

Diameter AAA, Server Entered Overload Protection

IPWorks

OPERATING INSTRUCTIONS

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1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The alarm is issued when AAA server traffic is overloaded.

The possible alarm causes and the corresponding fault reasons, fault locations, and impacts are described in Table 1.

Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact	Solution
EPC AAA traffic is overloaded.	The alarm is raised when the EPC AAA traffic is overloaded.	The incoming messages exceed the capacity of EPC AAA.	AAA Server	EPC AAA server rejects part of the traffic with the "busy" response.	See Section 2 on page 3

Note: An alarm can appear as a result of the maintenance activity.

The alarm attributes are listed and explained in Table 2.

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	864258
Managed Object Class	IpworksDiameterAAA
Source	ManagedElement=<Node Name>, SystemFunctions=1, Fm=1, FmAlarmModel=ipworksDiameterAAA, FmAlarmType=ipworksDiameterAAAEnterOverloadProtection
Specific Problem	Diameter AAA, Server Entered Overload Protection
Event Type	qualityOfServiceAlarm(3)
Probable Cause	x733ThresholdCrossed(351)



Attribute Name	Attribute Value
Additional Text	This alarm is raised by Diameter AAA server when the Diameter AAA traffic is overloaded.
Perceived Severity	Major

1.2 Prerequisite

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 documents have been read:

- Fault Management

1.2.2 Tools

- tcpdump
- Wireshark

1.2.3 Conditions

Not applicable.

1.3 Related Information

Trademark information, typographic conventions, and definition and explanation of abbreviations and terminology can be found in the following documents:

- Trademark Information
- Typographic Conventions
- Glossary of Terms and Acronyms



2 Procedure

This section describes the procedure to follow to clear this alarm.

To analyze the cause of this alarm, do the following:

1. Use `tcpdump` tool to capture the AAA traffic package in client, for example:


```
#tcpdump -X -i ethX port 3868 -v -w result.dump
```
2. Use `Wireshark` tool to open and analyze the dump file. If there are many “busy” messages in the dump file, this indicates that EPC AAA server might be in overload protection state. Thus, EPC AAA server will provide the unified response for the service request it cannot resolve.
3. Check the process in other surrounding NEs, the details are out of the scope of this document.
4. When the traffic is back to normal, the alarm is cleared automatically. If the alarm remains original status after 2 minutes, consult the next level of maintenance support. Further actions are outside the scope of this instruction.
5. If the traffic overloads frequently, consider adding more servers to distribute traffic.





Reference List

Ericsson Documents

- [1] Trademark Information
- [2] Typographic Conventions
- [3] Glossary of Terms and Acronyms
- [4] Fault Management