

# GTPv2 Message Validation


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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. | 2021.01.0 |

# Feature Description

cnSGW-C supports basic GTPv2 message validation of IEs (values, mandatory IE, and service-dependent IE), and sends responses from the SGW-Service/GTPC-EP pod.

# How it Works

This section describes how this feature works.

## Call Flows

This section describes the key call flows for this feature.

### Basic and Advance Validation on SGW-Ingress (S11) Call Flow

The following section describes the Basic and Advance Validation on SGW-Ingress (S11) call flow.

*Figure 1: Basic and Advance Validation - S11 Call Flow*

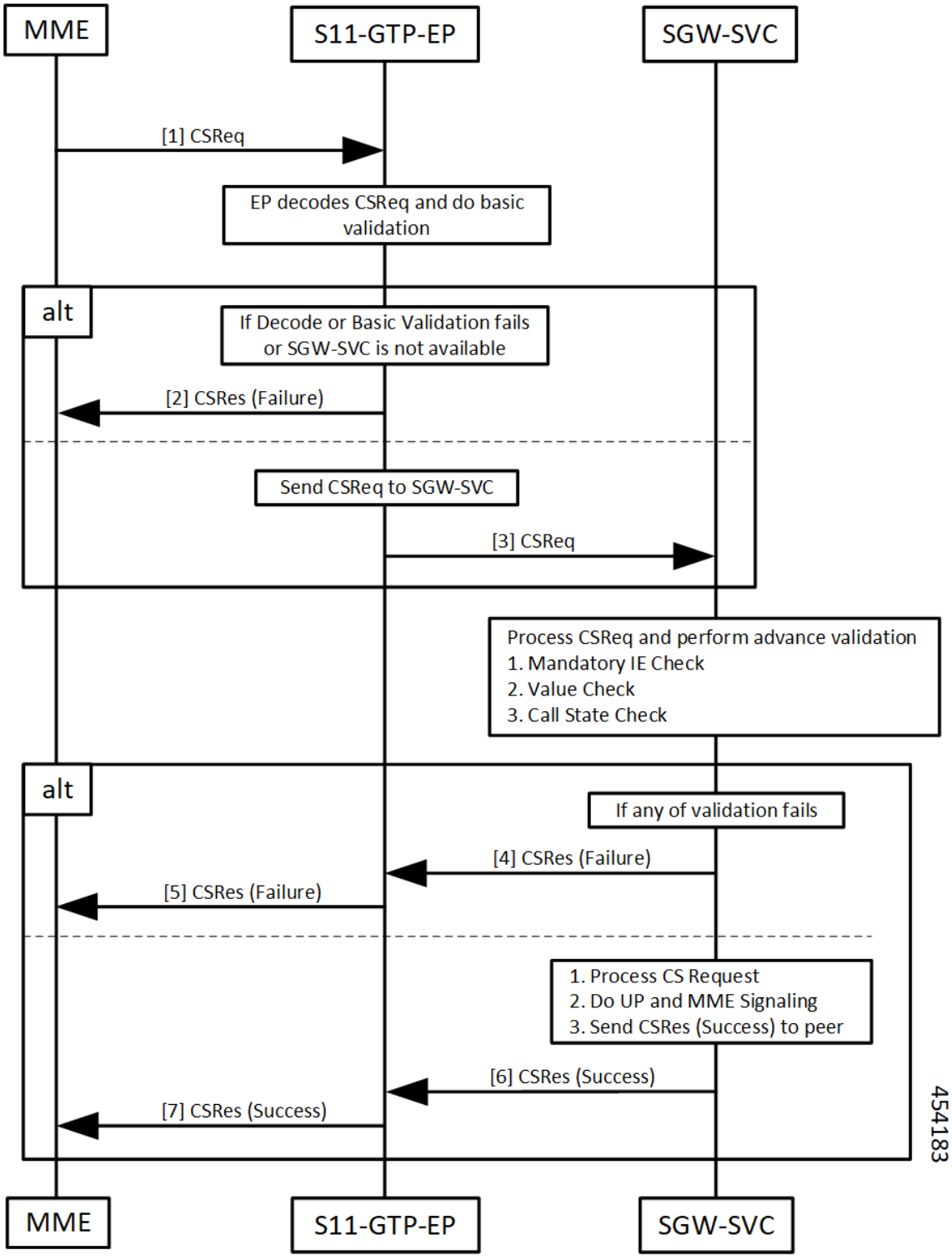


*Table 3: Basic and Advance Validation - S11 Call Flow Description*

| Step | Description |
|---|---|
| 1 | The MME sends the Create Session Request to the S11-GTP-EP pod.<br>The S11-GTP-EP pod decodes the Create Session Request and performs basic validation. |
| 2 | If decoding or basic validation fails, or if SGW-SVC is not available, the S11-GTP-EP pod sends Create Session Response failure message to the MME. |
| 3 | If Create Session Request basic validation is successful, the S11-GTP-EP pod forwards the Create Session Request to the SGW-SVC pod.<br>SGW-SVC processes the Create Session Request and performs the following:<br>• Mandatory IE check<br>• Value check<br>• Call State check |
| 4, 5 | If validation from Step 3 fails:<br>• The SGW-SVC sends the Create Session Response failure message to the S11-GTP-EP pod.<br>• The S11-GTP-EP pod forwards the Create Session Response failure message to the MME. |
| 6, 7 | If validation from Step 3 is successful, the SGW-SVC performs the following:<br>• Processes Create Session Request<br>• Performs UP and MME signaling<br>• Sends Create Session Response success message to the S11-GTP-EP pod<br>The S11-GTP-EP pod forwards the Create Session Response success message to the MME. |

## Basic and Advance Validation on SGW-Egress (S5) Call Flow

The following section describes the Basic and Advance Validation on SGW-Egress (S5) call flow.

*Figure 2: Basic and Advance Validation - S5 Call Flow*

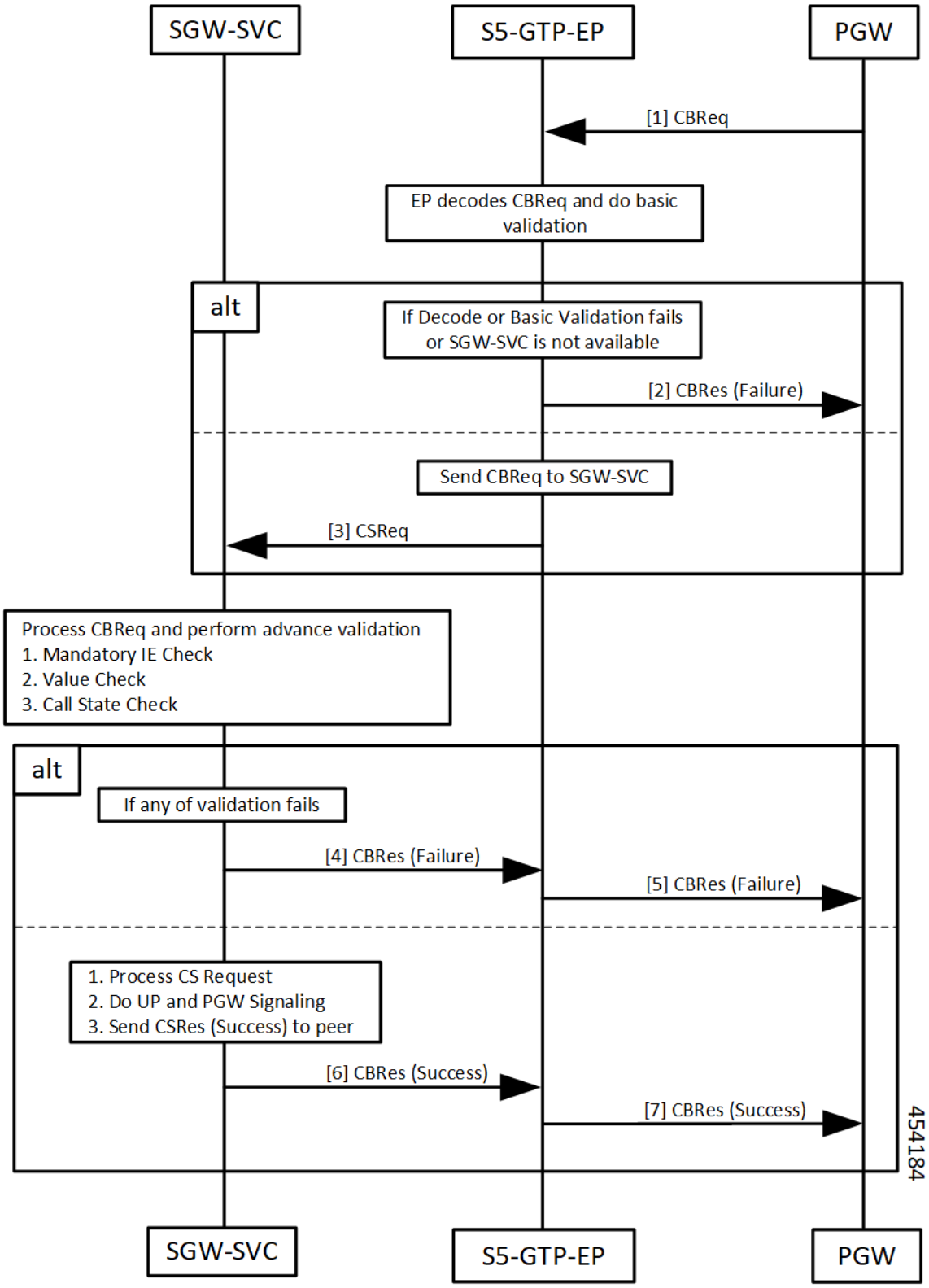


*Table 4: Basic and Advance Validation - S5 Call Flow Description*

| Step | Description |
|---|---|
| 1 | The PGW sends the Create Bearer Request to the S5-GTPC-EP pod.<br>The S5-GTPC-EP pod decodes the Create Bearer Request and performs basic validation. |
| 2 | If decoding or basic validation fails, or if SGW-SVC is not available, the S5-GTP-EP pod sends the Create Bearer Response failure message to the PGW. |
| 3 | If Create Bearer Request basic validation is successful, the S5-GTP-EP pod forwards the Create Bearer Request to the SGW-SVC pod.<br>SGW-SVC processes the Create Bearer Request and performs the following:<br>• Mandatory IE check<br>• Value check<br>• Call State check |
| 4, 5 | If validation from Step 3 fails:<br>• The SGW-SVC sends the Create Bearer Response failure message to the S5-GTP-EP pod.<br>• The S5-GTP-EP pod forwards the Create Bearer Response failure message to the PGW. |
| 6, 7 | If validation from Step 3 is successful, the SGW-SVC performs the following:<br>• Processes Create Bearer Request<br>• Performs UP and PGW signaling<br>• Sends Create Bearer Response success message to the S5-GTP-EP pod<br>The S5-GTP-EP pod forwards the Create Bearer Response success message to the PGW. |