Cisco Monitor Manager Embedded Overview

This chapter contains the following sections:

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Suitable for single switch deployment, Cisco Monitor Manager Embedded allows you to run the Cisco XNC and Cisco Monitor Manager applications directly on Cisco Nexus 3000 or 3100 Series switches. This allows data centers to create a low-cost switch-based network traffic monitoring solution that is deployed on a single switch.

About Cisco Extensible Network Controller

Cisco Extensible Network Controller (Cisco XNC) is a software platform that serves as an interface between the network elements (southbound) and third-party applications (northbound). Cisco XNC is a JVM-based application that runs on a Java Virtual Machine (JVM). Cisco XNC is based on a highly available, scalable, and extensible architecture that supports a network. Cisco XNC is built for extensibility using the Open Services Gateway initiative (OSGi) framework, which allows new functionality to be added.

Cisco XNC can support multiple protocol plugins in the southbound direction. In the current release, Cisco Plug-in for OpenFlow 1.0 is available.

Cisco XNC provides the following:

- Functionality to support network visibility and programmability, such as network topology discovery, network device management, forwarding rules programming, and access to detailed network statistics.
- A Service Abstraction Layer (SAL) that enables modular southbound interface support, such as OpenFlow.

- Consistent management access through the GUI or through Java or Representational State Transfer (REST) northbound APIs.
- Security features, such as role-based access control (RBAC), and integration with an external Active Directory using RADIUS or TACACS for authentication, authorization, and accounting (AAA) functions.
- Troubleshooting tools, such as analytics gathering and diagnostic packet injection.
- Cisco network applications such as Network Slicing that allows logical partitioning of the network using flow specification, and Monitor Manager, that provides visibility into the network traffic.
- A CLI framework for Cisco XNC.

About Cisco Monitor Manager

Cisco Monitor Manager is a network application that runs on Cisco XNC. Cisco Monitor Manager, in combination with the Cisco Plug-in for OpenFlow and Cisco Nexus 3000 or 3100 Series switches, enables you to create a scalable and flexible replacement for matrix switches, which traditionally connect network monitoring devices to points within the network where monitoring is desired.

Cisco Monitor Manager provides management support for multiple disjointed Cisco Monitor Manager networks. You can manage multiple Monitor Manager topologies that may be disjointed using the same Cisco XNC instance. For example, if you have 5 data centers and want to deploy an independent Cisco Monitor Manager solution for each data center, you can manage all 5 independent deployments using a single Cisco XNC instance by creating a logical partition (network slice) for each monitoring network.

With the Cisco Monitor Manager solution, you can do the following:

- Classify Switched Port Analyzer (SPAN) and Test Access Point (TAP) ports.
- Filter which traffic should be monitored.
- Redirect packets from a single or multiple SPAN or TAP ports to multiple monitoring devices through delivery ports.
- Restrict which users can view and modify the monitoring system.

Supported Web Browsers for Cisco Monitor Manager Embedded

The following web browsers are supported for Cisco Monitor Manager Embedded:

- Firefox 18.x and later versions
- Chrome 24.x and later versions

Note Javascript 1.5 or a later version must be enabled in your browser.

Requirements for Cisco Nexus 3000 or 3100 Series switches

You can run Cisco Monitor Manager Embedded on either Cisco Nexus 3000 or 3100 Series switches. Before deploying the software, you need the following:

- Ensure that you have admin rights to log in to the switch.
- Verify that the management interface of the switch (mgmt0) has an IP address configured.

  Run the switch# **show running-config interface mgmt0** command to verify that the information.