



# Release Notes for the Ultra Cloud Core Subscriber Management Infrastructure Version 2020.03.0

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## Introduction

This Release Notes identifies changes and issues related to this software release. This release is the next major release after 2020.02.0.

## Release Package Version Information

Software Packages	Version
base-vm.2020.02.1.qcow2.SPA.tgz	20191105
base-vm.2020.02.1.vmdk.SPA.tgz	20191105
cee.2020.02.1.SPA.tgz	2020.01.1.15
cluster-deployer-airgap.2020.02.1.SPA.tgz	2020.01.1.08
<b>NOTE:</b> In the event bugs need to be opened against this product, please reference the Package Component Version information in this table.	

Descriptions for the various packages provided with this release are available in the [Release Package Descriptions](#) section.

## Verified Compatibility

Products	Version
Ultra Cloud Core AMF	2020.03.0
Ultra Cloud Core NRF	2020.03.0
Ultra Cloud Core PCF	2020.03.0
Ultra Cloud Core SMF	2020.03.0
Ultra Cloud Core UPF	21.18.10

## 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-subscriber-microservices-infrastructure/tsd-products-support-series-home.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.

## 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.

The screenshot shows a 'Details' popup window over a table of software packages. The popup displays the following information:

- Description : SMI Application-level POD OpenStack VM image signature package
- Release : 3099.01.0
- Release Date : 29-Jan-2020
- FileName : base-vm.3099.1.0.qcow2.SPA.tgz
- Size : 438.66 MB ( 459968597 bytes)
- MD5 Checksum : d03d88259248a1a4af72727ec4897dd

The table below shows the software packages with their release dates and sizes:

	Release Date	Size	
SMI Application-level POD OpenStack VM image signature package base-vm.3099.1.0.qcow2.SPA.tgz	29-Jan-2020	438.66 MB	↓
SMI Application-level POD VMware VM image signature package base-vm.3099.1.0.vmdk.SPA.tgz	29-Jan-2020	452.56 MB	↓
SMI Common Execution Environment offline signature package cee.3099.1.0.SPA.tgz	29-Jan-2020	2143.11 MB	↓
SMI Deployer OpenStack VM image signature package cluster-deployer-airgap.3099.1.0.qcow2.SPA.tgz	29-Jan-2020	3047.16 MB	↓
SMI Deployer VMware VM image signature package cluster-deployer-airgap.3099.1.0.vmdk.SPA.tgz	29-Jan-2020	3082.87 MB	↓

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>&gt; certutil.exe -hashfile &lt;filename&gt;.&lt;extension&gt; SHA512</code>
Apple MAC	Open a terminal window and type the following command  <code>\$ shasum -a 512 &lt;filename&gt;.&lt;extension&gt;</code>
Linux	Open a terminal window and type the following command  <code>\$ sha512sum &lt;filename&gt;.&lt;extension&gt;</code>  Or  <code>\$ shasum -a 512 &lt;filename&gt;.&lt;extension&gt;</code>
<b>NOTES:</b>  <code>&lt;filename&gt;</code> is the name of the file.  <code>&lt;extension&gt;</code> 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

SMI 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 known bugs that were found in this software release and which remain open.

**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
CSCvv70064	5G PCF - k8s bug 68211 modified subpath configmap mount fails when container restarts
CSCvv66725	Postgres-0/2 CrashLoopBackOff with multiple restarts with CEE version rollback
CSCvv75379	SMI cee-data: Host Details Charts not showing any data
CSCvv65054	[PCF-SVI] Go Routines on CDL spike up to very high numbers

## Resolved Bugs for this Release

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

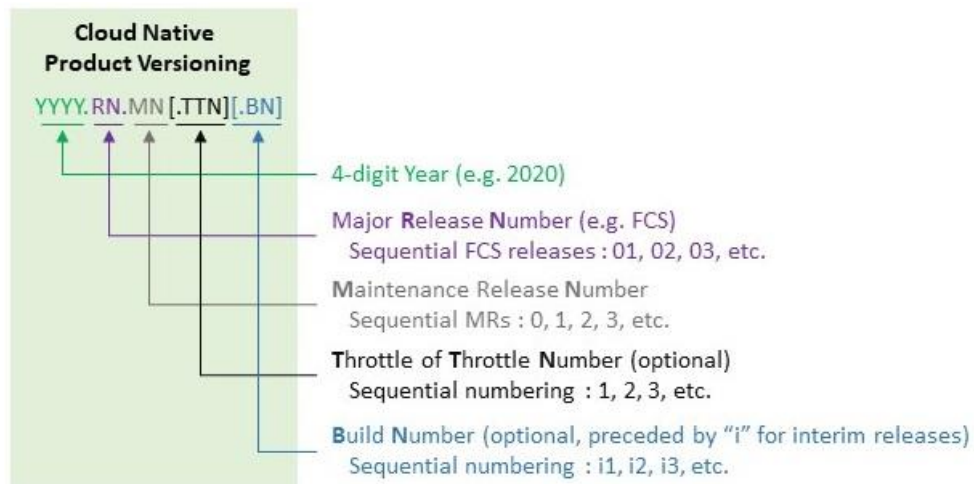
**NOTE:** This software release may contain bug fixes first introduced in other releases. Additional information for all resolved bugs for this release are available in the [Cisco Bug Search Tool](#).

Bug ID	Headline
CSCw20600	smi cluster sync - GPG key errors
CSCw35684	Show alerts history indicates alerts endsAt as null without any timestamp
CSCw29921	Grafana-dashboard-smf, dumping "fatal: protocol error: bad line length character"

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

**Table 2 - Release Package Information**

Software Packages	Description
base-vm.<version>.qcow2.SPA.tgz	The application-level POD OpenStack VM image signature package. This package contains the base qcow2 VM image as well as the release signature, certificate, and verification information.
base-vm.<version>.vmdk.SPA.tgz	The application-level POD VMware VM image signature package. This package contains the base vmdk VM image as well as the release signature, certificate, and verification information.
cee.<version>SPA.tgz	The SMI Common Execution Environment (CEE) offline release signature package. This package contains the CEE deployment package as well as the release signature, certificate, and verification information.
cluster-deployer-airgap.<version>.qcow2.SPA.tgz	The SMI Deployer OpenStack VM image signature package. This package contains the Deployer qcow2 VM image as well as the release signature, certificate, and verification information.
cluster-deployer-airgap.<version>.vmdk.SPA.tgz	The SMI Deployer VMware VM image signature package. This package contains the Deployer vmdk VM image 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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