Release Notes for NSO SMI AFP, Release 2026.01.0

Contents

NSO SMI Automation Function Pack, Release 2026.01.0

The NSO SMI Automation Function Pack is a collection of multiple packages including the cisco-smi-deployer (previously referred to as the SMI Core Function Pack).

The key highlights of this release include:

- **TACACS nodeport configuration support**: SMI AFP now supports configuring TACACS nodeport for CNDP Cluster Manager, requiring SSH and NETCONF parameters when enabled.
- **Supermicro server support for AMF and NRF**: This enhancement provides customers with greater hardware flexibility and investment protection by supporting AMF and NRF on Supermicro server platforms, enabling optimized resource utilization and broader infrastructure choices for network function deployments.
- **Balloons policy support**: This enhancement ensures optimized resource allocation and improved deployment efficiency for EPCGW and MSUP, helping customers achieve better performance and scalability through standardized and automated policy management.
- **Support for RCM HA configuration**: This feature simplifies HA deployments and operations by streamlining configuration management for RCM pairs, enhancing service reliability and operational efficiency.
- **MSUP and MSCP Support on UCS M8:** Extended lifecycle and configuration management support to UCS M8 servers without requiring additional software updates.

  For more information on SMI AFP, see the Related resources section.

Release lifecycle milestones

The following table provides EoL milestones for NSO SMI AFP software:

Table 1. EoL milestone information for NSO SMI AFP, Release 2026.01.0

Milestone	Date
First Customer Ship (FCS)	30-Jan-2026
End of Life (EoL)	30-Jan-2026
End of Software Maintenance (EoSM)	31-July-2027
End of Vulnerability and Security Support (EoVSS)	31-July-2027
Last Date of Support (LDoS)	31-July-2028

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.

New software features

This section provides a brief description of the new software features introduced in this release.

Table 2. New software features for SMI AFP, Release 2026.01.0

Product impact	Feature	Description
Software Reliability	TACACS nodeport configuration support	CNDP now supports TACACS nodeport configuration for Cluster Manager (CM) deployments, with SMI AFP pushing the configuration from NSO. When enable-nodeport is true, nodeport-ssh and nodeport-netconf parameters are required.
Software Reliability	Supermicro server support for AMF and NRF	SMI AFP now extends support for deploying AMF and NRF network functions on Supermicro servers. The deployment process and configuration steps remain consistent with existing NF deployments, and no additional configuration changes are required.
Software Reliability	Balloons policy support	SMI AFP now supports balloons policy configuration for EPCGW and MSUP deployments, enabling it to push balloons configurations to the CNDP resource manager. Balloons policy is now recommended as the NRI plugin policy for deploying EPCGW and MSUP, requiring configuration on the CNDP Kubernetes cluster before deployment.
Software Reliability	Support for RCM HA configuration	The MFP component of AFP now enables joint configuration and management of both instances in an RCM HA (High Availability) pair. With this enhancement, the same configuration can be pushed to both RCM instances using existing configuration commands, ensuring consistency across the HA pair.
Software Reliability	Lifecycle and configuration management of MSUP and MSCP on UCS M8 server	This release extends MSUP and MSCP lifecycle and configuration management support to include UCS M8 servers. As a result of successful validation, these features are available without needing new configuration or software updates.

Changes in behavior

There are no behavior changes in this release.

Resolved issues

This table lists the resolved issues in this specific software release.

Note: This software release may contain bug fixes first introduced in other releases. To see additional information, click the bug ID to access the Cisco Bug Search Tool. To search for a documented Cisco product issue, type in the browser: <bug_number> site:cisco.com

Table 3. Resolved issues for SMI AFP, Release 2026.01.0

Bug ID	Description
CSCwr43119	MSG: software repo creation line by line is shows multiapp flag after ned.
CSCwr72907	AFP 2025.04.00: prefer-ssh-ipv6 param value not pushed to device.
CSCwr87389	AFP 2025.04.00: bind ip-address is mandatory for a pure ipv6 deployment on K8s cluster.
CSCwr94506	Unable to add netplan-addtions when initial-netplan is configured under node level.

Bug ID	Description
CSCwr98327	AFP 2025.04.00: When ssh-ip is not configured under node for a cluster it gets configured as "None".
CSCws14227	AFP 2025.04.00: host-profile is rejected when environment is bm-server(supermicro).
CSCws17184	(additional-)master-vip-interface has dependency on IPv4 parameter (additional-)master-vip in pure IPv6 deployment.
CSCws37772	AFP: Unconfig of bind-ip from existing K8s deployment throws errors.
CSCws76976	Compatibility issues with SMI AFP 2026.01.0 Beta release.

Open issues

This table lists the open issues in this specific software release.

Note: This software release may contain open bugs first identified in other releases. To see additional information, click the bug ID to access the Cisco Bug Search Tool. To search for a documented Cisco product issue, type in the browser: <bug_number> site:cisco.com

Table 4. Open issues for SMI AFP, Release 2026.01.0

Bug ID	Description
CSCwq34560	SMI AFP does not allow configuring functions without static NETCONF and SSH ports.
CSCws76472	NED prompts for unnecessary string value for "node-defaults os ipa enabled".
CSCws76512	NED shows IPA password in clear text under devices template (node-defaults os ipa password).

Compatibility

This section lists compatibility information of the Cisco UCC software products that are verified to work with this version of the NSO SMI AFP software.

Table 5. Compatibility information for SMI AFP, Release 2026.01.0

Product	Supported release
CEE	2026.01.1.08
PCF	2026.01.0.i29
RCM	2026.01.0.i43
SMF+cnSGWc	2026.01.0.i102

Product	Supported release
UPF	21.28.Mh34.99440

The NSO SMI AFP software is compatible with the following operating systems:

Table 6. Compatible operating systems for NSO SMI AFP software

OS	Minimum server configuration	Version
Ubuntu	CPU: 8 Cores RAM: 64 GB Disk: 250 GB	18.04 LTS
Red Hat	CPU: 8 Cores RAM: 64 GB Disk: 250 GB	7.3 (Maipo)
CentOS	CPU: 8 Cores RAM: 64 GB Disk: 250 GB	7.4 (Core)
MacOS	CPU: 8 Cores RAM: 64 GB Disk: 250 GB	10.12.6

Note the following product, platform, and runtime requirements for this release:

- NSO: 6.4.8.2
- SMI: 2026.01.1.08

  Note: If upgrading from a beta version of NSO SMI AFP, the SMI cluster manager NED must be upgraded simultaneously. See resolved issues table, CSCws76976.
- Python: 3.12.x

Supported software packages

This section provides information about the release packages associated with NSO SMI AFP.

Table 7. Software packages for SMI AFP, Release 2026.01.0

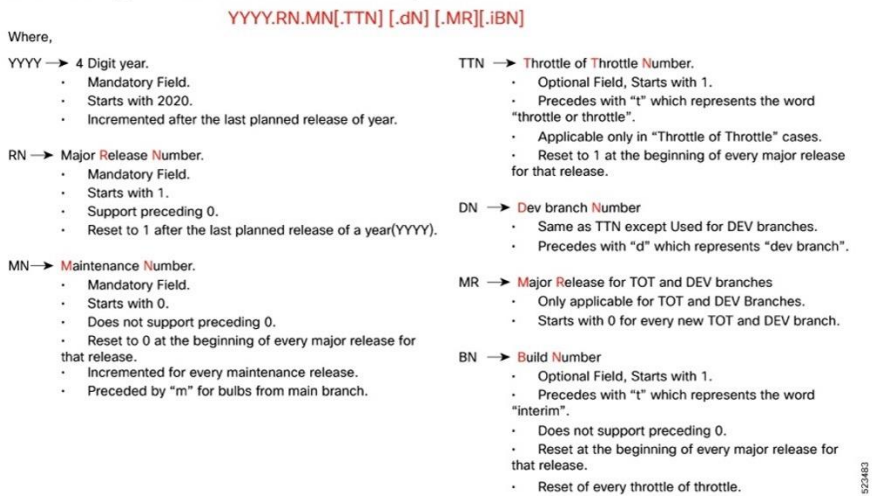
Software package	Release
ncs-6.4.8.2-nso-smi-afp-2026.01.0.tar.SPA.tgz	SMI AFP version: 2026.01.0
cisco-etsi-nfvo	4.7.8

Software package	Release
cisco-smi-deployer	2026.01.0
cisco-smi-dvpc	2026.01.0
cisco-smi-nc-1.1	1.1.2026.01.1.08
cisco-staros-cli-5.57	5.57.5
esc	5.3.0.94
etsi-sol003-gen-1.13	1.13.19
mobility-common	2026.01.0
mobility-rcm-subscriber	2026.01.0
mop-automation	2026.01.0
mop-common	2026.01.0
openstack-cos-gen-4.2	4.2.34
resource-manager	4.2.10

Cloud native product version numbering system

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

Figure 1. Cloud native product versioning format and description



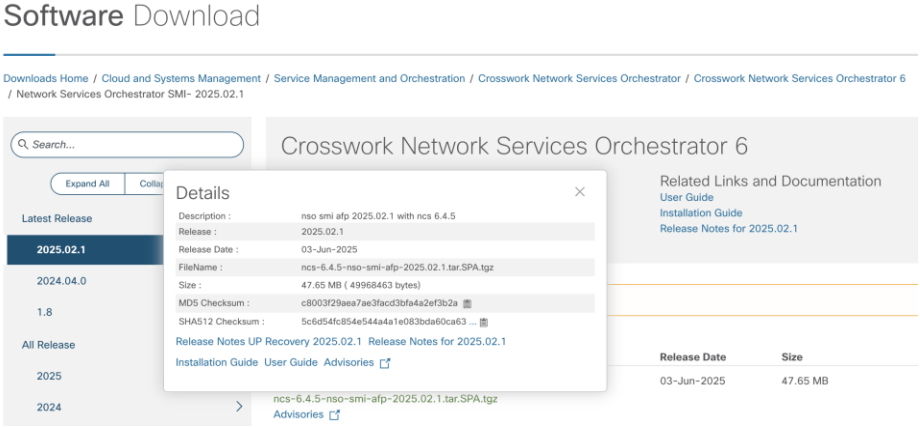
The appropriate version number field increments after a version has been released. The new version numbering format is a contiguous sequential number that represents incremental changes between releases. This format facilitates identifying the changes between releases when using Bug Search Tool to research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

Software integrity version

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.

Figure 2. Sample of NSO SMI AFP software image



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 the following table and verify that it matches the one provided on the software download page.

To calculate a SHA512 checksum on your local desktop, see this table.

Table 8. 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>`

Note: <filename> is the name of the file. <extension> is the file type 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 not to 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

NSO SMI AFP 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.

Related resources

This table provides key resources and links to the support information and essential documentation for SMI AFP.

Table 9. Related resources and additional information

Resource	Link
NSO SMI AFP documentation	NSO SMI AFP
Service request and additional information	Cisco Support

Legal information