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# Cisco Nexus Dashboard Orchestrator Release Notes, Release 4.2(2)

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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.   |
| March 21, 2024    | Additional open issue CSCwi65902.  |
| 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<br>change. If you are using any API automation that relies on static Schema IDs, we recommend<br>dynamically obtaining the IDs before executing any action against the Schemas. |
| October 30, 2023  | Release 4.2(2e) became available.  |

#### **New Software Features**

This release adds the following new features:

| Product Impact     | Feature                               | Description   |
|--------------------|---------------------------------------|---|
| Base functionality | Configuring Per<br>Subnet Route Table | This Release supports per segment UDR allowing intra-VNET and firewall redirection. This feature is only supported on Microsoft Azure Cloud service provider. |
|                    |                                       | For more information, see <u>Configuring Per Subnet Route Table For Azure</u><br><u>Cloud Using Nexus Dashboard Orchestrator</u> .                            |

| Product Impact | Feature   | Description  |
|----------------|---|--|
|                | Configuring Multiple<br>VPC/VNET for VRF<br>per Region using<br>NDO | <ul> <li>This Release supports ability to configure multiple VPC/VNETs within one VRF inside a region to enable automatic route propagation across all the VPC/VNETs grouped under one VRF. This feature is only available on:</li> <li>Amazon Web Services (AWS)</li> <li>Microsoft Azure</li> <li>For more information, see <u>Configuring Multiple VPCs/VNets for VRF per Region Using Nexus Dashboard Orchestrator</u>.</li> </ul> |

#### 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 <u>Cisco Multi-Site Deployment Guide</u>.

#### 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.

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 <u>Nexus Dashboard Orchestrator Verified</u> <u>Scalability Guide</u>.

• 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 <u>Cisco Nexus Dashboard Orchestrator Configuration Guide for ACI Fabrics</u>.

• 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            |
|-------------------|---|----------------------|
| 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(2e) and<br>later |
| <u>CSCvo20029</u> | Contract is not created between shadow EPG and on-premises EPG when shared service is configured between Tenants.   | 4.2(2e) and<br>later |
| <u>CSCvn98355</u> | 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(2e) and<br>later |
| CSCvt06351        | Sometimes during deploy, you may see the following error:<br>invalid configuration CT_IPSEC_TUNNEL_POOL_NAME_NOT_DEFINED  | 4.2(2e)              |
| CSCvt00663        | Deployment window may not show all the cloud related config values that have been modified.   | 4.2(2e) and<br>later |
| <u>CSCvt41911</u> | After brownfield import, the BD subnets are present in site local and not in the common template config   | 4.2(2e) and<br>later |
| <u>CSCvt44081</u> | 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(2e) and<br>later |
| <u>CSCvt02480</u> | The REST API call<br>"/api/v1/execute/schema/5e43523f1100007b012b0fcd/template/Template_11?undeploy=all"<br>can fail if the template being deployed has a large object count  | 4.2(2e) and<br>later |
| CSCvt15312        | Shared service traffic drops from external EPG to EPG in case of EPG provider and L3Out vzAny consumer  | 4.2(2e) and<br>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(2e) and<br>later |
| <u>CSCvy36810</u> | Multiple Peering connections created for 2 set of cloud sites.  | 4.2(2e) and<br>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(2e) and<br>later |

| Bug ID            | Description  | Exists in            |
|-------------------|--|----------------------|
| <u>CSCwa37204</u> | 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(2e) and<br>later |
| <u>CSCwi65902</u> | 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<br>two days, the Config-Drift notification reappears about the Fabric Resource Policy template<br>even though nothing was changed on the APIC.       | 4.2(2e) and<br>later |
| <u>CSCwi49818</u> | 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(2e) and<br>later |
| <u>CSCwi65902</u> | 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<br>two days, the Config-Drift notification reappears about the Fabric Resource Policy template<br>even though nothing was changed on the APIC.       | 4.2(2e) and<br>later |
| CSCwi81092        | When redeploying configuration from NDO the "Pim check box" becomes disabled at the local site where the redeploy was initiated.   | 4.2(2e) and<br>later |
| CSCwi76522        | After migrating some object (such as a BD) from site local template to stretched template and<br>then add a new object to that site local template, trying to deploy it may result in the following<br>error:<br>Template deployment failed: this is a stretch object migration case. Please deploy the target<br>template ZZZZ in schema XXXXX first. | 4.2(2e) and<br>later |

# **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 |
|------------|---|----------|
| CSCwh35241 | In some cases, route redirect is not enabled on service nodes of a graph. | 4.2(2e)  |

#### **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   |
|-------------------|---|
| <u>CSCvv67993</u> | 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                |

| Bug ID            | Description  |
|-------------------|--|
| <u>CSCvn90706</u> | For hybrid cloud deployments, no validation is available for shared services scenarios   |
| <u>CSCvi61260</u> | If an infra L3Out that is being managed by Cisco Multi-Site is modified locally<br>in a Cisco APIC, Cisco Multi-Site might delete the objects not managed by<br>Cisco Multi-Site in the Infra L3Out.   |
| <u>CSCvq07769</u> | "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.   |
| <u>CSCvu71584</u> | Routes are not programmed on CSR and the contract config is not pushed to the Cloud site.  |
| <u>CSCvw47022</u> | Shadow of cloud VRF may be unexpectedly created or deleted on the on-<br>premises site.  |
| <u>CSCvt47568</u> | 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.  |
| <u>CSCwa31774</u> | 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). |
|                   | This is because on cAPIC, VRFs in infra tenant can fall into 3 categories: internal, external and un-decided.  |
|                   | 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.  |
| <u>CSCwa52287</u> | 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   |
| <u>CSCwc62636</u> | 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.   |
| <u>CSCwc59208</u> | When APIC-owned L3Outs are deleted manually on APIC by the user,<br>stretched and shadow InstP belonging to the L3Outs get deleted as expected.<br>However, when deploying the template from NDO, only the stretched InstPs<br>detected in config drift will get deployed.                                   |
| <u>CSCvz07639</u> | NSG rules on Cloud EPG are removed right after applying service graph<br>between Cloud EPG and on-premises EPG, which breaks communication<br>between Cloud and on-premises.   |
| CSCwa26712        | Existing IPSec tunnel state may be affected after update of connectivity configuration with external device.   |

| Bug ID            | Description   |
|-------------------|---|
| <u>CSCwa40878</u> | User can not withdraw the hubnetwork from a region if intersite connectivity is deployed.   |
| <u>CSCwa17852</u> | BGP sessions from Google Cloud site to AWS/Azure site may be down due to CSRs being configured with a wrong ASN number.   |
| <u>CSCwi35916</u> | 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. |

# Compatibility

This release supports the hardware listed in the "Prerequisites" section of the <u>Cisco Nexus Dashboard</u> <u>Orchestrator Deployment Guide</u>.

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 <u>Nexus Dashboard Cluster Sizing tool</u>.

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

# Scalability

For Nexus Dashboard Orchestrator verified scalability limits, see <u>Cisco Nexus Dashboard Orchestrator</u> <u>Verified Scalability Guide</u>.

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

For Cisco Cloud ACI fabrics releases 25.0(1) and later verified scalability limits, see <u>Cisco Cloud Network</u> <u>Controller Verified Scalability Guides</u>.

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

# Related Content

For ACI fabrics, see the <u>Cisco Application Policy Infrastructure Controller (APIC)</u> 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 <u>Cisco Cloud Network Controller</u> documentation page.

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

The following table describes the core Nexus Dashboard Orchestrator documentation.

| Document                   | Description  |
|----------------------------|--|
| Cisco Nexus Dashboard      | Provides release information for the Cisco Nexus Dashboard |
| Orchestrator Release Notes | Orchestrator product.                                      |

| Document  | Description  |
|---|--|
| Nexus Dashboard Capacity Planning   | Provides cluster sizing guidelines based on the type and number<br>of services you plan to run in your Nexus Dashboard as well as<br>the target fabrics' sizes.          |
| Nexus Dashboard and Services<br>Compatibility Matrix  | Provides Cisco Nexus Dashboard and Services compatibility<br>information for specific Cisco Nexus Dashboard, services, and<br>fabric versions.                           |
| <u>Cisco Nexus Dashboard</u><br><u>Orchestrator Deployment Guide</u>                              | Describes how to install Cisco Nexus Dashboard Orchestrator and perform day-0 operations.  |
| <u>Cisco Nexus Dashboard</u><br><u>Orchestrator Configuration Guide for</u><br><u>ACI Fabrics</u> | Describes Cisco Nexus Dashboard Orchestrator configuration options and procedures for fabrics managed by Cisco APIC.   |
| <u>Cisco Nexus Dashboard</u><br>Orchestrator Use Cases for Cloud<br>Network Controller            | A series of documents that describe Cisco Nexus Dashboard<br>Orchestrator configuration options and procedures for fabrics<br>managed by Cisco Cloud Network Controller. |
| <u>Cisco Nexus Dashboard</u><br>Orchestrator Configuration Guide for<br>NDFC (DCNM) Fabrics       | Describes Cisco Nexus Dashboard Orchestrator configuration options and procedures for fabrics managed by Cisco DCNM.   |
| <u>Cisco Nexus Dashboard</u><br><u>Orchestrator Verified Scalability</u><br><u>Guide</u>          | 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.  |
| <u>Cisco Cloud ACI Verified Scalability</u><br><u>Guides</u>                                      | Contains the maximum verified scalability limits for Cisco Cloud ACI fabrics.  |
| <u>Cisco NDFC (DCNM) Verified</u><br><u>Scalability Guides</u>                                    | 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 <u>apic-docfeedback@cisco.com</u>. We appreciate your feedback.

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