



Cisco ONS 15454 Software Release 4.0.0 for the Cisco ONS 15454 SONET Multiservice Provisioning Platform

Cisco Systems® announces Cisco® ONS 15454 Software Release 4.0.0 for the industry-leading Cisco ONS 15454 SONET Multiservice Provisioning Platform (MSPP). Cisco ONS 15454 Software Release 4.0.0 focuses on enabling more efficient delivery of data services along with driving greater transport scalability and service interface densities.

Cisco ONS 15454 Software Release 4.0.0 Hardware Features and Benefits

Table 1 outlines the new hardware features supported by Cisco ONS 15454 Software Release 4.0.0.

Table 1 New Cisco ONS 15454 Software Release 4.0.0 Hardware Features

Feature	Benefit
ML-Series Ethernet cards	Offered in 12-port 10/100BASE-T and 2-port Gigabit Ethernet cards, enabling Layer 2 and Layer 3 services to be delivered over a SONET infrastructure. Using advanced quality of service (QoS) capabilities, the ML-Series Ethernet cards enable better transport bandwidth utilization by allowing service providers to aggregate more customers per deployed network resources.
OC-192 short-reach optics card	Provides one short-reach 1310-nm optical port in a single slot card. Allows a cost-effective interface, up to 2 km, to transponder-based metro and long-haul dense wavelength-division multiplexing (DWDM) systems.
OC-192 intermediate-reach optics card	Provides one intermediate-reach 1550-nm optical port in a single slot card. This card lowers networking costs for optical spans of less than 40 km.
OC-192 long-reach ITU optics card	Provides one long-reach 15xx.xx-nm optical port, supporting one of 32 ITU-100-GHz wavelengths, in a single-slot card. This card enables users to scale their metro/regional networks to support 320 Gbps per fiber using DWDM optical filters, such as the Cisco ONS 15216 family of optical filters.
G-Series card for extended cross-connect compatibility	The updated G-Series card adds compatibility with XC or XC-VT cross-connect-card-equipped nodes in the high-speed card slots. This feature allows a lower Gigabit Ethernet entry point for OC-48-based node deployments.



Table 1 New Cisco ONS 15454 Software Release 4.0.0 Hardware Features

Feature	Benefit
Advanced system processor card	The latest timing, communications, and control (TCC) card is an enhanced system processor designed to allow the Cisco ONS 15454 platform to scale and continue to deliver advanced capabilities. This card supports up to 84 data communications channel (DCC) terminations—32 terminations supported in Cisco ONS 15454 Software Release 4.0.0, per shelf assembly—providing the capability to terminate up to 42 rings or linear 1+1 connections on a single node. It also features an enhanced processor for improved software download, on-card lamp test support for simplified maintenance, and short-term time and date clock recovery for simplified operation.
8-port OC-3 intermediate-reach 1310-nm card	Provides eight intermediate-reach optical ports in a single-slot card. Increases OC-3 port shelf density, reducing networking costs by lowering the number of systems required in high-density, lower-speed optical termination applications.

Cisco ONS 15454 Software Release 4.0.0 Features and Benefits

Table 2 outlines the marquis-software-based features supported by Cisco ONS 15454 Software Release 4.0.0.

Table 2 Cisco ONS 15454 Software Release 4.0.0 Features and Benefits

Feature	Benefit
Advanced QoS capability on ML-Series cards	Innovative features such as flexible packet classification, virtual LAN (VLAN) translation, 802.1Q in .1Q with Layer 2 and Layer 3 priority adjustment, traffic policing, and per-class queuing enable users to maximize networking resources while satisfying the required service level agreements for the deployed applications.
Dual-ring interconnect for unidirectional path switched ring (UPSR)	This feature enables further survivability for circuits traversing between two UPSR rings. Two rings can be interconnected via two Cisco ONS 15454 network elements, and circuits traversing the two rings can be provisioned to be protected against node failures.
Linear-mapper mode for E-Series cards	An E-Series card provisioned in linear-mapper mode provides transparent transport of Ethernet frames for point-to-point circuits. This allows support for transparent LAN services with simplified provisioning requiring no VLAN or spanning-tree provisioning.
Expanded ring and linear network terminations per node	The Cisco ONS 15454 platform equipped with the TCC2 card will support up to 16 UPSR rings or 1+1 linear network terminations with active SDCC management overhead on a single shelf.

More detailed information can be found in the Cisco ONS 15454 Software Release 4.0.0 release notes, available at:

<http://www.cisco.com/univercd/cc/td/doc/product/ong/15400/454relnt/index.htm>

Cisco ONS 15454 Software Release 4.0.0 features are incremental additions to the Cisco ONS 15454 platform. Previously supported Cisco ONS hardware and software features will continue to be supported unless specified in the Cisco ONS 15454 Software Release 4.0.0 release notes.



Cisco IOS Software Release Information

The Cisco ONS 15454 ML-Series cards use Cisco IOS[®] Software to deliver Layer 2 and Layer 3 functionality and are provisioned via the Cisco IOS Software command-line interface. Cisco IOS Software Release 12.1(14)EY is integrated into Cisco ONS 15454 Software Release 4.0.0, enabling a single, unified software image for installation and operation. The Cisco IOS Software image is not upgradable independently from Cisco ONS 15454 Software.

For details on the capabilities offered by the Cisco IOS Software release on the Cisco ONS 15454 ML-Series cards, please review the Cisco ONS 15454 Software Release 4.0.0 user documentation, available at:

http://cisco.com/en/US/products/hw/optical/ps2006/prod_technical_documentation.html

Compatibility Information

Table 3 outlines the system requirements for hardware and software related to Cisco ONS 15454 Software Release 4.0.0.

Table 3 Hardware and Software Compatibility Matrix

Product Code	Cisco ONS 15454 Software	Processor	Cross-Connect	Shelf Assembly
Cisco ONS 15454 Release 4.0.0 software	Release 4.0.0	TCC+ or TCC2	XC, XC-VT, or XC-10G	Any (cross-connect dependent)
OC-192 short-reach, intermediate-reach, and long-reach ITU cards	Release 4.0.0	TCC+ or TCC2	XC-10G	15454-SA-ANSI
ML-Series cards	Release 4.0.0	TCC+ or TCC2	XC, XC-VT, or XC-10G	Any (cross-connect dependent)
G1K-4 Gigabit Ethernet card	Release 4.0.0	TCC+ or TCC2	XC, XC-VT, or XC-10G	Any (cross-connect dependent)
	Release 3.2 to Release 3.4.x	TCC+	XC-10G	15454-SA-ANSI
TCC2	Release 4.0.0	TCC2	XC, XC-VT, or XC-10G	Any (cross-connect dependent)
8-port OC-31R card	Release 4.0.0	TCC+ or TCC2	XC-10G	SA-ANSI

All other previously released Cisco ONS 15454 interface hardware is compatible with this software load. Before inserting a new node into an operating ring or linear network, all existing Cisco ONS 15454 nodes connected via optical SDCC interfaces should be upgraded to a consistent level of system software to ensure proper operation.

Availability

Equipment for Cisco ONS 15454 Software Release 4.0.0 is orderable as of March 19, 2003, with equipment shipment beginning approximately 30 days after orderability. Please contact your Cisco sales representative for more details.



Ordering Information

The Cisco ONS 15454 Software Release 4.0.0 can be ordered from your Cisco sales representative or through the Cisco.com online ordering tool. Specific product codes and descriptions are detailed in Table 4.

Table 4 Product Part Numbers and Descriptions

Product Names	Product Description
15454-OC192SR1310	OC-192 optics card, 1-port (Tx/Rx), short-reach, 1310-nm, single-mode SC connector, SONET system
15454-OC192IR1550	OC-192 optics card, 1-port (Tx/Rx), intermediate-reach, 1550-nm, single-mode SC connector, SONET system
15454-192L-1-xx.x¹	OC-192 optics card, 1-port (Tx/Rx), long-reach, 155x.xx-nm, 100-GHz, single-mode SC connector, SONET system
15454-ML100T-12	10/100-Mbps Ethernet card, 12-port, RJ-45, Layer 2 and Layer 3 switching, SONET system, includes console cable
15454-ML1000-2	1000-Mbps Ethernet card, 2-port, small form factor pluggable (SFP) slots , Layer 2 and Layer 3 switching, SONET system, includes console cable
15454-G1K-4	1000-Mbps Ethernet card, 4-port, Gigabit Interface Converter (GBIC) slots , Layer 1 transport XC/XC-VT/XC-10G compatible, SONET system
15454-TCC2	Timing, communications & control-version 2 (TCC2) card, industrial temperature rated, SONET system
15454-OC3I8-1310	OC-3/STM-1 optics card, 8-port, intermediate-reach, 1310-nm, single-mode LC connectors, SONET system
15454-SFP-LC-SX	1000BASE-SX SFP optics module, short-reach, 850-nm, multimode, LC connector
15454-SFP-LC-LX	1000BASE-LX SFP optics module, long-reach, 1310-nm, single-mode, LC connector
15454-R4.0.0SWCD	Cisco ONS 15454 Software Release 4.0.0, SONET system
SF15454-R4.0.0	Cisco ONS 15454 Software Release 4.0.0 preloaded on TCC cards and control cards, SONET system
15454-LIC-UPG	Assemble-to-order (ATO) part number for purchase of software license for upgrading an existing node to another system software release
15454-DOC4.0.0PP	User documentation (in paper format) for Cisco ONS 15454 Software Release 4.0.0, SONET system
15454-DOC4.0.0CD	User documentation (in CD-ROM format) for Cisco ONS 15454 Software Release 4.0.0, SONET system

1. Orderable wavelengths can be found on the pricing tool located at Cisco.com: <http://www.cisco.com/en/US/partner/ordering/index.shtml>

Note: The systems and products described in this document are subject to new product hold, a status assigned to all new items that have not yet transacted through the Cisco Manufacturing system and may not be available. Thus, product delivery dates can vary past the quoted first customer ship (FCS) date.

Cisco ONS 15454 products may be ordered through the Cisco Networking Products Marketplace online order entry tool. The product names and new Common Language Equipment Identifier (CLEI) codes for the Cisco ONS 15454 products are available online at:
http://cisco.com/cgi-bin/front.x/clei/code_search.cgi

For More Information
For more information on the Cisco ONS 15454 platform, visit:
<http://cisco.com/en/US/products/hw/optical/ps2006/index.html>
To order Cisco equipment, visit:
<http://www.cisco.com>



Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 526-4100

European Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: 31 0 20 357 1000
Fax: 31 0 20 357 1100

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-7660
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
Capital Tower
168 Robinson Road
#22-01 to #29-01
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

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