



Release Notes for Cisco ONS 15600 Release 6.2.4



Note

The terms “Unidirectional Path Switched Ring” and “UPSR” may appear in Cisco literature. These terms do not refer to using Cisco ONS 15xxx products in a unidirectional path switched ring configuration. Rather, these terms, as well as “Path Protected Mesh Network” and “PPMN,” refer generally to Cisco’s path protection feature, which may be used in any topological network configuration. Cisco does not recommend using its path protection feature in any particular topological network configuration.

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Release notes address closed (maintenance) issues, caveats, and new features for the Cisco ONS 15600. For detailed information regarding features, capabilities, hardware, and software introduced with this release, refer to Release 6.0 of the *Cisco ONS 15600 Procedure Guide*, *Cisco ONS 15600 Reference Manual*, *Cisco ONS SONET TLI Command Guide*, and *Cisco ONS 15600 Troubleshooting Guide*. For the most current version of the Release Notes for Cisco ONS 15600 Release 6.2.4, visit the following URL:

http://www.cisco.com/en/US/products/hw/optical/ps4533/prod_release_notes_list.html

Cisco also provides Bug Toolkit, a web resource for tracking defects. To access Bug Toolkit, visit the following URL:

<http://tools.cisco.com/Support/BugToolKit/action.do?hdnAction=searchBugs>

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Changes to the Release Notes

This section documents supplemental changes that have been added to the *Release Notes for Cisco ONS 15600 Release 6.2.4* since the production of the Cisco ONS 15600 System Software CD for Release 6.2.4.

No changes have been added to the release notes for Release 6.2.4.

Caveats

Review the notes listed below before deploying the ONS 15600. Caveats with DDTS tracking numbers are known system limitations that are scheduled to be addressed in a subsequent release. Caveats without DDTS tracking numbers are provided to point out procedural or situational considerations when deploying the product.

Hardware

ONS-SE-2G-xx.x

The ONS-SE-2G-xx.x complies with performance criteria for all intra-facility fiber cables and connectors per Telcordia GR-326-CORE, Issue 3 Sept 1999. Cisco recommends the following approved suppliers for intrafacility fiber cables to use with this product:

- Volex
- Fitel
- Sumitomo
- Fujikura
- Tyco

Maintenance and Administration



Caution

VxWorks is intended for qualified Cisco personnel only. Customer use of VxWorks is not recommended, nor is it supported by Cisco's Technical Assistance Center. Inappropriate use of VxWorks commands can have a negative and service affecting impact on your network. Please consult the troubleshooting guide for your release and platform for appropriate troubleshooting procedures. To exit without logging in, enter a Control-D (hold down the Control and D keys at the same time) at the Username prompt. To exit after logging in, type "logout" at the VxWorks shell prompt.

CSCsh04625

The ONS 15600 system is not able to perform a database backup (copy-rfile) of 15600 ENE node, via a TL1 session launched from 15600 GNE Node, as described in documentation. This issue will be resolved in a future release.

CSCsh04696

The 15600 system is not able to perform a database restore (copy-rfile) of 15600 ENE node, via a TL1 session launched from 15600 GNE Node, as described in documentation. This issue will be resolved in a future release.

CSCsh18108

When a card is deleted from the system memory leaks have occurred. This issue will be resolved in a future release.

CSCeh84908

A CTC client session can disconnect from an ONS node during simultaneous deletion of large numbers of VT level circuits (3000+). Connectivity to the node will recover without any user action. If the condition persists, restart the CTC session to reconnect. This issue is under investigation.

CSCei44592

You can have no more than 113 DCC links in one area ID. For example, with 128 DCC Links provisioned within one area ID, 14 DCC links gray out in CTC. To avoid this issue divide the 128 DCCs into multiple area IDs (at least two). This issue is resolved in Release 7.0.

CSCei14295

After restoring a previously backed up database, the restoral of the PM history database is not time-based, but rather, position-based. The PM history database is stored or retrieved to or from position-dependent time slots from the present PM period. Thus, PM history backed up 24 hours prior to the restore will show the PM history without acknowledging the missing day. This issue will be resolved in a future release.

CSCeg57163

ONS platforms support only a single OSPF virtual link. This issue will be resolved in a future release.

CSCdy58342

Network connectivity could be lost if a backbone area becomes segmented into multiple GNEs. This occurs only if multiple ONS 15600 nodes and routers are connected to the same LAN in OSPF area 0. If a link between two routers breaks, the CTC session connected to Router 1 will not be able to communicate with the ONS 15600 connected to Router 2. To resolve, you must repair the link between the routers or provide another form of redundancy in the network. This is as designed.

CSCdz07098

If OSPF on LAN is enabled with an area ID that is the same as the area ID of any of the DCC Links, CTC will not be able to discover any of the DCC Connected Nodes. To avoid this issue, set the OSPF on LAN area ID to an area other than any of those already occupied by a DCC link. This is as designed.

CSCdy25142

Equipment alarms are always reported based on the activity of the particular card, without taking card redundancy into consideration. Thus, an equipment alarm such as CTNEQPT-PB-0 may be raised against a line card as CR(SA) even though the traffic is protected. This issue will not be resolved.

CSCeb49407

Choosing certain qualities of RES settings in the CTC Provisioning tab, Timing subtab, may trigger a reference failure. Specifically, this can occur if you select the quality of RES level such that any of the following are true.

- $ST3 < RES < ST3E$
- $ST4 < RES < SMC$
- $RES < ST4$

When you then input an actual reference signal lower than ST3E quality, the failure is triggered. This issue will not be resolved.

Optical IO Cards

CSCef20813

No graphical representations of LEDs for ASAP ports are displayed in the CTC card view. SD and SF LED representations are also absent from the CTC node view for some legacy OCn cards. There are no plans to resolve this issue.

CSCei37179

Rarely, when an ASAP card is participating in a DCC tunnel, and working and protect spans both fail, the ASAP card might stop responding, sometimes followed by a reset. When this occurs there is no resulting traffic loss, and protection switching continues to function. To recover ASAP card responsiveness a soft reset of the card might be necessary. This issue is resolved in Release 7.0.

BLSR Functionality

CSCsd23523

Path Protection to BLSR DRI RIP circuit drops traffic on primary node isolation. To see this issue, create a path protection to BLSR DRI RIP circuit and isolate the primary node using Force Switches. DRI circuit drops traffic one way. This issue will be resolved in Release 7.2.

CSCeh49665

Connections might still exist after circuit deletions on BLSR DRI rings for which the primary node is isolated. For BLSR DRI rings with several types of DRI circuits, if you isolate the primary node by deleting the database, reseating the I/O cards, then deleting all BLSR DRI circuits, the SSXCs still show connections. To avoid this issue, do not delete or create BLSR DRI circuits when a node on the BLSR DRI ring is isolated. This issue will not be resolved.

Interoperability

CSCdx61916

If, using CTC, you attempt to create a protected VT1.5 circuit that originates on one ONS 15327/454 that is connected to the ONS 15600 via path protection to another ONS 15327/454 that is connected to the ONS 15600 via 1+1 or BLSR, the circuit creation request will be denied because of mixed protection domains. CTC is currently incapable of routing VT circuits across the ONS 15600 when mixed protection schemes are involved. VT traffic can be routed across the ONS 15600 when mixed protection schemes are involved by performing the following:

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- Step 1** On the ONS 15600, create an STS level cross connect with the requisite path selectors.
 - Step 2** Use CTC to create a VT circuit from the source node to the trunk ports that interface to the 15600.
 - Step 3** Use CTC to create a VT circuit between the destination node and the trunk ports that interface with the 15600.
-

**Note**

While this workaround provides the ability to route VT traffic across the ONS 15600 when mixed protection domains exist, the traffic must be managed as three separate circuits instead of one single end-to-end circuit.

This issue will not be resolved.

CSCdy68110

When you attempt to configure VT circuits on a test configuration consisting of two ONS 15454 nodes and one ONS 15600 node, when both ONS 15454s are connected to the ONS 15600 node using a dual path protection connection configuration, and when the ONS 15600 node serves as an intermediate node between the two ONS 15454 nodes, you may be unable to create a VT circuit from one ONS 15454 to the ONS 15600 and then to the other ONS 15454. VT Tunnels are created, but the VT circuit is not created. A mixed protection domain error message is raised when this occurs. To avoid this issue, create the VT tunnels manually, so that the two tunnels do not create a topology where the working and protect tunnels share the same I/O card. After the tunnels have been created, the VT circuit can be successfully added. This issue will not be resolved.

CSCdx94969

Physical PM parameters can not be retrieved through the SNMP interface. MIBs released with the ONS 15600 do not have entries for the following physical PM parameters.

- LBC
- OPR
- OPT

The standard SONET Generic MIB does not have entries for these. To work around this issue, use CTC to retrieve the values. SNMP support for these parameters may be considered for a future release.

CSCdy54737

The following PM parameters can not be retrieved through SNMP.

- **Line:**
 - FC-L
- **Path:**
 - FC-P
 - PPJC-Pdet
 - NPJC-Pdet
 - PPJC-Pgen
 - NPJC-Pgen
- **Protection groups:**
 - PSC
 - PSD
- **Far End counts for line and path**
- **1-Day PM counts**

To retrieve these counts, use CTC. SNMP support for these parameters may be considered for a future release.

Bridge and Roll

CSCei37364

When a rollTo leg is not receiving a good signal, and because of this the rollPending alarm is not cleared, there is no alarm indicating the reason that the RollPending alarm fails to clear. This issue is resolved in Release 7.0.

CSCdy14265

The manual bridge and roll feature allows you to perform the END command once the roll operation transitions from a ROLL PENDING to ROLL condition, even if the roll to port has an invalid signal. To avoid traffic impact, ensure that the roll-to line is alarm-free. If an alarm exists, you can choose to do nothing and wait for the alarm to clear, to delete the roll, or to proceed in spite of the alarm. This issue will not be resolved.

TL1

CSCeh88565

When the Cisco ONS 15600 is supporting 500 TL1 sessions and there is a sustained high level of management traffic the active TSC might reset. This issue is visible when the Cisco ONS 15600 is supporting 500 TL1 ENE logins to DCC-linked network nodes such as the Cisco ONS 15454. In a laboratory test it was observed that an alarm flood (approximately 70000 alarm messages) in the network would overload the active TSC and cause it to reset. The standby TSC transitions to active and the node recovers. To avoid this issue configure TL1 sessions to throttle the amount of alarm data that is sent across the management network. For example, when a TL1 session starts, the REPT^ALM and REPT^EVT messages are allowed by default. The TL1 command "INH-MSG-ALL" will inhibit all REPT-ALM and REPT^EVT autonomous messages from being transmitted. This issue is resolved in Release 7.0.

CSCeb46234

A TL1 user cannot preprovision IO cards when a filler card is in the slot. Removal of the filler card will clear the slot and allow the TL1 user to preprovision the IO card. This is by design.

Resolved Caveats for Release 6.2.x

The following caveats are resolved in Release 6.2.x.

Maintenance and Administration

CSCsd67191

Rarely, in a large network with many host routes the Proxy ARP server might run out of ring buffer storage, resulting in a subsequent failure of the driver to receive new packets. This can lead to DCC failure and loss of all connections. This issue is resolved in Releases 6.2 and 8.0

CSCsg03080

After a database change SNMP rebuilds its cache to retain the latest information. A problem with this function resulted in a memory leak (cumulative reduction of available memory). This problem has been resolved in release 6.2.4.

Upgrades

CSCee60276

Some circuits might be displayed as PARTIAL after one or more ONS 15600 nodes is upgraded to Release 5.0.x. This can occur when the ONS 15600 interoperates with ONS 15454, 15327, or 15310 nodes in the same network, and there exist circuits with their source on the ONS 15454/15327/15310 nodes and drops on the ONS 15600 nodes. If this occurs, run “Circuit Reconfigure” on the affected PARTIAL circuits. This issue will not occur for upgrades from Release 5.0.x to 6.0.x. For further documentation of this circumstance, see the *Upgrading Cisco ONS 15600 Release 6.0* document.

CSCeg34361

Revert fails if the internal subnet differs from that in the revert database. This issue is seen in a revert from a 5.0.x release to Release 5.0. This issue is not seen in reverts from Release 5.0.x to 1.x. This issue is resolved in Release 6.0.

CSCeh16339

Clicking the Cancel button from the CTC network view, Software tab during a software download does not stop the download, but gives the appearance in the network view, Software tab that it has. This symptom only occurs if you click the Cancel button after the software has been copied to the node, and during the “Copying to Standby TSC” phase of the software download. To avoid this issue, cancel the software download from the node view, Software tab instead of from the network view, Software tab when canceling during the “Copying to Standby TSC” phase of the software download. This issue is resolved in Release 6.0.

Optical Cards

CSCsb46157

When the first and second ports of a PIM are provisioned as GIGE and, at a minimum, the second port is in a circuit, or, when the third and fourth ports of a PIM are provisioned as GIGE and, at a minimum, the fourth port is in a circuit, packets might be dropped on a soft reset of the associated ASAP card. To prevent this, avoid provisioning a GIGE port next to another GIGE port. This issue is resolved in Release 6.1.

CSCeg12963

On an OC-48 port of an ASAP card, use of the ED-STS9c TL1 command to create a dual TAP port is only accepted for STS-x-y-z-4/16/28, and is incorrectly denied for the first, and the rest of all the STSs. To work around this issue, when creating an STS-9c dual tap on an OC-48 ASAP port, start the tap on the STS 4, STS 16, or STS 28 boundary. This issue is resolved in Release 6.0.

Common Control Cards

CSCeg16339

Performing a TSC soft reset on an ONS 15600 with a large BLSR and circuit configuration sometimes causes subordinate I/O cards to soft reset. This issue is resolved in Release 6.0.

CSCsg77314

A database problem after a Standby controller reboot and synchronization failure, has been resolved. This fix allows the Standby TSC to come with a database in flash memory and avoid a switch to a controller with an empty database.

CSCsd01947

A problem with the CORBA_release memory function provided by the CORBA software vendor has been resolved.

BLSR Functionality

CSCsb60780

The wrong ACT/STBY state is reported for BLSR facilities using the TL1 RTRV-OCn command. After a ring or span switch, the TL1 RTRV-OCn command might return incorrect ACT/STBY states for the affected BLSR facilities. To recover from this situation, soft reset the TSC or soft reset both matrix cards. This issue is resolved in Releases 6.0.1, 6.1, and 7.0.

CSCeh35448

Rarely, a line card might reboot after multiple times creating and deleting a BLSR with circuits provisioned for PCA and DRI. If you have a BLSR with circuits provisioned for PCA and DRI, and you then delete the circuits, delete the BLSR, and reenter the same ring ID and facilities (as the BLSR you just deleted), it is possible to see a line card reboot. This issue is resolved in Release 6.0.

CSCeh11972

Soft resetting both SSXC cards at the same time while the BLSR is in wait to restore results in a one-second hit. This also causes an out of sync condition where the ring appears switched on the GUI interface and CID-MISMATCH alarms are possibly declared. This issue can occur on a ring that is still switched and for which wait to restore period is active. Avoid soft resetting both SSXC cards at the same time when a wait to restore is active. Soft resets should only be performed when rings are in a steady state (switched or idle). If this out of sync condition occurs, a manual or forced switch on the affected rings will be required to resynchronize the system. This issue is resolved in Release 6.0.

CSCeb56502

A circuit remains in the roll_pending state after a roll attempt is cancelled on a path roll in a two-fiber BLSR, where the path has an active protection switch at the circuit destination node. To recover from this situation, restart CTC. This issue is resolved in Release 6.0.

Path Protection Functionality

CSCei64765

Rarely, path protection switching can fail to switch ports in IO Slots 2-4 or 12-14. This issue might occur for path protection selectors after any of the following:

- An IO or TSC card insertion
- An IO or TSC hard reset
- A system power failure

This issue does not occur for cards in IO Slots 1 or 11. This issue can occur for cards in IO Slots 2-4 or 12-14.

There is no workaround for ports on IO Slots 2-4 and 12-14. The possibility for the occurrence is less than 1% under an IO or TSC hard reset or system power failure. This issue is resolved in Releases 5.0.7 and 6.0.1.

CSCec15064

A Path Protection/SNCP circuit with a defect signal present (for example, AIS-P or AIS-V) on the protect path will produce RDI-P or RDI-V upstream of the detection point, but these signals will not be detected or indicated. This issue is resolved in Release 6.0.

TL1 Functionality

CSCeg14663

The response from the TL1 command, RTRV-NE-IPMAP, contains two rows (one duplicate) of information for each DCC connected port that has provisioned BLSR protection. This issue is resolved in Release 6.0.

New Features and Functionality

This section highlights new features and functionality for Release 6.0.x. For detailed documentation of each feature, consult the user documentation.

There are no new features for Release 6.2.x.

Related Documentation

Release-Specific Documents

- *Release Notes for the Cisco ONS 15600, Release 6.2*
- *Release Notes for the Cisco ONS 15454 SDH, Release 6.2.2*
- *Release Notes for the Cisco ONS 15327, Release 6.2.2*
- *Release Notes for the Cisco ONS 15454, Release 6.2.2*
- *Release Notes for the Cisco ONS 15310-CL, Release 6.2.2*
- *Upgrading Cisco ONS 15600 to Release 6.2*

Platform-Specific Documents

- *Cisco ONS 15600 Procedure Guide*
Provides installation, turn up, test, and maintenance procedures
- *Cisco ONS 15600 Reference Manual*
Provides technical reference information for SONET/SDH cards, nodes, and networks
- *Cisco ONS 15600 Troubleshooting Guide*
Provides a list of SONET alarms and troubleshooting procedures, general troubleshooting information, and hardware replacement procedures
- *Cisco ONS SONET TL1 Command Guide*
Provides a comprehensive list of TL1 commands

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

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