



Ultra Cloud Core 5G Policy Control Function, Release 2023.03 - Release Change Reference

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About this Guide



Note The documentation set for this product strives to use bias-free language. For purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. While any existing biased terms are being substituted, exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

This document is a part of the Ultra Cloud Core 5G Policy Control Function documentation set.

For information about available documentation, see the Ultra Cloud Core 5G Policy Control Function Documentation Map for this release at [Cisco.com](https://www.cisco.com).

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- [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 <code>screen display</code>	This typeface represents displays that appear on your terminal screen, for example: <code>Login:</code>
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 <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 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 PCF- Release Change Reference

- [Features and Changes Quick Reference, on page 1](#)
- [Data Policy use case validation, on page 2](#)
- [M6 Functional Validation, on page 2](#)
- [Serviceability Diagnostics, on page 3](#)
- [Support for EPS Fallback, on page 4](#)
- [Support for NetLocAccessSupport , on page 6](#)

Features and Changes Quick Reference

Features	Default	Release Introduced / Modified
Data Policy use case validation, on page 2	Enabled - Always-on	2023.03.0
M6 Functional Validation, on page 2	Enabled - Always-on	2023.03.0
Serviceability Diagnostics, on page 3	Enabled - Always-on	2023.03.0
Support for EPS Fallback, on page 4	Enabled - Always-on	2023.03.0
Support for NetLocAccessSupport , on page 6	Enabled - Always-on	2023.03.0

Data Policy use case validation

Feature Summary and Revision History

Summary Data

Table 1: Summary Data

Applicable Products or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Always-on
Related Documentation	<ul style="list-style-type: none"> • <i>UCC 5G PCF Configuration and Administration Guide</i>

Revision history

Table 2: Revision History

Revision Details	Release
First introduced.	2023.03.0

Feature Description

This feature monitors the Data Policy use case validation and does not influence the documents.

M6 Functional Validation

Feature Summary and Revision History

Summary Data

Table 3: Summary Data

Applicable Products or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Always-on

Related Documentation	<ul style="list-style-type: none"> • <i>UCC 5G PCF Configuration and Administration Guide</i>
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Revision History

Table 4: Revision History

Revision Details	Release
First introduced.	2023.03.0

Feature Description

This feature monitors the PCF validation on M6 and does not influence the documents.

Serviceability Diagnostics

Feature Summary and Revision History

Summary Data

Table 5: Summary Data

Applicable Products or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Always-on
Related Documentation	<ul style="list-style-type: none"> • <i>UCC 5G PCF Configuration and Administration Guide</i> • UCC 5G PCF CLI Reference

Revision history

Table 6: Revision History

Revision Details	Release
First introduced.	2023.03.0

Feature Description

The services for the health check:

- Health check of the Splunk
- Active alarm report

Utility Details:

- Health check of the Splunk
 - When the status of the argument is “splunk” for the health check of the Splunk, then the logging status gets executed and displays details on the console.
- Active alarm report
 - When the status argument input as “alert”, then Active alert summary details get displays on the console.

For more information, refer to the [UCC 5G PCF Configuration and Administration Guide > Serviceability Diagnostics](#) chapter.

For more information, refer to the [UCC 5G PCF CLI Reference > PCF System Serviceability Diagnostics](#) chapter.

Support for EPS Fallback

Feature Summary and Revision History

Summary Data

Table 7: Summary Data

Applicable Products or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Always-on
Related Documentation	<ul style="list-style-type: none"> • <i>UCC 5G PCF Configuration and Administration Guide</i>

Revision History

Table 8: Revision History

Revision Details	Release
First introduced.	2023.03.0

Feature Description

The PCF communicates with the SMF on the N7 interface subscribing to the EPS Fallback. The following describes about the Evolved Packet System (EPS) Fallback Report:

- Support for EPS Fallback Report
- Requesting SMF for EPS Fallback Report
- Subscription for EPS Fallback Event
- Reporting EPS Fallback to Application Function (AF)

Support for EPS Fallback Report:

PCF negotiates with the SMF for the EPS Fallback Report feature and supports the EPS Fallback Report on the N7 interface. If the SMF supports the EPS Fallback Report feature, PCF enables it for the PDU session.

The AF negotiates for the EPS Fallback Report feature on N5 and Rx interfaces. The EPS Fallback Report feature for the Rx interface and N5 interface gets enabled, only if the feature is active for the PDU session. If SMF doesn't support this feature, then PCF disables the feature for the AF session.

Requesting SMF for EPS Fallback Report:

PCF requests the SMF to report EPS_FALLBACK for the installed or modified PCC rules corresponding to the AF session as follows:

- Add EPS_FALLBACK to **policyControlReqTriggers**.
- Add EPS_FALLBACK and references to PCC rule IDs to **lastReqRuleData** only for voice media type(5QI=1)

Subscription for EPS Fallback Event:

N5 Interface: The AF subscribes to the EPS Fallback event and provides the **EventsSubscReqData** in the N5 Create or Update request message. The subscription for EPS Fallback event doesn't support the N5 delete requests.

Rx Interface: The AF subscribes to the EPS Fallback event and provides the EPS_FALLBACK within the Specific-Action AVP in AAR. The subscription for the EPS Fallback event doesn't support the STR.

Reporting EPS Fallback to AF:

N5 Interface: The PCF notifies the AF, and the EPS Fallback event gets added to the **evNotifs** attribute. The PCF doesn't include the EPS_FALLBACK event in the N5 Delete Response sent to AF in N5 Delete.

Rx Interface: The PCF notifies the AF and EPS Fallback gets added to the Specific-Action AVP in the RAR. The PCF doesn't include the EPS_FALLBACK Specific-Action AVP in the STA in the case of STR.

Support for NetLocAccessSupport

Feature Summary and Revision History

Summary Data

Table 9: Summary Data

Applicable Products or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Always-on
Related Documentation	<ul style="list-style-type: none"> • <i>UCC 5G PCF Configuration and Administration Guide</i>

Revision History

Table 10: Revision History

Revision Details	Release
First introduced.	2023.03.0

Feature Description

The PCF supports the NetLocAccessSupport reporting on the N5 and Rx interface. The following describes about the noNetLocSupp:

- Requesting SMF for Report of the requested Access Network Information
- Reporting noNetLocSupp to AF



Note NetLocAccessSupport Enumeration values:

- **ANR_NOT_SUPPORTED**: Indicates that the access network does not support the report of access network information.
- **TZR_NOT_SUPPORTED**: Indicates that the access network does not support the report of UE time zone.
- **LOC_NOT_SUPPORTED**: Indicates that the access network does not support the report of UE location.

Requesting SMF for Report of the requested Access Network Information:

If the NetLoc feature is supported, PCF requests SMF to report the access network information by setting the **AN_INFO** policy control request trigger.

- If the "reqData" attribute indicates the values **MS_TIME_ZONE** and **USER_LOC_INFO**, the SMF notifies the PCF that the access network does not support sharing access network information by including netLocAccSupp in UeCampingRep with **ANR_NOT_SUPPORTED** in the N7 Update Notify response.
- If the "reqData" attribute indicates only **MS_TIME_ZONE** value, the SMF notifies the PCF that the access network does not support sharing UE time zone information reporting by including netLocAccSupp in UeCampingRep with **TZR_NOT_SUPPORTED** in the N7 Update Notify response.
- If the "reqData" attribute indicates only **USER_LOC_INFO** value, the SMF notifies the PCF that the access network does not support sharing UE location information by including netLocAccSupp in UeCampingRep with **LOC_NOT_SUPPORTED** in the N7 Update Notify response.

Reporting noNetLocSupp to AF:

If the NetLoc feature is enabled, AF request the PCF to report the access network information.

- **N5 Interface:** If the SMF notifies the PCF that the access network does not support sharing access network information, then
 - In N5 response to AF subscription, PCF contains noNetLocSupp attribute with NetLocAccessSupport enum as received from SMF and an event of the "AfEventNotification" data type in the "evNotifs" element with the "event" attribute set to the value **ANI_REPORT**.
- **Rx Interface:** If the SMF notifies the PCF that the access network does not support sharing access network information, then
 - PCF sends a RAR command with the Specific-Action AVP set to **INDICATION_OF_ACCESS_NETWORK_INFO_REPORTING_FAILURE** and the NetLoc-Access-Support AVP set to 0 (**NETLOC_ACCESS_NOT_SUPPORTED**) to the AF requesting access network information in AAR command or STA command by including the NetLoc-Access-Support AVP set to the value of 0 (**NETLOC_ACCESS_NOT_SUPPORTED**) to the AF requested the access network information in an STR command.



Note If the NetLoc feature is not enabled in SMF, then

- PCF includes noNetLocSupp attribute with **ANR_NOT_SUPPORTED** and an event of the "AfEventNotification" data type in the "evNotifs" attribute with the "event" attribute set to the value "ANI_REPORT" in N5 responses to AF subscription or include NetLoc-Access-Support AVP set to the value of 0 (**NETLOC_ACCESS_NOT_SUPPORTED**) in Rx responses to AF subscription.
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