



# Release Notes for Cisco ONS 15310-MA Release 8.5.1

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**OL-15589-01**

**March 10, 2008**

Release notes address closed (maintenance) issues, caveats, and new features for the Cisco ONS 15310-MA. For detailed information regarding features, capabilities, hardware, and software introduced with this release, refer to Release 8.5.1 version of the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Procedure Guide*; Release 8.5.1 version of the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Reference Guide*; and Release 8.5.1 version of the *Cisco ONS 15310-CL and Cisco ONS 15310-MA Troubleshooting Guide* and Release 8.5.1 version of the *Cisco ONS SONET TLI Command Guide*. For the most current version of the Release Notes for Cisco ONS 15310-CL Release 8.5.1, visit the following URL:

[http://www.cisco.com/en/US/products/hw/optical/ps2001/prod\\_release\\_notes\\_list.html](http://www.cisco.com/en/US/products/hw/optical/ps2001/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 information that has been added to the *Release Notes for Cisco ONS 15454 Release 8.5.1* since the production of the Cisco ONS 15454 System Software CD for Release 8.5.1.

## Caveats

Review the notes listed below before deploying the Cisco ONS 15454. Caveats with tracking numbers are known system limitations that are scheduled to be addressed in a subsequent release. Caveats without tracking numbers are provided to point out procedural or situational considerations when deploying the product.

## Common Control Cards

This section documents Common Control Cards caveats for Release 8.5.1.

### CSCsm15121

AIS-V alarm is not generated by XC10G and XCVT cards on some VT members when hard reset is performed on CE2 card through Cisco Transport Controller (CTC). SF/SD alarms are raised instead of AIS-V alarm. The workaround is to use the XCVXC card.

## Data I/O Cards

This section documents Data I/O Cards caveats for Release 8.5.1.

### CSCsl18519

When dual failure occurs on CE-MR ports equipped with electrical SFPs, only one CARLOSS and TPTFAIL alarms are reported. There is no workaround for this issue. This issue will not be resolved.

### CSCsl76802

When Jumbo frame greater than 8000 bytes is passed through two STS24c or two STS1-21v circuits, upto 2% packet drop occurs. The workaround is to reduce the utilization to 95%. This issue will be resolved in a future release.

### CSCsl97111

When UNEQ-P and LOA alarms are raised in a STS1-5V LCAS circuit between CE-MR cards with split fibre routing, the member on the transmitting side is not removed from the group. This issue will be resolved in a future release.

## CSCsm59501

The GigabitEthernet ports based on 1000BaseX ports may not come up and report CARLOSS alarm when hard reset is performed on CE-MR-6 card. One of the following workarounds applies to bring the link up:

- Completely stop the traffic from the client for a few seconds and then restart.
- Move the port to OOS-DSBLD and then back to IS state.
- Enable autonegotiation on the port and link partner.

This issue will be resolved in a future release.

## CSCsm64072

The Pause Resolution algorithm on CE-MR card for 1000BaseX ports is not correct. The workaround is to ensure that the partner interface supports both asymmetric and symmetric flow control. This issue will be resolved in a future release.

## Maintenance and Administration

This section documents Maintenance and Administration caveats for Release 8.5.1.



### Caution

VxWorks is intended for qualified Cisco personnel only. Use of VxWorks by customers 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.



### Note

Cisco Transport Planner (CTC) does not support adding or creating more than 5 circuits in auto-ranged provisioning. This is as designed.



### Note

In releases prior to Cisco ONS Release 4.6 you could independently set proxy server gateway settings; however, with Cisco ONS Release 4.6.x and later, this is no longer the case. To retain the integrity of existing network configurations, settings made in a pre-4.6 release are not changed on an upgrade to Cisco ONS Release 7.x. Current settings are displayed in CTC (whether they were inherited from an upgrade, or they were set using the current GUI).

## CSCse87943

RFI-P is raised on both Working and Protect path in a 1+1 topology on an Cisco ONS 15310-MA. This occurs with an ML card with an STS cross connection with another ML card in another chassis and when the POS port on the Cisco ONS 15310-MA side is shut down. There is no workaround for this issue. This issue will be resolved in a future release.

## CSCsd84638

Sometimes IP connectivity to Cisco ONS 15310-MA is lost and pinging the node fails. Also, as a result, CTC fails to start up. This can occur if both the Ethernet port on the CTXMA card and the Ethernet port on the backplane are accidentally connected to the same network, resulting in loops in the switching network. In normal operation, the backport should be used to connect to the network and the frontport should only be used for onsite maintenance. If this issue occurs, detach the Ethernet cables from both the frontport and the backport and connect through the backport (or frontport) only, rather than through both at the same time. This issue will not be resolved.

## CSCsl29859

A **FREQ OOB** alarm is raised and the node fails to synchronize to any of the optical line references when the software is downgraded from Cisco ONS Release 8.0 to a pre-Cisco ONS Release 8.0 software.

The following workarounds are available:

- Configure optical line timing on all optical ports before the downgrading software from Cisco ONS Release 8.0 and ensure that ports are receiving optical signals.
- Hard reset the CTX card in the pre-Cisco ONS Release 8.0 software before configuring optical line references.




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**Note** Performing hard reset of CTX card may impact traffic.

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- Hard reset the CTX card in the pre-Cisco ONS Release 8.0 software when the **FREQ OOB** alarm is raised.




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**Note** Performing hard reset of CTX may impact traffic.

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- Configure Cisco ONS Release 8.0 software as protect and perform the following steps:
  1. Provision the timing references in pre-Cisco ONS Release 8.0 software.
  2. Activate the Cisco ONS Release 8.0 software.
  3. Downgrade to pre-Cisco ONS Release 8.0 software after the timing references are normal.

This issue will be resolved in a future release.

## CSCsm34499

Wrong **EXPTRC** set for STS-2-1-1. There is no workaround for this issue. This issue will be resolved in a future release.

# Resolved Caveats for Release 8.5.1

This section documents caveats resolved in Release 8.5.1.

## Common Control Cards

This section documents resolved Common Control Cards caveats for Release 8.5.1.

### CSCsk34391

The software upgrade fails when the CTXMA card is provisioned with DSL-84 port in slot 1 as timing reference and another DSL-84 port in slot 2. This issue has been resolved.

## Hardware

### CSCsl92447

The traffic in a split fiber circuit is dropped when the trunk port is shut down either by pulling the trunk port fiber or setting the admin state as OOS-DSBLD, and performing a soft reset on ML-MR card or hard reset on CE-MR-10 or CE-MR-6 card. This issue has been resolved.

## Maintenance and Administration

This section documents resolved Maintenance and Administration caveats for Release 8.5.1.



#### Caution

VxWorks is intended for qualified Cisco personnel only. Use of VxWorks by customers 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.



#### Note

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### CSCse04103

Applying the forced switch or manual switch on protect facility when no protection switch is in operation, FRCDWKSWBK-NO-TRFSW/MANWKSWBK-NO-TRFSW is not raised for 1+1. There is no workaround for this issue. This issue has been resolved.

## TL1

This section documents resolved TL1 caveats for Release 8.5.1.



### Note

To be compatible with TL1 and DNS, all nodes must have valid names. Node names should contain alphanumeric characters or hyphens, but no special characters or spaces.

## CSCsm34460

The ENT-EQPT::SLOT-14&SLOT-16:81::DS3:PROTID=SLOT-15,PRTYPE=1-N,CMDMDE=FRCD; TL1 command returns a wrong response. This issue has been resolved.

## New Features and Functionality

This section highlights new features and functionality for Release 8.5.1. For detailed documentation of each of these features, consult the user documentation.

## Common Hardware

This section documents new hardware features for Release 8.5.1.

### CE-MR-6

CE-MR-6 card is a 5 Gbps data module for use in the Cisco ONS 15310-MA. It provides support for L1 packet mapping functions (Ethernet to SONET). The 10/100/1000 Mbps Ethernet-encapsulated traffic is mapped to SONET circuits. Each circuit has three main attributes:

- Low order or high order
- Contiguous concatenation (CCAT) or virtual concatenation (VCAT)
- Generic framing procedure (GFP), LAN extension (LEX), high-level data link control (HDLC), or PPP (point-to-point protocol) based framing.

The CE-MR-6 cards support link capacity adjustment scheme (LCAS) that allows hitless dynamic adjustment of SONET link bandwidth.

The CE-MR-6 is a Layer 1 (Ethernet Private Line) and Layer 1+ (Virtual Private Wire Services) mapper card with six IEEE 802 compliant 10/100/1000 Mbps Ethernet ports that provide 1:1 mapping of Ethernet ports to circuits. It maps each port to a unique SONET circuit in a point-to-point configuration.

The CE-MR-6 card allows you to provision and manage an Ethernet private line service like a traditional SONET line. CE-MR-6 card applications include providing carrier-grade Ethernet private line services and high-availability transport.

## New Software Features and Functionality

This section documents new software features for Release 8.5.1.

## Link Integrity Soak Timer

All the mapper cards (G1000-4, CE-1000-4, CE-100-8, and CE-MR-10 cards supported on Cisco ONS 15454 platform) support end-to-end Ethernet link integrity. If any part of the end-to-end path fails, the mapper card soaks the defect for a fixed duration of 200 ms. In certain network configurations, the restoration time after a protection switch can be more than 200 ms. Such disruptions necessitates that the link integrity be initiated at an interval greater than 200 ms.

The Link Integrity Soak Timer enhancement allows you to configure link integrity soak timer on per port basis. To allow link integrity to be initiated at an interval greater than 200 ms, set the link integrity timer in the range between 200 and 5000 ms, in multiples of 100 ms.

## TL1

This section documents new TL1 features for Release 8.5.1.

### TL1 Command Changes

This section documents TL1 command changes for Release 8.5.1.

#### Command Syntax Changes

The syntax of the following TL1 commands are changed:

- **ED-ETH** syntax changed from:

```
ED-ETH:[<TID>]:<src>:<CTAG>:::[FLOW=<flow>],[EXPDUPLICATE=<expduplex>],[SELECTIVE
EAUTO=<selectiveauto>],[EXPSPEED=<expspeed>],[VLANCOS=<vlancosthreshold>],
[IPTOS=<iptosthreshold>],[NAME=<name>],[CMDMDE=<cmdmde>],[SOAK=<soak>]:
[<pst>[,<sst>]];
```

To:

```
ED-ETH:[<TID>]:<src>:<CTAG>:::[FLOW=<flow>],[EXPDUPLICATE=<expduplex>],[SELECTIVE
EAUTO=<selectiveauto>],[EXPSPEED=<expspeed>],[VLANCOS=<vlancosthreshold>],
[IPTOS=<iptosthreshold>],[NAME=<name>],[CMDMDE=<cmdmde>],[SOAK=<soak>],
[LITIMER=<litimer>]:[<pst>[,<sst>]];
```

- **ED-FSTE** syntax changed from:

```
ED-FSTE:[<TID>]:<src>:<CTAG>:::[FLOW=<flow>],[EXPDUPLICATE=<expduplex>],[EXPSPEE
D=<expspeed>],[SELECTIVEAUTO=<selectiveauto>],[VLANCOS=<vlancosthreshold>],
[IPTOS=<iptosthreshold>],[NAME=<name>],[CMDMDE=<cmdmde>],[SUPPRESS=<suppress>]
,[SOAK=<soak>]:[<pst>[,<sst>]];
```

To:

```
ED-FSTE:[<TID>]:<src>:<CTAG>:::[FLOW=<flow>],[EXPDUPLICATE=<expduplex>],[EXPSPEE
D=<expspeed>],[SELECTIVEAUTO=<selectiveauto>],[VLANCOS=<vlancosthreshold>],
[IPTOS=<iptosthreshold>],[NAME=<name>],[CMDMDE=<cmdmde>],[SUPPRESS=<suppress>]
,[SOAK=<soak>],[LITIMER=<litimer>]:[<pst>[,<sst>]];
```

- **ED-G1000** syntax changed from:

```
ED-G1000:[<TID>]:<aid>:<CTAG>:::[MFS=<mfs>],[FLOW=<flow>],[LOWMRK=<int>],
[HIWMRK=<int>],[AUTONEG=<autoneg>],[NAME=<name>],[CMDMDE=<cmdmde>],
[SOAK=<soak>]:[<pst>[,<sst>]];
```

To:

```
ED-G1000:[<TID>]:<aid>:<CTAG>:::[MFS=<mfs>],[FLOW=<flow>],[LOWMRK=<int>],
[HIWMRK=<int>],[AUTONEG=<autoneg>],[NAME=<name>],[CMDMDE=<cmdmde>],
[SOAK=<soak>],[LIENABLE=<lienable>],[LITIMER=<litimer>]:[<pst>,<sst>];
```

- **ED-GIGE** syntax changed from:

```
ED-GIGE:[<TID>]:<aid>:<CTAG>:::[ADMINSTATE=<adminstate>],[LINKSTATE=<linkstate>],
[MTU=<mtu>],[MFS=<mfs>],[FLOW=<flow>],[FLOWCTRL=<flowctrl>],
[AUTONEG=<autoneg>],[HIWMRK=<int>],[LOWMRK=<int>],[OPTICS=<optics>],
[DUPLEX=<duplex>],[SPEED=<speed>],[NAME=<name>],[CMDMDE=<cmdmde>],
[MACADDR=<macaddr>],[FREQ=<freq>],[LOSSB=<lossb>],[SUPPRESS=<suppress>],
[SOAK=<soak>][SQUELCH=<sqlch>],[CIR=<cir>],[CBS=<cbs>],[EBS=<ebs>]:[<pst>,<sst>
];
```

To:

```
ED-GIGE:[<TID>]:<aid>:<CTAG>:::[ADMINSTATE=<adminstate>],[LINKSTATE=<linkstate>],
[MTU=<mtu>],[MFS=<mfs>],[FLOW=<flow>],[FLOWCTRL=<flowctrl>],
[AUTONEG=<autoneg>],[HIWMRK=<int>],[LOWMRK=<int>],[OPTICS=<optics>],
[DUPLEX=<duplex>],[SPEED=<speed>],[NAME=<name>],[CMDMDE=<cmdmde>],
[MACADDR=<macaddr>],[FREQ=<freq>],[LOSSB=<lossb>],[SUPPRESS=<suppress>],
[SOAK=<soak>],[SQUELCH=<sqlch>],[CIR=<cir>],[CBS=<cbs>],[EBS=<ebs>],
[LIENABLE=<lienable>],[LITIMER=<litimer>]:[<pst>,<sst>];
```

## Command Response Changes

The response of the following TL1 commands are changed:

- **RTRV-ETH** response changed from:

```
<aid>::[<adminstate>],[<linkstate>],[<mtu>],[<flowctrl>],[<optics>],[<duplex>],[<speed>],
[<flow>],[<expduplex>],[<expspeed>],[<vlancosthreshold>],[<iptosthreshold>],[<name>],
[<soak>],[<soakleft>],[<selectiveauto>]:<pst>,<sst>
```

To:

```
<aid>::[<adminstate>],[<linkstate>],[<mtu>],[<flowctrl>],[<optics>],[<duplex>],[<speed>],
[<flow>],[<expduplex>],[<expspeed>],[<vlancosthreshold>],[<iptosthreshold>],[<name>],
[<soak>],[<soakleft>],[<selectiveauto>]:[<litimer>]:<pst>,<sst>
```

- **RTRV-FSTE** response changed from:

```
<aid>::[<adminstate>],[<linkstate>],[<mtu>],[<flowctrl>],[<optics>],[<duplex>],[<speed>],
[<flow>],[<expduplex>],[<expspeed>],[<vlancosthreshold>],[<iptosthreshold>],[<name>],
[<suppress>],[<soak>],[<soakleft>],[<selectiveauto>]:<pst>,<sst>
```

To:

```
<aid>::[<adminstate>],[<linkstate>],[<mtu>],[<flowctrl>],[<optics>],[<duplex>],[<speed>],
[<flow>],[<expduplex>],[<expspeed>],[<vlancosthreshold>],[<iptosthreshold>],[<name>],
[<suppress>],[<soak>],[<soakleft>],[<selectiveauto>],[<litimer>]:<pst>,<sst>
```

- **RTRV-G1000** response changed from:

```
<aid>::[<mfs>],[<flow>],[<lan>],[<optics>],[<soak>],[<trans>],[<tport>],[<lowmrk>],[<hiwmrk>],
[<buff>],[<soakleft>],[<autoneg>],[<name>],[<encap>]:<pst>,<sst>
```

To:

```
<aid>::[<mfs>],[<flow>],[<lan>],[<optics>],[<soak>],[<trans>],[<tport>],[<lowmrk>],[<hiwmrk>],
[<buff>],[<soakleft>],[<autoneg>],[<name>],[<encap>],[<lienable>],[<litimer>]:<pst>,<sst>
```

- **RTRV-GIGE** response changed from:

```
<aid>:.,<role>,<status>:[<adminstate>],[<linkstate>],[<mtu>],[<encap>],[<flowctrl>],
[<autoneg>],[<hiwmrk>],[<lowmrk>],[<optics>],[<duplex>],[<speed>],[<name>],[<freq>],
[<lossb>],[<soak>],[<soakleft>]:<pst>,<sst>
```

To:

```
<aid>:.,<role>,<status>:[<adminstate>],[<linkstate>],[<mtu>],[<encap>],[<flowctrl>],
[<autoneg>],[<hiwmrk>],[<lowmrk>],[<optics>],[<duplex>],[<speed>],[<name>],[<freq>],
[<lossb>],[<soak>],[<soakleft>],[<leanble>],[<litimer>]:<pst>,<sst>
```

## Related Documentation

This section lists release-specific and platform-specific documents.

### Release-Specific Documents

- *Release Notes for the Cisco ONS 15310-MA Release 8.5*
- *Release Notes for the Cisco ONS 15310-CL Release 8.5.1*
- *Release Notes for the Cisco ONS 15454 SDH Release 8.5.1*
- *Release Notes for the Cisco ONS 15454 Release 8.5.1*
- *Cisco ONS 15310-MA Software Upgrade Guide, Release 8.5.x*

### Platform-Specific Documents

- *Cisco ONS 15310-CL and Cisco ONS 15310-MA Procedure Guide*  
Provides installation, turn up, test, and maintenance procedures
- *Cisco ONS 15310-CL and Cisco ONS 15310-MA Reference Manual*  
Provides technical reference information for cards, nodes, and networks
- *Cisco ONS 15310-CL and Cisco ONS 15310-MA Troubleshooting Guide*  
Provides a list of SONET alarms and troubleshooting procedures, general troubleshooting information, transient conditions, and error messages
- *Cisco ONS SONET TL1 Command Guide*  
Provides a comprehensive list of TL1 commands
- *Cisco ONS SONET TL1 Reference Guide*  
Provides general information, procedures, and errors for TL1
- *Cisco ONS 15310-CL and Cisco ONS 15310-MA Ethernet Card Software Feature and Configuration Guide*  
Provides software feature and operation information for Ethernet cards

# Obtaining Optical Networking Information

This section contains information that is specific to optical networking products. For information that pertains to all of Cisco, refer to the [Obtaining Documentation, Obtaining Support, and Security Guidelines](#) section.

## Where to Find Safety and Warning Information

For safety and warning information, refer to the *Cisco Optical Transport Products Safety and Compliance Information* document that accompanied the product. This publication describes the international agency compliance and safety information for the Cisco ONS 15310-MA system. It also includes translations of the safety warnings that appear in the ONS 15310-MA system documentation.

## Cisco Optical Networking Product Documentation CD-ROM

Optical networking-related documentation, including Cisco ONS 15xxx product documentation, is available in a CD-ROM package that ships with your product. The Optical Networking Product Documentation CD-ROM is updated periodically and may be more current than printed documentation.

## Obtaining Documentation, Obtaining Support, and Security Guidelines

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>

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS Version 2.0.

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This document is to be used in conjunction with the documents listed in the “[Related Documentation](#)” section.

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