

# Fan Failure

## Cloud Execution Environment

---

### OPERATING INSTRUCTIONS

**Copyright**

© Ericsson AB 2016. All rights reserved. No part of this document may be reproduced in any form without the written permission of the copyright owner.

**Disclaimer**

The contents of this document are subject to revision without notice due to continued progress in methodology, design and manufacturing. Ericsson shall have no liability for any error or damage of any kind resulting from the use of this document.

**Trademark List**

All trademarks mentioned herein are the property of their respective owners. These are shown in the document Trademark Information.



# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
1.1	Alarm Description	1
1.2	Prerequisites	2
<b>2</b>	<b>Procedure</b>	<b>3</b>
2.1	Actions	3
	<b>Reference List</b>	<b>4</b>





# 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 *Fan Failure* alarm is a primary alarm.

The alarm is issued by the Managed Object (MO) `Fan` when malfunction occurs in one or more cooling fans 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
Cooling fan or fans are down	Failure of one or more cooling fans in ToR switch.	Fan module is faulty	Switch fan module	Cooling malfunction

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

- Cooling malfunction 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	2031685
Managed Object Class	Fan
Managed Object Instance	Region=<name_of_the_region>, Equipment=<equipment_id>, TopOfRackSwitch=<switch_id>, Fan=<fan_id>

*Table 2 Alarm Attributes*

Attribute Name	Attribute Value
Specific Problem	Fan Failure
Event Type	equipmentAlarm (5)
Probable Cause	m3100CoolingFanFailure(107)
Additional Text	Failure of one or more cooling fans in ToR switch.
Severity	CRITICAL (3)

## 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 Actions

Perform the following:

1. Locate the faulty fan module or modules by using the `<fan_id>` attribute from the **Source** field of the alarm.
2. Confirm that the fan module or modules are not functioning properly, or are down.
3. Replace the failed fan module or modules in the switch by referring to the instructions in [Summit Family Hardware Installation Guide](#), Reference [1].
4. Confirm that the alarm has ceased.

If the alarm ceases, exit this procedure.

If the alarm persists, proceed to Step 5.

5. 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*.
6. Consult the next level of maintenance support.  
Further actions are outside the scope of this instruction.
7. 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](http://documentation.extremenetworks.com/summit_16/downloads/SummitFamily_HW_Install.pdf), 121141-00