

SipContainer, Heap Memory Load Limit Exceeded

OPERATING INSTRUCTIONS

Copyright

© Ericsson AB 2015. 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

1	Introduction	1
1.1	Alarm Description	1
1.2	Prerequisites	3
2	Procedure	4



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"> critical(3): All SIP requests are dropped before reaching the application without sending a response. major(4): All subsequent SIP requests are rejected before reaching the application with a 503 response. minor(5): All initial SIP requests are rejected before reaching the application with a 503 response.

(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.