) rack mountable
Maximum Operating Specifications:
Temperature: 32° to 104°F (0° to 40°C)
Altitude: no degradation to 10,000 feet (3,048 m)
Relative humidity: 5 to 85 percent, noncondensing
Maximum Non-operating Specifications:
Temperature: -40° to 158°F (-40° to 70°C)
Maximum altitude: 15,000 feet (4,572 meters)
Relative humidity: 5 to 95 percent, noncondensing

Redundancy/Availability

E1200/E1200i-DC

1+1 redundant Route Processor Modules (RPMs)
8:1 redundant Switch Fabric Modules (SFMs)
1+1 redundant DC Power Entry Modules (PEMs)

E1200i-AC

1+1 redundant RPMs
8:1 redundant SFMs
2+2 redundant AC Power Supply Modules (PSMs) – high line operation
2+1 redundant AC PSMs – high line operation

E600

1+1 redundant RPMs
4:1 redundant SFMs
1+1 redundant DC PEMs
2+2 redundant AC PSMs – high line operation
3+1 redundant AC PSMs – low line and high line operation

E300

1+1 redundant RPMs
1:1 redundant SFMs
1+1 redundant DC PEMs
2+2 redundant AC PSMs – high line operation
3+1 redundant AC PSMs – low line and high line operation

Online insertion and removal of all components
Built-in cable management
Environmental self-monitoring

IEEE Compliance

802.1AB LLDP
802.1D Bridging, STP
802.1p L2 Prioritization
802.1Q VLAN Tagging, Double VLAN Tagging, GVRP
802.1s MSTP
802.1w RSTP
802.1X Network Access Control
802.3ab Gigabit Ethernet (1000BASE-T)
802.3ac Frame Extensions for VLAN Tagging
802.3ad Link Aggregation with LACP
802.3ae 10 Gigabit Ethernet (10GBASE-W, 10GBASE-X)
802.3ak 10 Gigabit Ethernet (10GBASE-CX4)
802.3i Ethernet (10BASE-T)
802.3u Fast Ethernet (100BASE-TX)
802.3x Flow Control
802.3z Gigabit Ethernet (1000BASE-X)
ANSI/TIA-1057 LLDP-MED
Force10 FRRP (Force10 Redundant Ring Protocol)
Force10 PVST+
MTU 9,252 bytes

RFC and I-D Compliance

General Internet Protocols

768 UDP
793 TCP
854 Telnet
959 FTP
1321 MD5
1350 TFTP
1661 PPP
1989 PPP Link Quality Monitoring
1990 PPP Multilink Protocol
1994 PPP CHAP
2474 Differentiated Services
2615 PPP over SONET/SDH
2698 Two Rate Three Color Marker
3164 Syslog
draft-ietf-bfd-base-03 BFD

General IPv4 Protocols

791 IPv4
792 ICMP
826 ARP
1027 Proxy ARP
1035 DNS (client)
1042 Ethernet Transmission
1191 Path MTU Discovery
1305 NTPv3
1519 CIDR
1542 BOOTP (relay)
1812 Routers
1858 IP Fragment Filtering
2131 DHCP (relay)
2338 VRRP
3021 31-bit Prefixes
3128 Tiny Fragment Attack Protection

General IPv6 Protocols

1981 Path MTU Discovery (partial)
2460 IPv6
2461 Neighbor Discovery (partial)
2462 Stateless Address Autoconfiguration (partial)
2463 ICMPv6
2464 Ethernet Transmission
2675 Jumbograms
3587 Global Unicast Address Format
4291 Addressing

RIP

1058 RIPv1 2453 RIPv2

OSPF

1587 NSSA 2740 OSPFv3
2154 MD5 3623 Graceful Restart
2328 OSPFv2 4222 Prioritization and
2370 Opaque LSA Congestion Avoidance

IS-IS

1142 IS-IS
1195 IPv4 Routing
2763 Dynamic Hostname
2966 Domain-Wide Prefixes
3373 Three-way Handshake
3567 MD5
3784 Wide Metrics
5120 Multi-topology
draft-ietf-isis-igmp-p2p-over-lan-06 Point-to-Point Operation
draft-ietf-isis-ipv6-06 IPv6 Routing
draft-kaplan-isis-ext-eth-02 Extended Frame Size

BGP

1997 Communities
2385 MD5
2439 Route Flap Damping
2545 Multiprotocol Extensions for IPv6
2796 Route Reflection
2842 Capabilities
2858 Multiprotocol Extensions
2918 Route Refresh
3065 Confederations
4360 Extended Communities
4893 4-byte ASN
draft-ietf-idr-bgp4-20 BGPv4
draft-ietf-idr-restart-06 Graceful Restart
draft-michaelson-4byte-as-representation-05
4-byte ASN Representation (partial)

Multicast

1112 IGMPv1 3810 MLDv2
2236 IGMPv2 3973 PIM-DM
2710 MLDv1 4541 IGMPv1/v2/v3,
3376 IGMPv3 MLDv1 Snooping
3569 SSM for IPv4/IPv6 draft-ietf-pim-sm-v2-new-05
3618 MSDP PIM-SM for IPv4/IPv6

Network Management

1155 SMIv1
1156 Internet MIB
1157 SNMPv1
1212 Concise MIB Definitions
1215 SNMP Traps
1493 Bridges MIB
1724 RIPv2 MIB

1850 OSPFv2 MIB
1901 Community-based SNMPv2
2011 IP MIB
2012 TCP MIB
2013 UDP MIB
2024 DLSw MIB
2096 IP Forwarding Table MIB
2558 SONET/SDH MIB
2570 SNMPv3
2571 Management Frameworks
2572 Message Processing and Dispatching
2574 SNMPv3 USM
2575 SNMPv3 VACM
2576 Coexistence Between SNMPv1/v2/v3
2578 SMIv2
2579 Textual Conventions for SMIv2
2580 Conformance Statements for SMIv2
2618 RADIUS Authentication MIB
2665 Ethernet-like Interfaces MIB
2674 Extended Bridge MIB
2787 VRRP MIB
2819 RMON MIB (groups 1, 2, 3, 9)
2863 Interfaces MIB
2865 RADIUS
3273 RMON High Capacity MIB
3416 SNMPv2
3418 SNMP MIB
3434 RMON High Capacity Alarm MIB
3580 802.1X with RADIUS
5060 PIM MIB
ANSI/TIA-1057 LLDP-MED MIB
draft-grant-tacacs-02 TACACS+
draft-ietf-idr-bgp4-mib-06 BGP MIBv1
draft-ietf-isis-wg-mib-16 IS-IS MIB
IEEE 802.1AB LLDP MIB
IEEE 802.1AB LLDP DOT1 MIB
IEEE 802.1AB LLDP DOT3 MIB
rugin-mstp-mib-02 MSTP MIB (traps)
sFlow.org sFlowv5
sFlow.org sFlowv5 MIB (version 1.3)
FORCE10-BGP4-V2-MIB
FORCE10-FIB-MIB
FORCE10-IF-EXTENSION-MIB
FORCE10-LINKAGG-MIB
FORCE10-CHASSIS-MIB
FORCE10-COPY-CONFIG-MIB
FORCE10-MON-MIB
FORCE10-PRODUCTS-MIB
FORCE10-SMI
FORCE10-SYSTEM-COMPONENT-MIB
FORCE10-TC-MIB
FORCE10-TRAP-ALARM-MIB

Regulatory Compliance

Safety

UL/CSA 60950-1, 1st Edition
EN 60950-1, 1st Edition
IEC 60950-1, 1st Edition Including all National Deviations
and Group Differences
EN 60825-1 Safety of Laser Products Part 1:
Equipment Classification Requirements and User's Guide
EN 60825-2 Safety of Laser Products Part 2:
Safety of Optical Fibre Communication Systems
FDA Regulation 21 CFR 1040.10 and 1040.11

Emissions

Australia/New Zealand: AS/NZS CISPR 22: 2006, Class A
Canada: ICES-003, Issue-4, Class A
Europe: EN 55022: 2006 (CISPR 22: 2006), Class A
Japan: VCCI V3/2007.04 Class A
USA: FCC CFR 47 Part 15, Subpart B, Class A

Immunity

EN 300 386 V1.3.3: 2005 EMC for Network Equipment
EN 55024: 1998 + A1: 2001 + A2: 2003
EN 61000-3-2: Harmonic Current Emissions
EN 61000-3-3: Voltage Fluctuations and Flicker
EN 61000-4-2: ESD
EN 61000-4-3: Radiated Immunity
EN 61000-4-4: EFT
EN 61000-4-5: Surge
EN 61000-4-6: Low Frequency Conducted Immunity

RoHS

All E-Series components are EU RoHS compliant.



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