

CSCF Shared Initial Filter Criteria Priority Collision

Call Session Control Function

OPERATING INSTRUCTIONS

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1 Introduction

This instruction concerns alarm handling.

1.1 Alarm Description

The alarm is raised when two or more Initial Filter Criterias (IFCs) within a user profile have the same priority number (that is, at least one of the involved IFCs is defined in a locally configured Shared Initial Filter Criteria (SiFC) set), or when an internal DBN error occurs in synchronizing modified SiFC configuration.

Many users can experience priority collisions, but only the first one detected, is reported in the alarm.

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
Two or more IFCs within a user's profile have the same priority number, or an internal DBN error occurs in synchronizing modified SiFC configuration.	A priority collision comparing IFCs in the user profile and configured SiFC is detected, or an internal DBN error occurs in synchronizing modified SiFC configuration.	<p>IFC priority conflicts can occur in the following cases:</p> <ul style="list-style-type: none"> During an initial registration when receiving the user profile from the HSS over the Cx interface. When a user profile update is initiated by the HSS. During the first traffic event of a registered user following the synchronization of the SiFC definitions. <p>An internal DBN error can occur when there is an internal execution error in synchronizing modified SiFC configuration.</p>	<p>The possible cause is that the <code>scscfIfcPriority</code> value associated with a locally defined IFC is used twice within the same user profile (<code>Public_Id</code>) or that a priority among the user profile in the IFC definitions at the HSS, is incorrect.</p> <p>The possible cause of DBN error is an internal execution error in synchronizing modified SiFC configuration.</p>	<p>The consequences for CSCF if the alarm is not solved may be that the CSCF stops providing service to users experiencing an IFC Priority Collision, or an internal DBN error in synchronizing modified SiFC configuration.</p> <p>If the priority collision is detected at initial registration, the CSCF rejects the profile update message and initiates an administrative deregistration of the user. If the priority collision is detected during traffic, the traffic event is rejected.</p>

Note: An alarm can appear as a result of 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	6684698
Managed Object Class	CSCF-Application
Managed Object Instance	ManagedElement=<node_name>, C scfFunction=1, CSCF-Applicat ion=CSCF
Specific Problem	CSCF Shared Initial Filter Criteria Priority Collision
Event Type	processingErrorAlarm (4)
Probable Cause	x733ConfigurationOrCustomization Error (307)
Additional Text	<p>Format: Public_Id=<tel_url> or <sip_url>, ScscfSh aredIfcId=<Id_value>, ScscfSharedIfcId=<Id_value>, ScscfIfcPriority=<priority_ value> (1)(2)</p> <p>or</p> <p>Failed to synchronize SiFC configuration data due to [error reason]. Synchronization process is aborted..., where [error reason]⁽³⁾ can be ignored.</p>
Perceived Severity	critical (3)

(1) Example:Public_Id=tel:+4812299410000, ScscfSharedIfcId=2, ScscfSharedIfcId=1, ScscfIfcPriority=0

(2) Only one ScscfSharedIfcId is present when the collision involves a filter criteria explicitly defined in the user profile.

(3) Some examples of [error reason] are: "Failed to read SiFC persistent object - POT does not exist.", "Failed to read SiFC persistent object - database operation error.", "Failed to delete SiFC persistent object.", "Failed to update SiFC persistent object.", "Invalid SiFC ID. Must be of integer [0..n].", "Failed to build traffic DBN.", and "Traffic database transaction error."



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:

- *CSCF Configuration Management*
- *Managed Object Model (MOM)*

1.2.2 Tools

No tools are required.

1.2.3 Conditions

No conditions.



2 Procedure

This section describes the procedure to follow when this alarm is received.

2.1 Analyze the Alarm

Check the value of `Additional Text`. If the value of this attribute is `Failed to synchronize SiFC configuration data due to [error reason]`. Synchronization process is aborted..., it indicates an internal DBN error in synchronizing modified SiFC configuration occurs.

Otherwise, proceed with the analysis as follows.

The IFC can be configured in two ways:

- As part of the user's service profile (provisioned in the HSS).

or

- As an SiFC configured in the CSCF, which is referred from the user's service profile (provisioned in the HSS).

All IFCs must have different priorities to get a predictable service behavior.

Analyze the IFCs and SiFCs to determine which IFCs (explicit or shared) that are configured with the same priority.

2.2 Actions to Clear the Alarm

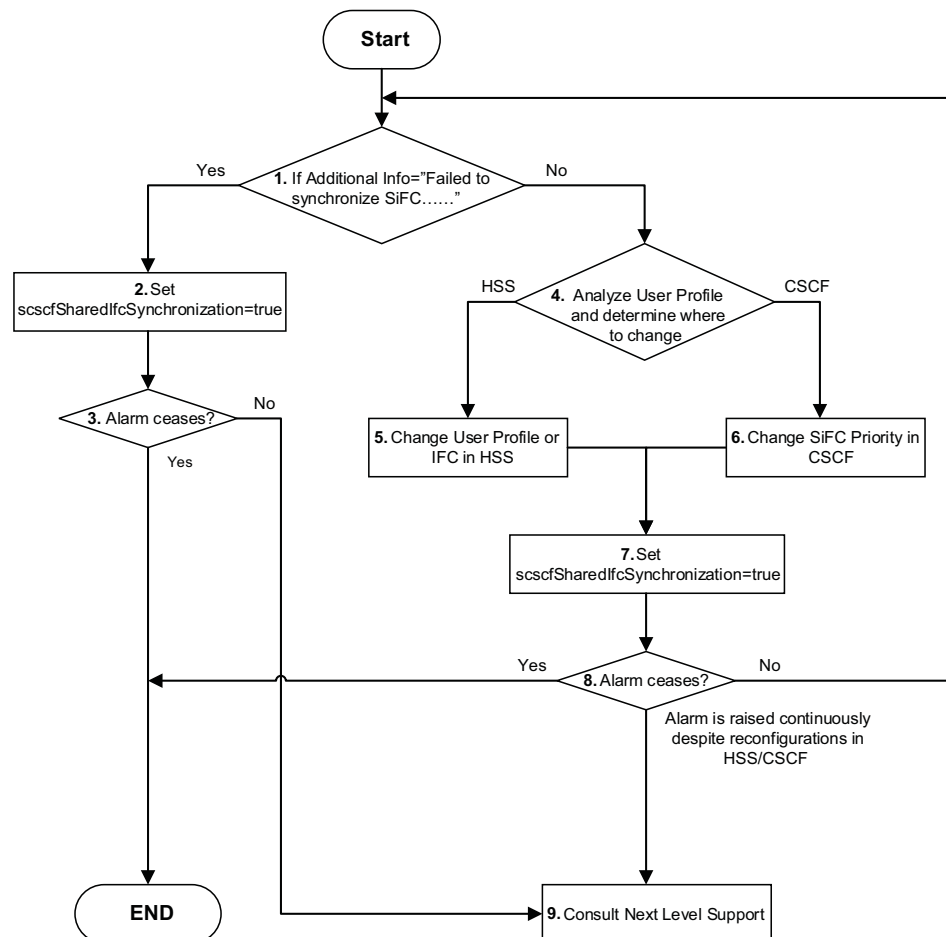


Figure 1 Procedure Flow Chart

Following the procedure in Figure 1, do the following:

1. Check the value of Additional Text attribute of the alarm.

If the value of this attribute is Failed to synchronize SiFC configuration data due to [error reason]. Synchronization process is aborted..., go to Step 2.

Otherwise, go to Step 4.

2. Set the `scscfSharedIfcSynchronization` parameter to **True**.
3. Check if the alarm ceases after the synchronization is done. If the alarm ceases, go to Step 10. If not, go to Step 9.



4. Analyze the user profile of the identified user and determine if a change is required in the user profile, in the IFC definitions at the HSS, or in the SiFC definitions at the CSCF.
5. If a change is required in the user profile or in the IFC definitions at the HSS, update the information in the HSS.
6. If a change is required in the SiFC definitions at the CSCF, modify the `scscfIfcPriority` of a filter criteria defined within one of the identified SiFCs to avoid the conflict.
7. Set the `scscfSharedIfcSynchronization` parameter to **true**. The CSCF application is then notified that a new SiFC configuration must be used, and the alarm ceases.

This step must be executed to cease the alarm in the CSCF even if the solution was to update the information in the HSS.

For more information about the parameters `scscfIfcPriority` and `scscfSharedIfcSynchronization`, refer to *Managed Object Model (MOM)* and *CSCF Configuration Management*.

8. Check if the alarm ceases after the synchronization is done. If the alarm ceases, go to Step 10.

If not, repeat from Step 1. Check for more missing parameters or check if the parameters were configured correctly. If the alarm is continuously raised despite reconfigurations in HSS/CSCF, go to Step 9.

9. If the alarm remains, consult the next level of maintenance support. Further actions are outside the scope of this instruction.
10. Job is completed.