



PTP Monitoring

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Catalog

The Catalog allows you to view all the applications that you have installed or enabled on the Cisco DCNM. Few applications are installed and are operational by default, when you install the Cisco DCNM.

The following applications appears based on the Cisco DCNM Deployments:

- Health Monitor (2.1)
- PTP Monitoring (1.1)
- Kibana (2.0)
- Programmable report (1.1.0)
- Elastic Service (1.1)
- Compliance (4.0.0)
- Debug Tools (2.1)
- IPAM Integrator (1.0)
- Endpoint Locator (2.1)
- Kubernetes Visualizer (1.1)
- vmmplugin (4.1)



Note The applications started by default, or also installed on the DCNM utilizes infrastructure services are operational, by default.

You can install more applications from the App Center, via the Web UI.

For instructions about downloading, adding, starting, stopping, and deleting applications from the Cisco DCNM Web UI, see [Installing and Deploying Applications](#).

PTP Monitoring

This section explains the preview functionality of the Precision Time Protocol (PTP) monitoring. PTP is a time synchronization protocol for nodes that are distributed across a network. On a local area network, it achieves clock accuracy in the sub-nanosecond range, making it suitable for measurement and control systems.

In DCNM, PTP Monitoring can be installed as an application. From the DCNM Web UI, navigate to **Applications** and click **PTP Monitoring**. This application works in the IPFM mode only.

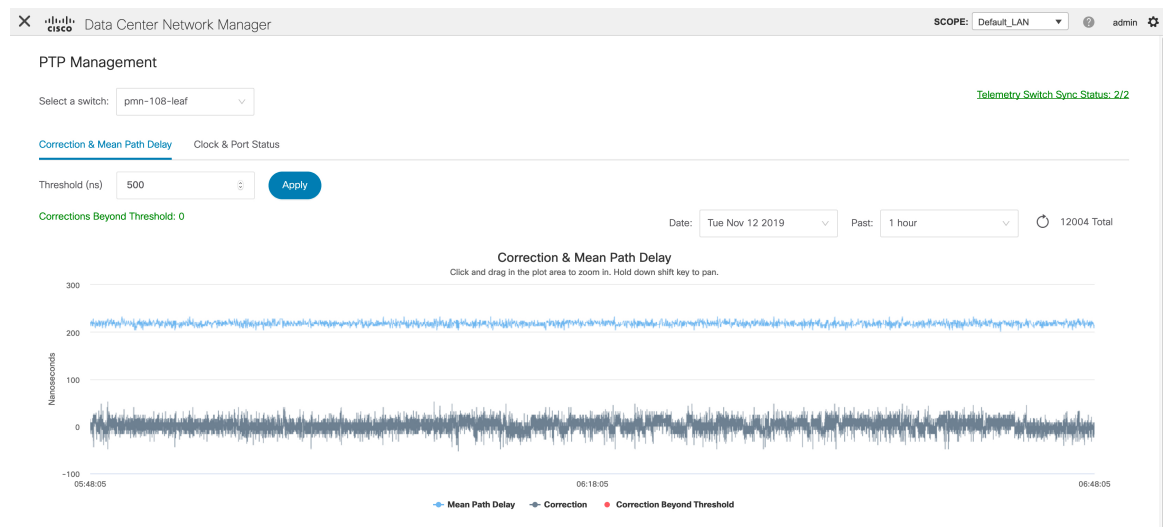
In the **PTP Management** window, you can view PTP related information based on the switch selected from the **Select a switch** drop-down list. You can click the **Telemetry Switch Sync Status** link to check whether the switches are in sync. The **Sync Status** column displays the status of the switches.

The following tabs are displayed in this window:

- **Correction & Mean Path Delay**
- **Clock & Port Status**



Note The PTP related info is displayed for the switch group that you select from the **SCOPE** drop-down list.



Correction and Mean Path Delay

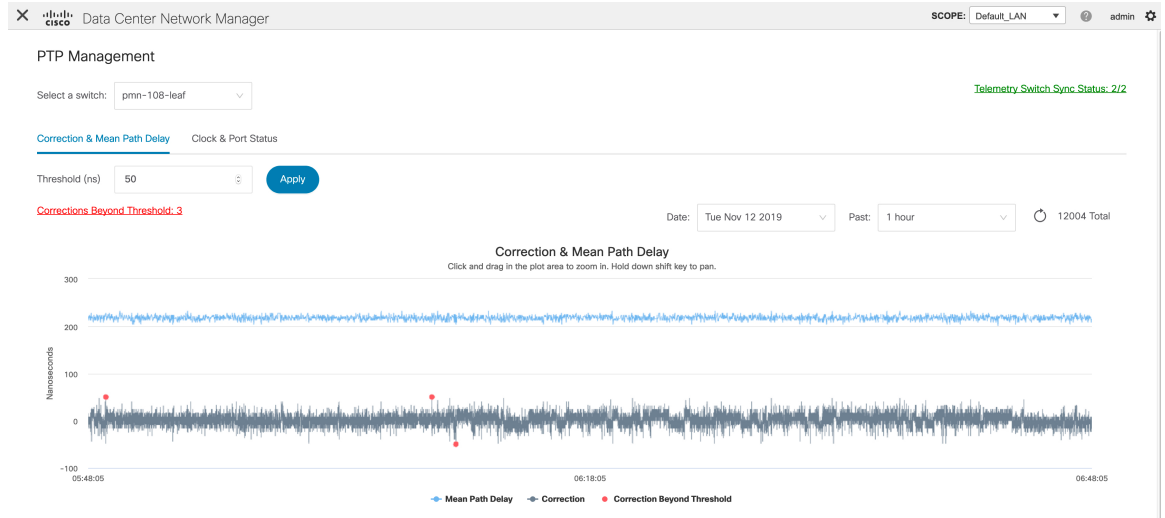
The **Correction & Mean Path Delay** tab displays a graph showing the PTP operational statistics: mean path delay, correction, and correction beyond threshold. You can click and drag in the plot area to zoom in and hold the **shift** key to pan. Click the **Reset zoom** button to reset zoom.

By default, the graph is displayed for the threshold value of 500 nanoseconds (ns). You can also display data based on a specific threshold value. In the **Threshold (ns)** field, enter the required value in nanoseconds and click **Apply**. Note that the threshold value is persistent in the DCNM settings, and it is used to generate PTP correction threshold AMQP notifications.

From the **Date** drop-down list, you can select the appropriate date to view the data. The PTP data is stored up to the last seven (7) days. The default value for the stored data is 7 days. To change this value, navigate

to **Administration > DCNM Server > Server Properties** and set the updated value for the **pmn.elasticsearch.history.days** property.

From the **Past** drop-down list, you can also select a timeframe over which the data has to be displayed. The values in the **Past** drop-down list are 1, 6, 12, and 24 hours.



Note that you can click the legends in the graph to hide or display statistics.

If there are any corrections, you can view them in a tabular format by clicking the **Corrections Beyond Threshold** link.



Clock and Port Status

The **Clock & Port Status** tab displays status for Parent Clock, Grandmaster Clock, and ports.

PTP Management

Select a switch:

Telemetry Switch Sync Status: 2/2

Correction & Mean Path Delay [Clock & Port Status](#)

Parent Clock

Parent Clock Identity: 70:7d:b9:ff:fe:be:1f:97
 Parent Port Number: 2
 Observed Parent Offset (log variance): N/A
 Observed Parent Clock Phase Change Rate: N/A
 Parent IP: 2.1.1.2

Grandmaster Clock

Grandmaster Clock Identity: 70:7d:b9:ff:fe:be:1f:97
 Grandmaster Clock Quality
 Class: 248
 Accuracy: 254
 Offset (log variance): N/A
 Priority 1: 10
 Priority 2: 10

Port Status 3 Total

Interface Name	Admin Status	Oper Status	Port Status
Ethernet1/1	↑	↑	Slave
Ethernet1/2	↑	↓	Disabled
Ethernet1/3	↑	↑	Master

The **Port Status** table displays the status of the ports and the peer ports. Click the **Search** icon, and enter the port status, and click **Search** to filter the port status.