Release Notes for the Ultra Cloud Core Access and Mobility Management Function Version 2023.02.0

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Introduction

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

Release Lifecycle Milestones

Release Lifecycle Milestone	Milestone	Date
First Customer Ship	FCS	28-Apr-2023
End of Life	EoL	28-Apr-2023
End of Software Maintenance	EoSM	26-Oct-2024
End of Vulnerability and Security Support	EoVSS	26-Oct-2024
Last Date of Support	LDoS	31-Oct-2025

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
amf.2023.02.0.SPA.tgz	2023.02.0
cdl-1.11.1-amf-2023.02.0.SPA.tgz	1.11.1
NED package	ncs-5.6.1-amf-nc-2023.02.0
NSO	5.6.1

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

Verified Compatibility

Products	Version
Ultra-Cloud Core SMI	2023.02.1.07
Ultra-Cloud CDL	1.11.1

For information on the Ultra Cloud Core SMI release, refer to the SMI documents available at: https://www.cisco.com/c/en/us/support/wireless/ultra-cloud-core-subscriber-microservices-infrastructure/series.html.

Feature and Behavior Changes

For a complete list of feature and behavior changes associated with this software release, see the Release Change Reference document.

Related Documentation

For the complete list of documentation available for this release, see https://www.cisco.com/c/en/us/support/wireless/ultra-cloud-core-access-mobility-management-function/products-installation-and-configuration-guides-list.html.

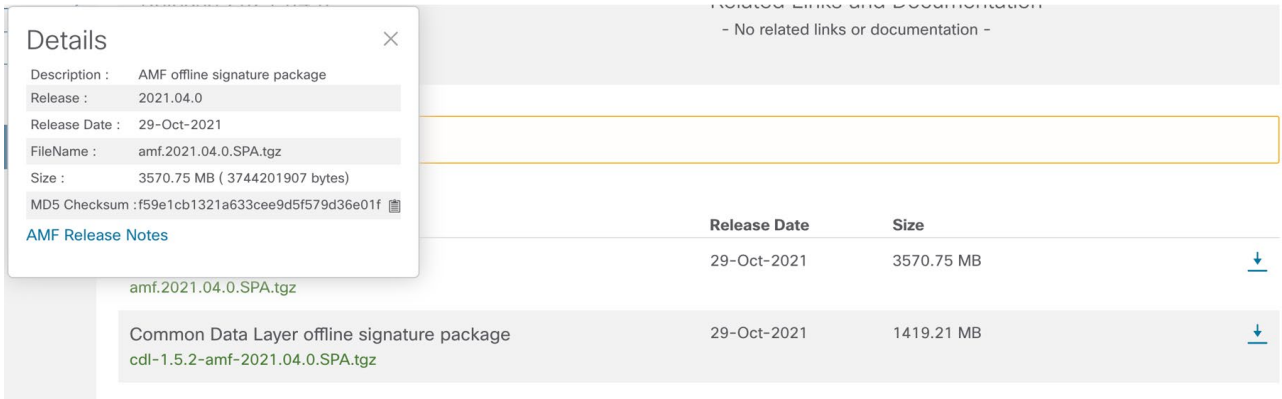
Installation and Upgrade Notes

This Release Notes document does not contain general installation and upgrade instructions. Refer to the existing installation documentation for specific installation and upgrade considerations.

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 table below.

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 (e.g. .zip or .tgz).	

If the SHA512 checksum matches, you can be sure that no one has tampered with the software image, or that 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

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

NOTE: This software release may contain open bugs first identified in other releases. Additional information for all open bugs for this release is available in the Cisco Bug Search Tool. The following table highlights the known bugs that are resolved in this specific software release.

Bug ID	Headline
CSCwe69418	PDCP integrity check failure for RRC Reconfiguration Complete during HO 5G to 4G after HO Command
CSCwe72384	Total event packets show much lesser count in AMF-LI stats as compared to LI-server stats
CSCwf01720	N8 SDM subscription contains wrong format for monitoredResourceURI
CSCwf05074	AMF is not sending the pdusessionresourcesetup request to GNB during attach (Edge version 9.91)

Resolved Bugs for this Release

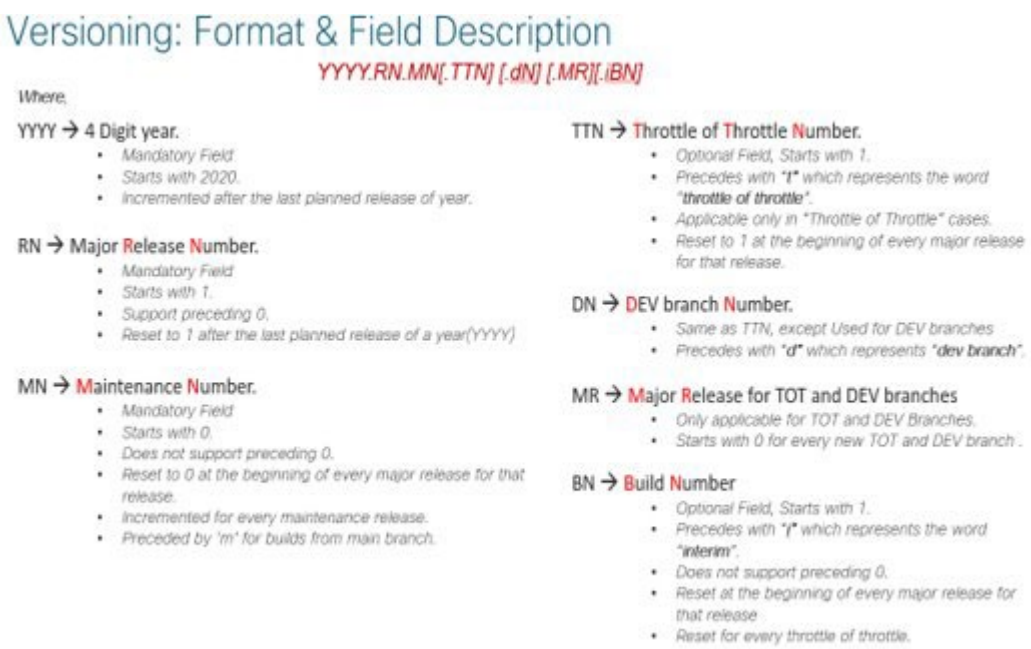
The following table lists the known bugs that are resolved in this specific software release.

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
CSCwe42831	Service Reject with "Service request without integrity protection or integrity check failure" log	No
CSCwe48772	AMF should send service reject with security protected.	No
CSCwe55442	Errors during 5G registrations on 9.96.1 edge	Yes
CSCwe72374	5G-SA to 4G mobility in IDLE mode fails	No

Cloud Native Product Version Numbering System

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



The appropriate version number field increments after a version have 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

Table 2 provides descriptions of the packages that are available with this release.

Table 2 - Release Package Information

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

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.

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