# Cisco Network Insights for Resources Application for Cisco Data Center Network Manager Release Notes, Release 2.0.1

Cisco Network Insights for Resources (NIR) 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 NIR on the Cisco DCNM.

For more information, see Related Content.

| Date | Description |
|---|---|
| Apr 8, 2020 | Compatibility information for Software Telemetry. |
| Mar 27, 2020 | Compatibility information for Cisco NIR. |
| July 15, 2019 | Software Telemetry Resources support DOM levels. |
| July 15, 2019 | This release supports software streaming telemetry only. |
| July 8, 2019 | Added link to Cisco Network Insights Resources Application for DCNM User Guide. |
| June 6, 2019 | Release became available. |

## Contents

# New Software Features

| Feature | Description |
| --- | --- |

| | |
|---|---|
| Software Streaming Telemetry | Environmental – Cisco NIR collects the following environmental data:<br>■ CPU (System & Pre-Process)<br>■ Memory (System & Pre-Process)<br>■ Fan Utilization<br>■ Power<br>■ Temperature<br>■ Storage<br>■ DOM levels<br>Interface – Cisco NIR collects the following interface data:<br>■ Rx/Tx Rate<br>■ CRC errors<br>Hardware Resource Utilization – Cisco NIR collects the following hardware resource utilization data:<br>■ Ports Utilization<br>■ Ports in admin UP state<br>■ Bandwidth Utilization<br>■ Control Plane Policers<br>■ LPM<br>■ QoS TCAM<br>■ VLAN, Port, Routed ACLs<br>■ MAC Address Table<br>Network State – Cisco NIR collects the following network state data:<br>■ MAC addresses<br>■ IPv4 and IPv6 learned routes<br>■ IPv4 and IPv6 host routes<br>■ Multicast routes<br>■ VLANs<br>■ VRFs<br>■ VNIs/VTEPs<br>Protocol Statistics – Cisco NIR collects the following protocol statistics:<br>■ LLDP, LACP |

# Open Issues

| Bug ID | Description | Exists In |
|---|---|---|
| CSCvn42171 | After deleting an app in APIC GUI, installing a new version and enabling it, the About window continues to show the older version of the app, even if browser window is refreshed. The correct version is displayed upon clearing the browser cache (or using a different browser). | 2.0.1 |

# Resolved Issues

None in this release.

# Downloading and Installing NIR Application in DCNM

See the *Cisco Network Insights – Resources Application for DCNM User Guide* for information and procedures on downloading and installing the NIR application.

# Cisco Network Insights for Resources

The Network Insights for Resources (NIR) application provides a way to gather resource information through data collection to get an overview of available resources and their active processes and configurations across the entire Cisco DCNM.

The Cisco NIR application consists of the following components:

- Data Collection–The streaming of telemetry data is done by using software or hardware agents in the fabric devices. As each data source is different and the format in which data is streamed is different, there are corresponding "collectors" running Analytics that translate the telemetry events from the devices into data records to be stored in the data lake. The data stored in the data lake is a format that the analytics pipeline can understand and work upon. The 2.0.1 release supports only software streaming telemetry.
- Resource and Environmental Utilization–Resource analytics supports configuration, operational and hardware resources. Environmental covers CPU, memory, temperature, and fan speed, storage, power, and DOM levels related to the leaf switches. System analytics also covers, Anomalies, and trending information of each resource and graphing of parameters which help Network operators to debug over periods of time.
- Predictive Analytics and Correlation–The value-add of this platform is predicting failures in the fabric and correlating internal fabric failures to the user-visible/interested failures.

# Hardware Requirements

This section describes the Cisco DCNM LAN deployment requirements for Cisco NIR software telemetry. A DCNM-native HA deployment is recommended.

Hardware Requirements for Deployments up to 80 Switches

| Node | Deployment Mode | CPU | Memory | Storage | Network |
|---|---|---|---|---|---|

| Node | Deployment Mode | CPU | Memory | Storage | Network |
|---|---|---|---|---|---|
| DCNM | OVA/ISO | 16 vCPUs | 32G | 500G HDD | 3xNIC |
| Computes (x3) | OVA/ISO | 16 vCPUs | 64G | 500G HDD | 3xNIC |

Hardware Requirements for Deployments from 81 to 250 Switches

| Node | Deployment Mode | CPU | Memory | Storage | Network |
|---|---|---|---|---|---|
| DCNM | OVA/ISO | 16 vCPUs | 32G | 500G HDD | 3xNIC |
| Computes (x3) | ISO | 32 vCPUs | 256G | 2.4TB HDD | 3xNIC* |

* Network card: Quad-port 10/25G

# Compatibility Information

For Cisco NIR on Cisco DCNM compatibility with Day-2 Operations apps, see the Cisco Day-2 Operations Apps Support Matrix.

| Software/Hardware | Release |
|---|---|
| Minimum Cisco NXOS version required for Software Telemetry | 7.0(3)I7(6) |
| Cisco Device supported for Software Telemetry | Cisco Cloud Scale ASIC devices |

# Verified Scalability Limits

| Software/Hardware | Number |
|---|---|
| Number of nodes supported for Software and Hardware Telemetry | 250 |

# Usage Guidelines and Limitations

This section lists the usage guidelines and limitations for Cisco NIR:

- Telemetry for hardware TCAM utilization, such as forwarding TCAM and ACL TCAM are not supported on Cisco Nexus C9504, C9508, and C9516 Series platforms.

# Related Content

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

https://www.cisco.com/c/en/us/support/data-center-analytics/network-insights-resources/model.html

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

| Document | Description |
|---|---|
| Cisco NIR Application for the Cisco DCNM Release Notes | This document. |
| Cisco NIR Application for the Cisco DCNM User Guide | Describes how to download, install, and set up Cisco NIR in Cisco DCNM. |

# Documentation Feedback

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

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