

MtasSip, Failed to Open Port MTAS

OPERATING INSTRUCTIONS

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MtasSip, Failed to Open Port



1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The alarm is raised whenever any of the SIP listening ports fail to open for incoming traffic, or outgoing connection attempts through TCP fail to connect the remote peer.

The alarm is issued in the following situations:

- SIP listening port failed to open.
- SIP outgoing connection through TCP failed to connect the remote peer because no ephemeral ports were available.
- SIP outgoing connections through TCP timed out.

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
SIP listening port failed to open.	Any of the SIP listening ports (UDP or TCP) failed to open for incoming traffic.	Port is already in use.	Port of the processor.	MTAS cannot handle SIP signalling if the corresponding ports cannot be opened.
		Problem with VIP address configuration or with the installed IP stack.	IP address configuration or IP stack.	



Table 1 Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
SIP outgoing connection failed to connect remote peer.	Any attempt of outgoing connection for SIP signaling through TCP failed to bind local port and connect to remote peer, for outgoing traffic.	No more ephemeral ports are available in the MTAS cluster for TCP transport.	All payloads in the MTAS cluster.	MTAS cannot send SIP signaling to remote peer by any new outgoing TCP connection. The established outgoing TCP connections are not impacted.
SIP outgoing connections through TCP timed out.	Any attempt of outgoing connection for SIP signaling through TCP timed out. There is not any response for the SYN request sent by MTAS.	The network between MTAS and remote peer (like CSCF) is unavailable or remote peer is shut down.	The network between MTAS and remote peer or remote peer.	MTAS cannot send SIP signaling to remote the peer through TCP transport.

Note: The 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	6619198
Managed Object Class	<i>MtasSip</i>
Managed Object Instance	MtasFunction.applicationName=MtasFunction,MtasSip.mtasSip=0
Specific Problem	MtasSip, Failed to Open Port
Event Type	communicationsAlarm (2)
Probable Cause	m3100Unavailable (14)



Attribute Name	Attribute Value
Additional Text	<p>One line for each port that fails to be opened.</p> <p>Each line contains the protocol (UDP or TCP) of the port, port number, a list of affected processors, ⁽¹⁾ and finally the failing operation and a text describing the reason for the failure. For the outgoing TCP connections failed because of no ephemeral ports, the port is presented by 0.</p> <p>All ports that share port problem are gathered in a section with the problem description as the header.</p> <p>For the outgoing TCP connections time out, each line contains the protocol, the IP address and port of peer, a list of affected processors, the failing operation, and a text describing the reason for the failure.</p> <p>If the information exceeds the systems defined available size of the Additional Text field, the field ends with three dots ("..."). The entire information for the field can be found in the Applog.</p> <p>Additional Text is updated whenever any failed port is successfully opened but other failing ports remain, or if any failing operation change.</p>
Perceived Severity	Major (4)
Additional Info	<p>The UUID of the one affected processor in the value field. If the same or other port fails on several processors, only the first one is included and the UUID information about the other processors can be found in the Applog. ⁽²⁾</p>

(1) If the same port fails on several processors, only the first one is included literally. The remaining ones are included just as a number and information about the other processors can be found in the Applog. If only one port fails, all processors are included literally up to the Additional Text field size limit.

(2) UUID visible over NBI in ECIM alarm additionalInfo value and it is not available on SNMP



1.2 Prerequisites

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 are available:

- *Check Alarm Status*
- *Fault Management*
- *Managed Object Model (MOM)*
- *Virtual IP Address Management*

1.2.2 Tools

No tools are required.

1.2.3 Conditions

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

- No ongoing maintenance activities affect the network or network elements.
- The user has proper authority to handle configuration management of the network elements.
- An Ericsson Command-Line Interface (ECLI) session in Exec mode is in progress.



2 Procedure

Do the following:

1. If the error message starts with `Failed to bind SIP port (ds_bind): Address already in use`, it indicates that the port is already in use by some other part of the system. Use the command `netstat` to view the current use of ports. Compare this list to the port number or port numbers listed in the end of the alarm printout to find what other part of the system is using the port.
2. If the error message starts with `Failed to bind SIP port (ds_bind): Cannot assign requested address`, it indicates that the configuration settings for `tasvip4` or `tasvip6` can be invalid. It can also indicate that the stack of the selected IP version is not installed on the platform.
3. Use the information in the additional text field to reopen the failing ports on the related processors.
4. Repeat these procedures until all ports on all processors are successfully opened for listening. If the error is related to outgoing TCP connections, go to the next step.
5. If the error message starts with `No available ephemeral ports (ds_bind, ds_connect): Resource temporarily unavailable`, it indicates that no more ephemeral ports are available at the MTAS cluster.
6. Reduce the numbers of remote peers like CSCFs. Or adjust the eVIP setting to get more ephemeral ports in the cluster. For more details about eVIP, refer to *Virtual IP Address Management*.
7. If the error message starts with `The TCP outgoing connection to peer failed (ds_connect): Connection timed out`, it indicates that the network to remote peer is unavailable, or that the peer has shut down.
8. Repair the network issue, or restore the remote peers.
9. If the alarm does not cease, consult the next level of maintenance support. Further actions are outside the scope of this instruction.