Cisco Nexus Data Broker Embedded Overview

This chapter contains the following sections:

About Cisco Nexus Data Broker Embedded

Visibility into application traffic has traditionally been important for infrastructure operations to maintain security, troubleshooting, and compliance mechanisms, and to perform resource planning. With the technological advances and growth in cloud-based applications, it has become imperative to gain increased visibility into the network traffic. Traditional approaches to gain visibility into network traffic are expensive and rigid, making it difficult to do in large-scale deployments.

Cisco Nexus Data Broker Embedded with Cisco Nexus Switches provides a software-defined, programmable solution to aggregate copies of network traffic using Switched Port Analyzer (SPAN) or network Test Access Points (TAP) for monitoring and visibility. As opposed to traditional network taps and monitoring solutions, this packet-brokering approach offers a simple, scalable and cost-effective solution that is well suited for customers who need to monitor higher-volume and business-critical traffic for efficient use of security, compliance, and application performance monitoring tools.

The Cisco Nexus Data Broker Embedded option provides the flexibility for you to run the Cisco Nexus Data Broker software directly on a Cisco Nexus 3000, 3100, or 3500 Series switch in a single-switch deployment. This is suitable for smaller, co-located facilities where customers need only a single Cisco Nexus 3000, 3100, or 3500 Series switch for TAP/SPAN aggregation, because it eliminates the requirement to have a separate virtual machine for the Cisco Nexus Data Broker application.

The Cisco Nexus Data Broker Embedded solution supports the following:

- The ability to aggregate traffic from multiple TAP or SPAN ports connected to a single switch.
- Support for Q-in-Q to tag input source TAP and SPAN ports.
- Symmetric hashing or symmetric load balancing.
- Rules for matching monitoring traffic based on Layer 1 through Layer 4 information.
- The ability to replicate and forward traffic to multiple monitoring tools.

- Timestamp tagging using the Precision Time Protocol.

- Packet truncation beyond a specified number if bytes to discard payload.

- Security features, such as role-based access control (RBAC), and integration with an external Active Directory using RADIUS or TACACS for authentication and authorization.

- End-to-end path visibility and both port and flow level statistics for troubleshooting.

- Robust Representational State Transfer (REST) API and web-based GUI for all functions.

Supported Web Browsers

The following web browsers are supported for Cisco Nexus Data Broker 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, 3100, and 3500 Series Switches

You can run Cisco Nexus Data Broker Embedded on Cisco Nexus 3000, 3100, or 3500 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.