DATA SHEET

CISCO 7609 ROUTER—ENHANCED 9-SLOT CHASSIS

The Cisco® 7609 Router is a high-performance router deployed at the network edge, where performance, IP services, redundancy, and fault resiliency are critical. Combined with a central route processor and forwarding engine, the Cisco 7609 Router provides from 30-Mpps up to 400Mpps forwarding rates with 720 Gbps of total throughput. This versatile Cisco 7600 Series system scales WAN connectivity from OC-192/STM-64 to DS0 and LAN connectivity from 10 Gigabit Ethernet through 10 Mbps Ethernet. The Cisco 7609 delivers these capabilities while implementing high-touch, hardware-accelerated IP services through the Cisco Parallel Express Forwarding (PXF) network processor.

Figure 1
Cisco 7609 Router

The Cisco 7609 delivers nine slots of optical LAN, WAN, and MAN networking at the network edge, enabling service providers to offer high-value, differentiated services. It provides enterprises with the ability to deploy the advanced network infrastructure necessary to succeed in demanding, high-traffic environments.

As part of the Cisco 7600 Series, the Cisco 7609 Router is the successor to the original 9-slot chassis (OSR-7609). This enhanced chassis delivers design improvements that incorporate redundant, tiered-speed fan trays with configurable options for route processor, switch fabric, and power supply redundancy.

The Cisco 7609 incorporates service provider and high-end enterprise requirements. Line cards are vertically mounted for efficient cooling with front-to-back airflow. Standard or extended cable-tray inserts provide unrestricted management of either fiber/coaxial or multiple conductor types with up to 48 10/100 cables per slot. Two chassis can be installed per 7-foot rack.

As with all Cisco 7600 Series routers, the Cisco 7609 chassis accommodates a broad selection of line cards supporting numerous applications, including:

- Shared Port Adapter and SPA Interface Processors: T1/E1, channelized T1/E1, T3/E3, Channelized T3, OC-3/STM-1, OC-12/STM-4 and OC-48/STM-16 POS, OC-192/STM-64 POS, OC-3/STM-3 ATM, OC-12/STM-4 ATM, OC-48/STM-16 ATM, Fast Ethernet, Gigabit Ethernet, and 10 Gigabit Ethernet.

- Optical Services Modules (OSMs): OC-3/STM-1, OC-12/STM-4, OC-48/STM-16 POS, OC-12/STM-4 ATM, Gigabit Ethernet WAN, Channelized T3 (CT3), and OC12/STM-4

- FlexWAN Module: Supporting Cisco 7200 Series and 7500 Series WAN port adapters for DS0 to OC-3

- LAN Ethernet Modules: 10/100 Mbps, Gigabit Ethernet, and 10 Gigabit Ethernet

- Services Modules: Firewall, Network Analysis, Content Switching, and SSL

Providing the foundation for a powerful combination of speed and services, the Cisco 7609 Router is an outstanding choice for multiple applications. Whether deployed as a high-speed WAN aggregator for peering or for metropolitan Ethernet aggregation and uplinks, the Cisco 7609 meets the requirements for critical network applications.

FEATURE SUMMARY

Cisco 7609 System Features
- Up to 30-Mpps hardware-based Cisco Express Forwarding
- Up to 30-Mpps hardware-based access control lists (ACLs), classification, policing, and marking
- 720 Gbps total throughput
- Up to 400Mpps distributed forward (requires DFCs)

Cisco 7609 Chassis Features
- 21RU (36.75 in.; 93.3 cm) high, up to 2 chassis per 7-foot rack
- 9 configurable interface slots
- 1+1 route processor, switch fabric, and power supply protection capability
- 1+1 tiered-speed fan design (standard)
- Cable management tray options for fiber/coaxial and dense 10/100 cable configurations
- Single-side connection management for both interface and power terminations
- Front-to-back airflow

Cisco 7609 Technical Specifications
- 9-slot chassis
- NEBS Level 3 compliance
- Minimum route processor requirement; one Cisco Catalyst® 6500 Series Supervisor Engine 2 with MFSC-2
- Dimensions (H x W x D): 36.75 x 17.2 x 20.7 in. (93.3 x 43.1 x 53.3 cm)
- Power requirements:

- – 208 to 240V AC (recommended)
- – –48 to –60V DC (4000W AC supplies require 30A input circuits)
- Weight: 121 lb/54.9 kg (chassis only); 270 lb/122.5 kg (full configuration)
- Mean time between failure (MTBF): 7 years for system configuration
- Environmental conditions:
  - – Operating temperature: 32 to 104°F (0 to 40°C)
  - – Storage temperature: –4 to 149°F (–20 to 65°C)
  - – Relative humidity, operating: 10 to 85%, non-condensing
  - – Relative humidity, storage: 5 to 95%, non-condensing
  - – Operating altitude: –500 to 6500 ft
- Minimum software release: Cisco IOS® Software Release 12.1(13)E1

Table 1. Cisco 7609 Chassis Ordering Information

Part Number	Description
7609-AC-BUN	Cisco 7609, 9-slot chassis (includes 2 high-speed fan modules, mounting kit, cable guide) with Supervisor 2 with MSFC-2, 1 4000W AC power supply, power entry module, and Border Gateway Protocol 4 (BGP4) license (AC bundles include power cord)
7609-DC-BUN	Cisco 7609, 9-slot chassis (includes fan module, mounting kit, cable guide) with Supervisor 2 with MSFC-2, single 4000W DC power supply, power entry module, and BGP4 license
7609-DC-BUN-2500W	Cisco 7609, 9-slot chassis (includes fan module, mounting kit, cable guide) with Supervisor 2 with MSFC-2, single 2500W DC power supply, power entry module, and BGP4 license
7609-SUP720-PS	This bundle includes a Cisco 7609 chassis, equipped with 2 high-speed fans, 1 Supervisor Engine 720, 1 3000W AC power supply and AC PEM. The 3000W AC power supply may be changed to DC or 4000W for a nominal fee. Additional memory and Cisco IOS® are optional.
7609-SUP7203B-PS	This bundle includes a Cisco 7609 chassis, equipped with 2 high-speed fans, 1 Supervisor Engine 720-3B, 1 3000W AC power supply and AC PEM. The 3000W AC power supply may be changed to DC or 4000W for a nominal fee. Additional memory and IOS are optional.
7609-2SUP7203B-2PS	This bundle includes a Cisco 7609 chassis, equipped with 2 high-speed fans, 2 Supervisor Engine 720-3B, 2 3000W AC power supplies and AC PEMs. The 3000W AC power supplies may be changed to DC or 4000W for a nominal fee. Additional memory and IOS are optional.
7609-SUP720XL-PS	This bundle includes a Cisco 7609 chassis, equipped with 2 high-speed fans, 1 Supervisor Engine 720-3BXL, 1 3000W AC power supply and AC PEM. The 3000W AC power supply may be changed to DC or 4000W for a nominal fee. Additional memory and IOS are optional.
7609-2SUP720XL-2PS	This bundle includes a Cisco 7609 chassis, equipped with 2 high-speed fans, 2 Supervisor Engine 720-3BXL, 2 3000W AC power supplies and AC PEMs. The 3000W AC power supplies may be changed to DC or 4000W for a nominal fee. Additional memory and IOS are optional.
Spare Units (denoted by "=")	
CISCO7609=	Spare Cisco 7609 enhanced service-provider chassis (includes redundant tiered-speed fan trays, cable management tray with standard and extended depth inserts, and mounting kit)
PWR-4000-DC=	4000W DC power supply for Cisco 7609/7613
WS-CAC-4000W-US=	Spare AC power supply for the Cisco 7609 chassis (30A circuit required); U.S./Japan cord attached
WS-CAC-4000W-INT=	Spare AC power supply for Cisco 7609 chassis (30A circuit required); international cord attached
WS-CDC-2500W=	Spare DC 2500W supply
WS-CAC-3000W=	Spare 3000W AC power supply for the Cisco 7609 and 7613

FAN-TRAY-09=	Spare fan tray for the Cisco 7609 chassis (can be used as the first or second tray)
CABLETRAY-09=	Spare cable tray assembly with standard and extended depth inserts
KIT-MNTG-09=	Spare mounting kit for the Cisco 7609 chassis
CLK-7600=	Clock card for the Cisco 7609 chassis

Regulatory Compliance

CE marking

Safety
- UL 60950

- IEC 60950

- EN 60950

- CAN/CSA-C22.2 No. 60950

- AS/NZS 3260

EMC
- FCC Part 15 (CFR 47) Class A

- ICES-003 Class A

- EN55022 Class A

- CISPR22 Class A

- AS/NZS 3548 Class A

- VCCI Class A

- EN55024

- ETS300 386

- EN50082-1

- EN61000-3-2

- EN61000-3-3

- EN61000-6-1

Industry Standard
- GR-63-Core NEBS Level 3 (pending)

- GR-1089-Core NEBS Level 3 (pending)

- ETSI 300 019 Storage Class 1.1

- ETSI 300 019 Transportation Class 2.3

- ETSI 300 019 Stationary Use Class 3.1

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FOR MORE INFORMATION

For more information about Cisco service and support programs and benefits, visit: http://www.cisco.com/en/US/support/index.html

For more information about Cisco 7600 Series routers, contact your Cisco account representative or visit: http://www.cisco.com/go/7600

For ordering information, visit: http://www.cisco.com/public/ordering_info.shtml

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