



# Cisco ONS 15454

## System Software Release 3.2.1

### Introduction

Telecommunications networks are in a constant state of flux, as the mix of transport services migrates away from time-division multiplexing (TDM) based, voice-centric offerings towards Internet enabled data, video and voice services. The Cisco ONS 15454 is the industry's leading multiservice provisioning platform (MSPP). The product delivers SONET/SDH transport, integrated optical networking, unprecedented multiservice interfaces and low initial and long-term economic benefits for today's ever-changing networks. The inherent flexibility of the Cisco ONS 15454 enables service providers and Enterprise customers to economically migrate their networks to meet today's market demands.

The ONS 15454 leverages Synchronous Optical Network (SONET) technology to support service providers and large enterprise customers' need for network reliability, support for TDM traffic, while integrating data technologies to efficiently aggregate and transport frame-, packet-, and cell-based traffic over a single, converged network. Changing traffic requirements are not the only network challenge. Thus, the Cisco ONS 15454 solution is engineered to be simple to order and configure, quick to install, and easy to provision, reducing long-term ownership and operation costs.

### ONS 15454 Release 3.2.0 Features

Cisco ONS 15454 Release 3.2.0 system software introduced many feature and functionality enhancements. Some of the more notable feature enhancements are listed below:

- Carrier-class Gigabit Ethernet via the G1000-4 card offering full line rate private line Ethernet transport
- OC48 Any-slot card operation in high-speed slot with XC or XC-VT cross-connect cards
- SNMP set for RMON provisionability
- SDH tunneling of AU-3 mapped STM-N interfaces
- Muxponder byte transparency (overhead byte remapping)

For more detailed information, please refer to the *Release Notes for Cisco ONS 15454 Release 3.2.0* (<http://www.cisco.com/univercd/cc/td/doc/product/ong/15400/454relnt/index.htm>)

## Cisco ONS 15454 Maintenance Release 3.2.1 Issue Resolutions

The Cisco ONS 15454 solution is deployed in a variety of customer networks in multiple applications. Customer feedback and Cisco's testing group help identify areas of improvement, which ultimately drives the constant evolution of the product and its functionality. Cisco ONS 15454 Release 3.2.1 system software further strengthens the overall software code base. Release 3.2.1 is a maintenance release that resolves the following system issues.

- CSCdw61278—When running STS1 or STS3c circuits with G1000 traffic and executing an XC switch, a hit of 500 ms to 1.2 seconds is possible in the G1000 traffic. Before removing an XC card, make it the standby card (by switching from the management interface).
- CSCdw69347—When sending frames greater than 16384 bytes that also have a valid and matching Ethernet CRC over the G1000-4, the link between the ports can sometimes toggle up and down. The receiving port should discard oversized packets, rather than bringing the link down. In practice, no real-world device is expected to generate frames that are both greater than 16384 bytes and also have a correct Ethernet CRC. This issue is most likely to be seen when using test equipment in the lab (which can be set up to generate frames which are both greater than 16384 bytes and have a correct CRC), rather than with real world Ethernet switches or routers.
- CSCdx05444—If a circuit already exists on a G1000-4 card, the provisioning of any subsequent circuit can cause bit errors up to 1 ms on the existing circuit(s). The only affected circuit size is 24c.
- CSCdw85221—In a 4 fiber BLSR network, traffic may be lost when issuing FS-R and MS-R on two adjacent nodes and releasing the FS-R very quickly. To avoid this issue, allow some time between each user command.
- CSCdw86238—During a node isolation caused by a Force Ring on one side and a signal failure on the other side of the node, when the signal failure on the other side clears, you can lose pass-through traffic. If the node isolation was caused by a Force Ring on one side and signal failure on the other side, issue a Force Ring on the side with signal failure to avoid traffic loss. Do not repair the signal condition before issuing the second Force Ring.
- CSCdx04313—Some combinations (unknown) of super-user and password may fail when you attempt to FTP to a node. To work around this issue, you must create another Superuser ID and try again.
- CSCdw52669—After a power failure, when the node reboots, a BLSR might switch back early to the working cards and cause a traffic outage on the pass-through circuits. This occurs only in four-fiber BLSR (Release 3.1 and later only). This issue is resolved in Release 3.2 to traffic hits less than 200 ms, and resolved in Release 3.2.1 to within specification (less than 100 ms). Note, however, that four-fiber OC-192 may still see up to 200 ms traffic hit on a node power cycle.
- CSCdw58919—After a power cycle on a traffic-carrying pass-through node in a BLSR, while the node is rebooting, sometimes a long or double traffic hit can occur. If you know you are going to power cycle the node, apply a Lockout-Span on both sides of the node first.
- CSCdw75755—Malformed SNMP traps can cause TCC resets. Use fire-walling or access control lists to prevent SNMP traps from being sent into an ONS 15454 from any external system. For more information, consult the PSIRT notification on SNMP vulnerabilities.
- CSCdx40587—In TL1, pressing the “Ctrl X” key combination when connected to serial port causes a TCC reset. This does not impact traffic. Note that “Ctrl X” is not a supported TL1 command and should not be used.
- CSCdx48853—The Cisco ONS 15454 optical transport platform is vulnerable when IP packets, with the Type Of Service (TOS) bit enabled, are sent to the Timing Control Card (TCC) LAN interface. Cisco ONS software Releases 3.1 and 3.2 are vulnerable. The following advisory offers workarounds to mitigate the effects of this vulnerability: <http://www.cisco.com/warp/public/707/ons-tos-vuln-pub.shtml>.
- CSCdx55434—In a 1+1 OC-48 configuration with a UNEQ-P condition on the working OC-48, the severity of the UNEQ-P is displayed as critical on the first working STS, but minor on others.
- CSCdx69931—The Conditions tab does not show a timestamp on each fault condition to show when it was raised. This is not a bug, but rather, an unsupported feature. Timestamps were added in maintenance Release 3.2.1, and will be added to all products thereafter.

For more detail regarding resolved system software issues, refer to *Release Notes for Cisco ONS 15454 Release 3.2.1* (<http://www.cisco.com/univercd/cc/td/doc/product/ong/15400/454relnt/index.htm>).

## Backward Compatibility

The Cisco ONS 15454 Release 3.2.1 software requires the use of the TCC+ (timing, communications and control card). All other previously released Cisco ONS 15454 interface and common control hardware is compatible with this software load with the exception of the hardware release post R3.2.0 software, including the four-port OC12 card, AIC-I card, and AEP released in 3.3.0 and 3.4.0. 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 & Ordering Information

All of the Cisco ONS Release 3.2.1 system software products, listed in the table below, are orderable and shipping today!

Product Name	Description
15454-R3.2.1SW/CD=	Release 3.2.1 Feature Package, CD-ROM
SF15454-R3.2.1	Release 3.2.1 Software, pre-loaded on TCC+ card

Cisco ONS 15454 Release 3.2.1 system software can be ordered by your Cisco sales representative or through the Cisco **Networking Products Marketplace** online order entry tool.

## More Information

For more information on the ONS 15454 Multiservice Provisioning Platform (MSPP), go to <http://cisco.com/en/US/products/hw/optical/ps2006/index.html>.



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