

In-Service Software Upgrade (ISSU)

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Information about In-Service Software Upgrade (ISSU)

ISSU is a process that upgrades an image to another image on a device while the network continues to forward packets. ISSU helps network administrators avoid a network outage when performing a software upgrade. ISSU is supported in install mode.

ISSU is supported in dual SUP HA and StackWise Virtual system. In-Service Software Upgrade is performed either in a single step or in three-steps.

Supported and unsupported ISSU upgrade scenarios across releases

To clearly outline the supported and unsupported In-Service Software Upgrade (ISSU) scenarios between different Cisco IOS XE release trains, including key guidelines, operational caveats, and recommendations to ensure reliable and compliant upgrade planning.

Supported Scenarios	Unsupported Scenarios

• Within a major release train (17.x or 26.x), ISSU is supported between any two Extended Maintenance (EM) releases that are released not more than 3 years apart.
• Within a major release train, ISSU is supported from:
  • Any EM (EM1, EM2, EM3) release to another EM (EM1, EM2, EM3) release
  Example:
  26.1.x to 26.1.x, 26.2.x and so on
  27.1.x to 27.1.x, 27.2.x and so on
  • Any release within the same EM release
  Example:
  17.18.x to 17.18.x,
  26.1.x to 26.1.x,
  27.1.x to 27.1.x,
  26.2.x to 26.2.x,
  27.2.x to 27.2.x
• ISSU Recommendation:
  • From any EM recommended release on CCO to current EM Recommended release on CCO
Note
FPGA upgrade has been decoupled from ISSU to facilitate ISSU within the major release train for 3 years. You can upgrade FPGA through CLI during maintenance windows that require full reload.
	• ISSU is not supported on engineering special releases and .s (or similar) images.
	• ISSU is not supported between Licensed Data Payload Encryption (LDPE) and No Payload Encryption (NPE) Cisco IOS XE software image.
	• ISSU downgrades are not supported.
	Note
	No configuration changes should be performed while ISSU is being performed.

Supported platforms for ISSU

To enable users to quickly identify the supported hardware platforms and their corresponding initial software releases for In-Service Software Upgrade (ISSU), ensuring correct deployment and upgrade planning.

Platforms	ISSU Starting Release
C9610 (Dual supervisor)/ HA	17.18.2
C9610R Stackwise Virtual (SVL)	17.18.3a

Release support matrix

To provide detailed reference tables showing which Cisco IOS XE releases support ISSU for each Cisco C9610 deployment scenario, enabling users to determine upgrade compatibility for their devices.

For Cisco C9610 in dual supervisor/HA module configuration, ISSU support starts from Cisco IOS XE 17.18.2.

Cisco C9610 with Dual Supervisor/HA Module Configuration

For supported ISSU paths in the 17.x and later release trains, refer to In-Service Software Upgrade (ISSU) Release Matrix.

Cisco C9610 with Stackwise Virtual

For supported ISSU paths in the 17.x and later release trains, refer to In-Service Software Upgrade (ISSU) Release Matrix.

Limitations and restrictions for ISSU

- ISSU upgrade between Cisco IOS XE releases 17.18.1 to 17.18.2 and 17.18.3a failed with an incompatible image error for Cisco C9610 Series Smart Switches with Dual Supervisor/HA setup. See CSCwr63904 for more details.
- ISSU upgrade between Cisco IOS XE releases 17.18.2 to 17.18.3a is not supported on Cisco C9610R Series Smart Switches with Stackwise Virtual setup. See CSCwt13742 for more details.
- Quad Supervisor module configuration with StackWise Virtual topology is not supported on Cisco C9610 Series Smart Switches Supervisor 3 Module (C9610R SUP-3 and SUP-3-XL).

ISSU configuration

To configure ISSU, see In-Service Software Upgrade (ISSU).

Additional references for ISSU

To provide direct access to related documents that supports In-Service Software Upgrade (ISSU) on Cisco C9610 Series Smart Switches, including configuration guides and release notes needed for planning, implementation, and troubleshooting.

Related Topic	Document Title
Software Configuration Guides	High Availability Configuration Guide
Release Notes	Release Notes for Cisco C9610 Series Smart Switches

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