Cisco Ultra Cloud Core Serving Gateway Control Plane Function, Release 2021.02 - Release Change Reference

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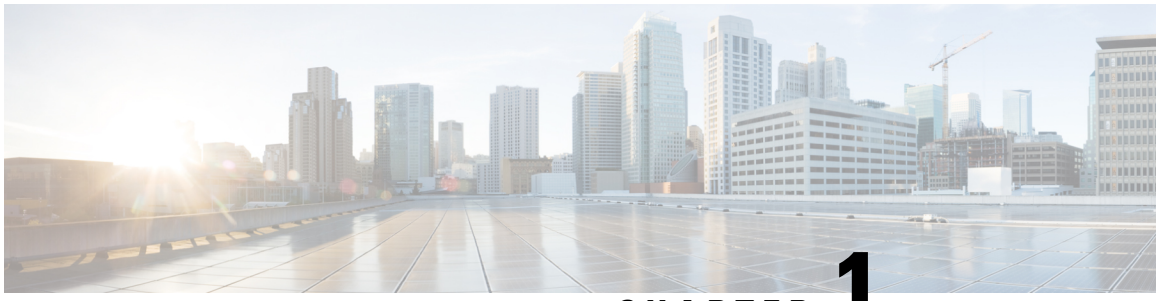

CHAPTER 1

UCC cnSGW-C - Release Change Reference

Features and Behavior Change Quick Reference

Features / Behavior Changes	Release Introduced / Modified
Extended and Non-Standard QCI Values Support and Validation, on page 2	2021.02.2
GTPU Error Indication, on page 3	2021.02.2
GTPU Path Failure, on page 4	2021.02.2
show subscriber Output Change—CSCvy40559, on page 5	2021.02.2
Upgraded Kubernetes Version, on page 7	2021.02.02.t1.0

Feature Defaults Quick Reference

The following table indicates what features are enabled or disabled by default

Feature	Default
Extended and Non-Standard QCI Values Support and Validation	Enabled - Always-on
GTPU Error Indication	Enabled - Configuration Required

Feature	Default
GTPU Path Failure	Enabled - Configuration Required
show subscriber Output Change	Enabled - Always-on
Upgraded Kubernetes Version	Enabled – Always-on

Extended and Non-Standard QCI Values Support and Validation

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	*UCC Serving Gateway Control Plane Function - Configuration and Administration Guide* Not Applicable

Revision History

Table 2: Revision History

Revision Details	Release
First introduced.	2021.02.3

Feature Description

This feature supports the following:

- Extended and Non-Standard QCI values as part of CSR | CBR | UBR | MBC call flows
- Extended and Non-Standard QCI values for DSCP marking
- Extended and Non-Standard QCI values for VoLTE marking

For more information, see the following chapters in the UCC Serving Gateway Control Plane Function - Configuration and Administration Guide:

- DSCP Marking Support

- Extended and Non-Standard QCI Values Support and Validation
- VoLTE Call Prioritization

GTPU Error Indication

Feature Summary and Revision History

Summary Data

Table 3: Summary Data

Applicable Product(s) or Functional Area	cnSGW-C
Applicable Platform(s)	SMI
Feature Default Setting	Enabled - Configuration Required
Related Documentation	*UCC Serving Gateway Control Plane Function - Configuration and Administration Guide* Not Applicable

Revision History

Table 4: Revision History

Revision Details	Release
First introduced.	2021.02.1

Feature Description

cnSGW-C supports the UPF reported GTPU errors in Session Report Request. UPF reports different GTPU errors to CP (cnSGW-C) in PFCP Session Report Request message.

cnSGW-C supports the following report requests.

- Error Indication Support (ERIR)
- Graceful Termination (GTER)
- Session Replacement (SRIR)

For more information, see the UCC Serving Gateway Control Plane Function - Configuration and Administration Guide > GTPU Error Indication chapter.

GTPU Path Failure

Feature Summary and Revision History

Summary Data

Table 5: Summary Data

Applicable Product(s) or Functional Area	cnSGW-C
Applicable Platform(s)	SMI
Feature Default Setting	Enabled - Always-on
Related Documentation	*UCC Serving Gateway Control Plane Function - Configuration and Administration Guide* Not Applicable

Revision History

Table 6: Revision History

Revision Details	Release
First introduced.	2021.02.1

Feature Description

When UPF detects a GTP-U path failure, it sends Node Report Request (with NodeID and GTPU Peer Information) to cnSGW-C. cnSGW-C clears the PDU sessions belonging to the GTP-U peer and UPF node ID.

This feature supports the following:

- Sending Node Report Success
- Cleaning session or bearer based on the reported value in node-report (Node-ID and Peer Information)
- Incrementing the relevant statistics

For more information, see the UCC Serving Gateway Control Plane Function - Configuration and Administration Guide > GTPU Path Failure chapter.

show subscriber Output Change—CSCvy40559

Behavior Change Summary and Revision History

Summary Data

Table 7: Summary Data

Applicable Product(s) or Functional Area	cnSGW-C
Applicable Platform(s)	SMI
Default Setting	Enabled - Always-on
Related Changes in this Release	Not Applicable
Related Documentation	Not Applicable

Revision History

Table 8: Revision History

Revision Details	Release
First introduced. CDETS ID: CSCvy40559	2021.02.3

Behavior Change

Previous Behavior: In releases prior to 2021.02.3, multiple set of entries for IMSI, MSISDN, and IMEI were displayed as an output of `show subscriber` command.

Old sample output:

```
["key:imsi-123456789012348",
"imei:123456786666660",
"imsi:123456789012348",
"msisdn:2233101010101101",
"id-index:1:1:33587200",
"id-value:2051",
"secKey:imei-123456786666660",
"upf:10.1.6.200",
"upfEpKey:10.1.6.200:10.1.6.199",
"s5s8Ipv4:10.1.6.198",
"s11Ipv4:10.1.6.200",
"namespace:sgw",
"nf-service:sgw"
]
```

New Behavior: In 2021.02.3 and later releases, only single set of entries for IMSI, MSISDN, and IMEI is displayed. MSISDN display is changed to from `msisdn: <msisdn_number>` to `msisdn:msisdn-<msisdn_number>`.

The following `show` commands display single set of entries for IMSI, MSISDN, and IMEI.

- show subscriber all
- show subscriber namespace sgw all
- show subscriber nf-service sgw all

Important MSISDN display is not changed for the following command:

`show subscriber namespace sgw imsi <imsi_value> full` command

New sample output:

- 15 Digit IMEI:

```
["id-index:1:1:33587200",
"id-value:3",
"imsi:imsi-123456789012348",
"msisdn:msisdn-223310101010101",
"imei:imei-123456786666660",
"upf:10.1.6.200",
"upfEpKey:10.1.6.200:10.1.6.199",
"gtpuPeerIpv4:10.1.6.200:10.1.6.198",
"s5s8Ipv4:10.1.6.198",
"gtpuPeerIpv4:10.1.6.200:10.1.6.200",
"s11Ipv4:10.1.6.200",
"namespace:sgw",
"nf-service:sgw"
]
```

- 16 Digit IMEI:

```
["id-index:1:1:33587200",
"id-value:3",
"imsi:imsi-123456789012348",
"msisdn:msisdn-223310101010101",
"imei:imeisv-1234567866666600",
"upf:10.1.6.200",
"upfEpKey:10.1.6.200:10.1.6.199",
"gtpuPeerIpv4:10.1.6.200:10.1.6.198",
"s5s8Ipv4:10.1.6.198",
"gtpuPeerIpv4:10.1.6.200:10.1.6.200",
"s11Ipv4:10.1.6.200",
"namespace:sgw",
"nf-service:sgw"
]
```

Note

- **imsi** displays the IMSI of the session.
- **msisdn** displays the MSISDN of the session.
- **imei** display IMEI of the session.
- imsi, msisdn and imei are added as non unique keys in the CDL.

Upgraded Kubernetes Version

Feature Summary and Revision History

Summary Data

Table 9: Summary Data

Applicable Products or Functional Area	cnSGW-C
Applicable Platforms	SMI
Feature Default Setting	Not Applicable
Related Documentation	Not Applicable

Revision History

Table 10: Revision History

Revision Details	Release
First introduced.	2021.02.2.t1.0

Feature Description

cnSGW-C is built on Cisco Cloud Native infrastructure, which is a Kubernetes-based platform that provides a common execution environment for container-based applications.

In this release, the Kubernetes (K8s) version is upgraded from 1.21.0 to 1.22.0.