



Ultra Cloud Core 5G Policy Control Function, Release 2022.04 - Release Change Reference

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About this Guide



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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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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 <i>variable</i>	This typeface represents a variable that is part of a command, for example: show card <i>slot_number</i> <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](#)
- [Features Defaults Quick Reference, on page 1](#)
- [mTLS on SBA Interfaces, on page 2](#)
- [NRF Enhancements, on page 2](#)
- [PCF Session Binding with Binding Support Function, on page 3](#)

Features and Changes Quick Reference

Features / Behavior Changes	Release Introduced / Modified
PCF Session Binding with Binding Support Function, on page 3	2022.04.0
mTLS on SBA Interfaces, on page 2	2022.04.0
NRF Enhancements, on page 2	2022.04.0

Features Defaults Quick Reference

Feature	Default
Binding Support Function	Enabled – Configuration required to disable
mTLS on SBA Interfaces	Disabled – Configuration required to enable
NRF Enhancements	Enabled

mTLS on SBA Interfaces

Feature Summary and Revision History

Summary Data

Table 1: Summary Data

Applicable Product(s) or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Disabled – Configuration required to enable
Related Documentation	Not Applicable

Revision History

Table 2: Revision History

Revision Details	Release
First introduced.	2022.04.0

Feature Description

PCF supports Hypertext Transfer Protocol (HTTP) over Transport Layer Security (TLS) for provided Service Based Interfaces (SBI). PCF enables support to the TLS client authentication for NF consumers (SMF, AF) and authenticates itself with NFs (CHF, UDR, NRF).

Enabling and disabling mTLS: PCF supports the configuration option to enable and disable TLS client authentication for REST server endpoints when using HTTPS.

Certificate configuration: PCF configures with a single certificate and enabled with server authentication and client authentication. When mTLS enabled, PCF uses the same certificate for client authentication.

NRF Enhancements

Feature Summary and Revision History

Summary Data

Table 3: Summary Data

Applicable Products or Functional Area	PCF
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Applicable Platform(s)	SMI
Feature Default Setting	Enabled
Related Documentation	Not Applicable

Revision History

Table 4: Revision History

Revision Details	Release
First introduced.	2022.04.0

Feature Description

The Network Repository Function (NRF) subscription, registration, and KPI enhancements that included with this feature are as follows:

- The Cisco PCF sends an NRF Registration Request to the primary, secondary, or tertiary node NRF for each interval rather than sending the request only to the primary node. If there is failure, PCF sends the subscription request to the same node for a particular count. If the primary NRF is not operational, PCF sends subscription requests only to the registered primary NRF.
- The outgoing request total of an existing NRF subscription supports the separate primary, secondary, and tertiary KPIs for each peer and route.
- PCF includes the location Uniform Resource Identifier (URI) as a part of the NRF Hypertext Transfer Protocol (HTTP) response header. If PCF does not receive a response, PCF attempts to register on every reconnect interval.
- NRF sets the HTTP maximum frame size as 16 MB in HTTP settings, which internally causes high global catalog intervals. At the time of initializing HTTP2 Jetty Transport, PCF REST EP sets the maximum frame size.

PCF Session Binding with Binding Support Function

Feature Summary and Revision History

Summary Data

Table 5: Summary Data

Applicable Product(s) or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Configuration required to disable

Related Documentation	Not Applicable
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Revision History

Table 6: Revision History

Revision Details	Release
First introduced.	2022.04.0

Feature Description

The Cisco Policy Control Function (PCF) supports the Binding Support Function (BSF) to provide a packet data unit (PDU) session binding functionality. PCF ensures that an AF request for a PDU session reaches the relevant PCF holding the PDU session information.

The Nbsf Management Register service enables the PCF to register the session binding information for a User Equipment (UE) in the BSF. The BSF maintains and provides the user identity, the Data Network Name (DNN), the UE addresses, and the PCF address for the PDU session.

The PCF registers a new session binding information in the BSF and obtains a unique BSF binding ID for the existing PDU session. If PCF receives a new UE address (for example, an IPv4 address) and the session binding information is registered for this PDU session.

The PCF deletes the session binding data for a UE in the BSF using the Nbsf Management De-Register service operation and deletes a specific resource with the resource identifier by Individual PCF Session Binding (for example Binding ID).