



Cisco Nexus Insights Release Notes, Release 5.1.0 – For Cisco DCNM

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Cisco Nexus Insights (NI) application consist of a pair of monitoring utilities that can be added to the Cisco Data Center Network Manager (DCNM).

This document describes the features, issues, and limitations for Cisco NI app on the Cisco DCNM.

For more information, see [Related Content](#)

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
June 10, 2021	Release 5.1(0) patch (5.1.0.135) became available.
April 27, 2021	Release 5.1(0) (5.1.0.131) became available.

New Software Features

Feature	Description
Cisco Nexus Dashboard Support	Cisco Nexus Insights app can be deployed as a service on Cisco Nexus Dashboard.
Multi Cisco DCNM sites support	Monitor DCNM multiple sites with single instance of Cisco Nexus Insights.
Multi-Site	Monitor multiple sites with single instance of Cisco Nexus Insights.
UI enhancements	Improved design with a streamlined tabbed layout, enhanced options for selecting a time range, centralized summary of sites with All Sites Dashboard, detect and indicate when features are not supported by a node.
Cisco NI app unification	Integrating Cisco NIR and Cisco NIA apps into Cisco NI app to get anomalies, advisories, and functionalities such as scheduling log collection jobs, scheduling bug scan and compliance jobs, connectivity analysis jobs, firmware upgrade impact and upgrade paths, recommendations for upgrade versions, and RPM updates. It also includes in-depth analysis work flows for advisories and anomalies.
Topology View	Visualize logical constructs such as Tenant, VRF, EPG and more on top of physical topology. Perform rapid troubleshooting using filters to focus on problematic nodes.
Cisco Nexus Insights Independence	Cisco NI app collects the node capabilities to determine and display the features supported and features not supported for each node on the site.
Micro-Burst detection	Expose and locate invisible microbursts. Know the congestion hot spots and protect application performance.
Flow Telemetry Events	Use flow table events to minimize troubleshooting time through automated root-cause analysis of data plane anomalies, such as routing issues, ACL drops, buffer drops and more.
Host flow overlay	Packet visibility and flow telemetry support for overlay technologies such as host flow overlay.

Feature	Description
technologies support	The host flow overlay technologies include NSX-V flow monitoring.
Kafka messaging support	Share Cisco Nexus Insights enriched value-added output with application ecosystem. Build synergetic workflows with third party IT applications.
Email notification support	Get offline alerts about network health using email notification facility. Pick and choose which issues you need to be alerted about.
PSIRT notification and Defect notification	Detect vulnerability exposure with PSIRT scan. Detect exposure to known defects with defect scan.
Resources	Monitor capacity utilization changes and threshold violation with resource anomalies.
Statistics	View control plane, data plane statistics, detect control plane and data plane anomalies.
AppDynamics Integration	AppDynamics provides the required metrics for monitoring, identifying, and analyzing the applications that are instrumented with AppDynamics agents. Cisco NIR provides flow analytics, statistics analytics, and topology view on these metrics to identify anomalies.
Support for Cisco Nexus 9300-GX series switches	Monitor high performance, scalable data center with support for Cisco Nexus 9300-GX series 400 GE platform switches.

Note: For Cisco NI Release 5.1(0), you must install the latest Cisco DCNM Release 11.5(2).

Note: Starting with Cisco NI Release 5.1(0), Cisco NI is only supported on Cisco Nexus Dashboard. Cisco DCNM Release 11.5(2) does not support Cisco NI Release 5.1(0) on compute.

Open Issues

This section lists the open issues in this release. Click the bug ID to access the Bug Search tool and see additional information about the caveat. The “Exists In” column of the table specifies the releases in which the issue exists.

Bug ID	Description	Exists In
CSCvt77736	When there is no data coming from switches, topNodes API returns all nodes into the list as healthy with endpoint count as 0.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvv47086	Retry to push configuration does not work if flow telemetry is in enabled state but software telemetry has failed.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvv58470	Advisories are displayed for devices removed from the Site or Fabric.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvv58497	In Cisco Nexus Insights app, log collection fails on some nodes.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvv75635	fabricName is not mandatory in the add integrations API.	5.1(0) and 5.1(0) patch (5.1.0.131 and

Bug ID	Description	Exists In
		5.1.0.135)
<u>CSCvv98827</u>	When fabric is disabled, corresponding collection from AppD is not disabled.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw00525</u>	Fabrics with HW flow telemetry in disabled failed is cannot be upgraded.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw05118</u>	After downgrading the switch to 7.0(3)17(8) version from 9.3.5 or above, telemetry is only partially configured on the switch.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw07745</u>	In Cisco Nexus Insights only top 100 flows are displayed in the flow events anomaly analyze page. You are unable to view the remaining flow events.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw11350</u>	MAC duplication endpoint anomaly does not get cleared.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw12315</u>	Cisco Nexus Insights generated flow anomalies on DCNM cannot be streamed to remote Kafka broker.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvt66683</u>	When a switch is removed from a fabric, flows records originating from that switch is displayed in Nexus Insights unless analytics feature configurations are removed.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw75183</u>	Flow resource type anomalies are not exported to external Kafka server.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw82571</u>	FTE events show up as anomaly when the switch with large network configuration is configured for telemetry with Cisco Nexus Insights.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw12315</u>	Cisco Nexus Insights generated flow anomalies on Cisco DCNM cannot be streamed to remote Kafka broker.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvv96466</u>	EP records shows incorrect status.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvw52303</u>	When NX-OS version is upgraded, FTE configurations are not be pushed even if the upgraded NX-OS version supports FTE.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
<u>CSCvx69082</u>	Flow Telemetry configuration is not removed from FX3S switch if the switch was running NX-OS release 9.3.7 with Flow Telemetry enabled	5.1(0) and 5.1(0) patch

Bug ID	Description	Exists In
	and then upgraded or downgraded to NX-OS release 10.1.	(5.1.0.131 and 5.1.0.135)
CSCvx52514	When the Infrastructure is down, the job termination action cannot be completed and results in some Bug Scan jobs to be in the "in-progress" state.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvx58005	When you start a bug Scan, the History table is not updated and the Scan Now button is not disabled.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvx79653	Metadata update task is not scheduled on app startup if the fabric is not enabled.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvx80000	When you onboard a new site to Nexus Dashboard, the site does not appear in Nexus Insights UI.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvx91483	ACI FN-72145 is displayed for switch running standalone NX-OS in DCNM fabric.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvv06700	Flow Telemetry status becomes disable-failed due to filter rule modify operation if a switch in the fabric has bad credentials or connectivity issues.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvv09409	Internal database system experienced out of memory. Streaming data will not be retrieved or saved after and during the time internal database component recovers completely and becomes stable.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)

Resolved Issues

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

Bug ID	Description	Fixed In
CSCvw82970	It takes more than 10 mins for VRF updates to be reflected in the Cisco NI app.	5.1(0) (5.1.0.131)
CSCvv87562	Email notifications does not include compliance advisories.	5.1(0) (5.1.0.131)
CSCvw82970	It takes more than 10 mins for VRF updates to be reflected in the Cisco NI app.	5.1(0) (5.1.0.131)
CSCvx44548	Collection Status for flows and endpoints is reported as "Feature not supported" in the GUI.	5.1(0) patch (5.1.0.135)
CSCvy24601	Cisco NI 5.1 should not be allowed to be installed on Cisco DCNM 11.4(1) and 11.5(1).	5.1(0) patch (5.1.0.135)

Bug ID	Description	Fixed In
CSCvv12530	When leaf switch becomes inactive because of unreachability both node reload and node inactive anomaly are raised though only node inactive anomaly is expected.	5.1(0) patch (5.1.0.135)
CSCvv21148	In the System Status page, when you use the filter, some options do not display the results accurately.	5.1(0) patch (5.1.0.135)
CSCvv28882	AppD stdout / stderr logs are copied to /opt/telegraf/log/ in the telegraf container. and are not log rotated. As a result, over a period, storage space may run out in telegraf and AppD data collection process potentially gets stuck.	5.1(0) patch (5.1.0.135)
CSCvv22244	Even when the switches are streaming flow information, flows are not processed and no flows are visible in the UI.	5.1(0) patch (5.1.0.135)
CSCvv13665	Time Window sets incorrect date when the user modifies the date and time.	5.1(0) patch (5.1.0.135)

Known Issues

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

Bug ID	Description	Exists In
CSCvu74237	Under scale condition, when some of the flow records are either dropped in the switch or dropped in processing, partial paths will be displayed.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvvw31279	VRF that is associated with the NSX-V flow may not be the correct VRF the NSX-V flow is taking in the fabric.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvx56615	Devices may not be flagged as not running CRV (Current Recommended Version).	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvu69962	Logical fabrics may show up in Cisco Nexus Insights.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvu84489	Stopping a recurrent bug scan in log collection phase does not stop the job immediately.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvv89866	Endpoint data is displayed for unsupported devices.	5.1(0) and 5.1(0) patch (5.1.0.131 and 5.1.0.135)
CSCvu74237	Under scale condition, when some of the flow records are either	5.1(0) and 5.1(0) patch

Bug ID	Description	Exists In
	dropped in the switch or dropped in processing, partial paths will be displayed.	(5.1.0.131 and 5.1.0.135)

Compatibility Information

For Cisco NI on Cisco DCNM compatibility with Day-2 Operations apps, see the [Cisco Data Center Networking Applications Compatibility Matrix](#).

Software/Hardware	Release
Minimum Cisco NX-OS version required for Software Telemetry	7.0(3)I7(6), 7.0(3)I7(7), 8.4(2)
Minimum Cisco NX-OS version required for Software and Hardware Telemetry	9.3(2), 9.3(3), 9.3(4), 9.3(5), 9.3(6), 9.3(7), 10.1(1), 7.0(3)I7(8), 7.0(3)I7(9)
Minimum Cisco NX-OS version required for Host Flow Overlay	9.3(4), 7.0(3)I7(8)
Minimum Cisco NX-OS version required for Micro-Burst, Endpoint Analytics, and Multicast Protocols	9.3(4)
Minimum Cisco NX-OS version required for Modular Hardware Telemetry	9.3(4)
Minimum Intersight Device Connector version on Cisco Nexus Dashboard	1.0.9-737
Minimum Cisco NX-OS version required for Connectivity Analysis	9.3(3)
Cisco Device supported for Host Flow Overlay	Cisco Nexus 9000 -FX, -FX2, -FX3, and -GX platform switches
Cisco Devices supported for Flow Telemetry Events	Cisco Nexus 9000 -FX, -FX2, -FX3, and -GX platform switches and 9700 -FX line cards
Cisco Device supported for Flow Telemetry	Cisco Nexus 9300-EX, -FX, -FX2, -FX3, and -GX platform switches and 9500-EX and FX
Cisco Device supported for Software Telemetry	<ul style="list-style-type: none"> • Cisco Cloud Scale ASIC devices • Cisco Nexus 7000 series switches: N77-C7710 or N77XX, N7K-C7009, N7K-C7010 or 70XX • Cisco Nexus 3000 series switches: Nexus 3100-XL series, Nexus 3100-V series, Nexus 3200 series, Nexus 3400 series, Nexus 3500-XL series • Cisco Nexus 9504 and 9508 with -R and -RX lines cards: • N9K-X96136YC-R, N9K-C9508-FM-R, N9K-C9504-FM-R, N9K-X9636C-R, N9K-X9636C-RX

Software/Hardware	Release
	<ul style="list-style-type: none"> • Cisco Nexus 3600 platform switches: N3K-C3636C-R, N3K-C36480LD-R2, N3K-C36180YC-R • Cisco Nexus 9300-GX, 9300-FX3 and platform switches
Cisco Device not supported for Software Telemetry	<ul style="list-style-type: none"> • Cisco N3K-C3408-S, N3K-C3432D-S, N3K-C34200YC-SM, N3K-34180YC, and N3K-3464C switches • Cisco N3K-C3464C, N3K-C34180YC, N3K-C3408S, N3K-C34200YC-SM, N3K-C3432D-I
Micro-Burst support	See Supported Platforms for details.
Arista EOS	4.21
Arista Device Supported	Arista 7050SX and 7280SR platform switches

Note: Flow Telemetry data will consume 6MB for 10K IPv4 flows per node. Flow Telemetry data will consume 12MB for 10K IPv6 flows per node.

Verified Scalability Limits

Software/Hardware	Scale Limits
Number of flows supported for Hardware Telemetry	12000
Number of flows supported for Endpoints	120000
Maximum number of nodes supported in a fabric in managed mode	150
Maximum number of nodes supported across all fabrics	350
Maximum support for a 3-node Cisco Nexus Dashboard cluster	Fabric with 80 nodes, 60000 Endpoints, and 2000 Flows
Maximum support for a 6-node Cisco Nexus Dashboard cluster	Fabric with 350 nodes, 120000 Endpoints, and 12000 Flows

Note: For fabrics greater than 150 nodes, monitored mode is recommended.

Usage Guidelines and Limitations

This section lists the usage guidelines and limitations for Cisco NI app:

- The Cisco NI application installation on Cisco DCNM requires that the DNS server is valid and reachable.
- Telemetry for hardware TCAM utilization, such as forwarding TCAM and ACL TCAM are not supported on Cisco Nexus C9504, C9508, and C9516 platform switches.

- Cisco NI app does not support software telemetry and flow telemetry data from switches to the flow collector running on Cisco DCNM compute nodes over IPv6.
- Software Telemetry telemetry should be enabled before enabling Hardware Telemetry.
- Cisco NI app checks for metadata update every hour. However, there may not be an update every time.
- After metadata update you need to run manual bug scan to reflect PSIRTs.
- The Hardware Resources tab in System Resource Utilization Dashboard is not supported for Cisco Nexus 7000 series switches. The hardware resources do not have a direct mapping to the objects that show in Cisco NI app. The command that shows hardware details does not provide the percentage of entries used and the maximum number of entries allocated for a particular feature. The Cisco NI application does not raise the anomalies and details page for any resource in Hardware Resources tab for Cisco Nexus 7000 series switches.
- The features supported on Cisco Nexus 7000 series switches includes Environmental, Statistics, and Resources.
- The features not supported on Cisco Nexus 7000 series switches includes Endpoint Analytics, Multicast, Microburst, CDP statistics protocol, and hardware resource statistics such as COPP, HRT, LPM, QoS, and ACL.
- The features supported on Cisco Nexus 3000 series switches includes Environmental, Statistics, and Resources.
- The features not supported on Cisco Nexus 3000 series includes Endpoint Analytics, Multicast, and Microburst.
- The IGMP and IGMP Snoop multicast statistics protocols are supported only on Cisco Nexus 9000 series switches.
- The IGMP and IGMP Snoop multicast statistics protocols are not supported for the following:
 - Cisco Nexus 3000 and 7000 series switches.
 - Cisco N9K-X9636C-R, N9K-X9636Q-R, N9K-X96136YC-R, and N3K-C3636C-R line cards.
- Cisco NI app does not support BGP PrefixSaved statistics on the following:
 - Cisco Nexus 3000, 7000, and 9000 platform switches.
 - Cisco N9K-X96136YC-R, N9K-X9636C-R, N9K-X9636Q-R, and N3K-C3636C-R line cards.
- Classic fabric type is supported for host flow overlay monitoring. VXLAN fabric type is not supported for host overlay flow monitoring.
- After enabling Cisco NI on a fabric and adding a group of switches together to the fabric, DCNM sends notification for the newly added switches. When NI tries to program the newly added switches, DCNM can be potentially finishing the switch discovery for these switches. In this case, the NI operation fails on the switches. The failed NI operations should be retried with retry facility in Cisco NI.
- For virtual Nexus Dashboard (vND), you must provision the underlying HOST with Distributed Virtual Switch and not with a Standard Virtual Switch.

- If you are deploying Multi-Site Orchestrator, Nexus Insights, and Network Assurance Engine in the same cluster, you must ensure that Nexus Insights and Network Assurance Engine are installed and enabled first before enabling the Multi-Site Orchestrator application.
- Starting from Cisco NI release 5.1(0), flow telemetry is supported in -FX3 platform switches for the following NX-OS versions:
 - 9.3(8) and later
 - 10.1(2) and later
 - Flow telemetry is not supported in -FX3 platform switches for NX-OS version 10.1(1).
- If NI 5.1 is enabled, you will not be able to enable Cisco Network Insights Base app on DCNM.

Related Content

The Cisco NI documentation can be accessed from the following website:

<https://www.cisco.com/c/en/us/support/data-center-analytics/nexus-insights/series.html>

The documentation includes installation, upgrade, configuration, programming, and troubleshooting guides, technical references, and release notes, as well as other documentation.

Document	Description
Cisco Nexus Insights Release Notes for Cisco DCNM	This document.
Cisco Nexus Insights User Guide for Cisco DCNM	Describes how to download, install, and set up Cisco NI app.

Documentation Feedback

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

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