# Cisco Nexus Dashboard Orchestrator Release Notes, Release 4.2(1)

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# Contents


New Software Features 3
New Hardware Features 4
Changes in Behavior 4
Open Issues 5
Resolved Issues 7
Known Issues 7
Compatibility 9
Scalability 9
Related Content 9
Documentation Feedback 10
Legal Information 10


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This document describes the features, issues, and deployment guidelines for Cisco Nexus Dashboard Orchestrator software.

Cisco Multi-Site is an architecture that allows you to interconnect separate Cisco APIC, Cloud Network Controller (formerly known as Cloud APIC), and NDFC (formerly known as DCNM) domains (fabrics) each representing a different region. This helps ensure multitenant Layer 2 and Layer 3 network connectivity across sites and extends the policy domain end-to-end across the entire system.

Cisco Nexus Dashboard Orchestrator is the intersite policy manager. It provides single-pane management that enables you to monitor the health of all the interconnected sites. It also allows you to centrally define the intersite configurations and policies that can then be pushed to the different Cisco APIC, Cloud Network Controller, or DCNM fabrics, which in term deploy them in those fabrics. This provides a high degree of control over when and where to deploy the configurations.

For more information, see the “Related Content” section of this document.

Note: The documentation set for this product strives to use bias-free language. For the purposes of this documentation set, bias-free is defined as language that does not imply discrimination based on age, disability, gender, racial identity, ethnic identity, sexual orientation, socioeconomic status, and intersectionality. Exceptions may be present in the documentation due to language that is hardcoded in the user interfaces of the product software, language used based on RFP documentation, or language that is used by a referenced third-party product.

| Date | Description |
|---|---|
| April 08, 2024 | Additional open issues CSCwi49818, CSCwi65902, CSCwi81092, and CSCwi76522. |
| April 08, 2024 | Additional resolved issue CSCwh05918.<br>This issue was resolved in the 4.2(1) release but previously unlisted. |
| March 13, 2024 | Additional known issue CSCwi35916. |
| December 20, 2023 | Updated the “Changes in Behavior” section:<br>If you upgrade to this release from a release prior to 4.0(1), existing schemas’ IDs may change. If you are using any API automation that relies on static Schema IDs, we recommend dynamically obtaining the IDs before executing any action against the Schemas. |
| September 19, 2023 | Release 4.2(1e) became available.<br>Additional open issue CSCwh40466 in the 4.2(1d) release, which is resolved in 4.2(1e). |
| August 22, 2023 | Release 4.2(1d) became available. |

## New Software Features

This release adds the following new features:

| Product Impact | Feature | Description |
|---|---|---|
| Base functionality | New service chaining configuration workflows | This release adds support for the following additional workflows:<br>• Adding L4-L7 service devices<br>• L1/L2/L3 PBR feature policies<br>• Leverage the new service chaining configuration workflow to enable North- |

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| Product Impact | Feature | Description |
|---|---|---|
| | | South and East-West L4-L7 PBR for Multi-Site and autonomous fabrics |
| | Support for new PBR use cases for Multi-Site (beta) | This release allows you to enable the following new use cases for policy-based redirect (PBR) with Multi-Site:<br>• vzAny and PBR for any-to-any communication<br>• vzAny and PBR for many-to-one communication<br>• Inter-site transit routing (L3Out-to-L3Out) with PBR |
| | Support for new application template object properties | The following additional template object properties can now be configured directly from Nexus Dashboard Orchestrator for ACI fabrics:<br>• Annotations for template objects<br>• EPG admin state<br>• VMM Domain customized delimiter, port bindings, NetFlow, MAC address changes, forged transmits, promiscuous mode,<br>• Intra EPG contracts<br>• Bridge Domain (BD) endpoint (EP) move detection mode<br>• VRF BD enforcement status<br>• External EPG QoS class and subnet name |
| | Additional NDO-NDFC integration enhancements | The following additional object properties can now be configured directly from Nexus Dashboard Orchestrator for NDFC fabrics:<br>• BGP general settings<br>• BGP advanced settings<br>• RS redistribute direct<br>• RS Route tags |
| Ease of Use | UI look-and-feel improvements | This release adds product GUI improvements, including a new operations overview page and journey map. |

## New Hardware Features

There is no new hardware supported in this release.

The complete list of supported hardware is available in the “Deploying Nexus Dashboard Orchestrator” chapter of the Cisco Multi-Site Deployment Guide.

## Changes in Behavior

- For all new deployments, we recommend deploying Nexus Dashboard Orchestrator service in Nexus Dashboard 3.0(1) or later.
- If you upgrade to this release from a release prior to 4.0(1) and have template versioning enabled, only the latest versions of the templates are preserved during the upgrade.

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All other existing versions of templates, including older versions that are tagged Golden, will not be transferred during the upgrade.

- If you upgrade to this release from a release prior to 4.0(1), existing schemas' IDs may change.

  If you are using any API automation that relies on static Schema IDs, we recommend dynamically obtaining the IDs before executing any action against the Schemas.

- Downgrading from this release is not supported.

  We recommend creating a full backup of the configuration before upgrading, so that if you ever want to downgrade, you can deploy a brand-new cluster using an earlier version and then restore your configuration in it.

- Note that CloudSec encryption for intersite traffic will be deprecated in a future release.

  We recommend not enabling (if currently disabled) or disabling (if currently enabled) this feature for your ACI Multi-Site deployments.

- Beginning with Release 4.0(1), the "Application Profiles per Schema" scale limit has been removed.

  For the full list of maximum verified scale limits, see the Nexus Dashboard Orchestrator Verified Scalability Guide.

- Beginning with Release 4.0(1), if you have route leaking configured for a VRF, you must delete those configurations before you delete the VRF or undeploy the template containing that VRF.

- Beginning with Release 4.0(1), if you are configuring EPG Preferred Group (PG), you must explicitly enable PG on the VRF.

  In prior releases, enabling PG on an EPG automatically enabled the configuration on the associated VRF. For detailed information on configuring PG in Nexus Dashboard Orchestrator, see the "EPG Preferred Group" chapter of the Cisco Nexus Dashboard Orchestrator Configuration Guide for ACI Fabrics.

- When deploying a subset of template policies, such as after a configuration change or update, the deployment time has been significantly improved.

## Open Issues

This section lists the 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 lists the specific releases in which the bug exists.

| Bug ID | Description | Exists in |
|---|---|---|
| CSCwh40466 | In some cases, route redirect is not enabled on service nodes of a graph. | 4.2(1d) |
| | | |
| CSCvo84218 | When service graphs or devices are created on Cloud APIC by using the API and custom names are specified for AbsTermNodeProv and AbsTermNodeCons, a brownfield import to the Nexus Dashboard Orchestrator will fail. | 4.2(1d) and later |
| CSCvo20029 | Contract is not created between shadow EPG and on-premises EPG when shared service is configured between Tenants. | 4.2(1d) and later |

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| Bug ID | Description | Exists in |
|---|---|---|
| CSCvn98355 | Inter-site shared service between VRF instances across different tenants will not work, unless the tenant is stretched explicitly to the cloud site with the correct provider credentials. That is, there will be no implicit tenant stretch by Nexus Dashboard Orchestrator. | 4.2(1d) and later |
| CSCvt06351 | Deployment window may not show all the service graph related config values that have been modified. | 4.2(1d) and later |
| CSCvt00663 | Deployment window may not show all the cloud related config values that have been modified. | 4.2(1d) and later |
| CSCvt41911 | After brownfield import, the BD subnets are present in site local and not in the common template config | 4.2(1d) and later |
| CSCvt44081 | In shared services use case, if one VRF has preferred group enabled EPGs and another VRF has vzAny contracts, traffic drop is seen. | 4.2(1d) and later |
| CSCvt02480 | The REST API call " /api/v1/execute/schema/5e43523f1100007b012b0fcd/template/Template_11?undeploy=all" can fail if the template being deployed has a large object count | 4.2(1d) and later |
| CSCvt15312 | Shared service traffic drops from external EPG to EPG in case of EPG provider and L3Out vzAny consumer | 4.2(1d) and later |
| CSCvw10432 | Two cloud sites (with Private IP for CSRs) with the same InfraVNETPool on both sites can be added to NDO without any infraVNETPool validation. | 4.2(1d) and later |
| CSCvy36810 | Multiple Peering connections created for 2 set of cloud sites. | 4.2(1d) and later |
| CSCvz77156 | Route leak configuration for invalid Subnet may get accepted when Internal VRF is the hosted VRF. There would be fault raised in cAPIC. | 4.2(1d) and later |
| CSCwa37204 | Username and password is not set properly in proxy configuration so a component in the container cannot connect properly to any site.<br>In addition, external module pyaci is not handling the web socket configuration properly when user and password are provided for proxy configuration. | 4.2(1d) and later |
| CSCwh35241 | Fabric policies, fabric resources, and monitoring templates fail to deploy with an " APIC not reachable" error. | 4.2(1d) and later |
| CSCwi49818 | When using any 4.2.x APIC version combined with NDO 4.2.x you will see " Fabric Interconnect Not OK" at the Nexus Dashboard Orchestrator overview page.<br>BGP connectivity will also show as down on the Overview page, however in the spines we will see that L2vpn EVPN BGP is working, stable and exchanging routes correctly. | 4.2(1d) and later |
| CSCwi65902 | There is a false Config-Drift notification on the NDO about ALL Fabric Resource Policy objects.<br>Deploying the Fabric Resource Policy template will remove the Config-Drift notification. After two days, the Config-Drift notification reappears about the Fabric Resource Policy template even though nothing was changed on the APIC. | 4.2(1d) and later |
| CSCwi81092 | When redeploying configuration from NDO the " Pim check box" becomes disabled at the local site where the redeploy was initiated. | 4.2(1d) and later |

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| Bug ID | Description | Exists in |
|---|---|---|
| CSCwi76522 | After migrating some object (such as a BD) from site local template to stretched template and then add a new object to that site local template, trying to deploy it may result in the following error:<br>Template deployment failed: this is a stretch object migration case. Please deploy the target template ZZZZ in schema XXXXX first. | 4.2(3e) |

## Resolved Issues

This section lists the resolved issues. Click the bug ID to access the Bug Search tool and see additional information about the issue. The "Fixed In" column of the table specifies whether the bug was resolved in the base release or a patch release.

| Bug ID | Description | Fixed in |
|---|---|---|
| CSCwa20994 | When downloading external device configuration in Site Connectivity page, all config template files are included instead of only the External Device Config template. | 4.2(1d) |
| CSCwa23744 | Sometimes during deploy, you may see the following error:<br>invalid configuration CT_IPSEC_TUNNEL_POOL_NAME_NOT_DEFINED | 4.2(1d) |
| CSCwf95524 | In some cases, route redirect is not enabled on service nodes of a graph. | 4.2(1d) |
| CSCwh05918 | When creating application profiles via a template deployment, some of the sites will have application profiles marked as a shadow object, incorrectly. | 4.2(1d) |
| | | |
| CSCwh40466 | In some cases, route redirect is not enabled on service nodes of a graph. | 4.2(1e) |

## Known Issues

This section lists known behaviors. Click the Bug ID to access the Bug Search Tool and see additional information about the issue.

| Bug ID | Description |
|---|---|
| CSCvv67993 | NDO will not update or delete VRF vzAny configuration which was directly created on APIC even though the VRF is managed by NDO. |
| CSCvo82001 | Unable to download Nexus Dashboard Orchestrator report and debug logs when database and server logs are selected |
| CSCvn90706 | For hybrid cloud deployments, no validation is available for shared services scenarios |
| CSCvi61260 | If an infra L3Out that is being managed by Cisco Multi-Site is modified locally in a Cisco APIC, Cisco Multi-Site might delete the objects not managed by Cisco Multi-Site in the Infra L3Out. |
| CSCvq07769 | "Phone Number" field is required in all releases prior to Release 2.2(1). Users with no phone number specified in Release 2.2(1) or later will not be able to log in to the GUI when Orchestrator is downgraded to an earlier release. |

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| Bug ID | Description |
|---|---|
| CSCvu71584 | Routes are not programmed on CSR and the contract config is not pushed to the Cloud site. |
| CSCvw47022 | Shadow of cloud VRF may be unexpectedly created or deleted on the on-premises site. |
| CSCvt47568 | Let's say APIC has EPGs with some contract relationships. If this EPG and the relationships are imported into NDO and then the relationship was removed and deployed to APIC, NDO doesn't delete the contract relationship on the APIC. |
| CSCwa31774 | When creating VRFs in infra tenant on a Google Cloud site, you may see them classified as internal VRF in NDO. If you then import these VRFs in NDO, the allowed routeleak configuration will be determined based on whether the VRF is used for external connectivity (external VRF) or not (internal VRF).<br>This is because on cAPIC, VRFs in infra tenant can fall into 3 categories: internal, external and un-decided.<br>NDO treats infra tenant VRFs as 2 categories for simplicity: internal and external.<br>There is no usecase impacted because of this. |
| CSCwa47934 | Removing site connectivity or changing the protocol is not allowed between two sites. |
| CSCwa52287 | Template goes to approved state when the number of approvals is fewer than the required number of approvers. |
| CSCvy31532 | After a site is re-registered, NDO may have connectivity issues with APIC or CAPIC |
| CSCwc62636 | If cloud sites have EVPN-based connectivity with another cloud or on-premises site, then contract-based routing must be enabled for intersite traffic to work. |
| CSCwc59208 | When APIC-owned L3Outs are deleted manually on APIC by the user, stretched and shadow InstP belonging to the L3Outs get deleted as expected. However, when deploying the template from NDO, only the stretched InstPs detected in config drift will get deployed. |
| CSCvz07639 | NSG rules on Cloud EPG are removed right after applying service graph between Cloud EPG and on-premises EPG, which breaks communication between Cloud and on-premises. |
| CSCwa26712 | Existing IPSec tunnel state may be affected after update of connectivity configuration with external device. |
| CSCwa40878 | User can not withdraw the hubnetwork from a region if intersite connectivity is deployed. |
| CSCwa17852 | BGP sessions from Google Cloud site to AWS/Azure site may be down due to CSRs being configured with a wrong ASN number. |
| CSCwi35916 | After an upgrade to NDO 4.2.1 or later, the orchestrator raises configuration drifts that are not automatically reconciled, associated to the configuration objects for Service Devices and Service Graphs. |

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## Compatibility

This release supports the hardware listed in the “Prerequisites” section of the Cisco Nexus Dashboard Orchestrator Deployment Guide.

This release supports Nexus Dashboard Orchestrator deployments in Cisco Nexus Dashboard only.

Cisco Nexus Dashboard Orchestrator can be cohosted with other services in the same cluster. For cluster sizing guidelines, see the Nexus Dashboard Cluster Sizing tool.

Cisco Nexus Dashboard Orchestrator can manage fabrics managed by a variety of controller versions. For fabric compatibility information see the Nexus Dashboard and Services Compatibility Matrix.

## Scalability

For Nexus Dashboard Orchestrator verified scalability limits, see Cisco Nexus Dashboard Orchestrator Verified Scalability Guide.

For Cisco ACI fabrics verified scalability limits, see Cisco ACI Verified Scalability Guides.

For Cisco NDFC (DCNM) fabrics verified scalability limits, see Cisco NDFC (DCNM) Verified Scalability Guides.

## Related Content

For ACI fabrics, see the Cisco Application Policy Infrastructure Controller (APIC) documentation page. On that page, you can use the " Choose a topic" and " Choose a document type” fields to narrow down the displayed documentation list and find a specific document.

For Cloud Network Controller fabrics, see the Cisco Cloud Network Controller documentation page.

For NDFC (DCNM) fabrics, see the Cisco Nexus Dashboard Fabric Controller documentation page.

The following table describes the core Nexus Dashboard Orchestrator documentation.

| Document | Description |
|---|---|
| Cisco Nexus Dashboard Orchestrator Release Notes | Provides release information for the Cisco Nexus Dashboard Orchestrator product. |
| Nexus Dashboard Capacity Planning | Provides cluster sizing guidelines based on the type and number of services you plan to run in your Nexus Dashboard as well as the target fabrics' sizes. |
| Nexus Dashboard and Services Compatibility Matrix | Provides Cisco Nexus Dashboard and Services compatibility information for specific Cisco Nexus Dashboard, services, and fabric versions. |
| Cisco Nexus Dashboard Orchestrator Deployment Guide | Describes how to install Cisco Nexus Dashboard Orchestrator and perform day-0 operations. |
| Cisco Nexus Dashboard Orchestrator Configuration Guide for ACI Fabrics | Describes Cisco Nexus Dashboard Orchestrator configuration options and procedures for fabrics managed by Cisco APIC. |

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| Document | Description |
| --- | --- |
| Cisco Nexus Dashboard Orchestrator Configuration Guide for NDFC (DCNM) Fabrics | Describes Cisco Nexus Dashboard Orchestrator configuration options and procedures for fabrics managed by Cisco DCNM. |
| Cisco Nexus Dashboard Orchestrator Verified Scalability Guide | Contains the maximum verified scalability limits for this release of Cisco Nexus Dashboard Orchestrator. |
| Cisco ACI Verified Scalability Guides | Contains the maximum verified scalability limits for Cisco ACI fabrics. |
| Cisco NDFC (DCNM) Verified Scalability Guides | Contains the maximum verified scalability limits for Cisco NDFC (DCNM) fabrics. |
| Cisco ACI YouTube channel | Contains videos that demonstrate how to perform specific tasks in the Cisco Nexus Dashboard Orchestrator. |

## Documentation Feedback

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

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