Ultra Cloud Core 5G Policy Control Function, Release 2021.04 - 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.

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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.

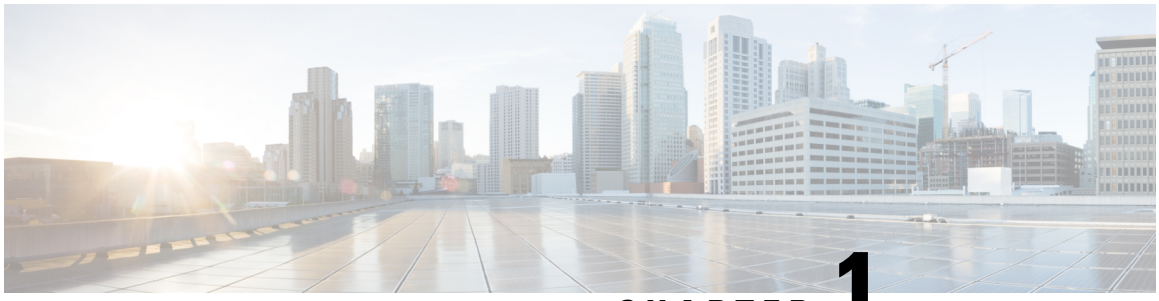
Typeface Conventions	Description
Text represented as a `screen display`	This typeface represents displays that appear on your terminal screen, for example: `Login:`

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 PCF - Release Change Reference

- Features and Changes Quick Reference, on page 1
- Feature Defaults Quick Reference, on page 1
- Dynamic ARP Functionality for PC and PV, on page 2
- Handle Issues of Multiple CDL Entry Updates, on page 3
- IPv6 Support on NF Interfaces, on page 4
- Network Slicing, on page 5

Features and Changes Quick Reference

Features / Behavior Changes	Release Introduced / Modified
Dynamic ARP Functionality for PC and PV, on page 2	2021.04.0
Handle Issues of Multiple CDL Entry Updates, on page 3	2021.04.0
IPv6 Support on NF Interfaces, on page 4	2021.04.0
Network Slicing	2021.04.0

Feature Defaults Quick Reference

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

Feature	Default
Dynamic ARP Functionality for PC and PV	Enabled – Always-on
Handle issues of multiple CDL entry update	Disabled – Configuration required to enable

Feature	Default
IPv6 Support on NF Interfaces	• Diameter Endpoint: Enabled – Always-on • LDAP, NRF, N7, N28, and NNRF external interfaces or endpoints: Disabled – Configuration required to enable
Network Slicing	Enabled – Configuration required to disable

Dynamic ARP Functionality for PC and PV

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	Enabled - Always-on
Related Documentation	*UCC 5G PCF Configuration and Administration Guide*

Revision History

Table 2: Revision History

Revision Details	Release
First introduced.	2021.04.0

Feature Description

PCF supports the dynamic ARP feature to send the same Priority-Level value in the dedicated bearers as that of the default bearer.

The dynamic ARP functionality is extended to Preemption Capability (PC) and Preemption Vulnerability (PV).

The PC parameter defines whether a bearer with a lower priority level should be dropped to free up the required resources.

The PV parameter defines whether a bearer is applicable for such dropping by a preemption capable bearer with a higher priority value.

To support this functionality, two new columns, Rx_Dynamic_Vulnerability and Rx_Dynamic_Capability are added to the Rx_QoS_Table.

For more information, see Dynamic ARP Functionality for PC and PV chapter in the UCC 5G PCF Configuration and Administration Guide.

Handle Issues of Multiple CDL Entry Updates

Feature Summary and Revision History

Summary Data

Table 3: Summary Data

Applicable Product(s) or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Disabled – Configuration required to enable
Related Documentation	*UCC 5G PCF Configuration and Administration Guide*

Revision History

Table 4: Revision History

Revision Details	Release
Enhancement introduced. Support to handle issues of multiple CDL entry updates	2021.04.0

Feature Description

PCF can handle issues of multiple CDL entry updates when multiple RxSTR received on PCF within a short gap.

Note It is recommended to configure this feature after upgrading both local and remote sites to the latest PCF version.

For more information, see Common Data Layer chapter in the UCC 5G PCF Configuration and Administration Guide.

IPv6 Support on NF Interfaces

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	• Diameter Endpoint: Enabled – Always-on • LDAP, NRF, N7, N28, and NNRF external interfaces or endpoints: Disabled – Configuration required to enable
Related Documentation	*UCC 5G PCF Configuration and Administration Guide*

Revision History

Table 6: Revision History

Revision Details	Release
Enhancement introduced. PCF supports IPv6 connectivity on Diameter, LDAP, NRF, N7, N28, and NNRF external interfaces or endpoints.	2021.04.0

Feature Description

PCF supports both IPv4 and IPv6 connectivity on Diameter, LDAP, NRF, N7, N28 and NNRF external interfaces/endpoints (inbound and outbound).

For more information, see the following chapters in UCC 5G PCF Configuration and Administration Guide.

- Diameter Endpoint
- LDAP and Sh Interface
- Multiple Virtual IP Address
- NRF Interface

Network Slicing

Feature Summary and Revision History

Summary Data

Table 7: Summary Data

Applicable Product(s) or Functional Area	PCF
Applicable Platform(s)	SMI
Feature Default Setting	Enabled – Configuration required to disable
Related Documentation	*UCC 5G PCF Configuration and Administration Guide*

Revision History

Table 8: Revision History

Revision Details	Release
First introduced.	2021.04.0

Feature Description

The network slicing solution allows the service providers to partition the 5G physical network into multiple virtual network slices.

PCF implements network virtualization by registering the Single–Network Slice Selection Assistance Information (S-NSSAIs) with the NRF. The S-NSSAI enables PCF to identify a network slice. After the registration is complete, SMF and AMF can discover the PCF instances serving the specific slices.

For more information, see the Network Slicing chapter in the UCC 5G PCF Configuration and Administration Guide.