

# eVIP, Gateway Unavailable

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## OPERATING INSTRUCTIONS

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# 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> |



eVIP, Gateway Unavailable



# 1 Introduction

This instruction concerns alarm handling.

## 1.1 Alarm Description

The alarm is raised when contact is lost with an external gateway.

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

*Table 1 Alarm Causes*

| Alarm Cause                         | Description   | Fault Reason                             | Fault Location   | Impact  |
|-------------------------------------|---|--|--|---|
| Faulty external gateway or gateways | One or more external gateways are faulty                                    | One or more external gateways are faulty | External gateway or gateways   | <p>If only one gateway is unavailable, redundancy is lost but the traffic uses the remaining gateway.</p> <p>If all gateways are unavailable for an ALB, all traffic is lost.</p> |
| Faulty connection                   | The connection between the external gateway and the cluster is faulty       | Faulty connection                        | Connection between the external gateway and the cluster                                  |   |
| Faulty node in cluster              | The node in the cluster that is connected to the external gateway is faulty | Faulty node                              | Node in cluster  |   |
| Faulty configuration                | The configuration is faulty   | Faulty configuration                     | Faulty configuration either in the Managed Element or in the connected external gateways |   |

**Note:** The alarm can appear as a result of an installation or after a configuration change.

The alarm attributes are listed and explained in Table 2.

*Table 2 Alarm Attributes*

| Attribute Name | Attribute Value |
|----------------|-----------------|
| Major Type     | 193             |



Table 2 Alarm Attributes

| Attribute Name          | Attribute Value   |
|-------------------------|---|
| Minor Type              | 2129526785  |
| Managed Object Class    | <i>EvipSupervisedRemoteGateway</i>  |
| Managed Object Instance | ManagedElement=<node_name>,Transport=1,Evip=1,EvipAlbs=1,EvipAlb=<alb_name>,EvipFees=1,EvipFee=<fee_name>,EvipSupervisedRemoteGateway=<ip_adress> |
| Specific Problem        | eVIP, Gateway Unavailable   |
| Event Type              | communicationsAlarm (2)   |
| Probable Cause          | x736UnspecifiedReason (418)   |
| Additional Text         | Lost contact with a Supervised External Gateway   |
| Perceived Severity      | major (4)   |

## 1.2 Prerequisites

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

### 1.2.1 Documents

This instruction references the following document:

- *Data Collection Guideline*

### 1.2.2 Tools

No tools are required.

### 1.2.3 Conditions

Before starting this procedure, ensure that the following conditions are met:

- An eVIP, Gateway Unavailable alarm is raised.
- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.



## 2 Procedure

Do the following:

1. Check the physical connectivity to the gateway router to determine which node in the cluster is connected to the gateway router, for example:

```
>show ManagedElement=NODE06ST,Transport=1,Evip=1,EvipAlbs=1,EvipAlb=alb_1,EvipFees=1,EvipFee=fee_3,node
```

The names of `EvipAlb` and `EvipFee` are part of alarm attribute `Source`.

The following example output shows that PL-8 is the physical blade associated with the gateway router:

```
node="8"
```

2. Determine which Ethernet interface is connected to the gateway router, for example:

```
>show ManagedElement=NODE06ST,Transport=1,Evip=1,EvipAlbs=1,EvipAlb=alb_1,EvipFees=1,EvipFee=fee_3,externalInterface
```

In the following example output, `eth3` is the Ethernet interface associated with the gateway router:

```
externalInterface="eth3"
```

The following example shows VLAN-based system configuration:

```
>show ManagedElement=NODE06ST,Transport=1,Evip=1,EvipAlbs=1,EvipAlb=alb_1,EvipFees=1,EvipFee=fee_3,externalInterface
```

In the following example output, the `externalInterface` is associated with VLAN tag:

```
externalInterface="eth3.150"
```

The following steps do not handle the VLAN-based system configuration.

3. Use the information from Step 1 to log on to a UNIX® shell on the blade with the Ethernet interface to the gateway router, for example:

```
>ssh <user>@PL-8
```

4. Use the information from Step 2 to check the status of the Ethernet interface, for example:



```
>ifconfig eth3
```

In the following example of a working interface, the interface is active as shown by status UP:

```
eth3      Link encap:Ethernet  HWaddr 00:13:5E:E8:EB:A9
          inet6 addr: fe80::213:5eff:fee8:eba9/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:16621 errors:0 dropped:0 overruns:0 frame:0
          TX packets:14613 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:1883100 (1.7 Mb)  TX bytes:1306050 (1.2 Mb)
          Memory:fdee0000-fdf00000
```

5. Is the Ethernet interface active?

Yes: Proceed with Step 9.

No: Continue with the next step.

6. Try to bring up the interface, for example:

```
>ifconfig eth3 up
```

A new Unix prompt is displayed.

7. Check the status of the network interface, for example:

```
>ifconfig eth3
```

In the following example of a working interface, the interface is active as shown by status UP:

```
eth3      Link encap:Ethernet  HWaddr 00:13:5E:E8:EB:A9
          inet6 addr: fe80::213:5eff:fee8:eba9/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:16621 errors:0 dropped:0 overruns:0 frame:0
          TX packets:14613 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:1883100 (1.7 Mb)  TX bytes:1306050 (1.2 Mb)
          Memory:fdee0000-fdf00000
```

8. Is the Ethernet interface active?

Yes: Continue with the next step.

No: Proceed with Step 11.

9. Collect configuration data, for example:

```
>dn ManagedElement=NODE06ST,Transport=1,Evip=1,EvipAlbs
=1,EvipAlb=alb_1,EvipFees=1,EvipFee=fee_3,EvipRoutingS
etup=ospfv2
```



```
(EvipRoutingSetup=ospfv2) >show -r
```

The following is an example output:

```
EvipRoutingSetup=ospfv2
  EvipParam=area
    value="10.0.20.1"
  EvipParam=area_type
    value="stub"
  EvipParam=dead_interval
    value="40"
  EvipParam=hello_interval
    value="10"
  EvipParam=local_address
    value="192.0.2.10/24"
  EvipParam=retransmit_interval
    value="5"
  EvipParam=router_id
    value="192.0.2.10"
  EvipParam=router_priority
    value="0"
  EvipParam=spf_delay
    value="500"
  EvipParam=spf_interval
    value="1000"
  EvipParam=transmit_delay
    value="1"
```

10. Determine if the Evolved Virtual IP (eVIP) or external gateway router configuration has been changed compared to a previously known working configuration. Contact the IT administrator and order verification of the configuration data collected in Step 9. Further actions are outside the scope of this instruction. Proceed with Step 13.

**Note:** A supervised remote gateway address can only be an IPv4 address.

11. Perform data collection, refer to *Data Collection Guideline*.
12. Consult the next level of maintenance support. Further actions are outside the scope of this instruction.
13. Job is completed.