



Cisco ONS 15454 SONET Software Release 4.6.0

Cisco Systems® announces Cisco® ONS 15454 SONET Software Release 4.6.0 for the industry-leading Cisco ONS 15454 SONET Multiservice Provisioning Platform (MSPP). Cisco ONS 15454 SONET Software Release 4.6.0 increases its multiservice support through the addition of Fibre Channel service interfaces. As well, software consolidation has been completed for the intelligent DWDM functionality (MSTP) with the industry leading MSPP to deliver unprecedented transport capabilities from a single platform.

Cisco ONS 15454 SONET Software Release 4.6.0 Hardware Features and Benefits

Cisco Systems® announces the Cisco® ONS 15454 SONET Software Release 4.6.0. Table 1 outlines the new hardware features supported by this release.

Table 1 New Cisco ONS 15454 SONET Software Release 4.6.0 Hardware Features

| Feature | Benefit |
|---|--|
| Cisco ONS 15454 SL Series Fibre Channel over SONET(FCoS) card | The Cisco ONS 15454 SL Series FCoS card enables support for storage-area-network (SAN) transport over a converged, multiservice, SONET network. The 4-port card supports 1- or 2-Gbps Fibre Channel encapsulated using ITU-T G.707 General Framing Procedure (GFP) and transported over contiguously concatenated or virtually concatenated SONET-protected circuits. |
| 10-Gbps multirate transponder card | The 10-Gbps multirate transponder card enables efficient mapping of OC-192, STM-64, or 10-Gigabit Ethernet LAN physical layer (PHY) signals to an ITU-T compliant, 100-GHz spaced, 50-GHz stabilized, tunable, 10-Gbps wavelength for multiplexing over a dense wavelength-division multiplexing (DWDM) network. The card uses G.709 digital wrapper technology with provisionable Forward Error Correction (FEC) for improved performance and management capabilities. |
| 4 x OC-48 muxponder card | The 4 x OC-48 muxponder card expands the interface density of the platform, lowering the cost per bit for high-count, 2.5-Gbps interface requirements. Four OC-48 client interfaces are mapped to an ITU-T compliant, 100-GHz spaced, 50-GHz stabilized, tunable, OC-192 wavelength for multiplexing over a DWDM network. Small Form-Factor Pluggable (SFP) client optics provide user flexibility and lower networking cost. The card uses G.709 digital wrapper technology with provisionable Forward Error Correction (FEC) for improved performance and management capabilities. |



Cisco ONS 15454 SONET Software Release 4.6.0 Features and Benefits

Table 2 outlines the marquis-software-based features supported by Cisco ONS 15454 SONET Software Release 4.6.0.

Table 2 Cisco ONS 15454 SONET Software Release 4.6.0 Features and Benefits

| Feature | Benefit |
|--|---|
| Consolidated intelligent DWDM and multiservice provisioning platform (MSPP) software image | A consolidated software load allows deployment of the Cisco ONS 15454 as an MSPP node, as a multiservice-transport-platform (MSTP) intelligent DWDM node, or as a hybrid node. This simplifies networking and operations through a common user interface. |
| Cisco ONS 15454 ML Series Ethernet card feature enhancements | Software enhancements enable existing Cisco ONS 15454 ML Series 10/100BASE-T and Gigabit Ethernet cards to support virtual concatenation (VCAT), a software-based link capacity adjustment scheme (SW-LCAS), subinterface, per-VLAN performance statistics, as well as Ethernet over Multiprotocol Label Switching (EoMPLS). These new features expand the network applications supported by the Cisco ONS 15454 ML Series card, in addition to simplifying operations. |
| DS-3 international (DS-3I) card support | Support for the DS-3I card in the SONET platform enables termination of DS-3 services originally sourced from a Cisco ONS 15454 SDH platform. |
| Cisco ONS 15454 Timing, Communications, and Control Version 2 (TCC2) processor card feature enhancements | Software enhancements enable existing TCC2-equipped network elements to support up to 68 data-communications-channel (DCC) terminations, providing hosting of up to 34 unidirectional-path switched rings (UPSRs), five bidirectional line switched rings (BLSRs), or a combination of the two. These enhancements support user-provisionable section or line DCC usage, and provisionable threshold-crossing-alert (TCA) settings for -48 VDC input monitoring. These features further strengthen the networking capabilities of the Cisco ONS 15454 and drive significant reductions in capital expenditures (CapEx). |

More detailed information can be found in the Cisco ONS 15454 Software Release 4.6.0 release notes, available at: http://cisco.com/en/US/products/hw/optical/ps2006/prod_release_notes_list.html.

Cisco ONS 15454 Software Release 4.6.0 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 4.6.0 release notes.

Cisco IOS Software Release Information

The Cisco ONS 15454 ML Series cards, which use Cisco IOS® Software to deliver Layer 2 and Layer 3 functions, are provisioned through the Cisco IOS Software command-line interface. Cisco IOS Software Release 12.1(20)EO is integrated into Cisco ONS 15454 Software Release 4.6.0, 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 about the capabilities offered by the Cisco IOS Software release on the Cisco ONS 15454 ML Series cards, review the Cisco ONS 15454 Software Release 4.6.0 user documentation, available at:

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



Compatibility Information

Table 3 outlines the system requirements for hardware and software related to Cisco ONS 15454 SONET Software Release 4.6.0.

Table 3 Hardware and Software Compatibility Matrix

| Product Code | Cisco ONS 15454 Software | Processor | Cross-Connect | Shelf Assembly |
|--|--------------------------|------------------------------|---|-------------------------------|
| Cisco ONS 15454 SONET Release 4.6.0 Software | Release 4.6.0 | TCC2 | XC, XC-VT, or XC-10G | Any (cross-connect dependent) |
| Cisco ONS 15454 SL Series FCoS card | Release 4.6.0 | TCC2 | XC-10G | 15454-SA-ANSI, 15454-SA-HD |
| 10-Gbps multirate transponder card | Release 4.6.0 | TCC2 | XC, XC-VT, or XC-10G (not required in DWDM-only node) | Any (cross-connect dependent) |
| 4 x OC-48 muxponder card | Release 4.6.0 | TCC2 | XC, XC-VT, or XC-10G (not required in DWDM-only node) | Any (cross-connect dependent) |
| DS-3 international (DS-3) card | Release 4.1.3 or 4.6.0 | TCC+ (R4.1.3), TCC2 (R4.6.0) | XC, XC-VT, or XC-10G | Any (cross-connect dependent) |

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 with optical section-data-communication-channel (SDCC) interfaces should be upgraded to a consistent level of system software to ensure proper operation.

Availability

Equipment for Cisco ONS 15454 SONET Software Release 4.6.0 will be orderable on January 7, 2004 with equipment shipment beginning approximately 30 days after orderability. Contact your Cisco sales representative for more details.

Ordering Information

The Cisco ONS 15454 SONET Software Release 4.6.0 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 Part Number | Product Description |
|--------------------------------|---|
| 15454-10T-L1-xx.x ¹ | 10-Gbps multirate transponder card, 1-port (Tx/Rx) short-reach, 1310-nm, single-mode client interface with LC connectors, 1-port (Tx/Rx) long reach, ITU compliant, 100-GHz spaced, 50-GHz stabilized, two-channel tunable, DWDM wavelength (00.0) interface with LC connectors, SONET system |



Table 4 Product Part Numbers and Descriptions (Continued)

| Product Part Number | Product Description |
|--------------------------------|--|
| 15454-10M—L1-xx.x ¹ | 4 x OC-48 muxponder card, four SFP pluggable client interface slots, OC-192 optics card, 1-port (Tx/Rx) long reach, ITU compliant, 100-GHz spaced, 50-GHz stabilized, two-channel tunable, DWDM wavelength (00.0) interface with LC connectors, SONET system; SFPs sold separately |
| 15454-FC-MR-4 | Fibre Channel card, 1- or 2-Gbps, four GBIC pluggable client interface slots, SONET system; GBICs sold separately |
| 15454E-DS3IN-12 | DS-3 international card, 12 ports, designed to terminate DS-3 signals originating on a Cisco ONS 15454 SDH platform; operates as either a working or protection card, industrial temperature rated, SONET system |
| ONS-GX-2FC-MMI | GBIC optics module, 1- or 2-Gbps Fibre Channel, 850 nm, multimode, SC connectors |
| ONS-GX-2FC-SMI | GBIC optics module, 1- or 2-Gbps Fibre Channel, 1310 nm, single mode, SC connectors |
| 15454-R4.6.0SWCD | Cisco ONS 15454 Software Release 4.6.0, SONET system |
| SF15454-R4.6.0 | Cisco ONS 15454 Software Release 4.6.0 preloaded on TCC cards and control cards, SONET system |
| 15454-LIC-R4.6.0 | Software upgrade license used for upgrading an existing node to another system software release, used with assemble-to-order (ATO) part number 15454-LIC-UPG |
| 15454-DOC4.6.0PP | User documentation (in paper format) for Cisco ONS 15454 Software Release 4.6.0, SONET system |
| 15454-DOC4.6.0CD | User documentation (in CD-ROM format) for Cisco ONS 15454 Software Release 4.6.0, SONET system |

1. Orderable wavelengths can be found on the pricing tool located at Cisco.com

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://tools.cisco.com/emco/pcnclei/prsc>

For More Information

For more information about 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/en/US/ordering/index.shtml>

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