Release Notes for the Ultra Cloud Serving Gateway Control Plane Function Version 2023.04.0

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Ultra Cloud Serving Gateway Control Plane Function

Introduction

This Release Notes identifies changes and issues related to this software release.

Release Lifecycle Milestones

Release Lifecycle Milestone	Milestone	Date
First Customer Ship	FCS	31-Oct-2023
End of Life	EoL	31-Oct-2023
End of Software Maintenance	EoSM	30-Apr-2025
End of Vulnerability and Security Support	EoVSS	30-Apr-2025
Last Date of Support	LDoS	30-Apr-2026

These milestones and the intervals between them are defined in the Cisco Ultra Cloud Core (UCC) Software Release Lifecycle Product Bulletin available on cisco.com.

Release Package Version Information

Software Packages	Version
ccg-2023.04.0.SPA.tgz	2023.04.0
NED package	ncs-5.6.8-ccg-nc-2023.04.0 ncs-6.1-ccg-nc-2023.04.0
NSO	5.6.8 6.1.3

Descriptions for the various packages provided with this release are available in the Release Package Descriptions section.

Note   The ccg.*<version>*.SPA.tgz software package is common to both the cnSGWc and SMF 5G Network Functions (NF). The deployment and configuration procedure determines the NF deployment.

Verified Compatibility

Products	Version
Ultra Cloud Core SMI	2023.04.1
Ultra Cloud Core SMF	2023.04.0
Ultra Cloud cnSGWc	2023.04.0

What's New in this Release

New in Documentation

This version of Release Notes includes a new section titled **What's New in this Release** comprising all new features, enhancements, and behavior changes applicable for the release.

This section will be available in all the 5G release notes and will supersede content in the Release Change Reference (RCR) document. Effective release 2024.01, the RCR document will be deprecated.

Features and Enhancements

Feature	Description
Support for Message Priority profiles	This feature allows the cnSGW service to: • Send the Inter-process Communication (IPC) message to the protocol pod for Wireleass Priority Service (WPS) session using Priority IPC Stream. • Create the message-priority profile to define priorities either at global level or at each interface level (PFCP, GTP) **Default Setting**: Disabled – Configuration required to enable

Behavior Changes

There are no Behavior Changes in this release.

Related Documentation

For the complete list of documentation available for this release, go to:

https://www.cisco.com/c/en/us/support/wireless/ultra-cloud-core-serving-gateway-function/products-installation-and-configuration-guides-list.html

Installation and Upgrade Notes

This Release Note does not contain general installation and upgrade instructions. Refer to the existing installation documentation for specific installation and upgrade considerations.
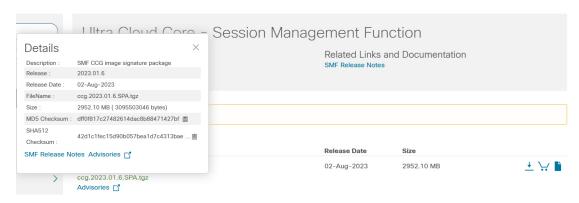
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Note In this software release, you must deploy SMF in merged mode only. For more information on this mode, see the *UCC SMF Configuration and Administration Guide* and *UCC cnSGWc Configuration and Administration Guide*.

Software Integrity Verification

To verify the integrity of the software image you have from Cisco, you can validate the SHA512 checksum information against the checksum identified by Cisco for the software.

Image checksum information is available through **Cisco.com Software Download Details**. To find the checksum, hover the mouse pointer over the software image you have downloaded.

At the bottom you find the SHA512 checksum, if you do not see the whole checksum you can expand it by pressing the "..." at the end.

To validate the information, calculate a SHA512 checksum using the information in Table 1 and verify that it matches the one provided on the software download page.

To calculate a SHA512 checksum on your local desktop please see the following table.

Table 1: Checksum Calculations per Operating System

Operating System	SHA512 checksum calculation command examples
Microsoft Windows	Open a command line window and type the following command: `> certutil.exe -hashfile` *filename.extension* `SHA512`
Apple MAC	Open a terminal window and type the following command: `$ shasum -a 512` *filename.extension*

Operating System	SHA512 checksum calculation command examples
Linux	Open a terminal window and type the following command: `$ sha512sum` *filename.extension* OR `$ shasum -a 512` *filename.extension*

NOTES:

filename is the name of the file.

extension is the file extension (for example, .zip or .tgz).

If the SHA512 checksum matches, you can be sure that no one has tampered with the software image or the image has not been corrupted during download.

If the SHA512 checksum does not match, we advise you to not attempt upgrading any systems with the corrupted software image. Download the software again and verify the SHA512 checksum again. If there is a constant mismatch, please open a case with the Cisco Technical Assistance Center.

Certificate Validation

The software images are signed via x509 certificates. For information and instructions on how to validate the certificates, refer to the .README file packaged with the software.

Open Bugs for This Release

There are no open bugs in this software release.

Resolved Bugs for This Release

The following table lists the resolved bugs in this specific software release.

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Note   This software release may contain bug fixes first introduced in other releases. Additional information for all resolved bugs for this release are available in the Cisco Bug Search Tool.
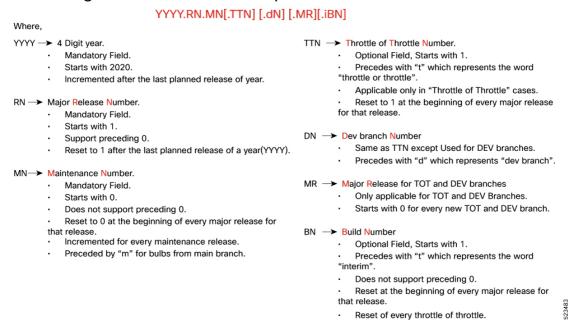
Bug ID	Headline	Behavior Change
CSCwh61836	ULI information is not sent in SGW LI IRI on a detach, PDN disconnect event.	No
CSCwh22334	DDN during TAU SGW relocation causes MME to drop sessions for multipdn calls.	No
CSCwh02491	SGW-service pod restart observed at incorrect NumBearerCtxt in UBReq.	No

Operator Notes

Cloud Native Product Version Numbering System

The show helm list command displays detailed information about the version of the cloud native product currently deployed.

Versioning: Format & Field Description

YYYY.RN.MN[.TTN] [.dN] [.MR][.iBN]

Where,

YYYY → 4 Digit year.
- Mandatory Field.
- Starts with 2020.
- Incremented after the last planned release of year.

RN → Major Release Number.
- Mandatory Field.
- Starts with 1.
- Support preceding 0.
- Reset to 1 after the last planned release of a year(YYYY).

MN → Maintenance Number.
- Mandatory Field.
- Starts with 0.
- Does not support preceding 0.
- Reset to 0 at the beginning of every major release for that release.
- Incremented for every maintenance release.
- Preceded by "m" for bulbs from main branch.

TTN → Throttle of Throttle Number.
- Optional Field, Starts with 1.
- Precedes with "t" which represents the word "throttle or throttle".
- Applicable only in "Throttle of Throttle" cases.
- Reset to 1 at the beginning of every major release for that release.

DN → Dev branch Number
- Same as TTN except Used for DEV branches.
- Precedes with "d" which represents "dev branch".

MR → Major Release for TOT and DEV branches
- Only applicable for TOT and DEV Branches.
- Starts with 0 for every new TOT and DEV branch.

BN → Build Number
- Optional Field, Starts with 1.
- Precedes with "t" which represents the word "interim".
- Does not support preceding 0.
- Reset at the beginning of every major release for that release.
- Reset of every throttle of throttle.

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The appropriate version number field increments after a version has been released. The new version numbering format is a contiguous sequential number that represents incremental changes between releases. This format facilitates identifying the changes between releases when using Bug Search Tool to research software releases.

Release Package Descriptions

This table lists provide descriptions for the packages that are available with this release.

Table 2: Release Package Information

Software Packages	Description
ccg.<version>.SPA.tgz	The offline release signature package. This package contains the deployment software as well as the release signature, certificate, and verification information.
ncs-<nso_version>-ccg-nc-<version>.tar.gz	The NETCONF NED package. This package includes all the yang files that are used for NF configuration. Note that NSO is used for the NED file creation.

Note The ccg.*<version>*.SPA.tgz software package is common to both the cnSGWc and SMF 5G Network Functions (NF). The deployment and configuration procedure determines the NF deployment.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, refer to https://www.cisco.com/c/en/us/support/index.html.