

Session Report Rejection Procedure

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Feature Summary and Revision History

Summary Data

Applicable Product(s) or Functional Area	5G-UPF
Applicable Platform(s)	VPC-SI SMI
Feature Default Setting	Enabled – Always-on
Related Changes in this Release	Not Applicable
Related Documentation	*UCC 5G SMF Configuration and Administration Guide*

Revision History

Revision Details	Release
First introduced.	2021.02.0

Feature Description

The SMF rejects the UPF-originated Session Report Request with a specific cause code during any mismatch in the charging configuration of SMF and UPF.

For any session report rejection by the SMF, the UPF locally purges the sessions. The SMF is unaware of the purging operation and continues to send the N4 message to the UPF. This action triggers the UPF to send “context not found” message to the SMF for the locally purged sessions.

This behavior impacts the UE experience and results in the loss of charging data. So, the current implementation of handling the session report errors is modified to avoid local purging of sessions on the UPF and also to support graceful clearing of sessions.

With this modification, the UPF ignores the Session Report Error Response. The SMF triggers the Session Deletion Request followed by the rejection of Session Report. The UPF responds to the delete request and clears the session gracefully.

Relationships to Other Features

This feature involves implementing some behavioral changes to the SMF and the UPF. The new CLI configuration in SMF aids in controlling this behavior. For details on the SMF behavioral changes, see the *Support for Session Report Rejection Procedure* chapter in the *UCC 5G SMF Configuration and Administration Guide*.

Call Flow

The following figure explains the flow of Session Report rejection prcedure.

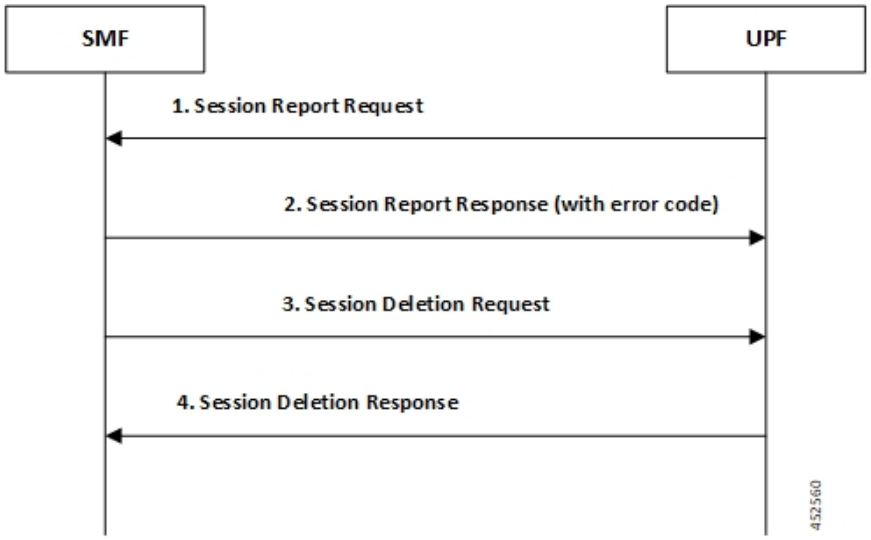


Table 1: Session Report Rejection Procedure Call Flow

Step	Description
1	UPF sends Session Report message to SMF. (SX_SESSION_REPORT_REQUEST)
2	SMF rejects the message with some error code. (SX_SESSION_REPORT_RESPONSE with error code)
3	UPF ignores the Session Report error response. SMF initiates Session Delete Request to tear down the session gracefully. (SX_SESSION_DELETION_REQUEST)

Step	Description
4	UPF responds to the delete request and clears the session gracefully. (SX_SESSION_DELETION_RESPONSE)

OAM Support

This section describes operations, administration, and maintenance information for this feature.

Show Command(s) and/or Output(s)

show user-plane-service statistics all

The counter, "Skipped Local Purge", is added to the **show user-plane-service statistics all** CLI command under the section “PDNs Released By Reason”.

- **Skipped Local Purge**: Increments whenever Session Report error is triggered from SMF/CP to UPF/UP.

Show Command(s) and/or Output(s)