



Troubleshooting Threshold Alarms

This chapter describes how to troubleshoot threshold alarm problems. This chapter includes the following sections:

- [17.1 Initial Troubleshooting Checklist, page 17-1](#)
- [17.2 Troubleshooting Threshold Alarms, page 17-1](#)

17.1 Initial Troubleshooting Checklist

Follow this initial checklist before proceeding with the troubleshooting procedures:

- Issue **show interfaces** commands to ensure that all interfaces are administratively up and that there are no reported errors.
- Issue the **show facility-alarm status** command to display the alarms on the interfaces.
- Ensure that all optical connectors are clean. Refer to the [Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections](#) document.

17.2 Troubleshooting Threshold Alarms

This section contains troubleshooting procedures for threshold alarm problems. Threshold alarms indicate that a configured range is exceeded.

17.2.1 8b10b CVRD Alarm Indicates Signal Fail or Signal Degrade

Symptom An 8b10b CVRD alarm indicates signal fail or signal degrade.

[Table 17-1](#) describes the potential causes of the symptom and the solutions.

Table 17-1 8b10b CVRD Alarm Indicates Signal Fail or Signal Degrade

Possible Problem	Solution
Excessive attenuation or overloading on a 2.5-Gbps ITU trunk card interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -28 dBm and -8 dBm. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.
Excessive attenuation or overloading on a 10-Gbps ITU trunk or 10-Gbps ITU tunable trunk interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -22 dBm and -8 dBm. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.
Excessive attenuation or overloading on an 8-port FC/GE aggregation card interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -18 dBm and -13.5 dBm for a multimode FC/GE interface and within -20.5 dBm and -3 dBm for a single mode FC/GE interface. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.
Excessive attenuation or overloading on a 10-port ESCON aggregation card interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -33 dBm and -14 dBm. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.
Excessive attenuation or overloading on an OSC module interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -19 dBm and -1.5 dBm. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.

17.2.2 CDL HEC Alarm Indicates Signal Fail or Signal Degrade

Symptom A CDL HEC alarm indicates signal fail or signal degrade.

[Table 17-2](#) describes the potential causes of the symptom and the solutions.

Table 17-2 *CDL HEC Alarm Indicates Signal Fail or Signal Degrade*

Possible Problem	Solution
Excessive attenuation or overloading on an OSC module interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -19 dBm and -1.5 dBm. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.
Excessive attenuation or overloading on a 10-Gbps ITU trunk card or 10-Gbps ITU tunable trunk card interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -22 dBm and -8 dBm. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.

17.2.3 64b66b CVRD Alarm Indicates Signal Fail or Signal Degrade

Symptom A 64b66b CVRD alarm indicates signal fail or signal degrade.

[Table 17-3](#) describes the potential causes of the symptom and the solutions.

Table 17-3 *64b66b CVRD Alarm Indicates Signal Fail or Signal Degrade*

Possible Problem	Solution
Excessive attenuation or overloading on a 10-Gbps ITU trunk card or 10-Gbps ITU tunable trunk card interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -22 dBm and -8 dBm. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.

17.2.4 B1 CVRD Alarm Indicates Signal Fail or Signal Degrade

Symptom A B1 CVRD alarm indicates signal fail or signal degrade.

[Table 17-4](#) describes the potential causes of the symptom and the solutions.

Table 17-4 *B1 CVRD Alarm Indicates Signal Fail or Signal Degrade*

Possible Problem	Solution
Excessive attenuation or overloading on a SONET/SDH interface.	<ol style="list-style-type: none"> 1. Measure the receive power level. Ensure that it is within -25 dBm and -8 dBm for a multimode interface and within -19 dBm and -1.5 dBm for a single mode interface. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.

17.2.5 Threshold Exceeded Messages Continuously Hitting the Console

Symptom Threshold exceeded messages continuously hitting the console.

[Table 17-5](#) describes the potential cause of the symptom and the solution.

Table 17-5 Threshold Exceeded Messages Continuously Hitting the Console

Possible Problem	Solution
Receive signal is fluctuating on the edge of the configured threshold.	<ol style="list-style-type: none"> 1. Measure the interface receive power level. Ensure that it is within specifications. Adjust the attenuation if necessary. 2. Check the network cable for sharp bends and ensure the connectors are clean and connected properly. Refer to the Cisco ONS 15530 Cleaning Procedures for Fiber Optic Connections document.

17.2.6 SNMP Traps Are Not Generated

Symptom SNMP traps are not generated.

[Table 17-6](#) describes the potential cause of the symptom and the solution.

Table 17-6 SNMP Traps Are Not Generated

Possible Problem	Solution
SNMP configuration is incorrect.	Issue a show running-config command to verify the SNMP configuration and correct if necessary.