

New and Changed Information

This table summarizes the new and changed information for Release 11.12, and tells you where the features are documented.

Table 1: New and Changed Features - R11.12

Feature	Description	Where Documented
Secure Unique Device Identification (SUDI) SUDI 2099 Certificates for WSE, MR-MXP, and 400G XP Cards	This enhancement allows you to extend the usage of WSE, MR-MXP and 400G-XP-LC cards with encryption functionality beyond year 2029. This extended validity helps to avoid encryption and card upgrade failures.	*Cisco ONS 15454 DWDM Line Card Configuration Guide* SUDI 2099 Certificate for WSE, MR-MXP, and 400G-XP-LC Cards
GMPLS Hybrid circuit between NCS 4000 and 400G-XP-LC-CFP2	This enhancement allows you to create a GMPLS Hybrid circuit connection between NCS 4000 and NCS 2000 with 400G-XP-LC-CFP2 transponder.	*Cisco ONS 15454 DWDM Network Configuration Guide* DLP-G800 Create an Link Management Protocol (LMP) Link Using CTC
Dynamic Power Allocation on 200G-CK-LC and 400G-XP-LC Cards	This enhancement allows you to dynamically allocate power based on the line card operating mode. This maximizes the usage of the NCS 2015 chassis slots in a 2+2 PSU configuration. This feature is supported on the 200G-CK-LC and 400G-XP-LC cards.	*Cisco ONS 15454 DWDM Line Card Configuration Guide* 200G-CK-LC Card 400G-XP-LC Card
Pluggables Support	• QSFP-100G-FR-S pluggable is supported on 400G-XP-LC card. • CPAK-100G-FR pluggable is supported on 200G-CK-LC and MR-MXP cards	*Installing the GBIC, SFP, SFP+, QSFP, XFP, CXP, CFP, and CPAK Optical Modules in Cisco ONS Platforms* Compatibility by Card QSFP Specifications CPAK Description and Specifications

Feature	Description	Where Documented
MCH Custom Alien Wavelength and MEDIA CHANNEL OCH NC circuit management through CTC	The feature allows you to create an MCH custom alien wavelength and the associated MEDIA CHANNEL OCH NC circuit specifying the following parameters through CTC: • Signal width • Modulation guard band • Filtering guard band This functionality enables you to create a medial channel of any spectrum size, for example, signal width of 34.20 GHz, modulation GB of 1.71 GHz, and filtering GB of 4.92 GHz.	*Cisco ONS 15454 DWDM Network Configuration Guide, Release 11.x.x* MCH Custom Alien Bandwidth Parameters
Fiber Shuffle Upgrade	This feature allows you to upgrade the Boot ROM version, OS Kernel, and Uboot version of the fiber shuffle through CTC.	*Cisco ONS 15454 DWDM Control Card and Node Configuration Guide* DLP-G793 Performing Upgrade on Fiber Shuffle

This table summarizes the new and changed information for Release 11.1.1.2, and tells you where the features are documented.

Table 2: New and Changed Features - R11.1.1.2

Feature	Description	Where Documented
OTDR Enhancements	Optical Time Domain Reflectometer (OTDR) supports the Refractive Index (RI) and Backscatter Coefficient (BS) parameters for OTDR scan.	*Manage the Node*
GCC0 Transparency in REGEN Mode	The GCC0 enable in REGEN mode is supported on the 400G-XP-LC card.	*Cisco ONS 15454 DWDM Line Card Configuration Guide* 400G-XP-LC Card

Table 3: New and Changed Features - R11.1

Feature	Description	Where Documented
Submarine Line Terminal Equipment (SLTE)	In Submarine Line Terminal Equipment (SLTE) topology, the channel SMR (CH SMR) card of NCS 2000 node aggregates channels from transponders, say NCS 1004. If there is more than one channel SMR card, they are connected by the 1*6 AD-CFS passive module. The aggregated channels from this passive module are transmitted to the fan-out module that covers signals from other geographical locations and SMR card. The channels are then transmitted to the SLTE SMR card that faces the submarine system.	*Cisco ONS 15454 DWDM Network Configuration Guide* Understanding SLTE
400G-XP-LC Enhancements	The OPM_PEER_ODU2 and OPM_PEER_ODU2e slice modes are available on Slice 2 when the 400G-XP-LC card is configured in the MXP mode for any trunk configuration. These slice modes support interoperability with a peer 10x10G-LC card. The peer 10x10G-LC card can only be installed in an even slot of the Cisco NCS 2006 or Cisco NCS 2015 chassis. The payloads supported on the 10x10G-LC card are OTU2, OTU2e, OC192/STM64, and 10GE.	*Cisco ONS 15454 DWDM Line Card Configuration Guide* 400G-XP-LC Card
GMPLS Enhancements	• Restoration is supported on Regen NCS 1004. • Manages greater than 50dB high span loss from validation. • Supports 200G QPSK from NCS 1004.	*Cisco ONS 15454 DWDM Network Configuration Guide* DLP-G800 Create an LMP Link Using CTC
LOGO Expert Mode	When the Expert mode is configured for an optical side, spectral parameters such as Linear XT avg, Linear XT Stdev, Non-linear XT avg and Non-linear XT Stdev are used by the control plane for optical validation. These parameter values are obtained from the XML file. These spectral values must not be modified, unless instructed by the Cisco TAC representative.	*Cisco ONS 15454 DWDM Control Card and Node Configuration Guide* *LOGO Expert Mode*

This table summarizes the new and changed information for Release 11.0, and tells you where the features are documented.

Table 4: New and Changed Features - R11.0

Feature	Description	Where Documented
OTNXC encryption	The OTNXC operating mode on the 400G-XP-LC card supports encryption.	*Cisco ONS 15454 DWDM Line Card Configuration Guide* NTP-G367 Provisioning Encryption on 400G-XP-LC Card
Third party certificates for encryption	The 400G-XP-LC card supports the generation of a Certificate Signing Request (CSR) and the installation of Locally Significant Certificates (LSCs) that can be used to authenticate the peer card connection. Third party certificates also referred to as Locally Significant Certificates (LSCs) are certificates that are signed by a Certification Authority (CA) other than Cisco Certificate Authority. LSCs allow customers to have their own Public Key Infrastructure (PKI) to provide better security, to have control of their own CA, and to define policies, restrictions, and usages on the generated certificates.	*Cisco ONS 15454 DWDM Line Card Configuration Guide* NTP-G363 Provisioning LSC on Cards
ANS APC Skipping	The upgraded NE update XML file imported on the CTC for the respective node will import the new ANS parameters and settings for the new degree or modules. The existing ANS parameters or module settings are not affected. This prevents unintended changes to the APC corrections to the existing degree and its associations.	*Cisco ONS 15454 DWDM Network Configuration Guide* Automatic Node Setup
OTDR Support for TNCS-2O Cards	A TNCS-2O card has an optical module that provides Optical Time Domain Reflectometer (OTDR) measurement, ORL measurement, and standard Optical Service Channel (OSC) capability on two ports. These capabilities are available for up to four ports for each shelf; one shelf can have two TNCS-2O cards.	*Cisco ONS 15454 DWDM Network Configuration Guide* • Provisioning OTDR *Manage the Node* • NTP-G357 Perform OTDR Scan and OTDR Event Scan
Regenerator Constraints Support	For using a regenerator, the optical path needs to be validated. If the optical validation fails, then, the regenerator cannot be used, and the circuit creation fails. If validation is not supported, pre-validated paths are calculated offline and provided as a constraint to the control plane, while setting up the main and restored paths.	*Cisco ONS 15454 DWDM Network Configuration Guide*

Feature	Description	Where Documented
TNCS-2 and TNCS-2O Control Cards	The TNCS-2 and TNCS-2O are new control cards compatible with all chassis types such as, Cisco ONS 15454 M2, Cisco ONS 15454 M6, and NCS 2015.	*Cisco ONS 15454 Control Card and Node Configuration Guide* TNCS-2 and TNCS-2O Cards
TNCS-O Card Support	The TNCS-O card is supported on the Cisco 15454 M2.	*Cisco ONS 15454 Control Card and Node Configuration Guide* TNCS-O Card
400G-XP-LC enhancements	• The new payloads supported for the MXP operating mode are FC-10G, FC-8G, and 40G. • The OPM_2x40G_2x10G slice mode can be configured in the MXP operating mode for 40GE payloads. • LLDP support—The source MAC address of 10 or 100GE ports can be retrieved after an LLDP packet is received on the client port. LLDP filtering is enabled or disabled on the 10GE or 100GE ports using the Provisioning > Line > Ethernet tab in CTC.	*Cisco ONS 15454 DWDM Line Card Configuration Guide* 400G-XP-LC Card
NCS 1004 Alien	Two variants of 300G, such as 300G_3bps and 300G_3.4375bps are added in the wavelength drop-down list.	*Cisco ONS 15454 DWDM Network Configuration Guide* DLP-G800 Create an LMP Link Using CTC
8QAM Support on non-SSON	In non-SSON, the user can force the wavelength by checking the wavelength configuration check box and choosing the wavelength from the drop-down list.	*Cisco ONS 15454 DWDM Network Configuration Guide* Provision GMPLS Optical Channel Network Connections Using Non-SSON

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