



CISCO ONS 15454 SDH MSPP RELEASE 5.0

PRODUCT OVERVIEW

The Cisco® ONS 15454 Multiservice Provisioning Platform (MSPP) provides a solid foundation for building service provider or enterprise optical transport networks that deliver video, voice, storage, and data services. The Cisco ONS 15454 SDH MSPP offers the following capabilities:

- Scalable platform supporting networks from STM-1 (155 Mbps) to STM-64 (10 Gbps) plus 32-channel DWDM capabilities
- Comprehensive offering of multiservice interfaces supporting TDM, Ethernet, storage, and data applications needs
- Robust design to support carrier-class deployments
- SONET and Intelligent DWDM configuration options
- Comprehensive, multilayer management capabilities enabled through the Cisco Transport Controller craft management system, Transaction Language one (TL-1) interface, Simple Network Management Protocol (SNMP), and Cisco Transport Manager element management system with northbound interfaces to network management and operational support systems.

RELEASE 5.0 FEATURES

New hardware and software features provided by the Cisco ONS 15454 SDH MSPP Release 5.0 are outlined in Table 1 and Table 2.

Table 1. Cisco ONS 15454 SDH MSPP Release 5.0 Hardware Features

Feature	Description
Timing, Communications, and Control-version Two Plus card (TCC2P) with secure operating mode	Enables the 2 management LAN ports to be provisioned either with independent IP/MAC addresses for additional network security/segregation or with a single IP/MAC for simplicity. Fully interoperable with the TCC2 card and in all TCC2 deployed systems.
12-port STM-1/E4 electrical interface card	This card provide 12 cost effective STM-1 electrical ports per card for high-speed, 155Mbps carrier interconnections between voice switches, digital cross connects (DXCs), add/drop multiplexers (ADMs), and other existing network equipment. Four of the 12 ports can be provisioned to support E4 service. This module can be deployed with 1:1 equipment protection or can be unprotected. Front access electro-mechanical interfaces are provided via the front mount electrical connection (FMECs) module.

Table 2. Cisco ONS 15454 SDH MSPP Release 5.0 Software Features

Feature	Description
Protection upgrades from subnetwork connection protection (SNCP) to multiplex section-shared protection ring (MS-SPR)	Provides additional networking flexibility to match changing traffic patterns by allowing in-service ring protection migrations.
Dual ring interconnect (DRI) for MS-SPR	Additional level of circuit resiliency when a network segment traverses more than 1 ring.
SL-Series Fibre-Channel over SDH card enhancements for sub-rate circuit and extended distance support	Sub-rate Fibre Channel circuits using either contiguous concatenation or high-order (VC-4-Nv) virtual concatenation (VCAT). Distance extension up to 1150/2300 km (at 1 Gbps/2 Gbps line rates) using buffer-to-buffer flow control credit management.
Consolidation of the Cisco ONS 15454 MSPP and MSTP (Release 4.7)	Single Cisco ONS 15454 software load to support MSPP and Multiservice Transport Platform (MSTP) applications for simplified operations and additional platform flexibility.

functionality

More detailed information can be found in the release notes for the Cisco ONS 15454 SDH MSPP available at:

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

Cisco ONS 15454 SDH Software Release 5.0 features are incremental additions to the Cisco ONS 15454 SDH MSPP. Previously supported Cisco ONS 15454 SDH MSPP hardware and software features will continue to be supported unless specified in the release notes, user documentation, or previously announced end-of-sale product bulletins.

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 12.2(18)SO is integrated into Cisco ONS 15454 Software Release 5.0, enabling a single, unified software image for installation and operation. The Cisco IOS Software image is not upgradable independently from Cisco ONS 15454 SDH MSPP 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 5.0 user documentation, available at:

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

UPGRADE PATHS

Direct software upgrades to Cisco ONS 15454 SDH Release 5.0 are supported from Cisco ONS 15454 SDH Release 4.0, 4.1, 4.5, 4.6, and 4.7 if the system is presently operating with the Cisco ONS 15454 Timing, Communications, and Control Version 2 card (TCC2 or TCC2P). For details on the upgrade procedures, please review the appropriate upgrade guide found at the following URL:

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

COMPATIBILITY INFORMATION

Table 3 outlines the Cisco ONS 15454 SDH system deployment requirements for hardware and software functionality being announced within this bulletin.

Table 3. Cisco ONS 15454 SDH System Requirements

Feature	Cisco ONS 15454 SDH Software	Cisco ONS 15454 SDH Timing, Communications, and Control Card	Cisco ONS 15454 SDH Cross-Connect Card	Cisco ONS 15454 SDH Shelf Assembly
Cisco ONS 15454 SDH Software Release 5.0	Release 5.0	TCC2 or TCC2P	XC-VXL-2.5 or XC-VCL-10G	SA-ETSI
Timing, Communications, and Control-version Two Plus card (TCC2P) with secure operating mode	Release 5.0	TCC2 or TCC2P	XC-VXL-2.5 or XC-VCL-10G	SA-ETSI
12-port STM-1E/E4 electrical card	Release 5.0	TCC2 or TCC2P	XC-VXL-2.5 or XC-VXL-10G	SA-ETSI
Protection upgrades from SNCP to MS-SPR	Release 5.0	TCC2 or TCC2P	XC-VXL-2.5 or XC-VCL-10G	SA-ETSI
DRI for MS-SPR	Release 5.0	TCC2 or TCC2P	XC-VXL-2.5 or XC-VCL-10G	SA-ETSI
Consolidate Cisco ONS 15454 MSTP Release 4.7 features	Release 5.0	TCC2 or TCC2P	XC-VXL-2.5 or XC-VCL-10G	SA-ETSI

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Before inserting a new node into an operating network, all existing Cisco ONS 15454 nodes connected with active optical multiplex section-data-communication-channel (MSDCC) interfaces should be upgraded to a consistent level of system software to ensure proper operation.

AVAILABILITY

The Cisco ONS 15454 SDH MSPP products outlined in Table 4 is currently orderable with equipment shipments starting in approximately 30 days. Contact your Cisco sales representative for more details.

ORDERING INFORMATION

Table 4. Ordering Information for Cisco ONS 15454 SDH MSPP Products

Part Number	Description
15454E-R5.0.0SWK9	System software, SDH, Release 5.0.0, ONS 15454, CD-ROM
SF15454E-R5.0.0K9	System software, SDH, Release 5.0.0, ONS 15454, ordered with TCC2 card (pre-loaded)
15454E-LIC-R5.0.0K9	Software upgrade license, SDH, used for upgrading and existing node to another system software release, ordered using assemble-to-order (ATO) part number 15454-LIC-UPG
15454E-DOC5.0.0PP	User document, ONS 15454, SDH, Release 5.0.0, paper version
15454E-DOC5.0.0CD	User document, ONS 15454, SDH, Release 5.0.0, CD-ROM version
15454E-TCC2P-K9	Timing, communications and control-version 2 plus card, provisionable secure-mode, industrial temperature rated
15454E-STM1E	12-port STM-1/E4 electrical interface card
15454E-STM11-FMEC	STM-1E FMEC card, supports 1:1 protection or unprotected

FOR MORE INFORMATION

For more information about the Cisco ONS 15454 SDH MSPP, visit <http://cisco.com/en/US/products/hw/optical/ps2006/ps2008/index.html> or contact your local account representative.

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