



Cisco Nexus Dashboard Release Notes, Release 2.2(1)

Contents

| | |
|-----------------------------|----|
| New Software Features | 3 |
| Changes in Behavior | 4 |
| Open Issues | 4 |
| Resolved Issues | 5 |
| Known Issues | 7 |
| Compatibility | 8 |
| Verified Scalability Limits | 8 |
| Related Content | 9 |
| Documentation Feedback | 9 |
| Legal Information | 10 |

Cisco Nexus Dashboard is the next generation of the Application Services Engine and provides a common platform for deploying Cisco Data Center applications. These applications provide real time analytics, visibility, and assurance for policy and infrastructure.

This document describes the features, issues, and limitations for the Cisco Nexus Dashboard software.

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 |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| September 12, 2023 | Additional open issue CSCwh23260. |
| March 23, 2023 | Updated the “Verified Scalability Limits” section with an additional 9-node virtual (ESX) cluster profile. This profile has been supported since release 2.2(1e). |
| March 22, 2023 | Additional known issue CSCwb31373. |
| March 13, 2023 | Updated the recommended CIMC version to 4.2(3b). |
| September 15, 2022 | Updated “Sites per cluster” scale in the “Verified Scalability Limits” section. |
| August 17, 2022 | Removed CSCvw52468 and CSCvy33462 from the “Known Issues” section, because they are not applicable for this release. |
| August 1, 2022 | Updated the recommended CIMC version to 4.2(2a). |
| June 6, 2022 | Release 2.2(1h) became available. |
| May 8, 2022 | Release 2.2(1e) became available. |

New Software Features

This release adds the following new features:

| Feature | Description |
|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Support for Nexus Dashboard cluster deployment in Red Hat Enterprise Linux* *Requires release 2.2(1h) or later | You can now deploy your Nexus Dashboard cluster in existing Red Hat Enterprise Linux systems. For more information about deploying a cluster, see Cisco Nexus Dashboard Deployment Guide . |
| Support for Persistent IP functionality across different Layer 3 domains | This release adds support for persistent IP addresses for services that require to retain the same IP addresses if it is relocated to a different Nexus Dashboard node across different Layer 3 networks. For more information, see Cisco Nexus Dashboard User Guide . |

| Feature | Description |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ability to export Kafka logs to an external monitoring and management system | You can configure your cluster to export all platform-level, infrastructure-level, and service-level events to external monitoring and management systems. For more information, see Cisco Nexus Dashboard User Guide . |
| Simplification of services' deployment profiles using pre-defined target fabric scale | Services' resource profile selection has been simplified using a number of more intuitive parameters, such as number of switches or flows, directly related to your deployment use case. For more information, see Cisco Nexus Dashboard User Guide . |

Changes in Behavior

If you are installing or upgrading to this release, you must consider the following:

- Service deployment profiles have been replaced with Network Scale settings.

Resource profile selection has been reduced to a number of more intuitive parameters directly related to your deployment use case. These parameters, such as number of switches or flows, describe the fabric size and use case intent and allow the cluster to intelligently determine the resources needed for the service. The parameters are categorized as "Network Scale" and must be provided prior to service deployment, as described in the [Cisco Nexus Dashboard User Guide](#).

- The primary cluster, which you use to establish multi-cluster connectivity, must be running the same or later release of Nexus Dashboard as any other cluster in the group.

In other words, you cannot connect a Nexus Dashboard cluster running release 2.2(1) from a primary cluster that is running release 2.1(1).

If you are upgrading multiple clusters that are connected together, you must upgrade the primary cluster first.

- If you have Nexus Dashboard Insights service installed in your cluster, you must disable it before upgrading to Nexus Dashboard, Release 2.2(1) and re-enable it after the upgrade completes successfully.
- After upgrading to Release 2.2(1), we recommend upgrading all the services to their latest versions.
- After upgrading to Release 2.2(1), the main pane of the UI may display a blank page with only the top navigation bar visible. To resolve this issue, simply refresh the page.
- Downgrading from Release 2.2(1) is not supported.

Open Issues

This section lists the open issues. Click the bug ID to access the Bug Search Tool and see additional information about the issue. The "Exists In" column of the table specifies the releases in which the issue exists.

| Bug ID | Description | Exists in |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| CSCvx93124 | You see a message like: <pre>[2021-04-13 13:48:20,170] ERROR Error while appending records to stats-6 in dir /data/services/kafka/data/0 (kafka.server.LogDirFailureChannel)</pre> <pre>java.io.IOException: No space left on device</pre> | 2.2(1e) and later |
| CSCwb31364 | The UI login screen may show older ND version, even though ND upgrade is completed successfully. The "Firmware Management" page will report that all nodes have completed upgrade successfully. | 2.2(1e) and later |
| CSCwb41778 | Making network connections via ssh/scp or other utilities from the command line as rescue-user may not work if the remote host's address is given using a DNS name. | 2.2(1e) and later |
| CSCwb42508 | There may be pods which are stuck in pending state because the node which just became a Master is unable to schedule workloads. The "kubectl get pods -A -o wide grep Pending" command will show may pods in pending state. | 2.2(1e) and later |
| CSCwb45970 | While there are many different ways a pod can get into terminating, this is a very specific scenario. PLEASE DO ATTEMPT WORKAROUND if you cannot confirm that this is exact scenario: <ul style="list-style-type: none"> - A node was powered off for 5+ hours and then powered back on. - "kubectl get pods -A -o wide grep -v Running" reports a lot of pods on this node as Terminating even after waiting for multiple hours | 2.2(1e) and later |
| CSCwb28144 | External Services IPs used by NDFC for following cases may not work <ol style="list-style-type: none"> 1. Syslog Trap IP 2. POAP IP for tftp/http/scp from switch. 3. End point locator IPs for NDFC GO-BGP connectivity 4. IPFM Telemetry IPs for Streaming telemetry 5. SAN Insights Telemetry Receiver IPs for SAN Analytics telemetry | 2.2(1e) and later |
| CSCwh23260 | The pods in event manager namespace are crashing or are not in ready state | 2.2(1e) and 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 | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|---------|-------------|-----|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|-------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-------------|----------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------|---------|
| CSCvy82547 | <p>To do upgrade ND, you need to:</p> <ol style="list-style-type: none"> 1. Disable the installed apps, and 2. Validate health of the cluster before proceeding with upgrade of the a node (using acs health) <p>Otherwise, you can end up in situations where some kafka topics will have no leader.</p> | 2.2(1e) | | | | | | | | | | | | | | | | | | | | | | | | | |
| CSCvy97888 | Unable to delete a security domain from site edit page. | 2.2(1e) | | | | | | | | | | | | | | | | | | | | | | | | | |
| CSCvz42210 | After completing 2-node RMA procedure, new nodes' serial numbers are overwritten with old nodes' serial numbers, causing cluster to become unhealthy. | 2.2(1e) | | | | | | | | | | | | | | | | | | | | | | | | | |
| CSCvz50040 | <p>"kubectl get pods -A" reports a pod in "ContainerCreating" state.</p> <p>-----</p> <pre>nodemgr pod/nodeagent-tbh29 0/1 ContainerCreating 0 84m <none> ute11-nd3 <none> <none></pre> <p>"kubectl describe pod/nodeagent-tbh29 -n nodemgr", will have Events that look like:</p> <p>-----</p> <p>Events:</p> <table border="1"> <thead> <tr> <th>Type</th> <th>Reason</th> <th>Age</th> <th>From</th> <th>Message</th> </tr> </thead> <tbody> <tr> <td>Warning</td> <td>FailedMount</td> <td>52m</td> <td>kubelet, ute11-nd3</td> <td>Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[network-config localdb system-version default-token-h5npm config kms logs cloud-config]:</td> </tr> <tr> <td>Warning</td> <td>FailedMount</td> <td>27m (x2 over 72m)</td> <td>kubelet, ute11-nd3</td> <td>Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[kms logs cloud-config network-config localdb system-version default-token-h5npm config]:</td> </tr> <tr> <td>Warning</td> <td>FailedMount</td> <td>22m (x4 over 81m)</td> <td>kubelet, ute11-nd3</td> <td>Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[default-token-h5npm config kms logs cloud-config network-config localdb system-version]:</td> </tr> <tr> <td>Warning</td> <td>FailedMount</td> <td>8m13s (x44 over 83m)</td> <td>kubelet, ute11-nd3</td> <td>MountVolume.SetUp failed for volume "nodemgr-log-nodemgr" : mount command failed, status: Failure, reason: exit status 32</td> </tr> </tbody> </table> <p>Keywords to look for here are:</p> <ul style="list-style-type: none"> - unmounted volumes=[logs] - MountVolume.SetUp failed for volume "nodemgr-log-nodemgr" | Type | Reason | Age | From | Message | Warning | FailedMount | 52m | kubelet, ute11-nd3 | Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[network-config localdb system-version default-token-h5npm config kms logs cloud-config]: | Warning | FailedMount | 27m (x2 over 72m) | kubelet, ute11-nd3 | Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[kms logs cloud-config network-config localdb system-version default-token-h5npm config]: | Warning | FailedMount | 22m (x4 over 81m) | kubelet, ute11-nd3 | Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[default-token-h5npm config kms logs cloud-config network-config localdb system-version]: | Warning | FailedMount | 8m13s (x44 over 83m) | kubelet, ute11-nd3 | MountVolume.SetUp failed for volume "nodemgr-log-nodemgr" : mount command failed, status: Failure, reason: exit status 32 | 2.2(1e) |
| Type | Reason | Age | From | Message | | | | | | | | | | | | | | | | | | | | | | | |
| Warning | FailedMount | 52m | kubelet, ute11-nd3 | Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[network-config localdb system-version default-token-h5npm config kms logs cloud-config]: | | | | | | | | | | | | | | | | | | | | | | | |
| Warning | FailedMount | 27m (x2 over 72m) | kubelet, ute11-nd3 | Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[kms logs cloud-config network-config localdb system-version default-token-h5npm config]: | | | | | | | | | | | | | | | | | | | | | | | |
| Warning | FailedMount | 22m (x4 over 81m) | kubelet, ute11-nd3 | Unable to attach or mount volumes: unmounted volumes=[logs], unattached volumes=[default-token-h5npm config kms logs cloud-config network-config localdb system-version]: | | | | | | | | | | | | | | | | | | | | | | | |
| Warning | FailedMount | 8m13s (x44 over 83m) | kubelet, ute11-nd3 | MountVolume.SetUp failed for volume "nodemgr-log-nodemgr" : mount command failed, status: Failure, reason: exit status 32 | | | | | | | | | | | | | | | | | | | | | | | |
| CSCvz64288 | <p>Upgrade from 2.0.2h to 2.1 fails with the following message:</p> <pre>install/1-atomix-install atomix extract failed</pre> <p>This indicates that the 2.1 ISO was not copied completely across all nodes, and there was an IO error while trying to copy files from that ISO.</p> | 2.2(1e) | | | | | | | | | | | | | | | | | | | | | | | | | |

| Bug ID | Description | Fixed in |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| CSCwb18594 | <p>When trying to add a site into Nexus Dashboard, if the password has an '&' the addition of the site fails and stays in an unknown state. With the following error message:</p> <pre>" Site not available, Verify input:Response error:401 Unauthorized {"totalCount":1,"imdata":[{"error":{"attributes":{"code":"401","text":"User credential is incorrect - FAILED local authentication"}}}]}"</pre> | 2.2(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 |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CSCvy62110 | For Nexus Dashboard nodes connected to Catalyst switches packets are tagged with vlan0 even though no VLAN is specified. This causes no reachability over the data network. In this case, 'switchport voice vlan dot1p' command must be added to the switch interfaces where the nodes are connected. |
| CSCvw39822 | On power cycle system lvm initialization may fail on due to a slowness in the disks. |
| CSCvw48448 | Upgrade fails and cluster is in diverged state with one or more nodes on the target version. |
| CSCvw57953 | When the system is being recovered with a clean reboot of all nodes, the admin login password will be reset to the day0 password that is entered during the bootstrap of the cluster. |
| CSCvw70476 | When bringing up ND cluster first time, all three master nodes need to join Kafka cluster before any master node can be rebooted. Failing to do so, 2 node cluster doesn't become healthy as Kafka cluster requires 3 nodes to be in Kafka cluster first time. |
| CSCvx89368 | <p>After ND upgrade, there will be still pods belonging to the older version running on the cluster. For example, in this case upgrade was from 2.0.1.27 to 2.0.1.36.</p> <p>After the upgrade, running following command gives:</p> <pre>node1# kubectl get pods -n kube-system -o yaml grep image: grep 2.0.1.27 image: infra/ui:nd-2.0.1.27-e881b96b5 image: infra/ui:nd-2.0.1.27-e881b96b5 image: infra/ui:nd-2.0.1.27-e881b96b5 image: infra/ui:nd-2.0.1.27-e881b96b5 image: infra/ui:nd-2.0.1.27-e881b96b5 image: infra/ui:nd-2.0.1.27-e881b96b5</pre> <p>node1# acs version Nexus Dashboard 2.0.1.36</p> <p>Clearly the ND nodes have completed upgrade, but some services are showing older version.</p> |
| CSCvx98282 | Pods in pending state for a long period upon restart. These pods are usually stateful sets that require specific node placement and capacity must be available on the specific node they are first scheduled. |

| Bug ID | Description |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | This happens when multiple applications are installed on the same ND cluster and the ND capacity overloaded. |
| CSCvu21304 | Intersight device connector connects to the Intersight over the Cisco Application Services Engine Out-Of-Band Management. |
| CSCwb31373 | After node failover, kubernetes scheduling may be unable to find appropriate resources for the pods in an app. The symptom is that the app health will not converge and kubectl commands will show unhealthy pods. |

Compatibility

For Cisco Nexus Dashboard services compatibility information, see the [Cisco Data Center Networking Applications Compatibility Matrix](#).

For Cisco Nexus Dashboard cluster sizing guidelines, see the [Nexus Dashboard Cluster Sizing tool](#).

Physical Nexus Dashboard nodes must be running a supported version of Cisco Integrated Management Controller (CIMC).

CIMC, Release 4.2(3b) is the recommended version; CIMC, Release 4.0(1a) is the minimum supported version.

VMware vMotion is not supported for Nexus Dashboard nodes deployed in VMware ESX.

Cisco UCS C220 M3 and earlier servers are not supported for Virtual Nexus Dashboard clusters.

Nexus Dashboard clusters deployed in Linux KVM, Amazon Web Services, or Microsoft Azure support the Nexus Dashboard Orchestrator service only.

Nexus Dashboard clusters deployed in ESX VMware must use the “data” node profile if running the Nexus Dashboard Insights service.

Nexus Dashboard can be claimed in Intersight region 'us-east-1' only, 'eu-central-1' region is not supported.

Verified Scalability Limits

The following table lists the maximum verified scalability limits for the Nexus Dashboard platform.

| Category | Scale |
|---------------------------------------------|-------------------------------------------------------------------------------------|
| Nodes in a physical cluster | 3 master nodes 4 worker nodes 2 standby nodes |
| Nodes in a virtual cluster (ESX), Profile 1 | 3 master nodes (ova-data) 3 worker nodes (ova-app) 2 standby nodes (ova-data) |
| Nodes in a virtual cluster (ESX), Profile 2 | 3 master nodes (ova-data) 6 worker nodes (ova-app) |
| Nodes in a virtual cluster (KVM) | 3 master nodes |

| Category | Scale |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nodes in a cloud cluster (AWS or Azure) | 3 master nodes |
| Nodes in a Red Hat Enterprise Linux (RHEL) | 3 master nodes |
| Sites per cluster | 100 for Nexus Dashboard and Nexus Dashboard Orchestrator, see Nexus Dashboard Orchestrator Verified Scalability Guide for details and limitations. 4 for Nexus Dashboard Insights |
| Admin users | 50 |
| Operator users | 1000 |
| Service instances | 4 |
| API sessions | 2000 for Nexus Dashboard and Nexus Dashboard Orchestrator 100 for Nexus Dashboard Insights |
| Login domains | 8 |
| Clusters connected via multi-cluster connectivity for single pane of glass experience | 4 |
| Sites across all clusters within the same single pane of glass experience | 12 |

Related Content

| Document | Description |
|------------------------------------------------------------|------------------------------------------------------------------------------------|
| Cisco Nexus Dashboard Release Notes | This document. Provides release information for the Cisco Nexus Dashboard product. |
| Cisco Nexus Dashboard Hardware Setup Guide | Provides information on physical server specifications and installation. |
| Cisco Nexus Dashboard Deployment Guide | Provides information on Cisco Nexus Dashboard software deployment. |
| Cisco Nexus Dashboard User Guide | Describes how to use Cisco Nexus Dashboard. |
| Cisco Nexus Dashboard and Services APIs | API reference for the Nexus Dashboard and services. |

Documentation Feedback

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

Legal Information

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL:

<http://www.cisco.com/go/trademarks>. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

© 2022 Cisco Systems, Inc. All rights reserved.