

Ethernet Switch Port Fault

Cloud Execution Environment

OPERATING INSTRUCTIONS

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1 Introduction

This instruction concerns alarm handling.

This document is only applicable for systems using Extreme switches configured dynamically by the Cloud Execution Environment (CEE). Refer to the *Configuration File Guide* for more information about the CEE configuration types.

1.1 Alarm Description

The *Ethernet Switch Port Fault* alarm is a primary alarm. The alarm is issued by the Managed Object (MO) `EthernetPort` when the connectivity is lost on an Ethernet switch in the Top of Rack (ToR) switch.

The severity of the alarm is `CRITICAL`.

The possible alarm causes and fault locations are described in Table 1.

Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
Switch port is disabled	Connectivity is lost on the specific Ethernet switch port in the ToR switch.	<ul style="list-style-type: none">• Cable is missing• Cable is broken• Switch port is disabled due to problem in Ethernet port of Compute host	Ethernet switch port	Connectivity remains lost

The following is the consequence for the node if the alarm is not solved:

- The connectivity remains lost on the Ethernet switch in the ToR switch.

The alarm attributes are listed in Table 2.

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	2031684
Managed Object Class	<code>EthernetPort</code>



Table 2 Alarm Attributes

Attribute Name	Attribute Value
Managed Object Instance	Region=<name_of_the_region>, Equipment=<equipment_id>, TopOfRackSwitch=<switch_id>, EthernetPort=<port_id> ⁽¹⁾
Specific Problem	Ethernet Switch Port Fault
Event Type	equipmentAlarm (5)
Probable Cause	lanError (100523)
Additional Text	Connectivity is lost on this Ethernet Switch Port in the ToR switch.
Severity	CRITICAL (3)

(1) See Section 2.1 on page 3 about information on port mapping.

1.2 Prerequisites

This section provides information on the documents, tools, and conditions that apply to the procedure.

1.2.1 Documents

Before starting this procedure, ensure that the following document is available:

[Summit Family Hardware Installation Guide](#), Reference [1]

1.2.2 Tools

No tools are required.

1.2.3 Conditions

No conditions.



2 Procedure

This section describes the procedure to follow when this alarm is received.

2.1 Find Correct Mapping

The `port_id` is calculated as $((\text{slot} * 1000) + \text{switch port})$ and `slot` is always 1 in case of Extreme X670V/Extreme X770.

For VLANs, `port_id` starts from 1000001.

To find the correct mapping, do the following:

1. Log on to the switch management console.
2. Issue the below command:


```
debug vlan show vlans
```
3. Check `vlanInstance` and `ifInstance` in the output. If they are equal to `<port_id>`, the alarm was issued about that VLAN.
4. Verify the status of the VLAN with the `vlanId` of the output.

2.2 Actions

Do the following:

1. Log on to the switch management console.
2. Verify the status of the port with the following command:


```
show port <switch_port_id>
```
3. Inspect the port state.
4. If the port state is “D” (Disabled), issue the following command to enable the port:

```
enable port <switch_port_id>
```

If enabling the port solved the alarm, proceed to Step 6.

5. If the port state is “E” (Enabled), but the link state is “R” (ready), the following scenarios are possible:
 - No cable is connected to the switch port.
 - The cable between the switch port and the Region is broken.



- The port in the POD subrack is faulty.

In these cases, resolve the issues by referring to the instructions in [Summit Family Hardware Installation Guide](#), Reference [1].

6. Confirm that the alarm has ceased.

If the alarm ceases, exit this procedure.

If the alarm remains, proceed to Step 7.

7. Collect troubleshooting data as described in the *Data Collection Guideline*. For alarm-specific logs, refer to the table *Data Collection for Alarms and Alerts* in the *Data Collection Guideline*.

8. Consult the next level of maintenance support.

Further actions are outside the scope of this instruction.

9. The job is completed.



Reference List

- [1] *Summit Family Hardware Installation Guide for Switches Supported by ExtremeXOS 16 and earlier*, http://documentation.extremenetworks.com/summit_16/downloads/SummitFamily_HW_Install.pdf, 121141-00