



Cisco Network Insights for Resources Application for Cisco Application Policy Infrastructure Controller Release Notes, Release 2.0.1

Cisco Network Insights for Resources (NIR) application consist of a monitoring utility that can be added to the Cisco Application Policy Infrastructure Controller (APIC).

This document describes the features, issues, and limitations for Cisco NIR on Cisco APIC.

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

Date	Description
Mar 27, 2020	Compatibility information for Cisco NIR.
Mar 5, 2020	Usage guidelines and limitations.
Feb 26, 2020	Hardware requirements for Cisco Network Insights Resources.
Oct 23, 2019	Updated verified scalability limits for Cisco NIR installed on Cisco APIC.
July 15, 2019	Software Streaming Telemetry resources - added Storage and DOM levels in Environmental data.
June 7, 2019	Release 2.0.1 became available.

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New Software Features

Feature	Description
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<p>Software Streaming Telemetry</p>	<p>Environmental – Cisco NIR collects the following environmental data:</p> <ul style="list-style-type: none">■ CPU (System & Pre-Process)■ Memory (System & Pre-Process)■ Fan Utilization■ Power■ Temperature■ Storage■ DOM levels <p>Interface – Cisco NIR collects the following interface data:</p> <ul style="list-style-type: none">■ Rx/Tx Rate■ CRC errors <p>Hardware Resource Utilization – Cisco NIR collects the following hardware resource utilization data:</p> <ul style="list-style-type: none">■ Ports Utilization■ Ports in admin UP state■ Bandwidth Utilization■ Control Plane Policers■ LPM■ QoS TCAM■ VLAN, Port, Routed ACLs■ MAC Address Table <p>Network State – Cisco NIR collects the following network state data:</p> <ul style="list-style-type: none">■ MAC addresses■ IPv4 and IPv6 learned routes■ IPv4 and IPv6 host routes■ Multicast routes■ VLANs■ VRFs■ VNIs/VTEPs <p>Protocol Statistics – Cisco NIR collects the following protocol statistics:</p> <ul style="list-style-type: none">■ LLDP, LACP
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Cisco Network Insights Resources

The Network Insights 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 APIC.

The 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.
- **Resource and Environmental Utilization**—Resource analytics supports configuration, operational and hardware resources. Environmental covers CPU, memory, temperature, and fan speed 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.

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
CSCvn42171	App version is incorrect/stale after deleting and installing new version.	2.0.1

Resolved Issues

None in this release.

Hardware Requirements

This table describes the Cisco APIC LAN deployment requirements for Cisco NIR software telemetry.

Hardware	Cisco NIR installed in Cisco APIC cluster
APIC-CLUSTER-M1	No
APIC-CLUSTER-M2	No
APIC-CLUSTER-M3	Yes (Maximum 30 ACI fabric nodes)
APIC-CLUSTER-L1	No
APIC-CLUSTER-L2	No

APIC-CLUSTER-L3	Yes (Maximum 30 ACI fabric nodes)
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In the Lab environment you can install Cisco NIR app on APIC-CLUSTER-M1/M2 or APIC-CLUSTER-L1/L2. We do not recommend installing Cisco NIR app on APIC-CLUSTER-M1/M2 or APIC-CLUSTER-L1/L2 in the production environment.

Compatibility Information

For Cisco NIR on Cisco APIC compatibility with Day-2 Operations apps, see the [Cisco Day-2 Operations Apps Support Matrix](#).

Software	Release
Cisco NX-OS version	7.0(3)17(6)
Cisco Device supported for Software Telemetry	Cisco Nexus 9000 Series switches

Verified Scalability Limits

Software/Hardware	Number
Number of leaf switches supported with NIR installed on APIC cluster	100

Usage Guidelines and Limitations

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

- A Cisco APIC cluster must have a minimum of 3 APICs. Cisco NIR is not supported on single APIC.

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 Network Insights for Resources Application for the Cisco APIC Release Notes	This document.

Cisco Network Insights for Resources Application for the Cisco APIC User Guide	Describes how to download, install, and set up Cisco NIR in Cisco APIC.
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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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