



Release Notes for Cisco ONS 15501 Release 4.1

This document describes caveats for release 4.1 for the Cisco ONS 15501.

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Introduction

The Cisco ONS 15501 is a low-noise, gain-flattened C-band optical erbium-doped fiber amplifier (EDFA). This platform complements the Cisco ONS 15540 ESP and Cisco ONS 15540 ESPx systems in network topologies that require amplification of 1550-nm optical signals.

Note

CTM support for the Cisco ONS 15501 Release 4.1 is not yet available.

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Default Passwords

The default user password is **edfa** and the default master password is **edfa1**. For security reasons, you should change both passwords as soon as possible. Log in with master privileges and use the **set-user-pwd** command and the **set-master-pwd** command to change the passwords.

If you have forgotten your passwords, use the **restore** command to reset the passwords to the defaults. The **restore** command can only be entered from a session on the serial port, not from a Telnet session.

About Embedded CiscoView

The Embedded CiscoView network management system provides a web-based interface for the Cisco ONS 15540 ESP and Cisco ONS 15540 ESPx. Embedded CiscoView uses HTTP and SNMP to provide graphical representations of the system and GUI-based management and configuration facilities. After you install and configure Embedded CiscoView, you can access your Cisco ONS 15540 ESP and Cisco ONS 15540 ESPx from a web browser utility.

You can download the Embedded CiscoView files from the following URL:

<http://www.cisco.com/kobayashi/library/netmanage/cview/>

Caveats

This section lists caveats for the Cisco ONS 15501 by tracking number (DDTS #) and release number, and indicates whether the caveat has been corrected. An “O” indicates that the caveat is open in that release; a “C” indicates that the caveat is closed in that release.

Table 1 lists caveats for the Cisco ONS 15501.

Table 1 Caveat Matrix for the Cisco ONS 15501

DDTS #	Release 4.1	Release 4.0	Release 3.0	Release 2.0	Release 1.0
CSCdw54959	C	C	C	C	O
CSCdw63781	C	C	O	O	
CSCdw69379	C	C	C	C	O
CSCdw69551	C	C	O	O	
CSCdw72329	C	C	C	C	O
CSCdw76269	C	C	C	C	O
CSCdw88103	C	C	O		
CSCdx18270	C	C	C		
CSCdx40128	C	C	O		
CSCdx40752	C	C	O		
CSCdx41103	C	C	C		
CSCdy78933	O	O	O		
CSCdz06552	C	C	O		
CSCdz07153	C	C	O		

Table 1 Caveat Matrix for the Cisco ONS 15501 (continued)

DDTS #	Release 4.1	Release 4.0	Release 3.0	Release 2.0	Release 1.0
CSCdz55488	C	O	O		
CSCdz55499	C	O			
CSCdz58551	C	C	O		
CSCdz58701	C	O	O		
CSCdz58726	C	O	O		
CSCdz64724	C	O	O		
CSCdz68332	C	O			
CSCdz68347	C	O	O		
CSCdz73417	C	C	O		
CSCdz73425	C	C	O		
CSCdz73441	C	C	O		
CSCdz73445	C	C	O		
CSCdz74751	C	C	O		
CSCdz75267	C	O			
CSCea25355	C	O			
CSCea39623 ¹	O				
CSCeb14767	O	O			
CSCuk41429	O				

1. This caveat applies only to the Cisco ONS 15501 DC.

Caveat Symptoms and Workarounds

This section describes the caveats for the Cisco ONS 15501.

- [CSCdw54959](#)

Symptom: The LAN LED indicates a state opposite to the actual state of the LAN connection. The problem is caused by either forcing a change in Ethernet mode without rebooting the system, or by booting the system without an Ethernet connection and then applying the Ethernet mode. This is an indicator error only.

Workaround: When the LED is not reporting the correct state of the LAN connection, enter the **ethmode** command on a CLI session to show the current mode selection for the LAN connection. Enter the **ethmode** command again and specify the current mode selection as the command argument.

- [CSCdw63781](#)

Symptom: Because the serial CLI interface only handles ASCII characters of 8 bits or less, any combination of an 8 bit character size plus a data parity bit (totaling 9 bits) will cause the serial CLI interface to lock up.

Workaround: Telnet to the system and request a reboot. You can also power cycle the system, but we do not recommend because it causes a disruption in the EDFA optical signal. Avoid sending unintentional bits by configuring the serial terminal program before connecting to the serial console port.

- [CSCdw69379](#)

Symptom: The SNMP agent is nonresponsive for periods of 20 to 25 minutes after receiving a large number of requests (in the millions). The CLI sessions are still functional.

Workaround: Reboot the system with the **reboot** command.

- [CSCdw69551](#)

Symptom: When successive attempts are made to write (same or different) values to a read-write object and then to retrieve the value SET, occasionally the value returned for the object on GET is 'NO_SUCH_OBJECT_EXCEPTION'. This value, however, is not returned very consistently.

Workaround: Implement a delay of approximately one second between subsequent **GET** and **SET** events.

- [CSCdw72329](#)

Symptom: CLI session hangs for a few minutes.

This condition occurs when the **status** command, or one of the commands under the status category, is executed during a change in optical input.

Workaround: The system automatically recovers in a few minutes. If immediate recovery is needed, reboot the system using a Telnet session, which does not affect the optical performance.

- [CSCdw76269](#)

Symptom: SNMP does not show the updated MIB variable name after the system image is downloaded.

Workaround: From a UNIX session, enter an **snmpset** command that does not modify any values in the configuration, such as that found in the following example:

```
# snmpget -v 1 10.1.1.2 test sysName.0
system.sysName.0 = edfal
# snmpset -v 1 10.1.1.2 test sysName.0 s edfal
system.sysName.0 = edfal
```

- [CSCdw88103](#)

Symptom: When a software download is initiated using FTP or TFTP from the CLI or via SNMP, and the user decides to terminate the download session for any reason (such as wrongly typed parameters), s/he can terminate the session using CLI session, but not using SNMP/NMS.

Conditions: Terminating a software download session from NMS using SNMP is not allowed.

Workaround: Use the available CLI. User would need to use the console or Telnet port to do so.

- [CSCdx18270](#)

Symptom: Previous revisions of the User Guide incorrectly describes the Alarm pinout. The proper pinout is:

- 1 Loss of input signal or input signal power below threshold
- 2 Failure in the pump laser or pump laser temperature
- 3 Loss of input power supply or power supply out of range
- 4 Undefined (always on; may be used for power indication)

Workaround: None.

- [CSCdx40128](#)

Symptom: On the EDFA device, you cannot configure the version of SNMP traps sent to different SNMP managers.

Workaround: None.
- [CSCdx40752](#)

Symptom: The dBm power levels might fluctuate between 10 dBm and -30 dBm in approximately 30 second increments.

Workaround: Reapply the gain setting with the **setgainmean** command, or reset the gain and trigger values with the **resetmeantrig** command.

Resolution: Field upgrade firmware to version 2.8 or later.
- [CSCdx41103](#)

Symptom: The device shows an alarm for one or more laser pumps that have gone bad, but configured gain is performing as expected.

Workaround: None.

Resolution: Field upgrade firmware to version 2.8 or later.
- [CSCdy78933](#)

Symptom: The user is unable to establish Ethernet port connectivity with a Cisco 10/100 switch.

Condition: If either the ONS 15501 or the Cisco switch is configured for autonegotiate, the connection may flap, resulting in a connectivity failure.

Workaround: Disable autonegotiation on the Cisco switch and configure both devices to use either 10 Mbps for half duplex or 100 Mbps for full duplex.
- [CSCdz06552](#)

Symptom: The SNMP trap log and active alarm tables show *softwareRolledBack* as an active alarm when the unit boots from a bank other than the configured bank. Although this is reported as a major alarm and service affecting alarm, this state does NOT affect the service.

Workaround: Issue the **reboot** command from the CLI, or issue the **ons15501ConfiguredImage.0** command when using SNMP to set the Active bank; the unit automatically reboots.
- [CSCdz07153](#)

Symptom: A software reboot causes the EDFA to hang and front panel LEDs repeatedly blink bootup sequence. Optical performance is not affected, but the unit must be power cycled to recover network management functions.

Condition: A software reboot of the network processor while the core processor is loaded causes a watch dog race condition between processors, resulting in the processors resetting each other indefinitely.

Workaround: None.

Resolution: Upgrade to firmware version 2.9.

- [CSCdz55488](#)

Symptom: After a reboot hangs and automatic watchdog timeout restarts, one or more image names may be corrupted but the image still boots. Also, one or more configuration settings such as IP, SNMP, NTP, hostname, or password may be corrupted. Optical gain is not affected. This EEPROM corruption is observed once in about 900 reboots.

Condition: Ethernet port traffic during boot sequence may cause the Ethernet driver to throw an exception to a low address causing the device to hang and may cause partial EEPROM corruption.

Workaround: For image name corruption, load the desired image into that bank again. For configuration setting corruption, restore the unit to factory settings using the **restore** command as described in the User Guide, and reconfigure the network management information.

- [CSCdz55499](#)

Symptom: The `ons15501SysDateAndTime`, `ons15501TrapLogEntryDateAndTime`, and `ons15501ActAlarmDateAndTime` objects are incorrect after 171 days.

Condition: Tick counter rollover causes these `DateAndTime` objects to be incorrect after 171 days.

Workaround: None.

- [CSCdz58551](#)

Symptom: The `sysUpTime` counter retrieved through SNMP jumps from 85 days to 411 days.

Condition: The counter used for `sysUpTime` was a signed value that caused this jump in days before the counter rolled over back to 0 at 497 days.

Workaround: A software reboot before 85 days resets the counters. A software reboot does not interrupt the optical gain of the amplifier.

- [CSCdz58701](#)

Symptom: On a software reboot, the console hangs after detecting the Ethernet port rate, but automatically restarts/reboots after approximately 7 minutes and boots successfully.

Condition: Traffic on the Ethernet port at startup may cause the driver to throw an exception to a low address, causing the unit to hang. This hang is observed once in 30 reboots for a network load of 1Mbps, and once in 200 reboots for a network load of 10 kbps.

Workaround: None.

- [CSCdz58726](#)

Symptom: After a software reboot, the system time is invalid, which also affects the `DateAndTime` object in SNMP.

Condition: Since there is no internal CMOS clock to maintain system clock between reboots, the time is not maintained between reboots.

Workaround: Configure NTP to automatically configure the clock after boot or manually configure the time with the **set-time** command.

Resolution: None.

- [CSCdz64724](#)

Symptom: The Output Signal Power Alarm is asserted and cleared (i.e. OUT-OF-RANGE and NORMAL) repeatedly, although the measured output signal power is less than the configured mean-trigger values at all times.

Condition: The Output Signal Power Alarm is throttled by the Input Optical Power mean-trigger value rather than the hysteresis based Input Optical Power status. In normal operation the output alarms are suppressed if the input conditions are out of range.

Workaround: Configure the input optical power mean and trigger values to allow measurement fluctuations around the measured value.
- [CSCdz68332](#)

Symptom: Configuring only one argument for a **neighbor-in** or **neighbor-out** command results in an incorrect format of an IP message from the parser, but corrupts other information.

Workaround: You should specify all arguments to the **neighbor-in** and **neighbor-out** command, including host, IP and port.
- [CSCdz68347](#)

Symptom: When a CLI parser fails and restarts, the following message appears on the console, and the user is logged out and brought back to the login console. PROC-MONITOR: The process (pid:36, cmd:/bin/syn/cli_client use_tty) is dead @<time>!

Workaround: Log in again and continue.
- [CSCdz73417](#)

Symptom: The **timeout** value cannot be changed when logged in as a normal user.

Workaround: None.
- [CSCdz73425](#)

Symptom: Set commands occasionally do not take effect.

Workaround: Issue the **set** command again.
- [CSCdz73441](#)

Symptom: A malformed IP address is not rejected when configuring setting with IP argument. When there is no number between dots in the IP address, the system does not reject it but sets it to 0 instead. When there are characters mixed in with digits in the token of an IP address, e.g. "3I", the system does not reject it.

Workaround: None.
- [CSCdz73445](#)

Symptom: After a system **restore** is performed, the active bank changes to 1 but it should not have.

Workaround: Manually boot the desired bank and change the **boot-bank** to that bank.
- [CSCdz74751](#)

Symptom: The value read for `ons15501TrapLogEntryDateAndTime` and `ons15501ActAlarmDateAndTime` always shows the current time, instead of the time for the occurrence of the event.

Workaround: None.

- [CSCdz75267](#)

Symptom: The sysUpTime object rolls over at 171 days instead of 497 days.

Condition: SNMP manager should handle the rollover at 171 days just as it would at the expected 497 days.

Workaround: None.
- [CSCea25355](#)

Symptom: Remaining SNMP managers are using the wrong version after deleting one or more SNMP managers higher in the list of SNMP managers.

Workaround: Manually reconfigure the lower SNMP managers with the correct version information when deleting any entries in a table where different versions of SNMP managers are specified.
- [CSCea39623](#)

Symptom: While upgrading from 3.0 or 4.0 to 4.1 on EDFA DC units, the community for trap receivers have an inconsistent value.

Workaround: After upgrading to 4.1, correct the community strings using the **get-snmp-mgr/del-snmp-mgr/add-snmp-mgr** commands.
- [CSCeb14767](#)

Symptom: Either the Cisco ONS15501 EDFA or the Ethernet port stops responding (or “hangs”) after reboot.

Condition: Input from the serial port is causing the software to stop responding either during the boot sequence or during the Ethernet port initialization.

Workaround: The system automatically reboots after a few minutes. Otherwise, reissue the **ethmode** command from the serial port to reset the Ethernet port. If the serial port is connected to a Cisco terminal server, configure the terminal server line to "no exec" to prevent the terminal server from sending characters without a connection.
- [CSCuk41429](#)

Symptom: There is no alarm when the measured input power exceeds the maximum rated input power.

Workaround: None.

Related Documentation

Refer to the following documents for more information about the Cisco ONS 15501:

- [Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series](#)
- [Cisco ONS 15501 User Guide](#)
- [Cisco ONS 15540 ESP Planning and Design Guide](#)
- [Cisco ONS 15540 ESP Hardware Installation Guide](#)
- [Cisco ONS 15540 ESP Configuration Guide and Command Reference](#)
- [Cisco ONS 15540 ESP Troubleshooting Guide](#)
- [Cisco ONS 15540 ESP MIB Quick Reference](#)
- [Glossary of Optical Networking Terms](#)

Obtaining Documentation

The following sections explain how to obtain documentation from Cisco Systems.

World Wide Web

You can access the most current Cisco documentation on the World Wide Web at the following URL:

<http://www.cisco.com>

Translated documentation is available at the following URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation CD-ROM

Cisco documentation and additional literature are available in a Cisco Documentation CD-ROM package, which is shipped with your product. The Documentation CD-ROM is updated monthly and may be more current than printed documentation. The CD-ROM package is available as a single unit or through an annual subscription.

Ordering Documentation

Cisco documentation is available in the following ways:

- Registered Cisco Direct Customers can order Cisco product documentation from the Networking Products MarketPlace:
http://www.cisco.com/cgi-bin/order/order_root.pl
- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:
<http://www.cisco.com/go/subscription>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco corporate headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

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We appreciate your comments.

Obtaining Technical Assistance

Cisco provides Cisco.com as a starting point for all technical assistance. Customers and partners can obtain documentation, troubleshooting tips, and sample configurations from online tools by using the Cisco Technical Assistance Center (TAC) Web Site. Cisco.com registered users have complete access to the technical support resources on the Cisco TAC Web Site.

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<http://www.cisco.com>

Technical Assistance Center

The Cisco TAC is available to all customers who need technical assistance with a Cisco product, technology, or solution. Two types of support are available through the Cisco TAC: the Cisco TAC Web Site and the Cisco TAC Escalation Center.

Inquiries to Cisco TAC are categorized according to the urgency of the issue:

- Priority level 4 (P4)—You need information or assistance concerning Cisco product capabilities, product installation, or basic product configuration.
- Priority level 3 (P3)—Your network performance is degraded. Network functionality is noticeably impaired, but most business operations continue.

- Priority level 2 (P2)—Your production network is severely degraded, affecting significant aspects of business operations. No workaround is available.
- Priority level 1 (P1)—Your production network is down, and a critical impact to business operations will occur if service is not restored quickly. No workaround is available.

Which Cisco TAC resource you choose is based on the priority of the problem and the conditions of service contracts, when applicable.

Cisco TAC Web Site

The Cisco TAC Web Site allows you to resolve P3 and P4 issues yourself, saving both cost and time. The site provides around-the-clock access to online tools, knowledge bases, and software. To access the Cisco TAC Web Site, go to the following URL:

<http://www.cisco.com/tac>

All customers, partners, and resellers who have a valid Cisco services contract have complete access to the technical support resources on the Cisco TAC Web Site. The Cisco TAC Web Site requires a Cisco.com login ID and password. If you have a valid service contract but do not have a login ID or password, go to the following URL to register:

<http://www.cisco.com/register/>

If you cannot resolve your technical issues by using the Cisco TAC Web Site, and you are a Cisco.com registered user, you can open a case online by using the TAC Case Open tool at the following URL:

<http://www.cisco.com/tac/caseopen>

If you have Internet access, it is recommended that you open P3 and P4 cases through the Cisco TAC Web Site.

Cisco TAC Escalation Center

The Cisco TAC Escalation Center addresses issues that are classified as priority level 1 or priority level 2; these classifications are assigned when severe network degradation significantly impacts business operations. When you contact the TAC Escalation Center with a P1 or P2 problem, a Cisco TAC engineer will automatically open a case.

To obtain a directory of toll-free Cisco TAC telephone numbers for your country, go to the following URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

Before calling, please check with your network operations center to determine the level of Cisco support services to which your company is entitled; for example, SMARTnet, SMARTnet Onsite, or Network Supported Accounts (NSA). In addition, please have available your service agreement number and your product serial number.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems as well as ordering and customer support services. Access the *Cisco Product Catalog* at this URL:
http://www.cisco.com/en/US/products/products_catalog_links_launch.html
- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: *Internetworking Terms and Acronyms Dictionary*, *Internetworking Technology Handbook*, *Internetworking Troubleshooting Guide*, and the *Internetworking Design Guide*. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco monthly periodical that provides industry professionals with the latest information about the field of networking. You can access *Packet* magazine at this URL:
http://www.cisco.com/en/US/about/ac123/ac114/about_cisco_packet_magazine.html
- *iQ Magazine* is the Cisco monthly periodical that provides business leaders and decision makers with the latest information about the networking industry. You can access *iQ Magazine* at this URL:
http://business.cisco.com/prod/tree.taf%3fasset_id=44699&public_view=true&kbns=1.html
- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in the design, development, and operation of public and private internets and intranets. You can access the *Internet Protocol Journal* at this URL:
http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html
- Training—Cisco offers world-class networking training, with current offerings in network training listed at this URL:
http://www.cisco.com/en/US/learning/le31/learning_recommended_training_list.html

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