



Cisco Nexus Dashboard Release Notes, Release 2.2(2)

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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).
January 24, 2023	Correctly classified CSCwb45970 as “Resolved” in release 2.2.2d.
September 15, 2022	Updated “Sites per cluster” scale in the “Verified Scalability Limits” section.
August 23, 2022	Release 2.2(2d) became available.

New Software Features

This release adds the following new features:

Feature	Description
REST API support for automation through Ansible modules	In addition to the authentication APIs made available in previous releases, this release provides a range of additional APIs you can use to automate managing your Nexus Dashboard cluster. For more information, see Nexus Dashboard API documentation.

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 all other clusters in the group.

In other words, you cannot connect a Nexus Dashboard cluster running release 2.2(2) 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 this release and re-enable it after the upgrade completes successfully.
- After upgrading to this release, we recommend upgrading all the services to their latest versions.
- Downgrading from this release 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: [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) java.io.IOException: No space left on device	2.2(2d) 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(2d) and later
CSCwb28144	External Services IPs used by NDFC for following cases may not work 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(2d) and later
CSCwc68051	Using the "Run" feature of the API documentation from a running ND host can result in incorrect requests to internal APIs that are due to the autogenerated documentation and do not indicate problems with the API. And you may see the following error: "Could not find an item type for this item".	2.2(2d) and later
CSCwc68061	Using the "Run" feature of the API documentation from a running ND host can result in incorrect requests to internal APIs that are due to the autogenerated documentation and do not indicate problems with the API. And you may see the following error: "Response maximum payload length of 10000 exceeded: (561001 characters)".	2.2(2d) and later

Bug ID	Description	Exists in
CSCwc68090	Using the "Run" feature of the API documentation from a running ND host can result in incorrect requests to internal APIs that are due to the autogenerated documentation and do not indicate problems with the API. The UI sending request by adding %3A in the URL so the requests are failing.	2.2(2d) and later
CSCwc76548	The UI may show an alert stating "Unable to reach NTP server(s). Validation failed for \$ip" if an FQDN is used for configuring an NTP server when IPv6 is not configured. This is an incorrect message, the NTP server is likely reachable and the system health status as shown in the system overview or on the command line via `acs health` are correct.	2.2(2d) and later
CSCwh23260	The pods in event manager namespace are crashing or are not in ready state	2.2(2d) 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
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(2d)
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(2d)
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: - 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(2d)

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.

Bug ID	Description
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.</p> <p>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</pre> <pre>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. 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	<p>After node failover, kubernetes scheduling may be unable to find appropriate resources for the pods in an app.</p> <p>The symptom is that the app health will not converge and kubectl commands will show unhealthy pods.</p>

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
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

Category	Scale
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

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