

# SipContainer, Heap Memory Load Limit Exceeded

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## OPERATING INSTRUCTIONS

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SipContainer, Heap Memory Load Limit Exceeded



# 1 Introduction

This instruction concerns alarm handling.

## 1.1 Alarm Description

The alarm is raised by the Session Initiation Protocol (SIP) container as part of overload protection when the heap memory use exceeds a configured upper threshold value.

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



Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
Heap memory use exceeds upper threshold value for SIP initial requests	Heap memory use exceeds the <code>memIrLowerThreshold</code> threshold value	Incorrect configuration System is not dimensioned to handle the engineered capacity	Heap memory	All initial SIP requests are rejected before reaching the application with a 503 response (service unavailable).  Initial SIP requests are defined as a SIP initial request and non-sticky HTTP requests when CLB is used.
Heap memory use exceeds upper threshold value for subsequent SIP requests	Heap memory use exceeds the <code>memSrLowerThreshold</code> threshold value			All subsequent SIP requests are rejected before reaching the application with a 503 response.  Subsequent requests are defined as a SIP subsequent request and sticky HTTP requests.
Heap memory use exceeds upper threshold value for all SIP requests	Heap memory use exceeds the <code>memMmLowerThreshold</code> threshold value			All SIP requests are dropped before reaching the application without sending a response.

The alarm attributes are listed and explained in Table 2.

Table 2 Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	1283553619
Managed Object Class	<i>JavaSipOverloadProtection</i>



Table 2 Alarm Attributes

Attribute Name	Attribute Value
Managed Object Instance	ManagedElement=<node_name>, JavaSip=clusterName:<cluster_name>:instanceId:<id>, JavaSipOverloadProtection=1
Specific Problem	SipContainer, Heap Memory Load Limit Exceeded
Event Type	processingErrorAlarm (4)
Probable Cause	x736UnspecifiedReason (418)
Additional Text	(1)
Perceived Severity	<p>One of the following:</p> <ul style="list-style-type: none"> <li>critical(3): All SIP requests are dropped before reaching the application without sending a response.</li> <li>major(4): All subsequent SIP requests are rejected before reaching the application with a 503 response.</li> <li>minor(5): All initial SIP requests are rejected before reaching the application with a 503 response.</li> </ul>

(1) No additional text exists.

## 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:

- A SipContainer, Heap Memory Load Limit Exceeded alarm is raised.
- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.



## 2 Procedure

Do the following:

1. Navigate to the *JavaSipOverloadProtection* managed object, for example:

```
>dn ManagedElement=NODE06ST,JavaSip=clusterName:traffic  
:instanceId:3,JavaSipOverloadProtection=1
```

2. View the heap memory overload protection configuration:

```
(JavaSipOverloadProtection=1)> show
```

The following is an example output:

```
JavaSipOverloadProtection=1  
[...]  
    memoryOverloadProtection=true  
[...]  
    enabled=true  
    memIrLowerThreshold=80  
    memIrUpperThreshold=90  
    memMmLowerThreshold=93  
    memMmUpperThreshold=98  
[...]  
    memSrLowerThreshold=80  
    memSrUpperThreshold=90  
[...]
```

3. Provide configuration information and order the planning department to replan the setting.
4. Perform data collection, refer to *Data Collection Guideline*.
5. Consult the next level of maintenance support. Further actions are outside the scope of this instruction.
6. Job is completed.