Cisco Monitor Manager Embedded Overview

This chapter contains the following sections:

About Cisco Monitor Manager Embedded

Cisco Monitor Manager Embedded enables you to run the Cisco Extensible Network Controller (XNC) and Cisco Monitor Manager applications directly on Cisco Nexus 3000 and 3100 Series switches. With Cisco Monitor Manager Embedded, you can 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 (XNC) is a software platform that serves as an interface between the network elements (southbound) and third-party applications (northbound). Cisco XNC, which is a JVM-based application that runs on a Java Virtual Machine (JVM), is based on a highly-available, scalable, and extensible architecture. Cisco XNC is built for extensibility using the Open Services Gateway initiative (OSGi) framework.

Cisco XNC can support multiple protocol plugins in the southbound direction. In Release 1.6, 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 enables you to make logical partitions of the network using flow specifications, and Monitor Manager, that provides you with visibility into the network traffic.

- A command line interface (CLI) framework for Cisco XNC.

About Cisco Monitor Manager

Cisco Monitor Manager is a network application that runs on Cisco Extensible Network Controller (XNC). Cisco Monitor Manager, in combination with the Cisco Plug-in for OpenFlow and a Cisco Nexus 3000 or 3100 Series switch, 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.

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.

- Connect to Cisco One Platform kit (Cisco onePK) agents for which Cisco onePK devices have been configured in Cisco XNC.

- A set VLAN option is supported on Cisco Nexus 3000 and 3100 Series switches.

- Configure symmetric load balancing or QinQ, depending on whether the network device is a Cisco Nexus 3000 or 3100 Series switch:

  ◦ Symmetric load balancing is supported on Cisco Nexus 3100 Series switches.

  ◦ QinQ is supported on Cisco Nexus 3000 and 3100 Series switches.

Supported Web Browsers

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.

Prerequisites for Cisco Nexus 3000 and 3100 Series Switches

You can run Cisco Monitor Manager Embedded on Cisco Nexus 3000 and 3100 Series switches. Before you deploy the software, you must do 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 by running the switch# **show running-config interface mgmt0** command.