Ultra Cloud Core 5G Access and Mobility Management Function, Release 2023.01 - Release Change Reference

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Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
http://www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

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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.

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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.

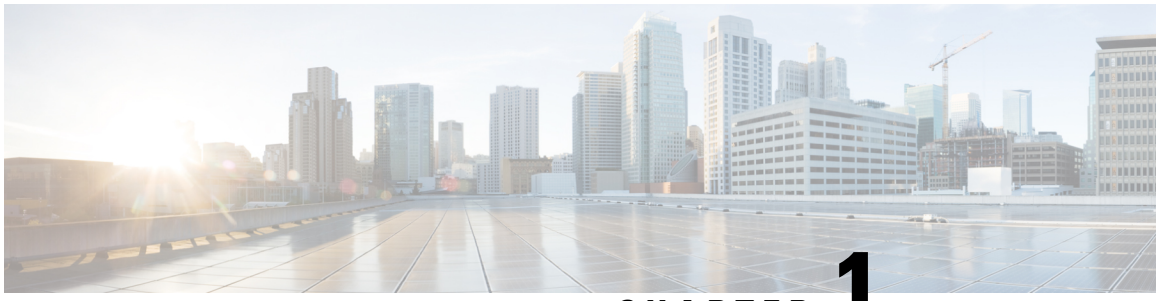
Typeface Conventions	Description
Text represented as a `screen display`	This typeface represents displays that appear on your terminal screen, for example: `Login:`

Typeface Conventions	Description
Text represented as **commands**	This typeface represents commands that you enter, for example: **show ip access-list** This document always gives the full form of a command in lowercase letters. Commands are not case sensitive.
Text represented as a **command** *variable*	This typeface represents a variable that is part of a command, for example: **show card** *slot_number* *slot_number* 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 **File** menu, then click **New**

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 Behavior Changes Quick Reference, on page 1
- Collision Handling, on page 2
- Context Transfer Guard Timer Configuration and Call Flow Changes—CSCwa80975, on page 2
- Enabling Case Insensitive Comparisons of the AMF Components—CSCwd84867, on page 4
- Inclusion of Appropriate Fields in the SMF Update Context Request Message Sent to the SMF During the N26 HO Failure—CSCwd70817, on page 5
- Triggering UE Context Release based on UE Connection State—CSCwd60959, on page 6

Features and Behavior Changes Quick Reference

The following table indicates the default values for features and behavior changes in this release.

Features/ Behavior Changes	Default	Release Introduced/ Modified
Collision Handling, on page 2	Enabled – Always-on	NA
Context Transfer Guard Timer Configuration and Call Flow Changes—CSCwa80975, on page 2	Enabled – Always-on	2023.01.0
Enabling Case Insensitive Comparisons of the AMF Components—CSCwd84867, on page 4	Enabled – Always-on	2023.01.0
Inclusion of Appropriate Fields in the SMF Update Context Request Message Sent to the SMF During the N26 HO Failure—CSCwd70817, on page 5	Enabled – Always-on	2023.01.0
Triggering UE Context Release based on UE Connection State—CSCwd60959, on page 6	Enabled – Always-on	2023.01.0

Collision Handling

Feature Summary

Summary Data

Table 1: Summary Data

Applicable Products or Functional Area	AMF
Applicable Platforms	SMI
Feature Default Setting	Enabled – Always-on
Related Documentation	*UCC 5G Access and Mobility Management Function - Configuration and Administration Guide*

Feature Description

The AMF interacts and supports multiple nodes. A few of the nodes are as the following:

- UE/GNB
- UDM
- AUSF
- SMF

When multiple nodes send simultaneous request towards the AMF, there's a possibility of collision at the AMF node.

The AMF collision handling feature supports handling the collision between different procedures at the AMF node.

Context Transfer Guard Timer Configuration and Call Flow Changes—CSCwa80975

Behavior Change Summary and Revision History

Summary Data

Table 2: 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	*UCC 5G Access and Mobility Management Function - Configuration and Administration Guide*

Revision History

Table 3: Revision History

Revision Details	Release
First introduced. CDETS ID: CSCwa80975	2023.01

Behavior Change

Previous Behavior: The previous behavior activities listed as follows:

- The timer value can be configured in any range between <unsignedInt, 0–35712000>.
- The guard timer gets started on receiving the N14 context transfer update request.
- In the guard timer running state, no handling of UDM Deregistration notification is present.

New Behavior: The new behavior activities listed as follows:

- The CLI is updated to configure guard timer values in the range [0-10].

  The default value is 5. The value 0 is used to disable the timer in the procedure.
- If enabled, the UE context guard timer starts on receiving the context transfer request.
- On a successful transfer, the UE context will be cleaned on timer expiry.

Customer Impact: No impact.

Enabling Case Insensitive Comparisons of the AMF Components—CSCwd84867

Behavior Change Summary and Revision History

Summary Data

Table 4: 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	*UCC 5G Access and Mobility Management Function - Configuration and Administration Guide*

Revision History

Table 5: Revision History

Revision Details	Release
First introduced. CDETS ID: CSCwd84867	2023.01

Behavior Change

Previous Behavior: When the UE is requested, but the DNN doesn't match the case of a configured DNN (AMF) or a subscribed DNN (from the UDM).

New Behavior: The UE requested DNN, is now compared case-insensitive with both the local configuration, and the UDM subscription data. This case-insensitive comparison is as per the standard specification.

Customer Impact: No impact.

Inclusion of Appropriate Fields in the SMF Update Context Request Message Sent to the SMF During the N26 HO Failure—CSCwd70817

Behavior Change Summary and Revision History

Summary Data

Table 6: 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	*UCC 5G Access and Mobility Management Function - Configuration and Administration Guide*

Revision History

Table 7: Revision History

Revision Details	Release
First introduced. CDETS ID: CSCwd70817	2023.01

Behavior Change

Previous Behavior: When the HO failure is received from the gNB, the AMF was sending smfupdateCtxtReq to the SMF with n2smInfoType field present, even when n2smInfo wasn't received from the AN.

New Behavior: When the AMF receives the HO failure note from the gNB, it acts as follows:

- The AMF sends the SMF Update Context Request to the SMF:
  - Without the n2smInfoType field if n2smInfo isn't received from the AN.
  - It includes the HoState and cause attribute.

Customer Impact: No impact.

Triggering UE Context Release based on UE Connection State—CSCwd60959

Behavior Change Summary and Revision History

Summary Data

Table 8: 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	*UCC 5G Access and Mobility Management Function - Configuration and Administration Guide*

Revision History

Table 9: Revision History

Revision Details	Release
First introduced. CDETS ID: CSCwd60959	2023.01

Behavior Change

Previous Behavior: The previous behavior activities listed as follows:

- The UE sends a Service Request in Uplink NAS transport for data or signaling.
- The AMF sends a Service Reject since the UE is in the NOT ALLOWED AREA.
- The AMF sends the UE context release command to the gNB post reject and the gNB replies with the UE context release complete. The UE isn't marked as idle after this step.

The UE context release command was sent when the AMF initiated a service reject action for the UE in connected mode.

New Behavior: The new behavior activities listed as follows:

- The UE continues sending a Service Request in Uplink NAS transport for data or signaling.
- The AMF continues sending a Service Reject since the UE is in the NOT ALLOWED AREA.

- The AMF doesn't send the UE context release command to the gNB post reject and the UE is still in a connected state.
- The UE context release command doesn't get initiated from the AMF when the service reject gets initiated in connected mode.
- The UE sends a Service Request to the AMF in the Uplink NAS Transport NGAP message and the PDU reactivation gets initiated properly.

Customer Impact: No impact.