Release Notes for the Ultra Cloud Core Redundancy Configuration Manager Version 2023.04.0

First Published: 2023-10-30

Redundancy Configuration Manager, Version 2023.04.0

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
rcm.2023.04.0.SPA.tgz	2023.04.0
NED package	ncs-5.6.8-rcm-nc-2023.04.0 ncs-6.1-rcm-nc-2023.04.0
NSO	5.6.8 6.1.3

Verified Compatibility

Products	Version
Ultra Cloud Core SMI	2023.04.1
CDL	1.11.5
Ultra Cloud Core UPF	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

This section covers a brief description of the features and enhancements introduced in this release. It also includes links to detailed documentation, where available.

Feature	Description
WPS Prioritization on RCM	The Wireless Priority Services (WPS) feature provides finer control for priority handling over multiple interfaces.
	RCM supports WPS prioritization based on the priority defined in the GR header exchanged between UPF and RCM for checkpointing and recovery.
	Default Setting: Disabled – Configuration required to enable

Behavior Changes

This section covers a brief description of behavior changes introduced in this release.

Behavior Change	Description
Agnostic Micro Checkpoint Strings for RCM Prometheus Labels	The Prometheus metrics label for microcheckpoints are made agnostic to the type.
	Previous Behavior: The Prometheus label string was the underlying microcheckpoint type which prevented the RCM checkpoint manager to be agnostic to the checkpoint types.
	For example: UPLANE_PDR_INFO
	New Behavior: The new Prometheus label strings are now agnostic strings.
	For example: MicroType234

Related Documentation

For a complete list of documentation available for this release, go to: https://www.cisco.com/c/en/us/support/wireless/ultra-cloud-core-user-plane-function/series.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.

Note   RCM is qualified to be upgraded from the 2023.03.0.i5 release.
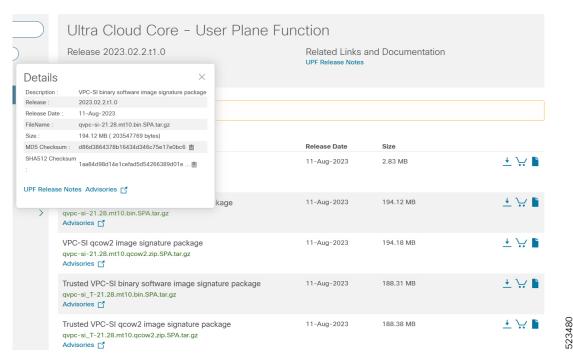
Note   ETCD v3.5.x does not support in-service downgrade to 3.4.x. If you are downgrading from 2023.04.0 builds to previous releases, perform system mode shutdown before downgrade.

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.

Ultra Cloud Core - User Plane Function

Release 2023.02.2.t1.0

Related Links and Documentation
UPF Release Notes

Details   ✕

Description :	VPC-SI binary software image signature package
Release :	2023.02.2.t1.0
Release Date :	11–Aug–2023
FileName :	qvpc-si-21.28.mt10.bin.SPA.tar.gz
Size :	194.12 MB (203547769 bytes)
MD5 Checksum :	d86d3864378b16434d346c75e17e0bc6 📋
SHA512 Checksum :	1aa84d98d14e1cefad5d54266389d01e … 📋

UPF Release Notes Advisories 🗗

	Release Date	Size	
	11–Aug–2023	2.83 MB	⬇ 🛒 📄
...kage qvpc-si-21.28.mt10.bin.SPA.tar.gz Advisories 🗗	11–Aug–2023	194.12 MB	⬇ 🛒 📄
VPC-SI qcow2 image signature package qvpc-si-21.28.mt10.qcow2.zip.SPA.tar.gz Advisories 🗗	11–Aug–2023	194.18 MB	⬇ 🛒 📄
Trusted VPC-SI binary software image signature package qvpc-si_T-21.28.mt10.bin.SPA.tar.gz Advisories 🗗	11–Aug–2023	188.31 MB	⬇ 🛒 📄
Trusted VPC-SI qcow2 image signature package qvpc-si_T-21.28.mt10.qcow2.zip.SPA.tar.gz Advisories 🗗	11–Aug–2023	188.38 MB	⬇ 🛒 📄

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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 either the one provided on the software download page.

To calculate a SHA512 checksum on your local desktop, refer to 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*
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

RCM software images are signed via x509 certificates. Please view the .README file packaged with the software for information and instructions on how to validate the certificates.

Open Bugs for this Release

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

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Note NOTE: This software release may contain open bugs first identified in other releases. Additional information for all open bugs for this release are available in the Cisco Bug Search Tool.

Bug ID	Headline
CSCwh05431	After monitor failure induced switchover, chkptmgr stats fails
CSCwh47966	Planned upf switchover after chkptmgr pod restart is failing

Resolved Bugs for this Release

There are no resolved bugs in this specific software release.

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

The following table provides descriptions for the packages that are available with this release.

Software Packages	Description
rcm.<version>.SPA.tgz	The RCM offline release signature package. This package contains the RCM deployment software, NED package, as well as the release signature, certificate, and verification information.
ncs-<nso_version>-rcm-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 NED file creation.

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.