



## Data Sheet

# Cisco 7604 Router

## Product Overview

The Cisco® 7604 Router is one of the smallest, redundant routers to offer n x 10 Gigabit Ethernet performance with services. This router is part of the Cisco 7600 Series, delivering robust, high-performance IP/Multiprotocol Label Switching (MPLS) features for service provider edge and enterprise metropolitan-area network (MAN) and WAN applications. The four-slot Cisco 7604 chassis delivers performance in a compact 5-rack unit (5RU) form factor. It can be configured two ways: with a single supervisor engine and up to three line cards, or with dual supervisor engines and up to two line cards for high availability and redundancy. The Cisco 7604 also supports redundant AC or DC power supplies for increased availability (Figure 1).

Ideal for enterprise WAN aggregation or service provider environments, the Cisco 7604 offers one of the industry's leading arrays of interfaces (DS-0 to OC-192/STM-64, Fast Ethernet, Gigabit Ethernet, and 10 Gigabit Ethernet) and services modules such as IP Security (IPSec), firewall, Secure Sockets Layer (SSL) VPN, intrusion detection system (IDS), and denial-of-service (DoS) protection. The Cisco 7604 supports the new Cisco Shared Port Adapter (SPA)/SPA Interface Processor (SIP) portfolio, offering dramatically increased slot economics. It also supports the Enhanced FlexWAN module, which offers port adapter investment protection for customers who want to migrate from their Cisco 7500 or Cisco 7200 routers.

As with all Cisco 7600 Series routers, the Cisco 7604 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 Service Modules: OC-3/STM-1, OC-12/STM-4 and 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 and 7500 WAN port adapters for DS0 to OC-3
- LAN Ethernet Modules: 10/100 Mbps, Gigabit Ethernet, and 10-Gigabit Ethernet
- Services Modules: IPSec, Firewall, Network Analysis, Content Switching, and SSL

### Figure 1

Cisco 7604 Router



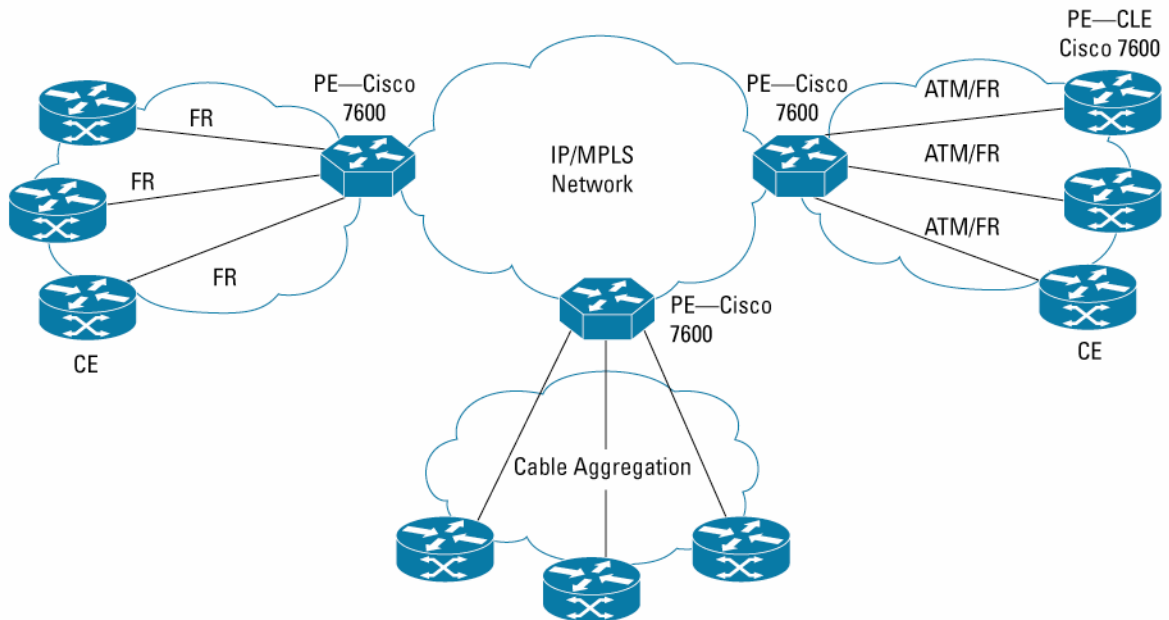
## Applications

The flexible Cisco 7604 Router is ideal for addressing high-performance applications such as:

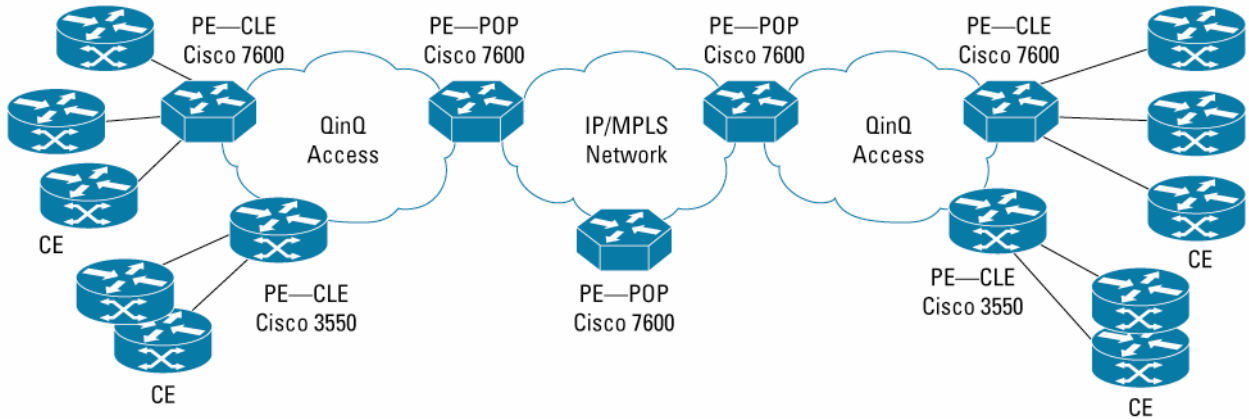
- High-end customer premises equipment (CPE)
- Leased line (Figure 2)
- IP/MPLS provider edge (Figure 2)
- Metro Ethernet (Figure 3)
- Enterprise WAN aggregation (Figure 4)

**Figure 2**

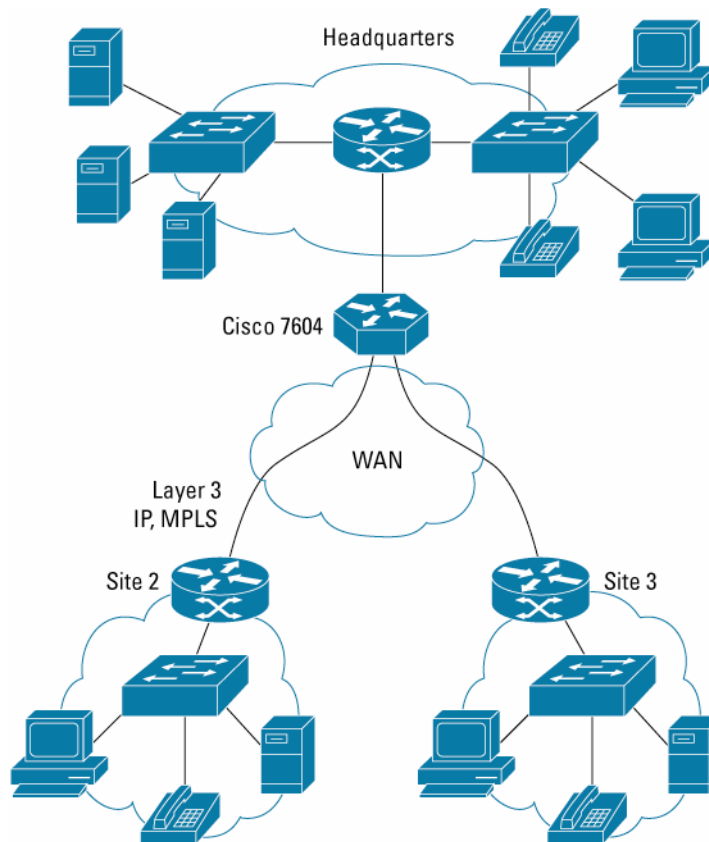
Small or Medium POP – Service Provider Leased Line and MPLS



**Figure 3**  
Small or Medium POP – Service Provider Metro Ethernet



**Figure 4**  
Enterprise WAN Aggregation



## Feature Summary

### Cisco 7604 Chassis Features

- 5RU (8.75-inch) compact chassis, up to nine chassis per seven-foot rack
- Four slots (two supervisor slots and two interface slots or one supervisor slot with three interface slots)
- 1 + 1 route processor protection capability
- 1 + 1 power supply protection option, AC or DC
- Network Equipment Building System (NEBS) Level 3 compliance (post-first customer shipment [FCS])
- Single-side connection management for interface and power terminations
- Side-to-side airflow

### Cisco 7604 System Features

- 30 Mpps hardware-based Cisco Express Forwarding
- 30 Mpps hardware-based access control lists (ACLs), classification, policing, and marking
- 320-Gbps total throughput
- Up to 144Mpps forwarding rate distributed

## Product Specifications

Table 1 gives specifications of the Cisco 7604.

**Table 1.** Product Specifications

Features	Descriptions
<b>Physical Specifications</b>	<ul style="list-style-type: none"><li>• 5RU (8.75-inch) chassis</li><li>• 4-slot chassis</li><li>• Dimensions (H x W x D): 8.75 x 17.5 x 21.75 in. (22.225 cm x 44.45 cm x 55.245 cm)</li><li>• Weight: 40 lb</li><li>• Power requirements: 110 to 240 VAC, –48 to –60 VDC</li><li>• Mean time between failure (MTBF): 7 years for system configuration</li></ul>
<b>Environmental Conditions</b>	<ul style="list-style-type: none"><li>• Operating temperature: 32 to 104°F (0 to 40°C)</li><li>• Storage temperature: –4 to 149°F (–20 to 65°C)</li><li>• Relative humidity, operating: 10 to 85% noncondensing</li><li>• Relative humidity, storage: 5 to 95% noncondensing</li><li>• Operating altitude: –500 to 6500 ft</li></ul>

Features	Descriptions
<b>Regulatory Compliance</b>	<p><b>EMC</b></p> <ul style="list-style-type: none"> <li>• FCC Part 15 (CFR 47) Class A</li> <li>• ICES-003 Class A</li> <li>• EN55022 Class A</li> <li>• CISPR22 Class A</li> <li>• AS/NZS 3548 Class A</li> <li>• VCCI Class A</li> <li>• EN55024</li> <li>• ETS300 386</li> <li>• EN50082-1</li> <li>• EN61000-3-2</li> <li>• EN61000-3-3</li> </ul> <p><b>Regulatory Compliance</b></p> <ul style="list-style-type: none"> <li>• UL 60950</li> <li>• IEC 60825-1, -2</li> <li>• IEC 60950</li> <li>• EN 60950, EN 60825-1, -2</li> <li>• CAN/CSA-C22.2 No. 60950-00</li> <li>• AS/NZS 3260-1993</li> <li>• 21CFR1040</li> </ul>
<b>Safety and Environmental Standard Compliance</b>	<ul style="list-style-type: none"> <li>• GR-63-Core NEBS Level 3 (post-FCS)</li> <li>• GR-1089-Core NEBS Level 3 (post-FCS)</li> <li>• ETSI 300 019 Storage Class 1.1</li> <li>• ETSI 300 019 Transportation Class 2.3</li> <li>• ETSI 300 019 Stationary Use Class 3.1</li> </ul>
<b>Minimum Software Release</b>	Cisco IOS® Software Release 12.2.18SXE

## Ordering Information

To place an order, visit the Cisco Ordering Home Page or refer to Table 2.

**Table 2.** Ordering Information

Chassis Bundles	Description
7604-SUP7203B-PS	Cisco 7604, 4-slot chassis (includes high-speed fan module, mounting kit, and cable guide) with 1 Cisco Catalyst® 6500 Series/Cisco 7600 Series Supervisor Engine 720, and a single 2700-WAC power supply; the AC power supply may be changed to DC for a nominal fee; additional memory is optional
7604-2SUP7203B-2PS	Cisco 7604, 4-slot chassis (includes high-speed fan module, mounting kit, and cable guide) with 2 Supervisor Engine 720-3Bs and 2 2700-WAC power supplies; the AC power supplies may be changed to DC for a nominal fee; additional memory is optional
7604-SUP7203XL-PS	Cisco 7604, 4-slot chassis (includes high-speed fan module, mounting kit, and cable guide) with 1 Supervisor Engine 720-3BXL and a single 2700-WAC power supply; the AC power supply may be changed to DC for a nominal fee; additional memory is optional

Chassis Bundles	Description
7604-2SUP720XL-2PS	Cisco 7604, 4-slot chassis (includes high-speed fan module, mounting kit, and cable guide) with 2 Supervisor Engine 720-3BXLs and 2 2700-WAC power supplies; the AC power supplies may be changed to DC for a nominal fee; additional memory is optional
<b>Spare Units</b>	<i>Note that "=" denotes a spare order</i>
CISCO7604=	Cisco 7604 Router, mounting kit, and cable guide
PWR-2700-AC/4=	2700-WAC power supply for Cisco 7604
PWR-2700-AC/4=	2700-WDC power supply for Cisco 7604
CAB-7513ACU	AC power cord (U.K.)
CAB-7513ACR	AC power cord (Argentina)
CAB-7513ACSA	AC power cord (South Africa)
CAB-ACS-10	AC power cord (Swiss)
CAB-AC-2500W-US1	Power cord, 250 VAC 16A, straight blade NEMA 6-20 plug, United States
CAB-AC-C6K-TWLK	Power cord, 250 VAC 16A, twist lock NEMA L6-20 plug, United States
CAB-AC-2500W-EU	Power cord, 250 VAC 16A, Europe
CAB-AC-2500W-INT	Power cord, 250 VAC 16A, International
CAB-ACS-16	AC power cord (Swiss) 16A
CAB-AC-16A-AUS	Power Cord, 250VAC, 16A, Australia C19
CAB-AC-2500W-ISRL	Power Cord, 250VAC, 16A, Israel
CAB-7513AC	AC POWER CORD NORTH AMERICA (110V)
CAB-C19-CBN	Cabinet Jumper Power Cord, 250 VAC 16A, C20-C19 Connectors
FAN-MOD-4HS=	High-speed fan module for Cisco 7604 Chassis
KIT-MNTG-CG-4=	Mounting kit and cable guide for Cisco 7604
CLK-7600=	Spare clock card for Cisco 7603, Cisco 7604, Cisco 7606, or Cisco 7609

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## For More Information

For more information about the Cisco 7604 Router, visit <http://www.cisco.com/go/7600> or contact your local Cisco account representative.

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