

3COM® SWITCH S7900E FAMILY

A modern high-performance modular switching and routing platform for demanding Enterprise environments, supporting highly available, secure and converged business applications

OVERVIEW

The 3Com® Switch S7900E family is the next generation of modern multilayer switches that meet the evolving needs of integrated service networks.

The S7900E family consists of six chassis models: S7910E (12 slots), S7906E (8 slots), S7906E-V (8 vertical slots), S7903E (5 slots), S7902E (4 slots) and S7903E-S (3 slots).

The platform uses modern ASICs and high speed backplanes for long term investment protection.

All models have passive backplanes and support load sharing and redundant management and fabrics for high availability (except the S7903E-S with a single fabric for cost-effective solution). The S7900E can be deployed in multiple network environments, such as; enterprise LAN core, aggregation and wiring closet edge as well convergence and edge of Metropolitan Area Networks (MANs), The S7900E provides the latest distributed ASIC switching technology enabling wire-speed Layer 2 and Layer 3 routing services for the most demanding applications.

The S7900E supports high reliability technologies such as non-stop forwarding (NSF), and ring network protection. By improving productivity and ensuring maximum up time, the S7900E can reduce total cost of ownership (TCO). The S7900E family is environmentally friendly, meeting the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) standards.



Front left to right S7902E, S7903E-S. Back, left to right S7903E, S7506E, S7906E-V and S7910E

KEY BENEFITS

MODERN ARCHITECTURE

The S7900E chassis has been designed to allow for long term investment protection. The backplane traces will allow for higher performance in the future. Intelligent power and environmental management make these changes possible. The system uses a new generation of ASICs, with future support for emerging standards. This will allow the implementation of new features in the future, as they become available. These new ASICs are also more energy efficient. With a choice of six different chassis, users have increased configuration flexibility. Fabrics and modules can be used across all chassis.

EXTENSIVE FEATURE LIST

The S7900E provides all the features expected in a high end modular chassis used for demanding enterprise core, distribution and aggregation applications. It supports wire-speed communications at layer 2 and for IPv4 and IPv6 as well as MPLS services.

- > Separate data and control paths for added security and performance
- > Extensive Quality of Service (QoS) features for mission critical applications including Voice over IP (VoIP), storage and video
- > Comprehensive security for network access control, encryption and protection of corporate resources.
- > Extensive high availability capabilities and the ability to create a resilient virtual switching fabric using IRF™ (Intelligent Resilient Framework) technology.



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KEY BENEFITS (continued)

- › Extensive CLI capabilities as well as Web-based management and GUI.
- › An open, standards-based architecture to enable seamless growth and future investments without proprietary lock-ins. The use of standards also guarantees complete interoperability with other network devices.
- › Working as a Multi-Customer-Edge (MCE) Supporting L3 and L2 (Martini, Kompella) MPLS VPN, which can be extended to support Virtual Private LAN Service (VPLS).

RESILIENT ARCHITECTURE FOR BUSINESS CONTINUITY

The S7900E chassis have a high availability design including passive backplane, redundant/load sharing fabrics and management modules and redundant fans and power supplies. All elements in the system can be hot swapped, minimizing the impact of single component failure. Changes in network topology due to device or link failures can lead to disruption of service for critical business applications. Rapid recovery from such topology changes is achieved through features such as Multiple Spanning Tree Protocol (MSTP), Rapid Spanning Tree Protocol (RSTP), OSPF Equal Cost Multi Path (ECMP) and Virtual Router Redundancy Protocol (VRRP).

The S7900E supports IRF technology, an innovative resilient virtual switching fabric, which enables two chassis to operate as a single entity for management, Layer 2 switching and Layer 3 routing. These capabilities are available even when the two chassis are in different geographic locations, to support disaster recovery applications.

The S7900E also supports Resilient Ring Protection Protocol (RRPP), which allows the creation of fast recovery rings using standard Ethernet technology.

CONVERGED NETWORK SUPPORT

Real-time applications such as Voice over IP demand high QoS and differentiated service levels to function properly. The 3Com S7900E provides robust QoS and advanced traffic management features, allowing critical applications to be prioritized and serviced as the needs of the organization dictate.

Additionally, the S7900E supports the industry-standard IEEE 802.3af Power over Ethernet (PoE) to provide both electrical power and network connectivity to PoE-capable devices such as IP telephones and

wireless access points, making the switches ideal for large-scale edge deployments. PoE simplifies network deployments by eliminating the need for separate data and power infrastructures.

The S7900E supports flexible PoE solutions including hybrid power which provides power to the switch and the Ethernet ports to support a range of devices.

EXTENSIVE SECURITY FEATURES

Security is paramount in today's enterprise. The 3Com S7900E family has advanced security features including user and device authentication, policy-driven and bi-directional hardware-based and wirespeed access control lists (ACLs), encrypted protocol headers and system management access. The S7900E supports IEEE 802.1x Network Login along with RADIUS to allow user access control. Port, VLAN and MAC address authentication allow for additional security.

The advanced capabilities of the 3Com S7900E family can be further extended with included support for service application modules, which enables direct integration of advanced Firewall and IPSec VPN, L4-L7 load balancing, network traffic analysis, wireless access control and management and SSL VPN services.

SCALABLE PERFORMANCE

The S7910E has a 2.4 Tbps backplane for media rate performances and future expansion. The S7910E with dual fabrics supports up to **714** Mpps. The wide selection of modules provide up to **84** 10 Gigabit Ethernet ports and **504** Gigabit Ethernet ports. Flexible modules combine 10 Gigabit Ethernet and Gigabit in a single module. The S7900E provides fully distributed L2 and L3 switching with all processing local to the module. Standards-based link aggregation allows aggregating multiple links together as a "trunk". Link aggregation is supported across modules. All fiber-based Gigabit modules support both 100BASE-FX and 1000BASE-X transceivers.

ENTERPRISE CLASS MANAGEMENT

The S7900E features independent data and control paths. The dedicated data channel provides high-speed data switching and packet forwarding, while a separate management channel provides control, monitoring, route learning and distribution. A comprehensive set of management features allows the S7900E to provide enterprise-wide visibility and control to IT staff for configuration, network monitoring and advanced troubleshooting.

KEY BENEFITS (continued)

Management features are accessible through an industry standard Command Line Interface (CLI), an intuitive Graphical User Interface (GUI), a Web-based Interface as well as SNMP, with hierarchical access controls and password protection. Additional

management security is provided using the user authentication and encryption capabilities of SNMPv3 and SSHv2, further reducing the likelihood of unauthorized access or snooping of management traffic.

FEATURE SUMMARY

Modern modular multilayer switch with flexible, resilient architecture for deployment in enterprise core, distribution and edge applications

High density 10 Gigabit Ethernet (up to 84 ports) and Gigabit (up to 504 Fiber ports)

Up to 2.4 Tbps backplane capacity with up to 714 Mpps system throughput

Virtually non-stop operation with redundant load sharing fabrics and management modules, redundant power supplies, as well as hot swappable modules. Supports IRF technology, which enables the creation of a resilient virtual switching fabric, and fast recovery Resilient Ring Protection Protocol (RRPP) for highly available enterprise networks and MAN applications

Granular QoS and traffic management for enhanced availability

Extensive L2/L3/L4 switching and routing capability, including RIP, OSPF, BGP-4, IS-IS and IPv6. IPv6 support include dual stack, tunneling and IPv6 ACLs

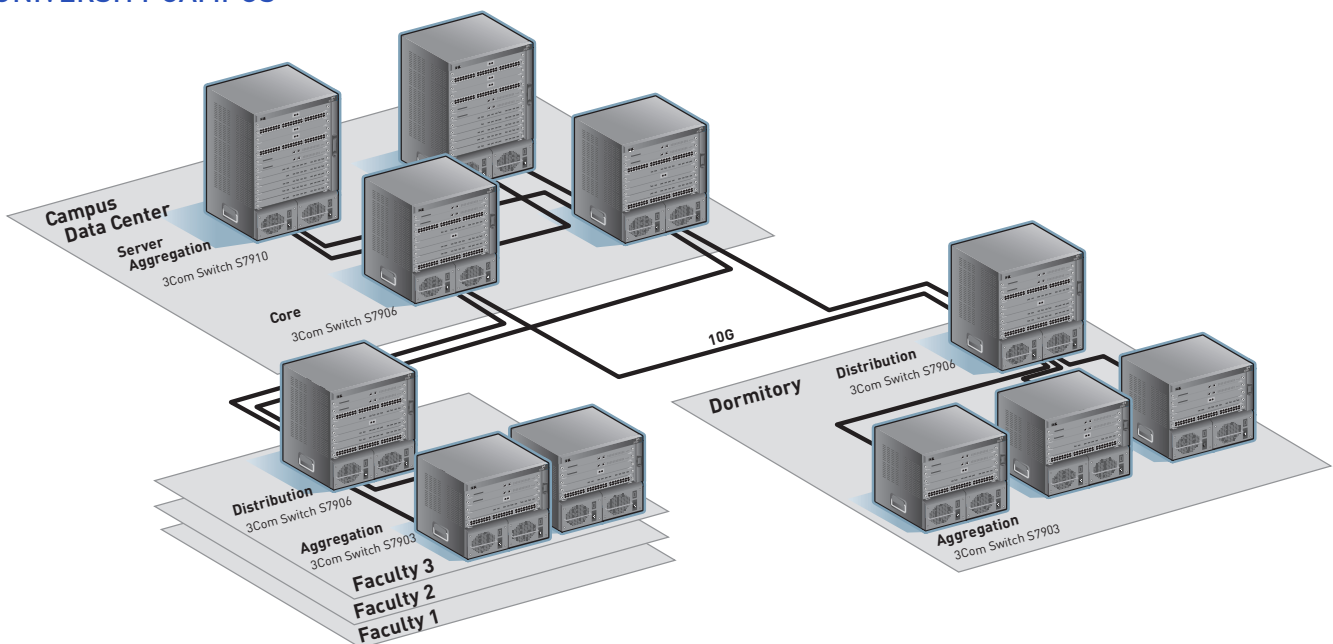
Supports L2 Martini, Kompella)/L3 MPLS VPN and MCE

Robust network access control via IEEE802.1x and RADIUS, extensive ACLs, as well as authentication and encryption of management traffic

Innovative and scalable service modules offers Firewall and IPSec VPN, L4-L7 load balancing, network traffic analysis, wireless access control and management and SSL VPN remote access services.

TYPICAL HIERARCHICAL NETWORK

UNIVERSITY CAMPUS



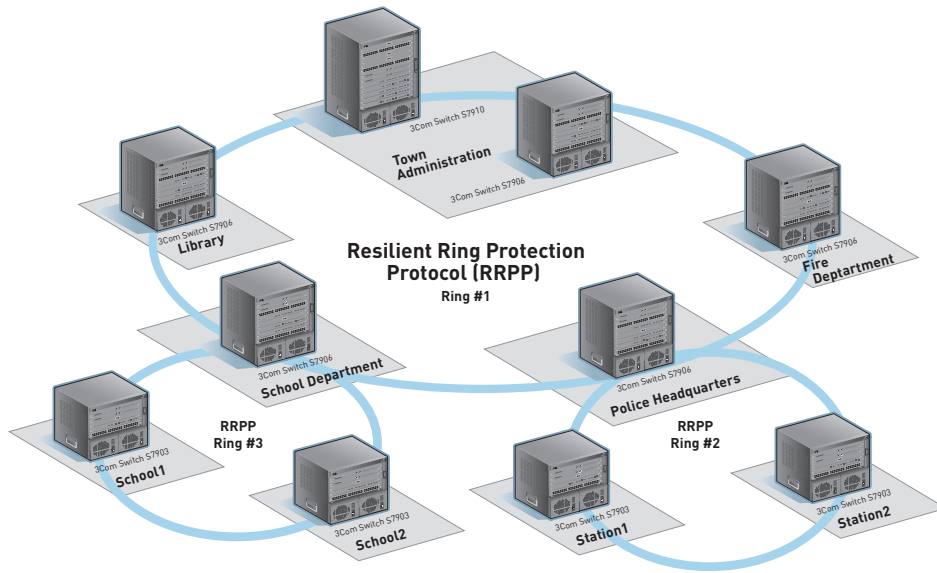
This large university has a typical hierarchical network, with 10 Gigabit links between all core and distribution switches. The campus core uses S7906E switches with redundant 10 Gigabit Ethernet links to all other systems.

The campus data center uses load sharing fabrics with integral 10 Gigabit Ethernet ports in a S7910E chassis. They use media rate 48-port 10/100/1000BASE-T modules to connect to servers.

The faculty and dormitory distribution switches use load sharing fabrics with integral 10 Gigabit Ethernet ports

Extensive security has been provisioned throughout the dormitories, including traffic bandwidth management.

MEDIUM-SIZED CITY METROPOLITAN AREA NETWORK (MAN)



This Metropolitan Area Network (MAN) takes advantage of the performance and resiliency of the Resilient Ring Protection Protocol (RRPP) to build their network. RRPP has very fast recovery times and provides for multiple attached rings.

SPECIFICATIONS

All information in this section is applicable to all members of the S7900E family, unless stated otherwise

CAPACITIES AND PERFORMANCES

S7910E

Two slots for switch fabrics, ten payload slots
 Backplane: 2.4 Tbps max.
 Bandwidth: 1,536 Gbps max. (dual fabric)
 768 Gbps max. (single fabric)
 Throughput, aggregate: 714 Mpps, max.

S7906E

Two slots for switch fabrics, six payload slots
 Backplane: 1.6 Tbps max.
 Bandwidth: 768 Gbps max. (dual fabric)
 384 Gbps max. (single fabric)
 Throughput, aggregate: 488 Mpps, max.

S7906E-V

Two slots for switch fabrics, six payload slots
 Backplane: 1.6 Tbps max.
 Bandwidth: 768 Gbps max. (dual fabric)
 384 Gbps max. (single fabric)
 Throughput, aggregate: 488 Mpps, max.

S7903E

Two slots for switch fabrics, three payload slots
 Backplane: 1.0 Tbps max.
 Bandwidth: 480 Gbps max. (dual fabric)
 240 Gbps max. (single fabric)
 Throughput, aggregate: 274 Mpps, max.

S7903E-S

One slot for switch fabric, two payload slots
 Backplane: 600 Gbps max.
 Bandwidth: 288 Gbps max. (single fabric)
 Throughput, aggregate: 178 Mpps, max.

S7902E

Two slots for management modules, two payload slots
 Backplane: 400 Gbps max.
 Bandwidth: 192 Gbps max. (dual fabric)
 96 Gbps max. (single fabric)
 Throughput, aggregate: 143 Mpps, max.

LAYER 2 SWITCHING

512K MAC addresses per system (Enhanced modules only) or 256K MAC addresses per system (EA and SD modules)

4096 VLANs (IEEE 802.1Q)

Port-based, protocol-based (IEEE 802.1v) and subnet-based VLANs

Dynamic VLAN assignments

Guest VLANs

Voice VLANs

Multicast VLANs

Private VLANs

RFC 3069 SuperVLANs

IEEE 802.1ad Q-inQ and VLAN mapping

GVRP (GARP VLAN Registration Protocol)

IEEE 802.3ad Link Aggregation, across modules, 128 groups of 8 ports

IEEE 802.3 (10BASE-T), 802.3u (100BASE-T, 100BASE-FX)

IEEE 802.3z (1000BASE-X), 802.3ab (1000BASE-T)

IEEE 802.3ae (10GBASE-X)

IEEE 802.3x (Traffic control)

IEEE 802.3af (PoE) Auto-negotiation of port speed and duplex

Auto MDI/MDI-X

Broadcast, multicast and unknown unicast storm protection

IEEE 802.1D Spanning Tree Protocol

IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)

IEEE 802.1s Multiple Spanning Tree Protocol Instances (MSTP)

BPDU Protection

UDLD (Uni-Directional Link Detection)

Jumbo frames up to 9KB

Resilient Ring Protection Protocol (RRPP)

RRPP over Link Aggregation

DLDP

LLDP

LLDP-MED

HGMP

SmartLink

SmartLink over Link Aggregation

LAYER 3 SWITCHING

Max. 128K IPv4 routes (Advanced, Extended and Enhanced modules or 768 Gbps fabric only)

Static Routes

RIPv1 and v2, supports split horizon and poison reverse

OSPFv1 and v2

ECMP 8 paths

BGP-4

IS-IS

Policy based routing

Graceful Restart for OSPF, BGP and IS-IS

Tunnel interface (Only for OSI)

IGMPv1, v2 and v3

SPECIFICATIONS (continued)

IGMP Snooping
 IGMP Fast leave
 PIM-DM and SM (Protocol Independent Multicast, Dense mode and Sparse mode)
 MSDP (Multicast Source Discovery Protocol)
 PIM-SSM
 MSDP (Multicast Source Discovery Protocol)
 MLDv1,v2
 MLDv1,v2 Snooping
 Static Multicast ARP
 Static Multicast MAC Anycast-RP
 DHCP Client and Server
 DHCP Relay
 DHCP option 82
 TCP/IP Protocol stack
 UDP Helper
 VRRP (Virtual Router Redundancy Protocol); 128 groups, 15 virtual IP addresses (VIP) per group
 IPv6 Addressing architecture
 Site-local, link-local and global unicast addresses
 IPv6 multicast addresses
 IPv6 specification
 Transmission of Ipv6 over Ethernet
 IPv6 neighbor discovery
 IPv6 duplicate address detection
 IPv6 stateless address autoconfiguration
 IPv6 path MTU discovery
 ICMPv6
 ICMPv6 redirection
 DHCPv6
 RIPng
 OSPFv3
 BGP-4+ for IPv6
 IS-ISv6
 VRRPv3
 ECMP 8 paths
 PIMv6 DM and SM
 Dual stack architecture
 Configured tunnels
 IPv6 to IPv4 tunnels
 ISATAP tunnels
 ACLs for IPv6
 DNSv6
 Telnet6
 Ping and traceroute v6

MPLS

MPLS forwarding
 MPLS-TE
 VPLS
 LSP
 LDP
 L2 VPN: VLL (Martini, Kompella)
 L3 VPN
 MCE
 VRF (250 instances)
 Multi-VRF
 MPLS OAM

CONVERGENCE FEATURES

8 hardware queues per port (Gigabit and 10-Gigabit ports)
 IEEE 802.1p VLAN priority
 Standard and VLAN-based ACLs (up to 12,000 ACL per I/O module)
 Ingress and Egress ACLs
 Egress CAR (SC Module only), Traffic Shaping
 Queue scheduling including SP, WRR, SP+WRR and CDWFQ
 IP precedence packet labeling
 Congestion avoidance including tail-drop and WRED

SECURITY FEATURES

RIPv2, OSPF and BGPv4 plain text and MD5 cipher text authentication
 IEEE 802.1X Network Login
 MAC and RADIUS authentication
 Web Authentication
 SSHv1.5/SSHv2
 TACACS+
 SNMPv3 with encryption ARP Detection

SERVICE APPLICATION

Firewall plus site-to-site and remote access IPsec VPN (via SecBlade VPN Firewall module)
 Remote access SSL VPN (via SecBlade SSL VPN module)
 Network traffic monitor and analysis (via SecBlade Netstream module)
 Load Balancing (via SecBlade load balancing module)
 Wireless LAN Access and Control (via wireless access control module)

MANAGEMENT

Web-based Management
 Industry Standard CLI (Command Line Interface)
 Configuration via console port, dial-up modem or in-band
 Local/ Remote configuration via Telnet
 SNMPv1, v2 and v3
 Port mirroring, 1:1, N:1, N:4
 Remote port monitoring
 RMON (4 groups)
 IEEE 802.1ag (Service OAM)
 Syslog
 sFLOW
 VFS
 Hierarchical alarms
 NQA (Network Quality Assurance)
 NTP (Network Time protocol)
 FTP
 TFTP
 SFTP
 Configuration files for backup and restore.
 Graphical User Interface using Switch Manager
 3Com Enterprise Management Suite (EMS)
 3Com Network Director (ND)

DIMENSIONS

S7910E	S7903E
Height: 70.8 cm (28.1 in)	Height: 44.1 cm (17.3 in)
Width: 43.6 cm (17.1 in)	Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)	Depth: 42.0 cm (16.7 in)
Weight: 96 kg (211 lb)	Weight: 63 kg (139 lb)
S7906E	S7903E-S
Height: 57.5 cm (22.8 in)	Height: 17.5 cm (6.9 in)
Width: 43.6 cm (17.1 in)	Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)	Depth: 42.0 cm (16.7 in)
Weight: 77 kg (169 lb)	Weight: 27 kg (59 lb)
S7906E-V	S7902E
Height: 93.0 cm (36.9 in)	Height: 17.5 cm (6.9 in)
Width: 43.6 cm (17.1 in)	Width: 43.6 cm (17.1 in)
Depth: 42.0 cm (16.7 in)	Depth: 42.0 cm (16.7 in)
Weight: 94 kg (207 lb)	Weight: 27 kg (59 lb)

POWER SUPPLIES

6000W AC Power Supply
 Input Voltage: 100V to 240V auto ranging
 Operating frequency: 47-63 Hz
 Maximum data output: 1150W (110V), 1400W (220V)
 Maximum PoE output: 3600W (110V), 5300W (220V)
 This power supply uses four power cords
 Max current per power cord for data output:
 10.45 A at 110VAC, 6.36 A at 200VAC
 Max current per power cord for POE output:
 10.91 A at 110VAC, 8.03 A at 200VAC

2800W AC Power Supply

Input voltage: 100V to 240V auto ranging
 Operating frequency: 47-63 Hz

SPECIFICATIONS (continued)

Maximum data output: 1150W (110V), 1400W (220V)

Maximum PoE output: 1150W (110V), 1400W (220V)

This power supply uses two power cords

Max current per power cord: 10.45 A at 110VAC, 7.0 A at 200 VAC

1400W AC Power Supply

Input voltage: 100V to 240V auto ranging

Operating frequency: 47-63 Hz

Maximum data output: 1150W (110V), 1400W (220V)

Max current: 10.45A at 110VAC, 7.0A at 200 VAC

Data only

650W AC Power Supply

Input voltage: 100V to 240V auto ranging

Operating frequency: 47-63 Hz

Maximum data output: 650W

Max current: 5.9A at 110VAC, 3.25A at 200 VAC

Data only

300W AC Power Supply

Input voltage: 100V to 240V auto ranging

Operating frequency: 47-63 Hz

Maximum data output: 300W

Max current: 2.7A at 110VAC, 1.5A at 200 VAC

Data only

1400W DC Power Supply

Input voltage: -48 VDC to -60VDC

Maximum voltage range: -40VDC to -72VDC

Maximum output power: 1400W

Can be used for Data or PoE

650W DC Power Supply

Input voltage: -48 VDC to -60VDC

Maximum voltage range: -40VDC to -72VDC

Maximum output power: 650W

Data only

300W DC Power Supply

Input voltage: -48 VDC to -60VDC

Maximum voltage range: -40VDC to -72VDC

Maximum output power: 300W

Data only

ENVIRONMENTAL REQUIREMENTS

Operating temperature: 0°to 40°C (32°to 104°F)

Storage temperature: -10°to 70°C (14°to 158°F)

Humidity (operating and storage): 10% to 90% non-condensing

Heat dissipation

S7910E: 4,148 BTU/hr

S7906E: 2,746 BTU/hr

S7906E-V: 2,765 BTU/hr

S7903E: 1,651 BTU/hr

S7903E-S: 941 BTU/hr

S7902E 883 BTU/hr

IEEE STANDARDS SUPPORTED

IEEE 802.1D (STP)

IEEE 802.1p (COS)

IEEE 802.1Q (VLAN)

IEEE 802.1s (MSTP)

IEEE 802.1v (VLAN)

IEEE 802.1w (RSTP)

IEEE 802.1X (Security)

IEEE 802.3ab (Link aggregation)

IEEE 802.3ab (1000BASE-T)

IEEE 802.3ae (10GBASE-X)

IEEE 802.3af (PoE)

IEEE 802.1ag (Service OAM)

IEEE 802.3i (10BASE-T)

IEEE 802.3u (Fast Ethernet)

IEEE 802.3x (Flow control)

IEEE 802.3z (Gigabit)

IETF STANDARDS

RFC 768 (UDP)

RFC 791 (IP)

RFC 792/950 (ICMP)

RFC 793 (TCP)

RFC 826 (ARP)

RFC 919/922 (Broadcasting Ethernet Datagrams)

RFC 950 (IP subnetting)

RFC 951 (BOOTP)

RFC 959/2228 (FTP)

RFC 1058 (RIP)

RFC 1112 (IGMPv1)

RFC 1122 (IP Host Requirements)

RFC 1141 (Internet Checksum)

RFC 1142 (OSI IS-IS)

RFC 1195 (IS-IS)

RFC 1256 (ICMP Router Discovery)

RFC 1305 (NTP)

RFC 1350 (TFTP)

RFC 1518/1519 (CIDR)

RFC 1542 (BOOTP)

RFC 1587/3101 (OSPF NSSA)

RFC 1723/2453 (RIPv2)

RFC 1765 (OSPF Database overflow)

RFC 1771 (BGP-4)

RFC 1812/2644 (IPv4)

RFC 1881/1887 (IPv6 Address Allocation)

RFC 1965/3065 (BGP AS Confederation)

RFC 1981 (Path MTU discovery for IPv6)

RFC 1997/1998 (BGP Communities)

RFC 2080 (RIPng)

RFC 2082 (RIPv2 MD5 Authentication)

RFC 2113 (Router Alert)

RFC 2131/3396 (DHCP)

RFC 2132 (DHCP Options)

RFC 2138/2865 (RADIUS)

RFC 2139/2866 (RADIUS Accounting)

RFC 2236 (IGMPv2)

RFC 2267/2827 (IP Spoofing)

RFC 2328 (OSPFv2)

RFC 2338/3768 (VRRP)

RFC 2362 (PIM-SM)

RFC 2370/3630 (OSPF Opaque LSA option)

RFC 2373/3513/4291 (IPv6 addressing architecture)

RFC 2375 (IPv6 Multicast Addresses)

RFC 2385 (BGP - MD5)

RFC 2439 (BGP Route flap dampening)

RFC 2452 (IPv6 TCP MIB)

RFC 2454 (IPv6 UDP MIB)

RFC 2460 (IPv6 Specification)

RFC 2461 (IPv6 Neighbor discovery)

RFC 2462 (IPv6 Stateless Address Autoconfiguration)

RFC 2463 (ICMPv6)

RFC 2464 (IPv6 over Ethernet)

RFC 2465 (IPv6 MIB)

RFC 2466 (ICMPv6 MIB)

RFC 2474 (DSCP)

RFC 2474/3168 (Diffserv)

RFC 2475 (Architecture for Diffserv)

RFC 2526 (IPv6 reserved Unicast Addresses)

RFC 2545 (BGP-4 for IPv6)

RFC 2553 (Basic sockets for IPv6)

RFC 2597 (AF PHB)

RFC 2598 (Expedited AF PHB)

RFC 2622 (Routing Policy)

RFC 2644 (Router Directed Broadcast)

SPECIFICATIONS (continued)

RFC 2697 (Single rate 3 color marker)
 RFC 2698 (Two rate 3 color marker)
 RFC 2715 (Multicast Routing Protocols)
 RFC 2740 (OSPFv3)
 RFC 2787 (VRRP MIB)
 RFC 2796 (BGP Route reflection)
 RFC 2858 (MBGP)
 RFC 2868 (RADIUS Tunnels)
 RFC 2869 (RADIUS Extensions)
 RFC 2893 (Transition Mechanisms for IPv6)
 RFC 2918 (BGP Route Refresh)
 RFC 2918 (BGP-4 Route Refresh)
 RFC 2973 (ISIS Mesh Groups)
 RFC 3048 (DHCP Relay)
 RFC 3056 (IPv6 6to4 tunnels)
 RFC 3065 (BGP AS)
 RFC 3069 (Super VLAN)
 RFC 3101 (OSPF NSSA)
 RFC 3131 (DHCP Relay)
 RFC 3131 (DHCP)
 RFC 3137 (OSPF Stub)
 RFC 3153 (IPv6 Addressing)
 RFC 3168 (ECN)
 RFC 3277 (IS-IS black hole avoidance)
 RFC 3307 (IPv6 multicast address allocation)
 RFC 3358 (IS-IS Checksum)
 RFC 3363 (IPv6 Addresses in DNS)
 RFC 3376 (IGMPv3)
 RFC 3392 (BGP Capabilities Advertisement)
 RFC 3442 (DHCP)
 RFC 3446 (Anycast RP)
 RFC 3484 (IPv6 Default Address)
 RFC 3596 (DNS extensions for IPv6)
 RFC 3618 (MSDP)
 RFC 3623 (OSPF Graceful Restart)
 RFC 3768 (VRRP)
 RFC 3973 (PIM-DM)
 RFC 4213 (Basic Transition for IPv6 Hosts and Routers)

MANAGEMENT, INCLUDING MIB SUPPORT

RFC 1155 (SMIv1)
 RFC 1155 (TCP MIB)
 RFC 1157 (SNMPv1/v2c)
 RFC 1213/2011-2013 (MIB II)
 RFC 1253 (OSPF MIB)

RFC 1253/1850 (OSPFv2 MIB)
 RFC 1493 (Bridge MIB)
 RFC 1493 (IEEE 802.1s MIB)
 RFC 1573/2233/2863 (Private IF MIB)
 RFC 1657 (BGP MIB)
 RFC 1657 (BGP MIB)
 RFC 1757 (RMON)
 RFC 1774 (RIPv2 MIB)
 RFC 2452 (IPv6 MIB)
 RFC 2454 (IPv6 UDP MIB)
 RFC 2819 (RMON MIB)

ISO

ISO 10589 (IS-IS)
 ISO 9542 (ES-IS)

IETF DRAFTS

draft-IETF-ISIS-WG-MIB-13
 draft-IETF-ISIS-ADMIN-TAGS-01
 draft-IETF-NGTRANS-ISATAP

AGENCY APPROVALS

EMC EMISSIONS
 CISPR 22 Class A
 FCC Part 15 Subpart B Class A
 EN 55022 Class A
 ICES-003 Class A
 AS/NZS CISPR22 Class A
 EN 61000-3-2
 EN 61000-3-3
 VCCI Class A
 ETSI EN 300 386

EMC IMMUNITY

EN 55024
 CISPR 24
 ETSI EN 300 386

SAFETY

UL 60950-1
 IEC 60950-1
 EN 60950-1
 CAN/CSA-C22.2 No. 60950-1
 AS/NZS 60950

WARRANTY AND OTHER SERVICES

Limited Hardware Warranty for one year. Limited Software Warranty for 90 days. 90 days free telephone technical support.

Refer to www.3com.com/warranty for details

SERVICE AND SUPPORT

3Com Global Services offers the resources and talents of a major corporation plus more than two decades of experience in resolving network challenges and delivering business benefits to enterprises around the world.

Global support with a personalized, local focus in the local language helps drive productivity and minimize expenses. Because 3Com understands both the technology and the business, we're the partner you need to remain strong and competitive.



The 3Com 7906E is Certified Green in the 2009 Miercom Green Switches Industry Assessment.

AGGREGATE SYSTEM CAPACITIES

	SWITCH S7910E	SWITCH S7906E	SWITCH S7906E-V	SWITCH S7903E	SWITCH S7903E-S	SWITCH S7902E
CHASSIS SLOTS						
Total slots	12	8	8	5	3	4
I/O slots	10	6	6	3	2	2
PERFORMANCE						
Switching capacity	1,536 Gbps	768 Gbps	768 Gbps	480 Gbps	288 Gbps	192 Gbps
Backplane capacity	2.4 Tbps	1.6 Tbps	1.6 Tbps	1.0 Tbps	600 Gbps	400 Gbps
IPv4/IPv6 packet forwarding rate	714 Mpps	488 Mpps	488 Mpps	274 Mpps	178 Mpps	143 Mpps
TOTAL PORT CAPACITY						
10-Gigabit ports	84	52	52	28	16	16
Fiber Gigabit ports	504	288	288	144	104	96
Copper Gigabit ports	480	288	288	144	120	96
PoE-capable ports	yes	yes	yes	yes	yes	yes

Note: Maximum back plane bandwidth from modules to switch fabrics is 96 Gbps (full duplex) per slot

ORDERING INFORMATION

PRODUCT DESCRIPTION

3COM SKU

CHASSIS

S7910E Chassis (chassis with fan assembly)	3CS7910E
S7906E Chassis (chassis with fan assembly)	3CS7906E
S7906E-V Chassis (chassis with fan assembly)	3CS7906EV
S7903E Chassis (chassis with fan assembly)	3CS7903E
S7903E-S Chassis (chassis with fan assembly)	3CS7903ES
S7902E Chassis (chassis with fan assembly)	3CS7902E

SWITCH FABRIC

S7900E 768 Gbps Fabric	0231A998
S7900E 384 Gbps Fabric with 12-port 1000BASE-X (SFP)	0231A99A
S7900E 384 Gbps Fabric, Advanced	0231A935
S7900E 384 Gbps Fabric	0231A934
S7900E 384 Gbps Fabric with 2-port 10GBASE-X (XFP)	0231A933
S7903E-S control unit with 24-port 1000BASE-X (SFP)	0231A999
S7902E Management Module	0231A92Y

10 GIGABIT MODULES

1-Port 10GBASE-X (XFP) Advanced module	0231A76P
2-port 10GBASE-X (XFP) Module	0231A92Q
2-port 10GBASE-X (XFP) Enhanced module	0231A974
2-port 10GBASE-X (XFP) Extended module	0231A978
8-port 10GBASE-X (XFP) Extended Module	0231A0AE
24-port 1000BASE-X (SFP) with 2-port 10GBASE-X (XFP Module)	0231A92N
24-Port 10/100/1000BASE-T (RJ-45) with 2-Port 10GBASE-X (XFP)	0231A76V
24-port 1000BASE-X (SFP) Extended Module	0231A971
with 2-port 10GBASE-X (XFP)	
4-port 10GBASE-X (XFP) Enhanced module	0231A973
4-port 10GBASE-X (XFP) Extended module	0231A977
8-port 10GBASE-X (XFP) Extended Module	0231A0AE

GIGABIT MODULES

12-port 1000BASE-X (SFP) Advanced Module	0231A92P
12-Port 1000BASE-X (SFP) Module	0231A79J
24 Port 100/1000Base-FX Enhanced Module with 8 combo port	0231A972
24 Port 100/1000Base-FX Extended Module with 8 combo port	0231A975
24-port 1000BASE-X (SFP) Module	0231A931
24 Port 100/1000BASE-FX Optical Interface Module with 8 combo port Module	0231A90F
48-port 1000BASE-X (SFP) Enhanced Module	0231A889
48-port 1000BASE-X (SFP) Extended Module	0231A99M
48-port 1000BASE-X (SFP) Module	0231A92X

PRODUCT DESCRIPTION

3COM SKU

24-port 10/100/1000BASE-T (RJ45) Module	0231A932
40-Port 10/100/1000BASE-T and 8 Port 100/1000 BASE-X (SFP)	0231A936
48-port 10/100/1000BASE-T (RJ45) Extended Module, PoE+	0231A96F
48-port 10/100/1000BASE-T (RJ45) Module upgradeable to PoE	0231A930
48-port 10/100/1000BASE-T (RJ45) Access Module, upgradeable to PoE	0231A92W

POWER OVER ETHERNET (POE) COMPONENTS

PoE Option (PoE DIMM Module)	3C17529
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POWER SUPPLIES

6000W AC power supply (Data and PoE)	0231A91H
2800W AC power supply (Data and PoE)	0231A93V
1400W AC power supply	0231A93A
1400W DC power supply (PoE pass-through)	0231A93B
650W AC power supply	0231A938
650W DC power supply	0231A939
300W AC power supply	0231A91D
300W DC power supply	0231A919

SERVICE MODULES

VPN Firewall Module	0231A832
Gigabit Load Balancing Module	0231A90N
NetStream Network Monitoring Module	0231A942
SSL VPN Module with 500 users License	0231A93P
SSL VPN 1000 users License	3130A27M
SSL VPN 5000 users License	3130A27P
SSL VPN 5000 users License	3130A27P
Wireless Controller Module 128/640 AP	0231A81K
AP 128 users License	3130A0E2

SPARES

S7910E Fan Assembly	0231A92V
S7906E Fan Assembly	0231A92T
S7906EV Fan Assembly	0231A92U
S7903E Fan Assembly	0231A92S
S7903E-S/S7902E Fan Assembly	0231A92R

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