



Release Notes for the Ultra Cloud Core Policy Control Function

Version 2022.03.0

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Introduction

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

Release Package Version Information

Software Packages	Version
pcf.2022.03.0.SPA.tgz	2022.03.0

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	2020.02.2.3.i10
Ultra Cloud Core CDL	1.9.1

For information on the Ultra Cloud Core SMI release, refer to the corresponding SMI Release Notes available at:

<https://www.cisco.com/c/en/us/support/wireless/ultra-cloud-core-subscriber-microservices-infrastructure/series.html>

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-policy-control-function/tsd-products-support-series-home.html>

Installation and Upgrade Notes

This Release Notes 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 either 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 <code>> certutil.exe -hashfile <filename>.<extension> SHA512</code>
Apple MAC	Open a terminal window and type the following command <code>\$ shasum -a 512 <filename>.<extension></code>
Linux	Open a terminal window and type the following command <code>\$ sha512sum <filename>.<extension></code> Or <code>\$ shasum -a 512 <filename>.<extension></code>
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 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

PCF 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 open CDETS in this release.

Table 22- PCF Open CDETS

CDETS ID	Headline
CSCwc52694	CRD input of PC and PV in String resulting in swapped values.
CSCwc52514	Duplicate Policy triggers set in N7_notify for Multiple N5 sessions
CSCwc56166	RANNAS cause - N5 delete response doesn't have RANNAS cause event under evsnotify,
CSCwc56179	RANNAS cause details repeatedly being shared on N5 notify as well as in N5 delete response.

Resolved Bugs for this Release

This section lists the resolved/verified CDETS in this release.

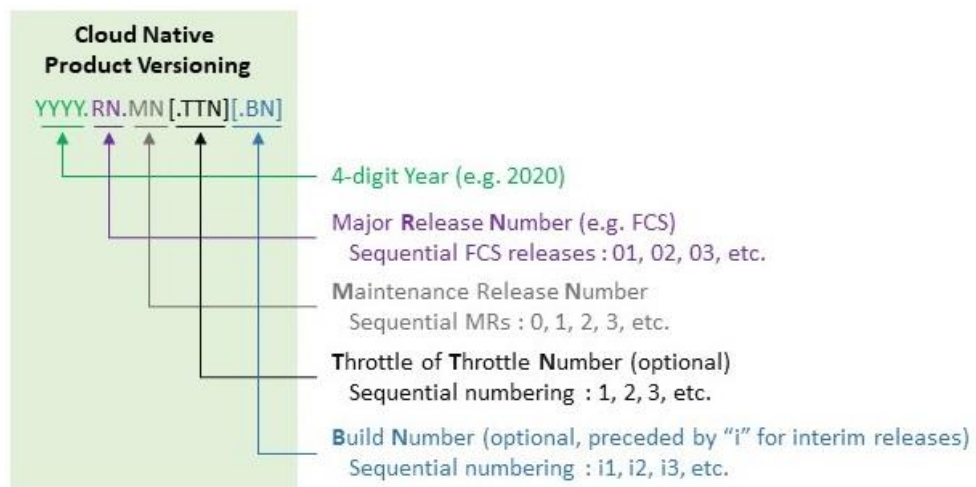
Table 3 - PCF Resolved CDETS

CDETS ID	Headline
CSCwc39326	NPLI - production issue - Rx - Incorrect Location type shared on RAR
CSCwc09384	PCF REL_2022.01.0.i89 Missing IPv6 entry in subscriber's sessions
CSCwc50257	LDAP invalid attribute Syntax flood, during site isolation and restoration.

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.



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

[Table 3](#) lists provides descriptions for the packages that are available with this release.

Table 3 - Release Package Information

Software Packages	Description
pcf.<version>.SPA.tgz	The PCF offline release signature package. This package contains the PCF deployment software as well as the release signature, certificate, and verification information.

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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