



New and Changed Information

- [New and Changed Information](#), on page 1

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Note Always check the *Cisco Application Policy Infrastructure Controller Release Notes* for the release that you are working with first.

The following table provides an overview of the significant changes to this guide for this current release. The table does not provide an exhaustive list of all changes made to the guide or of the new features in this release.

Table 1: New and Changed Information

Cisco APIC Release Version	Feature	Description	Where Documented
6.0(3)	Memory-based switch image installation	A switch installs either the 32-bit or 64-bit image based on the switch's amount of memory instead of based on a static mapping.	Guidelines and Limitations for Upgrading or Downgrading
6.0(2)	Installing switch software maintenance upgrade patches without reloading	Some switch software maintenance upgrade (SMU) patches do not require you to reload the switch after you install those patches.	
6.0(2)	Auto Firmware Update on Cisco APIC discovery	When you add a new Cisco APIC to the fabric either through Product Returns & Replacements (RMA), cluster expansion, or commission, the Cisco APIC is automatically upgraded to the same version of the existing cluster.	Auto Firmware Update on APIC Discovery

Cisco APIC Release Version	Feature	Description	Where Documented
6.0(2)	32-bit and 64-bit Cisco ACI-mode switch images	<p>There are now both 32-bit and 64-bit Cisco ACI-mode switch images. The upgrade process automatically installs the correct image depending on your switch models.</p> <p>Note Download the Cisco APIC 6.0(2) or later image and upgrade the Cisco APIC cluster to the downloaded release. Before the upgrade completes, do not download the Cisco ACI-mode switch images to the Cisco APIC.</p>	Guidelines and Limitations for Upgrading or Downgrading
5.2(4)	Default interface policy creation	When you upgrade to the 5.2(4) or later release, the Cisco APIC creates some default interface policies automatically.	Default Interface Policies in the 5.2(4) release and later
N/A	Reorganization of the document to improve usability.	On July 30, 2021, the content within this document was completely reorganized and rewritten to improve usability. The title of this document was also renamed to the <i>Cisco APIC Installation and ACI Upgrade and Downgrade Guide</i> to reflect part of this reorganization work.	
5.2(1)	Switches will automatically upgrade the FPGA/EPLD/BIOS based on the booting ACI switch image during a normal boot-up sequence for certain components, even if it's not an upgrade operation performed through the APICs.	Beginning with release 5.2(1) and Cisco ACI-mode switch release 15.2(1), Cisco ACI-mode switches will automatically upgrade the FPGA/EPLD/BIOS based on the booting Cisco ACI-mode switch image during a normal boot-up sequence for certain components, even if it's not an upgrade operation performed through the Cisco APICs.	Managing FPGA/EPLD/BIOS Firmware

Cisco APIC Release Version	Feature	Description	Where Documented
5.2(1)	Software Maintenance Upgrade patches	You can install software maintenance upgrade (SMU) patches that contain fixes for specific defects. Because SMU patches can be released much more quickly than a more traditional patch release, you can resolve specific issues in a more timely manner. SMU patches are available for the Cisco APIC and Cisco ACI-mode switches.	Software Maintenance Upgrade Patches
5.1(1)	Enhancements to the upgrade process through the GUI when upgrading the APIC or switch software.	Beginning with release 5.1(1), the upgrade process for the Cisco APIC and switch software through the GUI has been enhanced.	Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI
5.1(1)	Additional validations are performed before an upgrade or downgrade operation is triggered.	When upgrading or downgrading the software, additional validations are performed and warnings are provided as part of the 5.1(1) release if issues are found during those validations.	Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI
4.2(5)	Additional validations are performed before an upgrade or downgrade operation is triggered.	Beginning with release 4.2(5), when you attempt to trigger an upgrade or downgrade operation, before the operation is triggered, additional validations are performed and warnings are provided if issues are found during those validations.	<ul style="list-style-type: none"> • Upgrading or Downgrading with APIC Releases 4.x or 5.0 Using the GUI • Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI
4.2(5)	Additional information provided when upgrading the controllers.	Beginning with release 4.2(5), additional information may be provided on the status of the upgrade process for the controllers.	<ul style="list-style-type: none"> • Upgrading or Downgrading with APIC Releases 4.x or 5.0 Using the GUI • Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI
4.2(5)	Additional information provided when upgrading switch nodes in firmware upgrade groups.	Beginning with release 4.2(5), status is provided on the progress of the download of the firmware when upgrading switch nodes in firmware upgrade groups.	<ul style="list-style-type: none"> • Upgrading or Downgrading with APIC Releases 4.x or 5.0 Using the GUI • Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI

Cisco APIC Release Version	Feature	Description	Where Documented
4.2(5)	The number of switches that the system can upgrade at a time has changed.	Beginning with release 4.2(5), by default, the number of switches that the system can upgrade at a time has changed from 20 to unlimited.	<ul style="list-style-type: none"> • Upgrading or Downgrading with APIC Releases 4.x or 5.0 Using the GUI • Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI
4.2(1)	Validations are performed before an upgrade or downgrade operation is triggered.	Beginning with release 4.2(1), when you attempt to trigger an upgrade or downgrade operation, before the operation is triggered, some validations are performed and warnings are provided if faults are found during those validations.	<ul style="list-style-type: none"> • Upgrading or Downgrading with APIC Releases 4.x or 5.0 Using the GUI • Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI
	APIC upgrade and downgrade paths removed from document	<p>The Cisco APIC upgrade and downgrade paths have been removed from this document. Refer to the <i>Cisco APIC Upgrade/Downgrade Support Matrix</i> for Cisco APIC upgrade and downgrade paths, available here:</p> <p>https://www.cisco.com/c/dam/en/us/td/docs/Website/datacenter/apicmatrix/index.html</p>	
4.1(2x)	Silent Roll Package Upgrade	A silent roll package upgrade enables you to manually perform an internal package upgrade for ACI switch hardware SDK, drivers, and so on, without upgrading the entire ACI switch software OS.	Silent Roll Package Upgrade
	The <i>Cisco APIC Installation, Upgrade, and Downgrade Guide, Release 4.0(1)</i> document is no longer available	The <i>Cisco APIC Installation, Upgrade, and Downgrade Guide, Release 4.0(1)</i> document is no longer available. All the information that was previously in that document is now available in this document, other than the upgrade and downgrade paths.	

Cisco APIC Release Version	Feature	Description	Where Documented
4.0(1)	Bash no longer supported as upgrade method	Starting with Cisco APIC release 4.0(1), you cannot use bash to upgrade the Cisco APIC and switch software. Use the NX-OS style CLI to upgrade the Cisco APIC and switch software instead.	<ul style="list-style-type: none"> • Upgrading or Downgrading with APIC Releases 4.x or 5.0 Using the GUI • Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI
4.0(1)	Changes to upgrade procedure using the GUI	The procedures for upgrading the software using the GUI has changed starting with Cisco APIC release 4.0(1).	<ul style="list-style-type: none"> • Upgrading or Downgrading with APIC Releases 4.x or 5.0 Using the GUI • Upgrading or Downgrading with APIC Release 5.1 or Later Using the GUI
3.2(1m)	Cisco APIC long-lived release		Cisco ACI Long-Lived and Short-Lived Releases
2.3(1e)	Network Configuration Capabilities and Changes During Mixed OS Operation	Support for additional features was added.	Operations Allowed During Mixed Versions on Cisco ACI Switches
2.2(2e)	Network Configuration Capabilities and Changes During Mixed OS Operation	This feature was introduced.	Operations Allowed During Mixed Versions on Cisco ACI Switches
2.2(2e)	--	The contents of this guide was reorganized. The High Availability for Cisco APIC Cluster content that was in this guide for earlier releases is now migrated in the <i>Cisco APIC Getting Started Guide, Release 2.x</i> .	--
2.2(1n)	High Availability for APIC Cluster	The high availability functionality for a Cisco APIC cluster enables you to operate the Cisco APICs in a cluster in an Active/Standby mode.	This content is available in the <i>Cisco APIC Getting Started Guide, Release 2.x</i>
1.3(1g)	The title of this document has been changed.	The old name was Cisco APIC Firmware Management Guide.	

