



## **Ultra Cloud Core 5G Access and Mobility Management Function, Release 2023.02 - Release Change Reference**

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## About this Guide



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This preface describes the *Release Change Reference (RCR)*, the new and modified features and behavior change informations for one or more applicable 5G AMF releases.

- [Conventions Used, on page v](#)
- [Contacting Customer Support, on page vi](#)

## Conventions Used

The following tables describe the conventions used throughout this documentation.

Notice Type	Description
Information Note	Provides information about important features or instructions.
Caution	Alerts you of potential damage to a program, device, or system.
Warning	Alerts you of potential personal injury or fatality. May also alert you of potential electrical hazards.

Typeface Conventions	Description
Text represented as a screen display	This typeface represents displays that appear on your terminal screen, for example:  Login:

Typeface Conventions	Description
Text represented as <b>commands</b>	This typeface represents commands that you enter, for example: <b>show ip access-list</b> This document always gives the full form of a command in lowercase letters. Commands are not case sensitive.
Text represented as a <b>command variable</b>	This typeface represents a variable that is part of a command, for example: <b>show card slot_number</b> <i>slot_number</i> is a variable representing the applicable chassis slot number.
Text represented as menu or sub-menu names	This typeface represents menus and sub-menus that you access within a software application, for example: Click the <b>File</b> menu, then click <b>New</b>

## Contacting Customer Support

Use the information in this section to contact customer support.

Refer to the support area of <http://www.cisco.com> for up-to-date product documentation or to submit a service request. A valid username and password are required to access this site. Please contact your Cisco sales or service representative for additional information.



# CHAPTER 1

## UCC 5G AMF - Release Change Reference

- [Features and Changes Quick Reference, on page 1](#)
- [Features, on page 2](#)
- [Behavior Changes, on page 4](#)

### Features and Changes Quick Reference

Features / Behavior Changes	Release Introduced / Modified	Default
<b>Behavior Change</b> — <a href="#">AMF Limitation for the MMIdle State with the Existing gNB Re-establishment, on page 4</a>	2023.02.0	Not Applicable
<b>Behavior Change</b> — <a href="#">Enhancements to Subscriber Deregistration Callback URI, on page 5</a>	2023.02.0	Enabled – Always-on
<b>Behavior Change</b> — <a href="#">Guardtimer Enhancement for n26 Idle Mode Handover, on page 6</a>	2023.02.0	Enabled – Configuration required to disable
<b>Feature</b> — <a href="#">GPSI or MSISDN-based LI Monitoring on AMF, on page 2</a>	2023.02.0	Disabled – Configuration required to enable
<b>Feature</b> — <a href="#">Multiple Service Pods on Multiple Nodes, on page 3</a>	2023.02.0	Disabled – Configuration required to enable
<b>Feature</b> — <a href="#">Subscription Concealed Identifier Profile—5G AMF Supports the PSI Profile-A to Profile-B, on page 3</a>	2023.02.0	Enabled – Always-on

# Features

## GPSI or MSISDN-based LI Monitoring on AMF

### Feature Summary and Revision History

#### Summary Data

*Table 1: Summary Data*

Applicable Product(s) or Functional Area	AMF
Applicable Platform(s)	SMI
Feature Default Setting	Disabled – Configuration required to enable
Related Documentation	<i>UCC 5G AMF Lawful Interception Configuration Guide</i>

#### Revision History

*Table 2: Revision History*

Revision Details	Release
GPSI or MSISDN-based LI monitoring updates	2023.02.0
Minor updates and corrections	2023.01.0
Added the new and revised lawful interception interface support-related information.	2022.04.0
First introduced.	2021.04.0

### Feature Description

Currently, the AMF permits law enforcement agencies to intercept messages that are identified by the SUPI. For more information, contact your Cisco representative.



# Multiple Service Pods on Multiple Nodes

## Feature Summary and Revision History

### Summary Data

**Table 3: Summary Data**

Applicable Products or Functional Area	AMF
Applicable Platforms	SMI
Feature Default Setting	Disabled – Configuration required to enable
Related Documentation	<i>UCC 5G AMF Configuration and Administration Guide</i>

### Revision History

**Table 4: Revision History**

Revision Details	Release
First introduced.	2023.02.0

## Feature Description

This feature helps in bringing up service pods on two or more different nodes.

For more information, refer to the [UCC 5G AMF Configuration and Administration Guide > Pods and Services Reference Chapter > Multiple Service Pods on Multiple Nodes](#) Section.

# Subscription Concealed Identifier Profile—5G AMF Supports the PSI Profile-A to Profile-B

## Feature Summary and Revision History

### Summary Data

**Table 5: Summary Data**

Applicable Product(s) or Functional Area	AMF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled - Always-on
Related Documentation	<i>UCC 5G AMF Configuration and Administration Guide</i>

## Revision History

**Table 6: Revision History**

Revision Details	Release
Content enhanced with 5G-AMF to support the PSI Profile-A/Profile-B feature.	2023.02.0
First introduced.	2021.04.0

## Feature Description

A Subscription Concealed Identifier (SUCI) is a unique identifier designed to protect the privacy of the subscriber's identity. It's generated by the User Equipment (UE) using an Elliptic Curve Integrated Encryption Scheme (ECIES)-based protection scheme. The UE encrypts the Subscriber Permanent Identifier (SUPI) in a concealed method with the public key of the Home Network. It's securely provisioned to the Universal Subscriber Identity Module (USIM) during the registration process.

For more information, refer to the [UCC 5G AMF Configuration and Administration Guide > Subscription Concealed Identifier Profile](#) chapter.

# Behavior Changes

## AMF Limitation for the MMIdle State with the Existing gNB Re-establishment

### Behavior Change Summary and Revision History

#### Summary Data

**Table 7: Summary Data**

Applicable Product(s) or Functional Area	AMF
Applicable Platform(s)	SMI
Feature Default Setting	Not Applicable
Related Changes in this Release	Not Applicable
Related Documentation	<i>UCC 5G Access and Mobility Management Function - Configuration and Administration Guide</i>

## Revision History

**Table 8: Revision History**

Revision Details	Release
First introduced.	2023.02

## Behavior Change

**Previous Behavior:** When the AMF received a new NG setup for an existing gNB, it didn't take any action regarding the UEs.

**New Behavior:** When the AMF receives a new NG Setup Request for an existing gNB, which was already set up but with a different SCTP connection ID, then the UEs associated with that gNB will be moved to the IDLE state.

**Customer Impact:** No impact.

## Enhancements to Subscriber Deregistration Callback URI

### Behavior Change Summary and Revision History

#### Summary Data

*Table 9: Summary Data*

Applicable Product(s) or Functional Area	AMF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Always-on
Related Changes in this Release	Not Applicable
Related Documentation	<i>UCC 5G Access and Mobility Management Function - Configuration and Administration Guide</i>

#### Revision History

*Table 10: Revision History*

Revision Details	Release
First introduced.	2023.02

## Behavior Change

**Previous Behavior:** Earlier, `deregCallbackUri` was sent in the UDM Registration Request `/namf-comm/v1/callbacks/dereg-notification/supi-xxxxxxxxxxxxxx`.

**New Behavior:** Now, there's a change in the existing `deregCallbackUri` sent in the UDM Registration Request. The new format is `/namf-comm/v1/callbacks/dereg-notification/supi-xxxxxxxxxxxxxx-xxxxxxx`.

**Customer Impact:** There's no impact, as the UDM automatically uses the new `deregCallbackUri` received from the AMF.

# Guardtimer Enhancement for n26 Idle Mode Handover

## Behavior Change Summary and Revision History

### Summary Data

*Table 11: Summary Data*

Applicable Product(s) or Functional Area	AMF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Configuration required to disable
Related Changes in this Release	Not Applicable
Related Documentation	<i>UCC 5G Access and Mobility Management Function - Configuration and Administration Guide</i>

### Revision History

*Table 12: Revision History*

Revision Details	Release
First introduced.	2023.02

## Behavior Change

**Previous Behavior:** The AMF was not clearing UEcontext after idle mode handover to MME, when deregistration notification was not received from UDM.

**New Behavior:** Added support for Guardtimer and subscriber cleanup post Guardtimer expiry for n26 and n14 idle mode handover interfaces. This support cleans up the subscriber, even if the udm dereg notification is not received. The following commands are now enhanced:

- **Sample AMF to MME Idle Mode Handoff Support - n26-interface Idle Mode Handover:**

```
amf-global call-control-policy policy_name timers context-transfer-guard n26-interface
value guard_time_value
```

- **Sample Inter AMF Idle Mode Handoff Support - n14-interface Idle Mode Handover:**

```
amf-global call-control-policy policy_name timers context-transfer-guard n14-interface
value guard_time_value
```

**Customer Impact:** Enhanced experience with context transfer Guardtimer feature.