

# CSCF External Network Selection Table Loop Detected

Call Session Control Function

OPERATING INSTRUCTIONS

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# Contents

<b>1</b>	<b>Alarm Description</b>	<b>1</b>
<b>2</b>	<b>Procedure</b>	<b>2</b>
2.1	Handle Alarm CSCF External Network Selection Table Loop Detected	2



CSCF External Network Selection Table Loop Detected



# 1 Alarm Description

The CSCF External Network Selection Table Loop Detected alarm is raised when the number of External Network Selection (ENS) criteria tables started in a single gateway selection request exceeds the value of the configurable parameter `extNetSelectionMaxTables`, see [Managed Object Model \(MOM\)](#). The alarm is caused by the ENS configuration instance (`ExtNetSelection` or `ExtNetSelection2`) that was active at the time of the alarm.

The possible cause is ENS configuring error. A loop can be present in the tables. The selection process cannot converge to a pool.

Table 1 CSCF External Network Selection Table Loop Detected Alarm Causes

Alarm Cause	Description	Fault Reason	Fault Location	Impact
External Network Selection (ENS) table loop was detected.	The number of ENS criteria tables that were started in a gateway request exceeded the <code>extNetSelectionMaxTables</code> maximum configured parameter value.	The possible cause is ENS configuring error. A loop can be present in the tables. The selection process cannot converge to a pool.	<p>The fault is caused by a loop that is detected or that the analysis is so complex that the <code>extNetSelectionMaxTables</code> is configured too small.</p> <p>The attribute <code>extNetSelectionMaxTables</code> is placed in the MOC <code>ExtNetSelection1-Application</code>, which describes the maximum number of times ENS table can be started in a single gateway selection request before the alarm is triggered.</p>	The SIP message that triggered the alarm is routed to the gateway identified in the <code>extNetSelectionDefaultPoolName</code> parameter. If the parameter is not defined, the SIP message is answered with a 500 PSTN Gateway unreachable error response or if the transit verification function is enabled, the SIP messages are handled as non-transit.

**Note:** This alarm can appear as a result of maintenance activity.

Table 2 CSCF External Network Selection Table Loop Detected Alarm Attributes

Attribute Name	Attribute Value
Major Type	193
Minor Type	6684696



Attribute Name	Attribute Value
Managed Object Class	ExtNetSel-Application
Managed Object Instance	ManagedElement=<node_name>,C scfFunction=1,ExtNetSel-App lication=ExtNetSelection or ExtNetSelection2
Specific Problem	CSCF External Network Selection Table Loop Detected
Event Type	processingErrorAlarm (4)
Probable Cause	x733ConfigurationOrCustomizationEr ror (307)
Additional Text	ENS tables input information <sup>(1)</sup>
Perceived Severity	major (4)

(1) Input information includes the SIP request received by ENS. The SIP request information includes SDP media information without the message body part. A SIP request with length exceeding the display limit is truncated. Example: R:SipMessage=[INVITE tel:+468000000000 SIP/2], SdpMediaType=[] or T:SipMessage=[INVITE tel:+468000000000 SIP/2], SdpMediaType=[], where “R” is for cases when the alarm is raised by the routing function and “T” is for when the alarm is raised by the transit verification function.

## 2 Procedure

### 2.1 Handle Alarm CSCF External Network Selection Table Loop Detected

#### Prerequisites

- This instruction references the following documents:
  - CSCF Configuration Management
  - Managed Object Model (MOM)
- No tools are required.
- The following condition must apply:
  - The alarm is raised.

#### Steps

1. Find the input parameters that caused the alarm.



This information is found in the Additional Text field of the alarm.

2. Find the affected configuration instance.

This is either ExtNetSelection or ExtNetSelection2 and is found in the Managed Object Instance field.

3. Find the time that the alarm was raised.

This can be done if the ENS analysis matches on the EnsDateMatchTable or EnsTimeMatchTable.

**Note:** The time can differ on second level, and that the configured times in the ENS analysis are using UTC format.

4. If the ENS is configured to use both configuration instances, make sure that the affected configuration instance is configured as passive.

To do so, set extNetSelectionActiveConfiguration to the other instance.

For example, if the affected configuration is ExtNetSelection2, set the parameter to ExtNetSelection.

For more information about the parameter extNetSelectionActiveConfiguration, see Managed Object Model (MOM) and CSCF Configuration Management.

5. Correct the ENS table entries to make sure that the identified combination of input criteria values leads to the selection of a pool.

Increase the value of the extNetSelectionMaxTables if appropriate.

6. In the targeted configuration instance, set extNetSelectionTablesSynchronization to true.

For more information about the parameter extNetSelectionTablesSynchronization, see Managed Object Model (MOM) and CSCF Configuration Management.

**Result:**

The ENS application is now notified that a new configuration must be used, and the alarm ceases.

7. Has the alarm ceased?

Yes: Proceed with Step 9.

No: Continue with the next step.

8. If the alarm is not ceased, consult the next level of maintenance support.

Further actions are outside the scope of this instruction.



9. Job is completed.