

# Diameter AAA, Peer Connection Unreachable

## IPWorks

### OPERATING INSTRUCTIONS

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Diameter AAA, Peer Connection Unreachable



# 1 Introduction

This instruction concerns alarm handling.

## 1.1 Alarm Description

This alarm is issued when all the connection is broken between AAA with one remote peer node. The remote peer node can be HSS , Access Gateway, or PDN Gateway.

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
Failed to connect to remote diameter node.	The connection between EPC AAA and remote diameter node is broken.	The remote diameter node is abnormal.	Remote peer node	AAA server cannot provide service.	Section 2.1 on page 3
	The remote diameter node is not reachable.	The network connection or other related issues.	Network		Section 2.2 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	864264
Managed Object Class	IpworksDiameterAAA
Source	ManagedElement=<Node Name>, SystemFunctions=1,Fm=1,FmAlarmModel=ipworksDiameterAAA, FmAlarmType= ipworksDiameterAAAPeerConnectionUnreachable



Attribute Name	Attribute Value
Specific Problem	Diameter AAA, Peer Connection Unreachable
Event Type	communicationsAlarm(10)
Probable Cause	x733RemoteNodeTransmissionError(342)
Additional Text	This alarm is raised when the diameter connection to remote peer %s fails.;uuid:<Product_UUID> <sup>(1)</sup>
Perceived Severity	Major

(1) <Product\_UUID> is the universally unique identifier (UUID) of machine that generates the alarm. The value can be fetched from /sys/devices/virtual/dmi/id/product\_uuid on the PL node.

## 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

Not available.

### 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.

### 2.1 Making the Peer Node Works Normally

To clear the alarm, do the following:

**Note:** In this section, the Peer Node indicates one of the following nodes:

- HSS node/relay agent
- Access Gateway
- PDN Gateway

1. Check the alarm attribute `Additional Info` to get the IP address of remote peer node.

For example, the message "This alarm is raised when the diameter connection to remote peer 10.170.15.166 fails", which indicates that the IP address of the peer node is 10.170.15.166.

2. Based on retrieved IP, troubleshoot and solve the issues on the specific peer node.

The alarm is expected to be cleared automatically if the peer node returns to normal.

3. The alarm is expected to be cleared automatically if the Peer Node returns to normal.

### 2.2 Troubleshooting the Network Issues

To clear the alarm, do the following:

1. Debug and troubleshoot the network issues.

The alarm is expected to be cleared automatically if the network connection returns to normal.

2. If the alarm still remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.

### 2.3 Actions for Clearing Alarm

When the peer node was disconnected with IPWorks AAA, the alarm needs to be manually cleared.



1. List the alarms.

```
# ipw-alarm --cmd list
```

For example, FmAlarm=528

```
activeSeverity=MAJOR <read-only>
  additionalText="This alarm is raised when the diameter connection to rem
  eventType=COMMUNICATIONSALARM <read-only>
fmAlarmId="528"
  lastEventTime="2018-03-15T17:16:37.404+08:00" <read-only>
  majorType=193 <read-only>
  minorType=864264 <read-only>
  originalAdditionalText="This alarm is raised when the diameter connectio
  originalEventTime="2018-03-15T17:16:37.404+08:00" <read-only>
  originalSeverity=MAJOR <read-only>
  probableCause=342 <read-only>
  sequenceNumber=1127 <read-only>
  source="ManagedElement=ipworks_cba,SystemFunctions=1,Fm=1,FmAlarmModel
specificProblem="Diameter AAA, Diameter Peer Connection Unreachable" <re
```

2. Clear the alarm.

```
# ipw-alarm --cmd clear --id <Alarm ID>
```

The <Alarm ID> can be found in the example output in Step 1.





# Reference List

## **Ericsson Documents**

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