

Revised: May 29, 2026

Cisco Nexus Hyperfabric — Insights

Insights

The **Insights** tab in Cisco Nexus Hyperfabric provides

- the ability to view the time series for events such as failed assertions, resolved assertions, and configuration events for a device
- capacity planning and reporting capabilities for physical and logical devices in your fabrics, and
- the ability to compare two fabric snapshots to identify changes in operational telemetry and assertion states.

You can use the capacity planning and reporting capabilities to

- access and review current capacity data of your fabrics, including details such as the numbers of devices and ports, number of Layer 2 and Layer 3 scale such VRF instances, VLANs, routes, BGP peers, and environmental factors
- plan for scaling, upgrades, or modifications to the fabric design
- benefit from automated guidance on physical changes needed for capacity adjustments, including cabling and hardware modifications, and
- monitor capacity in real-time to maintain operational efficiency and avoid over-provisioning or under-utilization.

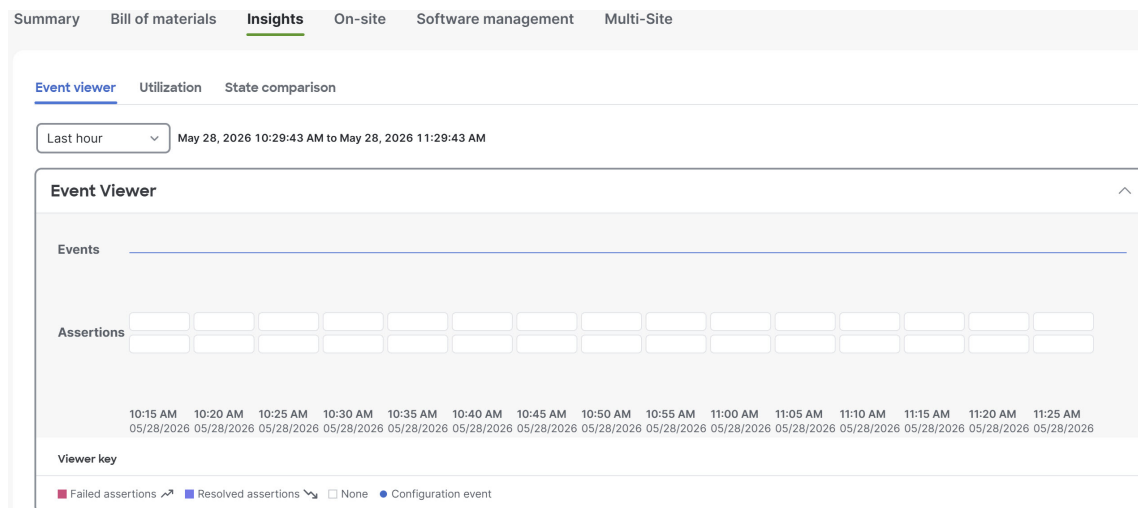
View Event viewer

Event viewer displays the time series for events such as failed assertions, resolved assertions, and configuration events for a device.

Step 1 Select **Fabrics**, then select *fabric_name* > **Insights** > **Event viewer**.

Step 2 The Event Viewer area displays the time series for failed assertions, resolved or cleared assertions, and configuration events. The total count of new and resolved assertions are displayed for each time period. Configuration events are displayed separately as a line graph. From the drop-down list, select the time period. By default, **Last hour** is chosen.

Figure 1: Event viewer



Step 3 Filter the displayed events by selecting specific event or assertion types from the **Event Types** or **Assert Types** drop-down lists.








Candidate comments displays comments you enter when you push a configuration and are only applicable for configuration events.

Note

Step 4 In the Description column, select **Configuration pushed** to view additional details.

Figure 2: Configuration pushed

Configuration pushed on Feb 7, 2025, 10:59:25 AM ✕

-  cisco/ [redacted]@cisco.com 02/07/2025 10:59:25
 - Commit fabric transaction "TME-fab 1"
-  cisco/ [redacted]@cisco.com 02/07/2025 10:57:34
 - Update port channel "PortChannel111"
-  cisco/ [redacted]@cisco.com 02/07/2025 10:57:21
 - Update port channel "PortChannel101"
-  cisco/ [redacted]@cisco.com 02/07/2025 10:56:42
 - Update port channel "PortChannel102"
-  cisco/ [redacted]@cisco.com 02/07/2025 10:56:28
 - Update port channel "PortChannel101"
 - Create fabric transaction "TME-fab 1"

View resource utilization

Follow these steps to view resource utilization.

Step 1 Choose **Fabrics**, then select *fabric_name* > **Insights** > **Utilization**.

Step 2 Select **Physical** or **Logical**.

- **Physical:** Shows utilization of physical devices in the fabric, grouped by device type and tier as configured in the fabric's topology. This page also shows information about cabling and the port configurations, including port channels and breakout-enabled ports. You can select the name of most of the device models in the tiers to see the documentation for a device, as well as select the device hostnames under port configuration to see the configuration of a device.
- **Logical:** Shows utilization of logical constructs related to VRF instances, VLANs, endpoints, routes, and BGP.

See the "i" tooltips for more information about statistics.

State comparison

State comparison compares two fabric snapshots to identify changes in operational telemetry and assertion states. A snapshot is a capture of the fabric's operational state at a specific time.

Change metric types

When you compare a snapshot against a baseline, the system categorizes these types of changes.

- **Added:** Elements present in the current snapshot but not in the baseline.
- **Removed:** Elements present in the baseline but not in the current snapshot.
- **Modified:** Elements present in both snapshots that have different values or states.

Supported data types

The system compares these two categories of data.

- **System states:** Operational telemetry, such as device resource usage and management port configurations.
- **Assertions:** Health and configuration rules, such as port link status, device temperature, and port speed consistency.

Create and promote a baseline snapshot state

Establish a baseline state to monitor your fabric's operational health. Capturing a snapshot when the network is functioning as intended provides an anchor for comparing future states and identifying drift.

Step 1 Navigate to the **State comparison** tool.

- a) Choose **Fabrics**, then select the fabric that you want to analyze.
- b) Choose **Insights > State comparison**.

Step 2 If a current snapshot exists, you can

- select **Delete** to remove the existing snapshot, or
- select **Promote** to set the existing snapshot as the current baseline state.

Step 3 Select **Capture** to record the current fabric operational state. The date and time of the snapshot appears in the **Current** area.

Step 4 Select **Promote** to set the snapshot as a baseline for future comparisons. The date and time of the snapshot disappears from the **Current** area and appears in the **Baseline** area.

Compare snapshot states

Use this procedure to identify operational deviations in your fabric by comparing the saved baseline state against the current state. Comparing snapshot states helps you troubleshoot instability, verify states after configuration changes, and identify drift from your established baseline.

When network performance degrades or behavior changes, comparing your current operational state against a baseline helps you identify the cause.

Ensure a baseline exists.

- Step 1** Navigate to **State comparison**.
- Choose **Fabrics**, then select the fabric that you want to analyze.
 - Select **State comparison**.

- Step 2** If a snapshot state exists in the **Current** area, you can
- select **Delete** to remove the existing snapshot state, or
 - select **Promote** to set the existing snapshot state as a baseline.

Step 3 In the **Current** area, select **Capture**.

Step 4 Review the change summary.

The screenshot displays the 'State Comparison Summary' interface. At the top, there are two tabs: 'Baseline' (Captured: Mar 19, 2026 08:29:49 AM) and 'Current' (Captured: Mar 31, 2026 09:45:52 AM). Below the tabs, a summary bar shows: 13 Added (green checkmark), 27 Removed (red X), 718 Modified (blue minus), and 'No data type selected'. On the right, there are buttons for 'Data types...' and 'Side by side'. The main content is divided into two sections: 'System States (2)' and 'Assertions (17)'. 'System States' includes 'Device' (5 changes) and 'Port Neighbor' (1 change). 'Assertions' is categorized into 'Device' and 'Port'. 'Device' assertions include: Device connection to cloud (6), Device connection to fabric (5), Device fan speed (5), and Device PSU usage (4). 'Port' assertions include: Expected port breakout (13 Added, 13 Removed, 16 Modified), Fabric connection to port (27 Modified), Port connection speed match (4 Modified), Port expected neighbor (38 Modified), and Port link expected to be down (133 Modified). Other assertions listed are: Device resource usage (6), Device temperature (5), Management port config (5), Port link expected to be up (16), Port pluggable PID match (27), Port QSFP healthy (4), Port speed consistent (38), and Unexpected VLAN tags on port (133).

The system displays a color-coded summary of differences, allowing you to pinpoint system state or assertion-based changes since the baseline was captured. Scroll through the **State Comparison Summary** to inspect specific changes.

- Examine the high-level metrics: View the number of added, removed, and modified elements.
- Identify element status: Check the status indicators next to each system state or assertion type item.

Step 5 Analyze the detailed differences.

- Select **Data types**.
- Check the system state and assertion type check boxes that you want to view details for.

Data Type Categories ✕
 This computed reference point supports the following 19 diff tables. Selected data types will appear in the page.

System States (2) Added | Removed | Modified

- Device** 5
- Port Neighbor

Assertions (17) Added | Removed | Modified

Device

- Device connection to cloud** 6
- Device connection to fabric
- Device fan speed** 5
- Device PSU usage
- Device resource usage
- Device temperature
- Management port config

Port

- Expected port breakout** 13 13 16
- Fabric connection to port
- Port connection speed match

- c) Close the **Data Type Categories** drawer. The data comparison of the baseline value versus the current value is displayed.
- d) Choose whether you want to view the detailed data side-by-side or stacked.

13 **Added**
27 **Removed**
718 **Modified**
No data type selected
Data types... 19

Side by side
Stacked

- e) Select **Diff** to view the raw JSON comparison for advanced troubleshooting.

System: Device 0 **Added** 0 **Removed** 2 **Modified**

Device Id	Name	Power Supply	Sonic Version
98-d7-e1-03-bc-00	aqua14-L1	2	Cisco Nexus Hyperfabric: SONIC.202405c.2.1.9-12i-34404-20260109.215907 - HwSku: Cisco-HF6100-60S4D - Distribution: Debian 12.12 - Kernel: 6.1.0-11-2-amd64
	aqua14-L1	2	Cisco Nexus Hyperfabric: SONIC.202405c.2.1.9-12i-34404-20260109.215907 - HwSku: Cisco-HF6100-60S4D - Distribution: Debian 12.12 - Kernel: 6.1.0-11-2-amd64
98-d7-e1-08-a4-00	aqua14-L2	2	Cisco Nexus Hyperfabric: SONIC.202405c.2.1.9-12i-34404-20260109.215907 - HwSku: Cisco-HF6100-60S4D - Distribution: Debian 12.12 - Kernel: 6.1.0-11-2-amd64
	aqua14-L2	2	Cisco Nexus Hyperfabric: SONIC.202405c.2.1.9-12i-34404-20260109.215907 - HwSku: Cisco-HF6100-60S4D - Distribution: Debian 12.12 - Kernel: 6.1.0-11-2-amd64