



## DATA SHEET

# 3Com® Switch 4007 and Switch 4007R

## Key Benefits

### High Density Aggregation

Scales up to 216 Fast Ethernet and up to 54 Gigabit Ethernet ports, future-proofing enterprise business growth.

### Performance

Supports up to 48 Gbps switching fabric for non-blocking network performance.

### Non-stop Network Availability

Fault-tolerant aggregation features in both the 3Com Switch 4007 and the Switch 4007R include resilient links, link aggregation, Spanning Tree Protocol (STP), Open Shortest Path First (OSPF), and Virtual Router Redundancy Protocol (VRRP). Redundant chassis architecture supports management modules, power supplies, fans and hot-swappable switching modules for non-stop operation.

In addition, the Switch 4007R provides an extra level of availability with optional redundant switching fabric. Software provides hot stand-by protection with sub-second cutover capability for virtually non-stop operation.

### Network Control

Layer 2 switching functionality supports hardware-based packet filters, port- and protocol-based virtual LANs (VLANs), and RMON support for greater network control.

### Prioritize Business-Critical Traffic

Advanced policy-based Class of Service/Quality of Service (CoS/QoS) enables identification and prioritization of business-critical traffic for network optimization.

### Advanced Layer 3 Support

Provides full multiprotocol routing support of IP, IPX and AppleTalk, and multicast traffic control through IGMP and DVMRP routing, for logical network segmentation and secure communication.

### Flexibility

The 3Com Switch 4007 and Switch 4007R provide a range of port densities and media types for 10/100/1000 Mbps connections, providing support for all cabling requirements.

### Powerful Management

3Com® Network Supervisor (trial copy included) provides discovery, mapping, monitoring, and alerting for easy network administration. Configuration and installation of the switch is simplified with included Setup Wizard, built-in web-based management and Telnet support.

The 3Com® Switch 4007 and Switch 4007R provide scalable, high-density 10/100/1000 Mbps aggregation for enterprise backbones

The 3Com Switch 4007 and Switch 4007R are designed with the flexibility to provide support where it is needed most—as the ideal Layer 3 backbone or aggregator for 3Com SuperStack® switches. The 3Com Switch 4007 and Switch 4007R allow traffic flows to be localized, prioritized, and secured, better serving user needs

and adapting quickly to growth and change. For demanding networks, these switches not only deliver superior capacity and Layer 3 control, they also provide the highest level of network availability with hardware redundancy and software resiliency features.

### The 3Com Switch 4007 and Switch 4007R Platform

#### Chassis Architecture

The 3Com Switch 4007 features:

- 6 payload slots, with one switching fabric slot.
- Distributed processing.
- Passive backplane with 120 Gbps capacity.

The 3Com Switch 4007R features:

- 6 payload slots, with two switching fabric slots for optional fabric redundancy.
- Distributed processing.
- Passive backplane with 240 Gbps capacity.

#### Switch Fabric Design

Two switch fabrics are available:

- The 18 Gbps switch fabric is optimized for Fast Ethernet core aggregation, providing six internal full-duplex Gigabit Ethernet ports for backplane switching, and three external full-duplex Gigabit Ethernet ports for high-capacity downlinks or local server connectivity.
- The 48 Gbps switch fabric is optimized for the Gigabit backbone and data center, providing 24 internal full-duplex Gigabit Ethernet ports for backplane switching.

### Multilayer Switch Modules

3Com Switch 4007 Multilayer Switch (MLS) modules provide media rate routing and switching with extensive CoS/QoS capabilities for Ethernet, Fast Ethernet, and Gigabit Ethernet ports. These modules deliver routing services simultaneously through all front-panel ports and through the backplane to other modules in the chassis. The MLS modules are available with twelve 10/100BASE-TX ports, or four 1000BASE-X ports with GBICs.

#### Multilayer Switch Modules—Services and Features

- IP routing using RIP, RIP2, and OSPF protocols; IPX and AppleTalk routing
- Media rate IP and IPX routing on Fast Ethernet and Gigabit Ethernet
- Link aggregation up to eight load-sharing ports
- VLANs based on port, protocol, and standard IEEE 802.1Q
- IEEE 802.1p priorities (four priority queues)
- Extensive route filtering
- Hardware-based filtering for various packet types
- IGMP routing, IGMP snooping, and DVMRP for multicast traffic control
- VRRP for system redundancy
- SNMP and web management
- QoS Time-of-Day Policies, including SNTP (Simple Network Time Protocol)
- RMON-1 and RMON-2 support

The 3Com Switch 4007 and Switch 4007R offer extensive CoS/QoS capabilities for distinguishing between mission-critical or real-time streams and applications of lesser priority

### Layer 2 Switch Modules

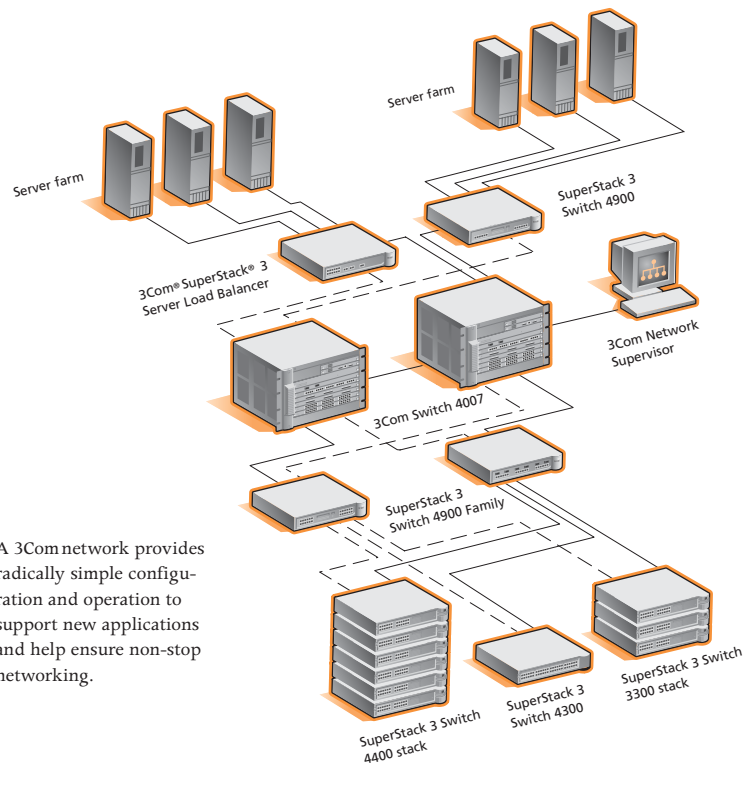
The Layer 2 switching modules offer high-density Ethernet/Fast Ethernet and Gigabit Ethernet switching, and are available with support for copper and fiber cabling configurations. All Gigabit Ethernet modules comply with the IEEE 802.3z standard.

#### Layer 2 Switch Modules—Services and Features

- Full- or half-duplex (Fast Ethernet only) operation and flow control with standard IEEE 802.3x
- IEEE 802.1D-compliant Layer 2 switching, including Spanning Tree Protocol
- Broadcast/multicast throttling

- Link aggregation (trunking) of up to six load-sharing ports
- Up to 127 VLANs based on port, protocol, and standard IEEE 802.1Q
- CoS via Layer 2 priority queuing and IEEE 802.1p
- IGMP snooping
- Four groups of RMON (seven groups of RMON in Layer 3)
- Hot standby resilient links

### Configuration Example



## 3Com Switch 4007 and Switch 4007R: Starter Kits and Modules

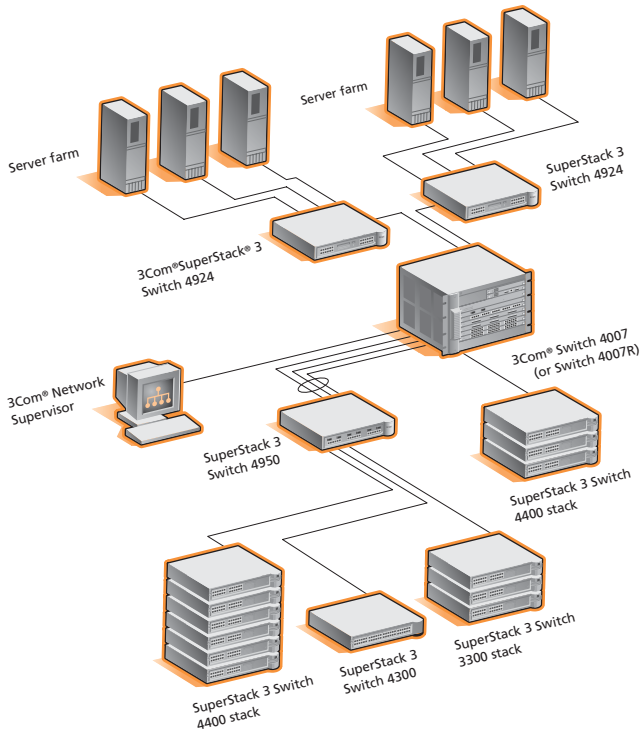
Feature	Layer 2 Gigabit Ethernet		Layer 3 Gigabit Ethernet		Layer 3 Fast Ethernet (TX) Fast Ethernet (TX/FX)	
	3C16810	3C16817	3C16811	3C16818	3C16815	3C16816
Chassis	7 slots, 4 empty	8 slots, 4 empty	7 slots, 4 empty	8 slots, 4 empty	7 slots, 4 empty	7 slots, 4 empty
Switching Fabric redundancy slot	48 Gbps N/A	48 Gbps Included	48 Gbps N/A	48 Gbps Included	18 Gbps N/A	18 Gbps N/A
Ports:						
standard—Gigabit Ethernet Fast Ethernet	18 N/A	18 N/A	13 <sup>(1)</sup> N/A	13 <sup>(1)</sup> N/A	3 <sup>(2)</sup> 48	3 <sup>(2)</sup> 32
maximum—Gigabit Ethernet Fast Ethernet	54 N/A	54 N/A	49 <sup>(1)</sup> N/A	49 <sup>(1)</sup> N/A	39 <sup>(2)</sup> 192	39 <sup>(2)</sup> 112
Modules:						
9-port Gigabit Ethernet SX (MMF, SC)—3CB9LG9MC	2 included	2 included	1 included	1 included	Available	Available
4-port Gigabit Ethernet Multilayer Switch <sup>(1)</sup> (GBIC)—3CB9RG4	Available	Available	1 included	1 included	Available	Available
12-port Ethernet/Fast Ethernet TX Multilayer Switch (RJ-45)—3CB9RF12R	Available	Available	Available	Available	1 included	1 included
36-port Ethernet/Fast Ethernet TX (RJ-45)—3CB9LF36R	Available	Available	Available	Available	1 included	Available
20-port Fast Ethernet FX (MT-RJ)—3CB9LF20MM	Available	Available	Available	Available	Available	1 included
4-port Gigabit Ethernet I/O <sup>(1)</sup> (GBIC)—3CB9LG4	Available	Available	Available	Available	N/A	N/A

<sup>(1)</sup>4 Gigabit Ethernet ports provided by GBICs (GBICs not included)

<sup>(2)</sup>GBICs not included

All Starter Kits include chassis, one power supply, fan tray, one switched fabric, one management module, and other modules as indicated above.

### Configuration Example



## Specifications

"The 3Com Switch 4007's ease of use makes it a first-rate solution to drive our new-generation applications..."

*Max Mulliner, Jordan School District, Salt Lake County, UT*

### Dimensions

*3Com Switch 4007:*  
 Height: 30.98 cm (12.2 in)  
 Width: 48.26 cm (19 in)  
 Depth: 51.05 cm (20.7 in)  
 Weight (base): 18.14 kg (40 lb)  
 Weight (fully loaded with AC power supply): 38.55 kg (85 lb)

*Switch 4007R:*  
 Height: 57.60 cm (22.7 in)  
 Width: 48.26 cm (19 in)  
 Depth: 54.10 cm (21.3in)  
 Weight (base): 51.2 kg (112.9 lb)  
 Weight (fully loaded with AC power supply): 71.7 kg (158 lb)

### Power Supply

*3Com Switch 4007:* 930 W AC Power Supply  
*Switch 4007R:* 820 W AC Power Supply  
 Input voltage: 90-264 VAC autoranging  
 Operating frequency: 47-63 Hz  
 Maximum current: 15.5 A at 100 VDC; 7.8 A at 200 VDC

### Maximum Power Consumption per power supply

*3Com Switch 4007:* 2,860 W (9,724 Btu/hour)  
*Switch 4007R:* 1,304 W (4,449 Btu/hour)

### Environmental Requirements:

Operating temperature: 0° to 50°C (32° to 122°F)  
 Operating humidity: 10% to 90% noncondensing  
 Storage temperature: -40° to 66°C (-40° to 117°F)  
 Storage humidity: 10% to 90% noncondensing

### Industry Standards Supported

Administration Protocols  
 UDP (RFC 768)  
 IP (RFC 791)  
 ICMP (RFC 792)  
 TCP (RFC 793)  
 ARP (RFC 826)  
 DVMRP  
 VRRP  
 OSPF  
 RIP v1 and v2

### Ethernet Protocols

IEEE 802.1d  
 IEEE 802.3  
 IEEE 802.3z  
 IEEE 802.3x  
 IEEE 802.1Q  
 IEEE 802.1p

### MIBs Supported

MIB II (RFC 1213)  
 SNMP MIB (RFC 1157)  
 Bridge MIB (RFC 1493)  
 Entity MIB (RFC 2037)  
 Ethernet MIB (RFC 1398)  
 VRRP MIB  
 RMON MIB (RFC 1757)  
 RMON-1 (up to 7 groups)  
 RMON-2 (up to 7 groups)  
 OSPF MIB  
 IGMP MIB  
 Router MIB  
 Interface MIB (RFC 1573)

### Emissions / Agency Approvals

FCC Part 15 Class A  
 (EN 55022 Class A)  
 EN 50082-1  
 ICES 003 Class A  
 VCCI Class A  
 AS/NZS 3548 Class A  
 EN 61000-3-2  
 EN 61000-3-3

### Safety Agency Certifications

EN/IEC 60950  
 UL 1950  
 CSA 22.2 No. 950  
 EN/IEC 60825  
 FDA 21 CFR 1040

### Management

3Com Network Supervisor (trial copy included)  
 SNMP and Telnet support  
 Multiple agents with single management entry point  
 Web-based management  
 RMON-1, RMON-2  
 RAP (Roving Analysis Port)  
 Statistics gathering and reporting  
 Interfaces: 10BASE-T (RJ-45)  
 Ethernet, RS-232 (DB-9) control port

### Hardware Warranty

Limited Warranty for one year.  
 See [www.3com.com/warranty](http://www.3com.com/warranty) for details.

"3Com's solution was less expensive and more flexible than Cisco's, and was virtually effortless to deploy...We were confident 3Com would provide us with proven technology and unparalleled support – and they did."

*Rose Hagy, Magnatech International, L.P, Robesonia, PA*

## Ordering Information

### Preconfigured Chassis

3Com Switch 4007 18-port Layer 2 Gigabit Ethernet Aggregator	3C16810
3Com Switch 4007 13-port Layer 3 Gigabit Ethernet Aggregator	3C16811
3Com Switch 4007 48-port Layer 3 Fast Ethernet Aggregator (copper)	3C16815
3Com Switch 4007 32-port Layer 3 Fast Ethernet Aggregator (fiber)	3C16816
3Com Switch 4007R 18-port Layer 2 Gigabit Ethernet Aggregator	3C16817
3Com Switch 4007R 13-port Layer 3 Gigabit Ethernet Aggregator	3C16818

### Modules

3Com Switch 4007 4-port Gigabit Multilayer Switch Module (GBIC)	3CB9RG4
3Com Switch 4007 4-port Gigabit Ethernet I/O Module (GBIC)	3CB9LG4
3Com Switch 4007 9-port 1000BASE-SX Gigabit Ethernet Switch Module (MMF, SC connectors)	3CB9LG9MC
3Com Switch 4007 12-port 10/100BASE-TX Ethernet/ Fast Ethernet Multilayer Switch Module (RJ-45)	3CB9RF12R
3Com Switch 4007 36-port 10/100BASE-TX Ethernet/ Fast Ethernet Switch Module (RJ-45)	3CB9LF36R
3Com Switch 4007 20-port 100BASE-FX Switch Module (MT-RJ)	3CB9LF20MM

### GBICs

3Com SX GBIC	3CGBIC91
3Com LX GBIC	3CGBIC92
3Com 1000BASE-T GBIC	3CGBIC93
3Com LH70 (70km) GBIC	3CGBIC97

### Spare Components

3Com Switch 4007 7-slot Chassis <sup>(1)</sup>	3C16801
3Com Switch 4007R 8-slot Chassis <sup>(1)</sup>	3C16804
3Com Switch 4007 930 W AC Power Supply	3CB9EP9
3Com Switch 4007R 820 W AC Power Supply	3CB9EP8
3Com Switch 4007 Management Module	3CB9EME
3Com Switch 4007 Fan Assembly	3CB9EF7
3Com Switch 4007R Fan Assembly	3CB9EF
3Com Switch 4007 EEPROM	3CB9EE
3Com Switch 4007 9-port 18 Gbps Switching Fabric	3CB9FG9
3Com Switch 4007 24-port 48 Gbps Switching Fabric	3CB9FG24T

Note: All modules and switch fabrics can be used in either the 3Com Switch 4007 or Switch 4007R Starter Kits and chassis. However, the Switch 4007 4-port Gigabit Ethernet I/O Module, sku 3CB9LG4, requires the 48 Gbps Switching Fabric, 3CB9FG24T, to fully function with all four ports; otherwise, only one port of the I/O module is functional.

Power supplies and fan assemblies are specific to their respective Starter Kits or chassis.

<sup>(1)</sup> Chassis includes fan assemblies. Power supplies and management modules ordered separately.

"Because our network stores and transports patients' treatment and diagnostic histories, network uptime is a vital component to quality care...With the Switch 4007, we have the speed to get this information to our medical teams as emergency situations dictate without giving a second thought to network availability."

*Roger Crook, SwedishAmerican Hospital, Rockford, IL*



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To learn more about 3Com solutions, visit [www.3com.com](http://www.3com.com). 3Com Corporation is publicly traded on NASDAQ under the symbol COMS.

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