



Avaya C460 Converged Multilayer Switch

One enterprise. One network. One solution. Avaya's vision for your network can be summed up in one word: convergence.

This vision drives us to produce integrated convergence solutions – from IP telephone exchanges to convergence switches to Avaya Integrated Management.

Avaya's understanding of convergence needs means that we have developed a LAN infrastructure that fully supports voice and data on one network. The Avaya C460 Converged Multilayer Switch is part of this infrastructure and incorporates Avaya's proven expertise in converged networks.

A Modular Convergence Platform

The Avaya C460 Converged Multilayer Switch is a highly resilient network platform that introduces high-performance convergence to the network edge. It supports the deployment of voice, video and data applications on the local area network (LAN) and connects high densities of end stations/servers and IP telephony endpoints to the LAN backbone. With its flexible configuration options and high-capacity performance, the C460 can also be deployed as a distribution layer switch or as the network backbone for small to medium enterprises looking for a reliable modular solution.

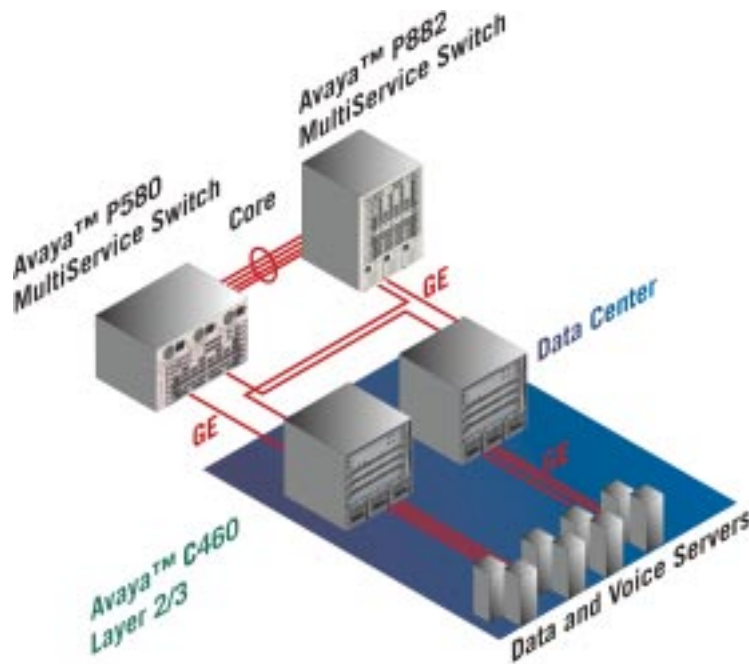
High-Availability Design

The C460 is a compact modular six-slot chassis (four payload slots and two switch fabric slots) that features Avaya SAFER Technology™ to provide a platform with no single point of failure. For high-availability business

and IP telephony deployments, the C460 can be configured with dual switch supervisors, which are synchronized in real-time and feature active load-sharing of the switch fabrics during normal operation for maximum performance. In the unlikely event that the primary supervisor fails, the standby supervisor takes over complete control of traffic and management functionality within 7 seconds of failure detection, ensuring minimal traffic interruption. All other critical components within the chassis such as power supplies, link and port interfaces, and fans, are also designed to provide multiple levels of redundancy to ensure network availability under extreme conditions.

Up to 3 power supplies can be configured in the C460 to provide 2+1 redundant operation. For high-draw IP telephony deployments, the C460 can be optionally configured with 3 active load-sharing 1000W power supplies. For added protection, the C460 features a power management scheme that prioritizes power allocation if demand exceeds available supply. In the event of a power shortfall, the C460 will gracefully shut down lower-priority modules, helping to ensure continuing operation of critical modules and network connections. The C460 also supports IEEE 802.1w Rapid Spanning Tree, which adds an extra layer of fault tolerance by providing switch-over to alternative network paths





with convergence times that are significantly faster than current spanning tree implementations.

Security and VoIP Support

As a major component of converged network infrastructures, the C460 is designed to manage the requirements of high-availability real-time services. In addition to a fully redundant architecture, the C460 supports the definition and enforcement of Quality of Service (QoS) policies based on address, application, and protocol criteria, with the ability to map IEEE 802.1p priority tagging and Diff Serv Code Points (DSCP) to user-defined priority queues.

The C460 provides a wide range of security features designed to prevent unauthorized access to critical network resources. VLAN security prevents ingress traffic marked with unauthorized VLAN IDs from accessing the network, while layer-3 Access Control Lists (ACL) allow access policies to be defined based on source address, destination address, protocol and port. Security is further enhanced with support of 802.1X port-based access control, allowing the enterprise to centrally define corporate user access rights in a RADIUS server that authenticates each user before access is allowed through the switch.

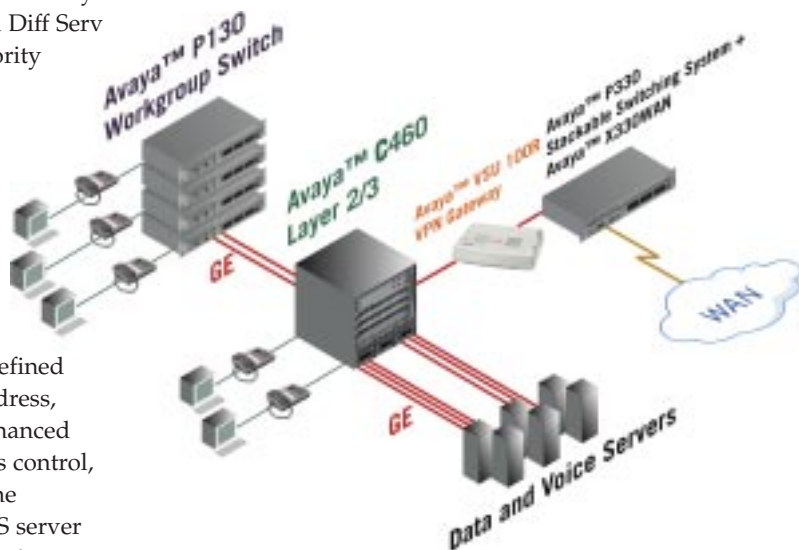
Capacity and Performance

The Avaya C460 gives you the performance you need for even the most demanding applications, with switching that can be easily scaled to 64 Gbps and available layer-3 forwarding-performance of up to 48 Mpps. With 4 payload slots that can be configured with up to 192 10/100 or 48 Gigabit Ethernet interfaces, and support for up to 7 Link Aggregation Groups (LAG) per payload module, the C460 provides enterprises flexibility to tailor and scale network capacity for their specific requirements whether in the wiring closet or the network backbone.

With the addition of Power Over Ethernet (PoE) modules, the C460 becomes a high-density IP telephony platform that provides integrated power and connectivity for 802.3af-compliant IP telephones and 802.3af-compliant wireless access points. This reduces installation and maintenance costs by enabling single-cable wiring — without the need for external components, power supplies, or adaptors.

Management Integration

The C460 supports management via Command Line Interface (CLI), an embedded Web manager, or through Avaya Multiservice Network Manager. As part of the Avaya Integrated Management, MultiService Network Manager offers network managers the ability to centrally manage widely

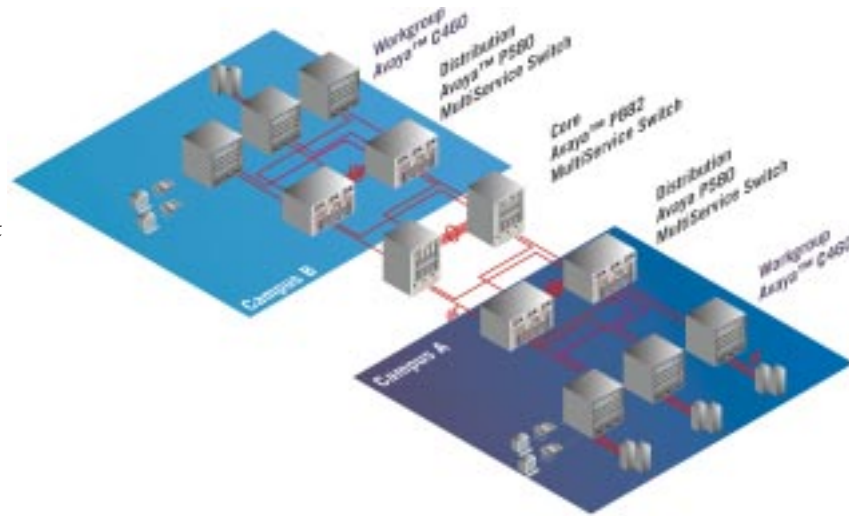


distributed network components, including the complete range of Avaya network switches, voice gateways, media servers, and wireless devices. With its integrated management approach for configuration management, fault diagnosis, and monitoring, MultiService Network Manager significantly reduces the complexity and the learning curve for deploying and managing converged multiservice networks.

For network monitoring, the C460 supports the IETF SMON (RFC 2613) standard for switched network monitoring, as well as Avaya Any-Layer SMON, which offers a graphical view of traffic based on Layer 4 parameters. Avaya SMON allows managers to monitor and track traffic patterns at multiple levels, ranging from the port level, to the VLAN, to the switch — all the way to an aggregated view across a multi-switch network. And with the ability to identify protocol-specific traffic, network managers can now adjust network settings to optimize performance for critical applications.

Summary

For enterprises looking to deploy Avaya MultiVantage Communications Applications, the Avaya C460 is an integrated platform designed to provide high-availability support for mixed data and IP telephony deployments. Representing a new generation of convergence switching platform, the C460 enables enterprises to merge their critical corporate communications over a highly resilient networking infrastructure designed for voice-class service.



Ordering Guide

Name	Description	Material Code
C460-CH	C460 chassis (incl. fan tray)	700254998
M460ML-SPV	C460 Multilayer Supervisor Module	700255011
L460L3-License	C460 License for Layer 3 Routing	700255060
M4648ML-T	C460 Multilayer 48 x 10/100BA	700255029
M4648ML-T-2G	C460 Multilayer 48 x 10/100BASE-T (RJ-45) + 2 x GBIC (SFP) module	700255037
M4612ML-G	C460 Multilayer 12 x GBIC (SFP) module	700255045
MPS4603-AC	C460 300w Power Supply (AC)	700255078
M460-fan	C460 Fan Tray	700255052
C460ML-CFG	C460 Switch basic configuration (SPV, 300W PSU, fan)	700255003
M4648ML-T-PWR	C460 Multilayer 48 x 10/100BASE-T (RJ-45) Inline Power (PoE) module	700281587
M4648ML-T-2G-PWR	C460 Multilayer 48 x 10/100BASE-T (RJ-45) Inline Power (PoE) module + 2xGBIC (SFP)	700281579
MPS4610-AC	C460 1000w Power Supply (AC)	700281595
C460ML-CFG-PWR	C460 Switch PoE basic configuration (SPV, 1000W PSU, fan)	700281603

Specifications

Standards Supported

The Avaya C460 complies with the following standards:

IEEE

- IEEE 802.3x Flow Control
- IEEE 802.3af Power over Ethernet (PoE)
- IEEE 802.1q/p VLAN Tagging and 802.1p compatible
- IEEE 802.1D Spanning Tree protocol
- IEEE 802.1x Port Based Network Access Control
- IEEE 802.1w Rapid Spanning Tree Protocol

IETF

- MIB-II - RFC 1213
- Bridge MIB for Spanning Tree - RFC 1493
- RMON - RFC 1757
- SMON - RFC 2613
- RADIUS - RFC 2138

Routing

- RIP1
- RIP2
- OSPF
- ARP
- ICMP
- DHCP/BOOTP Relay

Specifications

Physical

Height 10U (17.5", 444.5 mm)

Width 17.4" (442 mm)

Depth 15" (375 mm)

Weight

Chassis + backplane 13 kg (28.6 lb.)

Fan module 2.3 kg (5.1 lb.)

Supervisor module 2.0 kg (4.4 lb.)

300W AC PSU 3.85 kg (8.5 lb.)

PSU blanking panel 0.3 kg (0.7 lb.)

Minimum Configuration - 22 kg (48 lb.)

- Chassis + backplane
- Two PSU blanking plates
- One PSU
- One Supervisor Module
- Fan module

Fully populated chassis - at least 40 kg. (88 lb.)

- Chassis + backplane
- Three PSUs
- Two Supervisor Modules
- Fan module
- Four I/O Modules

Power Requirements

Up to 3 Power Supplies can be installed.

MPS4603-AC Power Supply

Input voltage 100 to 240 VAC, 50 or 60 Hz

Power dissipation 300 W max

Input current 3.9 A at 100 VAC

1.5 A at 240 VAC

Inrush current 15 A at 100 VAC

30 A at 240 VAC

MPS4610-AC

Input voltage 100 to 240VAC.

Power dissipation 1000W max

Input current 11.5A at 100VAC, 5.6A at 240VAC

Inrush current: 17A @ 25°C @ 240VAC

Component Power Consumption

M460ML-SPV	68 W	290 BTU/Hour
M4648ML-T	48 W	205 BTU/Hour
M4648ML-T-2G-PWR	70 W	299 BTU/Hour
M4612ML-G	59 W	252 BTU/Hour
Fan Module	45 W	192 BTU/Hour
M4648ML-T	48 W	205 BTU/Hour
M4648ML-T-2G-PWR	70 W	299 BTU/Hour

Environmental

Operating Temp. 23 to 122°F (-5 to 50°C)

Operating Rel. Humidity 0% to 85% non-condensing

Safety

- UL for US approved according to UL60950 Std.
- C-UL (UL for Canada) approved according to C22.2 No.950 Std.
- CE for Europe approved according to EN 60950 Std.
- EN60825-1
- Laser components are Laser Class I approved:
 - EN-60825-2/IEC-825 for Europe
 - FDA CFR 1040 for USA
- Overcurrent Protection: A readily accessible Listed safety-approved protective device with a 16A rating must be incorporated in series with building Installation and Maintenance AC power wiring for the equipment under protection.

EMC Emissions

Approved according to:

- US - FCC Part 15 sub part B, class A
- Europe - EN55022 class A and EN61000-3-2 and EN61000-3-3
- Japan - VCCI Class A

Immunity

Approved according to:

- EN 55024

Transportation

- NTSB

For additional information on our IP telephony solutions, please contact your Avaya Client Executive, Authorized BusinessPartner, or visit us

at avaya.com/learnmore/ip. For more information about Avaya and our other award-winning solutions, visit avaya.com.

About Avaya

Avaya enables businesses to achieve superior results by designing, building and managing their communications networks. Over one million businesses worldwide, including more than 90 percent of the FORTUNE 500®, rely on Avaya solutions and services to enhance value, improve productivity and gain competitive advantage.

Focused on enterprises large to small, Avaya is a world leader in secure and reliable IP telephony systems, communications software applications and full life-cycle services. Driving the convergence of voice and data communications with business applications – and distinguished by comprehensive worldwide services – Avaya helps customers leverage existing and new networks to unlock value and enhance business performance.

reach
AVAYA
a higher plane
of communication

IP Telephony

Contact Centers

Unified Communication

Services

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Printed in the U.S.A.

08/03 • EF-LB1998-02