



# 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.

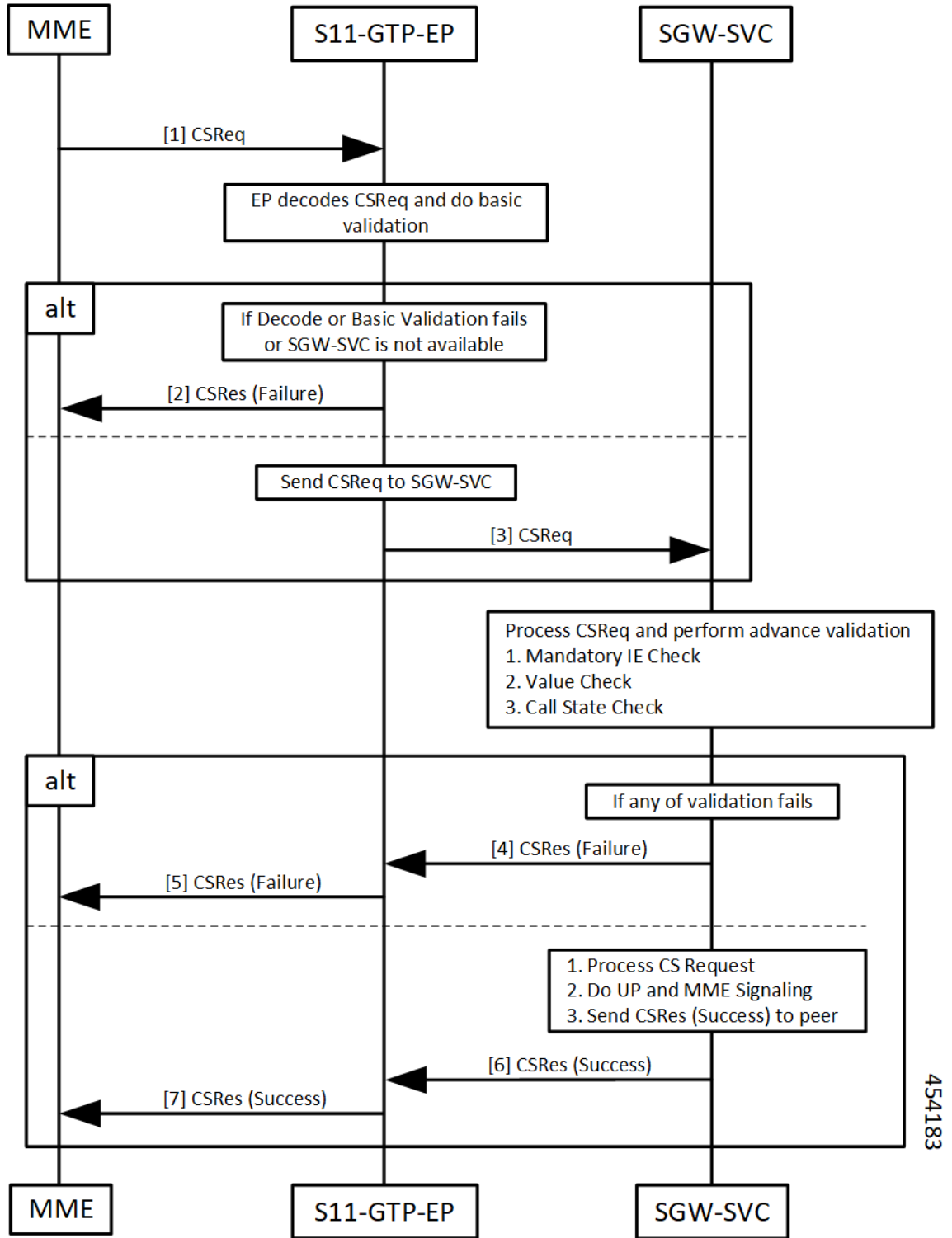
## Call Flows

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. 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. SGW-SVC processes the Create Session Request and performs the following: <ul style="list-style-type: none"> <li>• Mandatory IE check</li> <li>• Value check</li> <li>• Call State check</li> </ul>
4, 5	If validation from Step 3 fails: <ul style="list-style-type: none"> <li>• The SGW-SVC sends the Create Session Response failure message to the S11-GTP-EP pod.</li> <li>• The S11-GTP-EP pod forwards the Create Session Response failure message to the MME.</li> </ul>
6, 7	If validation from Step 3 is successful, the SGW-SVC performs the following: <ul style="list-style-type: none"> <li>• Processes Create Session Request</li> <li>• Performs UP and MME signaling</li> <li>• Sends Create Session Response success message to the S11-GTP-EP pod</li> </ul> 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

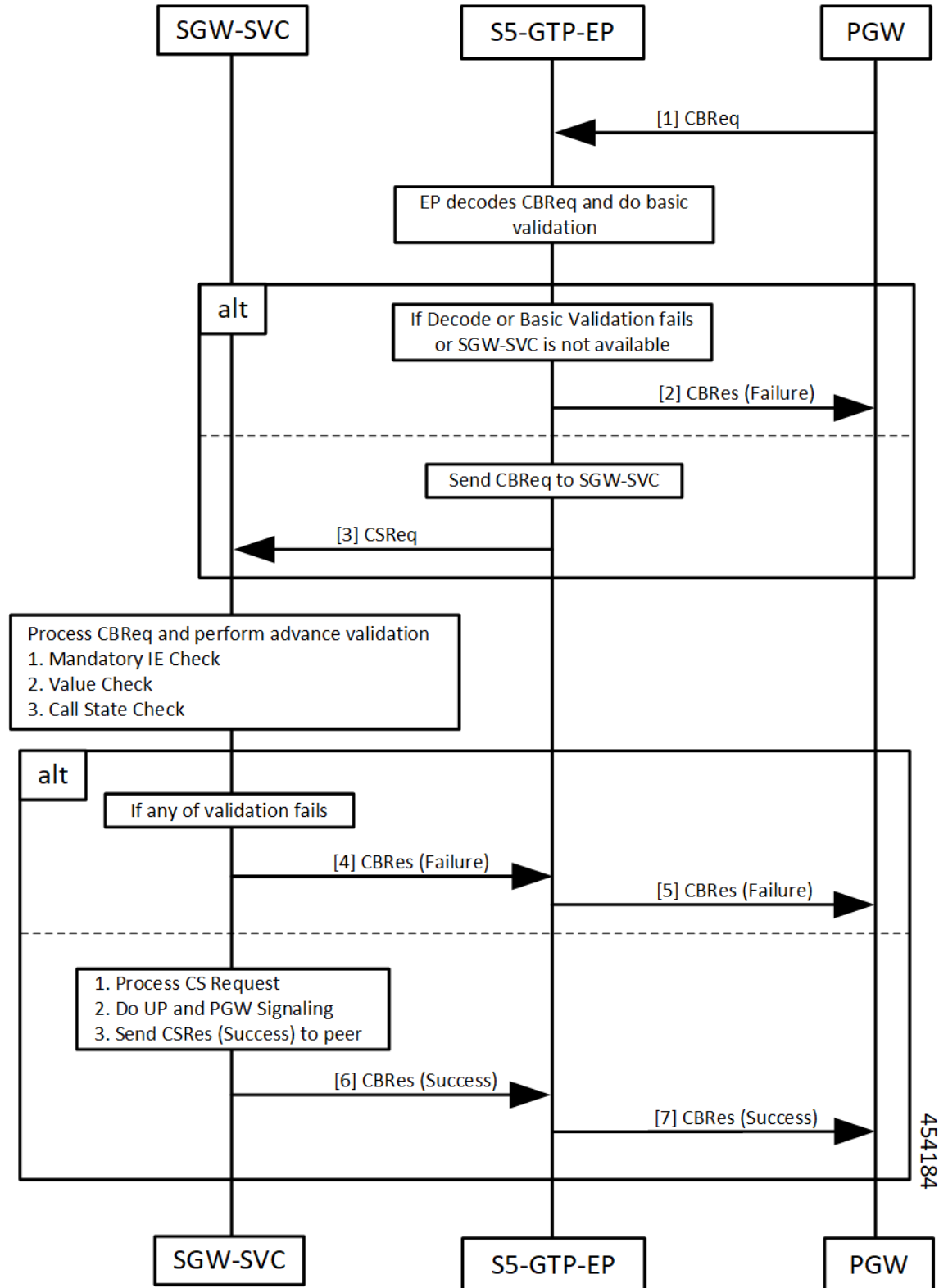


Table 4: Basic and Advance Validation - S5 Call Flow Description

Step	Description
1	The PGW sends the Create Bearer Request to the S5-GTPC-EP pod. 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. SGW-SVC processes the Create Bearer Request and performs the following: <ul style="list-style-type: none"> <li>• Mandatory IE check</li> <li>• Value check</li> <li>• Call State check</li> </ul>
4, 5	If validation from Step 3 fails: <ul style="list-style-type: none"> <li>• The SGW-SVC sends the Create Bearer Response failure message to the S5-GTP-EP pod.</li> <li>• The S5-GTP-EP pod forwards the Create Bearer Response failure message to the PGW.</li> </ul>
6, 7	If validation from Step 3 is successful, the SGW-SVC performs the following: <ul style="list-style-type: none"> <li>• Processes Create Bearer Request</li> <li>• Performs UP and PGW signaling</li> <li>• Sends Create Bearer Response success message to the S5-GTP-EP pod</li> </ul> The S5-GTP-EP pod forwards the Create Bearer Response success message to the PGW.