



Update Bearer Request and Response

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Feature Summary and Revision History

Summary Data

Table 1: Summary Data

| | |
|--|---------------------|
| Applicable Product(s) or Functional Area | cnSGW-C |
| Applicable Platform(s) | SMI |
| Feature Default Setting | Enabled - Always-on |
| Related Documentation | Not Applicable |

Revision History

Table 2: Revision History

| Revision Details | Release |
|-------------------|---------|
| First introduced. | 2020.04 |

Feature Description

In this release, cnSGW-C supports only relay of update bearer request (which can contain TFT change, QCI change or APB – AMBR change) from PGW towards MME. When MME sends response to cnSGW-C, it relays update bearer response towards PGW.

This release doesn't support signaling towards User Plane.

Standards Compliance

The Update Bearer Request and Response Support feature complies with the following standards:

- *3GPP TS 23.401*
- *3GPP TS 23.214*
- *3GPP TS 29.274*
- *3GPP TS 29.244*

How it Works

This section describes how this feature works.

Call Flows

This section describes the key call flow of Update Bearer Request and Response feature.

Figure 1: Bearer Request/Response without UP Signaling Call Flow

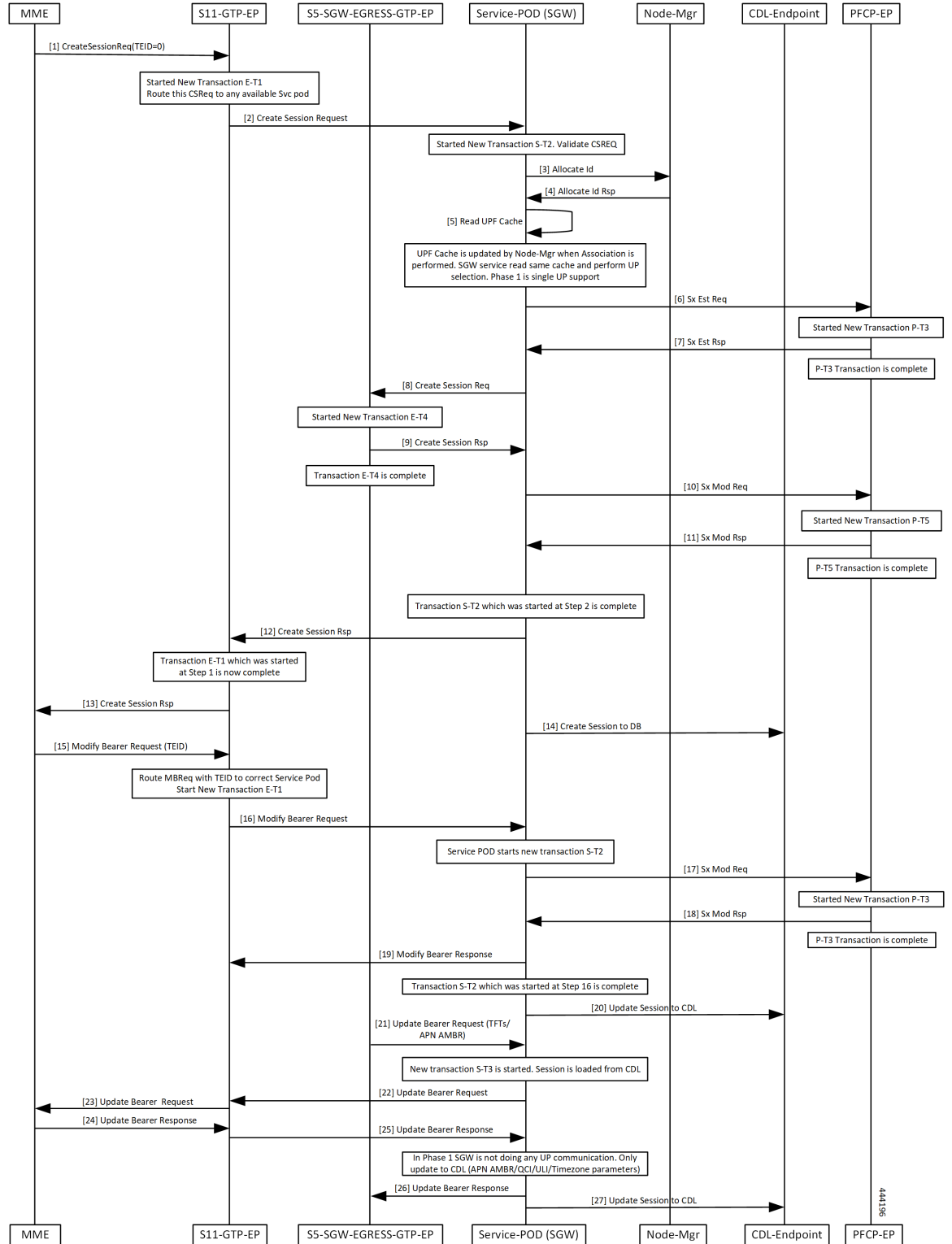


Table 3: Bearer Request/Response without UP Signaling Call Flow Description

| Step | Description |
|------------|--|
| 1 | MME sends Create Session Req to S11-GTP-EP with TEID value as zero. |
| 2 | Transaction E-T1 started. S11-GTP-EP sends Create Session Req to SGW-Service POD. |
| 3, 4 | Transaction S-T2 started. SGW-Service POD sends Allocate ID to Node-Mgr and receives response from it. |
| 5, 6, 7 | SGW-Service POD reads Node-Mgr updated UPF cache and performs UPF selection. SGW-Service POD sends Sx Est Req to PFCP-EP. Transaction P-T3 started. SGW-Service POD receives Sx Est Rsp from PFCP-EP. |
| 8, 9 | Transaction P-T3 completed. SGW-Service POD sends Create Session Req to S5-SGW-EGRESS-GTP-EP. Transaction E-T4 started. SGW-Service POD receives Create Session Rsp from S5-SGW-EGRESS-GTP-EP. |
| 10, 11, 12 | Transaction E-T4 completed. SGW-Service POD sends Sx Mod Req to PFCP-EP. Transaction P-T5 started. SGW-Service POD receives Sx Mod Rsp from PFCP-EP. |
| 12 | Transaction S-T2 ans P-T5 completed. SGW-Service POD sends Create Session Rsp to S11-GTP-EP. |
| 13 | Transaction E-T1 completed. S11-GTP-EP sends Create Session Rsp to MME. |
| 14 | SGW-Service POD sends Create Session to DB. |
| 15 | MME sends Modify Bearer Req with TEID value to S11-GTP-EP. |
| 16 | S11-GTP-EP routes MBReq with TEID to the exact SGW-Service POD. S11-GTP-EP sends Modify Bearer Request SGW-Service POD. |
| 17 | Transaction S-T2 completed. SGW-Service POD sends Sx Mod Req to PFCP-EP. |
| 18 | Transaction P-T3 started. SGW-Service POD receives Sx Mod Rsp from PFCP-EP. |

| Step | Description |
|--------|--|
| 19 | Transaction P-T3 completed. SGW-Service POD sends Sx Mod Rsp to S11-GTP-EP. |
| 20 | Transaction S-T2 completed. SGW-Service POD sends Update Session to CDL. |
| 21 | S5-SGW-EGRESS-GTP-EP sends Update Bearer request with TFTs and APN AMBR to SGW-Service POD. |
| 22, 23 | Transaction S-T3 completed. SGW-Service POD sends Update Bearer Request to S11-GTP-EP. S11-GTP-EP forwards Update Bearer Request to MME. |
| 24, 25 | MME sends Update Bearer Rsp to S11-GTP-EP. S11-GTP-EP forwards Update Bearer Rsp to SGW-Service POD. |
| 26 | SGW-Service POD forwards Update Bearer Rsp to S5-SGW-EGRESS-GTP-EP. |
| 27 | SGW-Service POD sends Update Session to CDL. |

