Cisco Application Policy Infrastructure Controller Release Notes, Release 6.0(6)

Introduction

The Cisco Application Centric Infrastructure (ACI) is an architecture that allows the application to define the networking requirements in a programmatic way. This architecture simplifies, optimizes, and accelerates the entire application deployment lifecycle. Cisco Application Policy Infrastructure Controller (APIC) is the software, or operating system, that acts as the controller.

This document describes the features, issues, and limitations for the Cisco APIC software. For the features, issues, and limitations for the Cisco NX-OS software for the Cisco Nexus 9000 series switches, see the Cisco Nexus 9000 ACI-Mode Switches Release Notes, Release 16.0(6).

For more information about this product, see " Related Content."

Date	Description
June 28, 2024	Release 6.0(6c) became available.

New Software Features

Product Impact	Feature	Description
N/A	N/A	There are no new software features in this release.

New Hardware Features

For the new hardware features, see the Cisco Nexus 9000 ACI-Mode Switches Release Notes, Release 16.0(6).

Changes in Behavior

For the changes in behavior, see Cisco ACI Releases Changes in Behavior.

Feature Deprecation and End of Support Notice

The following features will no longer be supported starting with the Cisco ACI 6.0(6) release:

- CloudSec encryption
- Cisco ACI vRealize 8 plug-in

Open Issues

Click the bug ID to access the Bug Search tool and see additional information about the bug. The " Exists In" column of the table specifies the 6.0(6) releases in which the bug exists. A bug might also exist in releases other than the 6.0(6) releases.

Bug ID	Description	Exists in
CSCvt99966	A SPAN session with the source type set to " Routed-Outside" goes down. The SPAN configuration is pushed to the anchor or non-anchor nodes, but the interfaces are not pushed due to the following fault: " Failed to configure SPAN with source SpanFL3out due to Source fvIfConn not available" .	6.0(6c) and later

Bug ID	Description	Exists in
CSCvy40511	Traffic from an endpoint under a remote leaf switch to an external node and its attached external networks is dropped. This occurs if the external node is attached to an L3Out with a vPC and there is a redistribution configuration on the L3Out to advertise the reachability of the external nodes as direct-attached hosts.	6.0(6c) and later
CSCwa90084	- Traffic gets disrupted across a vPC pair on a given encapsulation. OR - EPG flood in encapsulation gets blackholed on a given encapsulation. OR - STP packets received on an encapsulation on a given port are not forwarded on all the leaf switches where the same EPG/same encapsulation is deployed.	6.0(6c) and later
CSCwf48875	When using two different host profiles (for example UCS C-Series and UCS B-Series) to deploy NSX, the uplink policy will be different for the host profiles. In this case, using one uplink profile with two policies might cause traffic disruption for a non-default teaming policy.	6.0(6c) and later
CSCwf78521	A GOLF spine switch advertises the bridge domain prefixes to a GOLF peer in multiple VRF instances.	6.0(6c) and later
CSCwf99067	Deleting and re-adding RedirectDest with a different IP address, but the same MAC address, generates the following error: " Same virtual MAC is provided for different RedirectDest" .	6.0(6c) and later
CSCwi28712	Additional entries of svcredirRsBackupDestAttMo and svcredirRsDestAttMo are created in a leaf switch. This can impact the traffic hash and can lead to traffic drop.	6.0(6c) and later
CSCwk35279	The second vPC pair switch was stuck in the " Queued" state.	6.0(6c) and later

Resolved Issues

Click the bug ID to access the Bug Search tool and see additional information about the bug. The " Fixed In" column of the table specifies the 6.0(6) release in which the bug was first fixed.

Bug ID	Description	Fixed in
CSCwe58398	This is added functionality for upgrade show command. 1. acidiag show postupgrade -service <dme> -> This gives details for dmes and which shard still have pending postUpgradeCb. 2.acidiag show postupgrade -service <dme> -shard <shard_id> -> This gives the details of log path for the dmes and shard for which postUpgradeCb has been completed.	6.0(6c)
CSCwe93045	There is general slowness when an application contacts the Cisco APIC cluster through the REST API. The same slowness is experienced when accessing using the Cisco APIC GUI.	6.0(6c)
CSCwf55317	1. Go to **Tenant > Application Profile > Topology**. 2. Drag and drop a contract. Problem 1: No pop up displays. 3. Drag and drop an EPG icon, then cancel the create view. Problem 2: The pop up remains open.	6.0(6c)

Bug ID	Description	Fixed in
CSCwf92856	During upgrade, " deserialization error" is seen on APIC 1 PD.	6.0(6c)
CSCwh41632	Enhancement - show apic upgrade complete only after postUpgradeCb is done.	6.0(6c)
CSCwh55113	When viewing a Post Update Delta Analysis, one of the outputs is a searchable Audit Log. Normally this log should be populated with any user driven adds, changes, or delete actions in the time between pre- and post-analysis. The audit log is rendered, but only shows entries that are used by whatever credentials NDI uses to access a given APIC cluster (i.e those credentials used when you first add a site to NDI and need to authenticate to that site's APIC for the very first time).	6.0(6c)
CSCwh84052	When using the OpenStack integration, the Cisco APIC VMM Manager process may consume more memory than is available and then end.	6.0(6c)
CSCwi52324	The fault F3227 " ACI failed processing an already accepted configuration change" continuously gets raised.	6.0(6c)
CSCwi66348	A Cisco ACI switch can spend hours to complete the bootstrap process. At the worst, the expected completion time should be about 90 minutes.	6.0(6c)
CSCwi78474	An upgraded Cisco APIC may attempt the second upgrade to same version and assume itself as APIC 1, which can cause all Cisco APICs to stop the postUpgradeCb process, which stops the upgrade.	6.0(6c)
CSCwi97842	After upgrading, the Cisco APIC cluster is diverged and policymgr is down and repeatedly crashing on one Cisco APIC.	6.0(6c)
CSCwi99378	There are packet drops between the pods.	6.0(6c)
CSCwj05533	The Cisco APIC is unable to ping a spine switch over the in-band management IPv6 address without the -I option.	6.0(6c)
CSCwj08006	When running release version 6.0(3e), the policymgr service can crash after pushing an Ansible configuration. Multiple core files get generated on APIC 2, which prevents the deployment any configuration, including a single L3Out push from the GUI. Fault F4367 and 576 configurations transactions get queued in transaction for more than 2 minutes. Rebooting APIC 2 and APIC 3 results in APIC 1 generating a core 3 times with policymgr as well while APIC 2 is shutdown.	6.0(6c)
CSCwj08117	After a reboot is triggered, any of the Cisco APICs take around 1 hour to reach the cluster fully fit status and the affected DME is ifc_observer. During the issue, there is non-optimal leader for some shards for the service ifc_observer, which it clears after 30 minutes.	6.0(6c)
CSCwj08789	" External Control Peering" and " External Intersite Control Peering" are not displayed in " Node Association" in the infra tenant L3Out when using only eBGP as the IPN underlay protocol. Users can check the options in this location: Tenants > infra > Networking > L3Outs > (L3Out that is used in IPN) > Logical Node Profiles > (Logical Node Profile of node-XXXX) > Configured Nodes > topology/pod-Y/node-XXXX. The node ID is XXXX and the pod ID is Y.	6.0(6c)

Bug ID	Description	Fixed in
CSCwj13396	ACI switches show in maintenance with the CLI command " acidiag fnvread" on Cisco APIC, but they show " normal" in vsh and even top. System also shows In service. - Switches do not show up in the GUI nor API for configurations, as APIC vectors it as in maintenance. This severely impacts the ability to make changes. - Switches may continue to work normally even though no new configurations can be made on them.	6.0(6c)
CSCwj17966	The Cisco APIC bootmgr or appliance director allows an incorrect attribute/value update to be received in LLDP TLV due to miscabling.	6.0(6c)
CSCwj23752	Changing in the name of the remote-destination group stops the sending of syslog messages to the remote destination. Changing the port number or forwarding facility does not affect the sending of the messages. Only when the name is changed does the leaf switch stop sending the syslog messages. Enabling and disabling the policy does not resume the sending of the messages.	6.0(6c)
CSCwj25846	After creating a SAML provider on the Cisco APIC and a login domain, then choosing option to Validate SAML Metadata, the following error is shown: Oops! Something went wrong Please try and reload the page.If the problem persists, contact Cisco TAC for assistance in resolving the issue and provide the following error report	6.0(6c)
CSCwj30879	A user can only see the tenant and access policies assigned to nodes. This user can also configure an application profile in the tenant with " create application profile" , but cannot see the application profile after configuring it. The user was created by following the procedure in the following document: https://www.cisco.com/c/en/us/td/docs/dcn/aci/apic/5x/security-configuration/cisco-apic-security-configuration-guide-release-52x/restricting-access-using-security-domains-and-node-rules-52x.html	6.0(6c)
CSCwj32118	Tech support did not include manifest.json. Due to the difference in the name of device as per the " topsystem" and " hostname" commands, the code that is responsible for generating manifest file tracebacked and failed. This is an issue in tech support component.	6.0(6c)
CSCwj38953	log_bin_decode crashes on distinguished name decoding failures.	6.0(6c)
CSCwj42913	REST API can be used to configure static ports for nodes that are restricted in by a node rule.	6.0(6c)
CSCwj43407	Altering the IP SLA policy for an IP SLA track member led to the crashing of switches.	6.0(6c)
CSCwj44966	A16GB fixed spine switch has high memory usage and is running 64-bit switch image.	6.0(6c)
CSCwj48124	The show running-config command in the Cisco APIC failed at the VLAN-domain Nutanix and stopped displaying the rest of the configuration: Error while processing mode: vlan-domain Error while processing mode: configure Error: Invalid DN None/rsvlanNs, wrong rn prefix None at position 5	6.0(6c)
CSCwj55258	Fault F4144 will not clear from the Cisco APIC even with matching dhcpPool and Fabric Node Vector information.	6.0(6c)

Bug ID	Description	Fixed in
CSCwj57993	The F0413 PSU fault is not reported by SMART callhome. The tcpdump command on the leaf switch does not show SMTP messages being sent for this fault for which the PSU was removed.	6.0(6c)
CSCwj68660	The entity ID set within the SAML provider in the APIC GUI is not the same as the SAML request sent through to IDP.	6.0(6c)
CSCwj69046	SAML authentication fails when using the HTTPS Proxy 5.2 image.	6.0(6c)
CSCwj74262	The physical domain is removed from an EPG when the CLI is used to remove all static path configurations from the EPG.	6.0(6c)
CSCwj74286	The Cisco APIC bootstrap gets stuck on the " A start job is running for oob-network" job startup after configuring the OOB IP address.	6.0(6c)
CSCwj84744	The way sam.config is generated after upgrading is different in the 6.0(2) release and later. In the 6.0(2) release and later, ACI only updates the necessary fields in the sam.config [main] section and keeps the remainder of the property as it is. The kafkaInternalTopic field is not updated, which causes the moss and KSM container to fail to start.	6.0(6c)
CSCwj85080	nginx crashes on a leaf switch and generates a core file.	6.0(6c)
CSCwj87192	Syslog over SSL is working on the APICs, but not for the switches.	6.0(6c)
CSCwk13546	There are stale hvExtPl objects due to the hvsExtPol managed object not being cleaned up when an EPG is deleted. Fault F1606 is raised, but has no operational impact: desc :Fault delegate: Operational issues detected on portgroup error: Cannot find an EPG policy in the domain for the port group.	6.0(6c)
CSCwk31728	When Azure Oauth2 is configured in ACI 6.0(5h), Azure sends an Authorization Code Response that contains the session_state argument and ACI does not recognize it as a valid argument.	6.0(6c)

Known Issues

Click the bug ID to access the Bug Search tool and see additional information about the bug. The " Exists In" column of the table specifies the 6.0(6) releases in which the bug exists. A bug might also exist in releases other than the 6.0(6) releases.

Bug ID	Description	Exists in
CSCvj26666	The " show run leaf|spine <nodeId>" command might produce an error for scaled up configurations.	6.0(6c) and later
CSCvj90385	With a uniform distribution of EPs and traffic flows, a fabric module in slot 25 sometimes reports far less than 50% of the traffic compared to the traffic on fabric modules in non-FM25 slots.	6.0(6c) and later
CSCvq39764	When you click Restart for the Microsoft System Center Virtual Machine Manager (SCVMM) agent on a scaled-out setup, the service may stop. You can restart the agent by clicking Start.	6.0(6c) and later

Bug ID	Description	Exists in
CSCvq58953	One of the following symptoms occurs: App installation/enable/disable takes a long time and does not complete. Nomad leadership is lost. The output of the acidiag scheduler logs members command contains the following error: Error querying node status: Unexpected response code: 500 (rpc error: No cluster leader)	6.0(6c) and later
CSCvr89603	The CRC and stomped CRC error values do not match when seen from the APIC CLI compared to the APIC GUI. This is expected behavior. The GUI values are from the history data, whereas the CLI values are from the current data.	6.0(6c) and later
CSCvs19322	Upgrading Cisco APIC from a 3.x release to a 4.x release causes Smart Licensing to lose its registration. Registering Smart Licensing again will clear the fault.	6.0(6c) and later
CSCvs77929	In the 4.x and later releases, if a firmware policy is created with different name than the maintenance policy, the firmware policy will be deleted and a new firmware policy gets created with the same name, which causes the upgrade process to fail.	6.0(6c) and later
CSCvx75380	svcredirDestmon objects get programmed in all of the leaf switches where the service L3Out is deployed, even though the service node may not be connected to some of the leaf switch. There is no impact to traffic.	6.0(6c) and later
CSCvx78018	A remote leaf switch has momentary traffic loss for flushed endpoints as the traffic goes through the tglean path and does not directly go through the spine switch proxy path.	6.0(6c) and later
CSCvy07935	xR IP flush for all endpoints under the bridge domain subnets of the EPG being migrated to ESG. This will lead to a temporary traffic loss on remote leaf switch for all EPGs in the bridge domain. Traffic is expected to recover.	6.0(6c) and later
CSCvy10946	With the floating L3Out multipath recursive feature, if a static route with multipath is configured, not all paths are installed at the non-border leaf switch/non-anchor nodes.	6.0(6c) and later
CSCvy34357	Starting with the 6.0(6) release, the following apps built with the following non-compliant Docker versions cannot be installed nor run: • ConnectivityCompliance 1.2 • SevOneAciMonitor 1.0	6.0(6c) and later
CSCvy45358	The file size mentioned in the status managed object for techsupport " dbgexpTechSupStatus" is wrong if the file size is larger than 4GB.	6.0(6c) and later
CSCvz06118	In the " Visibility and Troubleshooting Wizard," ERSPAN support for IPv6 traffic is not available.	6.0(6c) and later
CSCvz84444	While navigating to the last records in the various History sub tabs, it is possible to not see any results. The first, previous, next, and last buttons will then stop working too.	6.0(6c) and later

Bug ID	Description	Exists in
CSCvz85579	VMMmgr process experiences a very high load for an extended period of time that impacts other operations that involve it. The process may consume excessive amount of memory and get aborted. This can be confirmed with the command "dmesg -T | grep oom_reaper" if messages such as the following are reported: oom_reaper: reaped process 5578 (svc_ifc_vmmmgr.)	6.0(6c) and later
CSCwa78573	When the "BGP" branch is expanded in the Fabric > Inventory > POD 1 > Leaf > Protocols > BGP navigation path, the GUI freezes and you cannot navigate to any other page. This occurs because the APIC gets large set of data in response, which cannot be handled by the browser for parts of the GUI that do not have the pagination.	6.0(6c) and later
CSCwe18213	The logical switch created for the EPG remains in the NSX-T manager after the EPG is disassociated from the domain, or the logical switch does not get created when the EPG is associated with the domain.	6.0(6c) and later
CSCwf71934	Multiple duplicate subnets are created on Nutanix for the same EPG.	6.0(6c) and later
CSCwh63412	Audit logs under System > History > Audit Logs are limited to the current logged in user. Only the user with the username admin can see the audit logs from all users, but other users despite having admin privileges cannot see the audit logs from other users. The audit logs under Tenants are visible to every user.	6.0(6c) and later
CSCwh74888	With the addressing of CSCwe64407, a release that integrates that bug fix can the reference of a static VLAN pool in a VMM domain, which before was not possible. However, if the VMM domain is used by Layer 4 to Layer 7 virtual services and the VMM domain is referencing a static VLAN pool, the services do not work and a fault is raised.	6.0(6c) and later
CSCwh92539	After upgrading a Cisco APIC from a release before 5.2(8) to release 6.0(6) or later, there is a loss of out-of-band management connectivity over IPv6 if the APIC has dual stack out-of-band management. However, IPv4 connectivity remains intact. This issue does not occur if the out-of-band management is only IPv4 or only IPv6.	6.0(6c) and later
N/A	Beginning in Cisco APIC release 4.1(1), the IP SLA monitor policy validates the IP SLA port value. Because of the validation, when TCP is configured as the IP SLA type, Cisco APIC no longer accepts an IP SLA port value of 0, which was allowed in previous releases. An IP SLA monitor policy from a previous release that has an IP SLA port value of 0 becomes invalid if the Cisco APIC is upgraded to release 4.1(1) or later. This results in a failure for the configuration import or snapshot rollback. The workaround is to configure a non-zero IP SLA port value before upgrading the Cisco APIC, and use the snapshot and configuration export that was taken after the IP SLA port change.	6.0(6c) and later
N/A	If you use the REST API to upgrade an app, you must create a new firmware.OSource to be able to download a new app image.	6.0(6c) and later
N/A	In a multipod configuration, before you make any changes to a spine switch, ensure that there is at least one operationally "up" external link that is participating in the multipod topology. Failure to do so could bring down the multipod connectivity. For more information about multipod, see the Cisco Application Centric Infrastructure Fundamentals document and the Cisco APIC Getting Started Guide.	6.0(6c) and later

Bug ID	Description	Exists in
N/A	With a non-english SCVMM 2012 R2 or SCVMM 2016 setup and where the virtual machine names are specified in non-english characters, if the host is removed and re-added to the host group, the GUID for all the virtual machines under that host changes. Therefore, if a user has created a micro segmentation endpoint group using " VM name" attribute specifying the GUID of respective virtual machine, then that micro segmentation endpoint group will not work if the host (hosting the virtual machines) is removed and re-added to the host group, as the GUID for all the virtual machines would have changed. This does not happen if the virtual name has name specified in all english characters.	6.0(6c) and later
N/A	A query of a configurable policy that does not have a subscription goes to the policy distributor. However, a query of a configurable policy that has a subscription goes to the policy manager. As a result, if the policy propagation from the policy distributor to the policy manager takes a prolonged amount of time, then in such cases the query with the subscription might not return the policy simply because it has not reached policy manager yet.	6.0(6c) and later
N/A	When there are silent hosts across sites, ARP glean messages might not be forwarded to remote sites if a leaf switch without -EX or a later designation in the product ID happens to be in the transit path and the VRF is deployed on that leaf switch, the switch does not forward the ARP glean packet back into the fabric to reach the remote site. This issue is specific to transit leaf switches without -EX or a later designation in the product ID and does not affect leaf switches that have -EX or a later designation in the product ID. This issue breaks the capability of discovering silent hosts.	6.0(6c) and later
N/A	Typically, faults are generally raised based on the presence of the BGP route target profile under the VRF table. However, if a BGP route target profile is configured without actual route targets (that is, the profile has empty policies), a fault will not be raised in this situation.	6.0(6c) and later
N/A	MPLS interface statistics shown in a switch's CLI get cleared after an admin or operational down event.	6.0(6c) and later
N/A	MPLS interface statistics in a switch's CLI are reported every 10 seconds. If, for example, an interface goes down 3 seconds after the collection of the statistics, the CLI reports only 3 seconds of the statistics and clears all of the other statistics.	6.0(6c) and later

Virtualization Compatibility Information

This section lists virtualization compatibility information for the Cisco APIC software.

- For a table that shows the supported virtualization products, see the ACI Virtualization Compatibility Matrix.
- For information about Cisco APIC compatibility with Cisco UCS Director, see the appropriate Cisco UCS Director Compatibility Matrix document.
- This release supports the following additional virtualization products:

Product	Supported Release	Information Location
Microsoft Hyper-V	• SCVMM 2019 RTM (Build 10.19.1013.0) or newer • SCVMM 2016 RTM (Build 4.0.1662.0) or newer • SCVMM 2012 R2 with Update Rollup 9 (Build 3.2.8145.0) or newer	N/A

Product	Supported Release	Information Location
VMM Integration and VMware Distributed Virtual Switch (DVS)	6.5, 6.7, and 7.0	Cisco ACI Virtualization Guide, Release 6.0(x)

Hardware Compatibility Information

This release supports the following Cisco APIC servers:

Product ID	Description
APIC-L2	Cisco APIC with large CPU, hard drive, and memory configurations (more than 1000 edge ports)
APIC-L3	Cisco APIC with large CPU, hard drive, and memory configurations (more than 1200 edge ports)
APIC-L4	Cisco APIC with large CPU, hard drive, and memory configurations (more than 1200 edge ports)
APIC-M2	Cisco APIC with medium-size CPU, hard drive, and memory configurations (up to 1000 edge ports)
APIC-M3	Cisco APIC with medium-size CPU, hard drive, and memory configurations (up to 1200 edge ports)
APIC-M4	Cisco APIC with medium-size CPU, hard drive, and memory configurations (up to 1200 edge ports)

The following list includes general hardware compatibility information:

- For the supported hardware, see the Cisco Nexus 9000 ACI-Mode Switches Release Notes, Release 16.0(6).
- Contracts using matchDscp filters are only supported on switches with "EX" on the end of the switch name. For example, N9K-93108TC-EX.
- When the fabric node switch (spine or leaf) is out-of-fabric, the environmental sensor values, such as Current Temperature, Power Draw, and Power Consumption, might be reported as "N/A." A status might be reported as "Normal" even when the Current Temperature is "N/A."
- First generation switches (switches without -EX, -FX, -GX, or a later suffix in the product ID) do not support Contract filters with match type "IPv4" or "IPv6." Only match type "IP" is supported. Because of this, a contract will match both IPv4 and IPv6 traffic when the match type of "IP" is used.

The following table provides compatibility information for specific hardware:

Product ID	Description
Cisco UCS M4-based Cisco APIC	The Cisco UCS M4-based Cisco APIC and previous versions support only the 10G interface. Connecting the Cisco APIC to the Cisco ACI fabric requires a same speed interface on the Cisco ACI leaf switch. You cannot connect the Cisco APIC directly to the Cisco N9332PQ ACI leaf switch, unless you use a 40G to 10G converter (part number CVR-QSFP-SFP10G), in which case the port on the Cisco N9332PQ switch auto-negotiates to 10G without requiring any manual configuration.

Product ID	Description
Cisco UCS M5-based Cisco APIC	The Cisco UCS M5-based Cisco APIC supports dual speed 10G and 25G interfaces. Connecting the Cisco APIC to the Cisco ACI fabric requires a same speed interface on the Cisco ACI leaf switch. You cannot connect the Cisco APIC directly to the Cisco N9332PQ ACI leaf switch, unless you use a 40G to 10G converter (part number CVR-QSFP-SFP10G), in which case the port on the Cisco N9332PQ switch auto-negotiates to 10G without requiring any manual configuration.
N2348UPQ	To connect the N2348UPQ to Cisco ACI leaf switches, the following options are available: Directly connect the 40G FEX ports on the N2348UPQ to the 40G switch ports on the Cisco ACI leaf switches Break out the 40G FEX ports on the N2348UPQ to 4x10G ports and connect to the 10G ports on all other Cisco ACI leaf switches. **Note**: A fabric uplink port cannot be used as a FEX fabric port.
N9K-C9348GC-FXP	This switch does not read SPROM information if the PSU is in a shut state. You might see an empty string in the Cisco APIC output.
N9K-C9364C-FX	Ports 49-64 do not support 1G SFPs with QSA.
N9K-C9508-FM-E	The Cisco N9K-C9508-FM-E2 and N9K-C9508-FM-E fabric modules in the mixed mode configuration are not supported on the same spine switch.
N9K-C9508-FM-E2	The Cisco N9K-C9508-FM-E2 and N9K-C9508-FM-E fabric modules in the mixed mode configuration are not supported on the same spine switch. The locator LED enable/disable feature is supported in the GUI and not supported in the Cisco ACI NX-OS switch CLI.
N9K-C9508-FM-E2	This fabric module must be physically removed before downgrading to releases earlier than Cisco APIC 3.0(1).
N9K-X9736C-FX	The locator LED enable/disable feature is supported in the GUI and not supported in the Cisco ACI NX-OS Switch CLI.
N9K-X9736C-FX	Ports 29 to 36 do not support 1G SFPs with QSA.

Miscellaneous Compatibility Information

This release supports the following products:

Product	Supported Release
Cisco NX-OS	16.0(6)
Cisco UCS Manager	2.2(1c) or later is required for the Cisco UCS Fabric Interconnect and other components, including the BIOS, CIMC, and the adapter.
CIMC HUU ISO	• 4.3.2.240009 CIMC HUU ISO (recommended) for UCS C220/C240 M5 (APIC-L3/M3) and UCS C225 M6 (APIC-L4/M4) • 4.3.2.230207 CIMC HUU ISO for UCS C220/C240 M5 (APIC-L3/M3) and UCS C225 M6 (APIC-L4/M4) • 4.2(3e) CIMC HUU ISO for UCS C220/C240 M5 (APIC-L3/M3) and UCS C225 M6 (APIC-L4/M4) • 4.2(3b) CIMC HUU ISO for UCS C225 M6 (APIC-L4/M4) • 4.2(3b) CIMC HUU ISO for UCS C220/C240 M5 (APIC-L3/M3) • 4.2(2a) CIMC HUU ISO for UCS C220/C240 M5 (APIC-L3/M3)

Product	Supported Release
	• 4.1(3m) CIMC HUU ISO for UCS C220/C240 M5 (APIC-L3/M3) • 4.1(3f) CIMC HUU ISO for UCS C220/C240 M5 (APIC-L3/M3) • 4.1(3d) CIMC HUU ISO for UCS C220/C240 M5 (APIC-L3/M3) • 4.1(3c) CIMC HUU ISO for UCS C220/C240 M5 (APIC-L3/M3) • 4.1(2m) CIMC HUU ISO (recommended) for UCS C220/C240 M4 (APIC-L2/M2) • 4.1(2k) CIMC HUU ISO for UCS C220/C240 M4 (APIC-L2/M2) • 4.1(2g) CIMC HUU ISO for UCS C220/C240 M4 (APIC-L2/M2) • 4.1(2b) CIMC HUU ISO for UCS C220/C240 M4 (APIC-L2/M2) • 4.1(1g) CIMC HUU ISO for UCS C220/C240 M4 (APIC-L2/M2) and M5 (APIC-L3/M3) • 4.1(1f) CIMC HUU ISO for UCS C220 M4 (APIC-L2/M2) (deferred release) • 4.1(1d) CIMC HUU ISO for UCS C220 M5 (APIC-L3/M3) • 4.1(1c) CIMC HUU ISO for UCS C220 M4 (APIC-L2/M2) • 4.0(4e) CIMC HUU ISO for UCS C220 M5 (APIC-L3/M3) • 4.0(2g) CIMC HUU ISO for UCS C220/C240 M4 and M5 (APIC-L2/M2 and APIC-L3/M3) • 4.0(1a) CIMC HUU ISO for UCS C220 M5 (APIC-L3/M3) • 3.0(4d) CIMC HUU ISO for UCS C220/C240 M3 and M4 (APIC-L2/M2) • 3.0(3f) CIMC HUU ISO for UCS C220/C240 M4 (APIC-L2/M2) • 2.0(13i) CIMC HUU ISO • 2.0(9c) CIMC HUU ISO • 2.0(3i) CIMC HUU ISO
Network Insights Base, Network Insights Advisor, and Network Insights for Resources	For the release information, documentation, and download links, see the Cisco Network Insights for Data Center page. For the supported releases, see the Cisco Data Center Networking Applications Compatibility Matrix.

- This release supports the partner packages specified in the L4-L7 Compatibility List Solution Overview document.
- A known issue exists with the Safari browser and unsigned certificates, which applies when connecting to the Cisco APIC GUI. For more information, see the Cisco APIC Getting Started Guide, Release 6.0(x).
- For compatibility with Day-2 Operations apps, see the Cisco Data Center Networking Applications Compatibility Matrix.
- Cisco Nexus Dashboard Insights creates a user in Cisco APIC called cisco_SN_NI. This user is used when Nexus Dashboard Insights needs to make any changes or query any information from the Cisco APIC. In the Cisco APIC, navigate to the **Audit Logs** tab of the **System > History** page. The cisco_SN_NI user is displayed in the User column.
- With enhancements in the 6.0(6c) M release, 0.5 GB in memory reduction was achieved. You may still observe high memory alerts on modular spines with 16 GB depending on the current feature usage and configuration. If you are currently experiencing high memory usage, Cisco recommends deferring the upgrade to the next 6.0x release, which will include memory optimizations.

Related Content

See the Cisco Application Policy Infrastructure Controller (APIC) page for the documentation.

The documentation includes installation, upgrade, configuration, programming, and troubleshooting guides, technical references, release notes, and knowledge base (KB) articles, as well as other documentation. KB articles provide information about a specific use case or a specific topic.

By using the "Choose a topic" and "Choose a document type" fields of the APIC documentation website, you can narrow down the displayed documentation list to make it easier to find the desired document.

You can watch videos that demonstrate how to perform specific tasks in the Cisco APIC on the Cisco Cloud Networking YouTube channel.

Temporary licenses with an expiry date are available for evaluation and lab use purposes. They are strictly not allowed to be used in production. Use a permanent or subscription license that has been purchased through Cisco for production purposes. For more information, go to Cisco Data Center Networking Software Subscriptions.

The following table provides links to the release notes, verified scalability documentation, and new documentation:

Document	Description
Cisco Nexus 9000 ACI-Mode Switches Release Notes, Release 16.0(6)	The release notes for Cisco NX-OS for Cisco Nexus 9000 Series ACI-Mode Switches.
Verified Scalability Guide for Cisco APIC, Releases 6.0(4) through 6.0(6) and Cisco Nexus 9000 Series ACI-Mode Switches, Releases 16.0(4) through 16.0(6)	This guide contains the maximum verified scalability limits for Cisco Application Centric Infrastructure (ACI) parameters for Cisco APIC and Cisco Nexus 9000 Series ACI-Mode Switches.
APIC REST API Configuration Procedures	This document resides on developer.cisco.com and provides information about and procedures for using the Cisco APIC REST APIs. The new REST API procedures for this release reside only here and not in the configuration guides. However, older REST API procedures are still in the relevant configuration guides.

Documentation Feedback

To provide technical feedback on this document, or to report an error or omission, send your comments to apic-docfeedback@cisco.com. We appreciate your feedback.

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