



CHAPTER 23

Configuring Routing on DCNM-LAN Client

The Cisco Data Center Network Manager (DCNM) supports IP addressing, object tracking, and Gateway Load Balancing Protocol (GLBP).

This chapter includes following sections:

- [Configuring GLBP, page 23-1](#)
- [Configuring HSRP, page 23-1](#)
- [Configuring Keychain Management, page 23-2](#)
- [Configuring Object Tracking, page 23-2](#)

For more information about the Data Center Network Manager features, see the *Unicast Routing Configuration Guide, Cisco DCNM for LAN, Release 7.x*.

Configuring GLBP

This chapter in *Unicast Routing Configuration Guide, Cisco DCNM for LAN, Release 7.x* describes how to configure the Gateway Load Balancing Protocol (GLBP) on the Cisco Data Center Network Manager (DCNM)NX-OS device.

This chapter includes the following sections:

GLBP provides path redundancy for IP by sharing protocol and Media Access Control (MAC) addresses between redundant gateways. Additionally, GLBP allows a group of Layer 3 routers to share the load of the default gateway on a LAN. A GLBP router can automatically assume the forwarding function of another router in the group if the other router fails.

Configuring HSRP

This chapter in *Unicast Routing Configuration Guide, Cisco DCNM for LAN, Release 7.x* describes how to configure the Hot Standby Router Protocol (*HSRP*) on the Cisco Data Center Network Manager (DCNM)NX-OS device.

This chapter includes the following sections:

HSRP is a first-hop redundancy protocol (*FHRP*) that allows a transparent failover of the first-hop IP router. HSRP provides first-hop routing redundancy for IP hosts on Ethernet networks configured with a default router IP address. You use HSRP in a group of routers for selecting an active router and a standby router. In a group of routers, the active router is the router that routes packets; the standby router is the router that takes over when the active router fails or when preset conditions are met.

Many host implementations do not support any dynamic router discovery mechanisms but can be configured with a default router. Running a dynamic router discovery mechanism on every host is not feasible for a number of reasons, including administrative overhead, processing overhead, and security issues. HSRP provides failover services to these hosts.

Configuring Keychain Management

This chapter in *Unicast Routing Configuration Guide, Cisco DCNM for LAN, Release 7.x* describes how to configure keychain management on an NX-OS device.

Keychain management allows you to create and maintain keychains, which are sequences of keys (sometimes called shared secrets). You can use keychains with features that secure communications with other devices by using key-based authentication. The device allows you to configure multiple keychains.

Some routing protocols that support key-based authentication can use a keychain to implement a hitless key rollover for authentication.

**Note**

The Cisco NX-OS release that is running on a managed device may not support all the features or settings described in this section. For the latest feature information and caveats, see the documentation and release notes for your platform and software release. This chapter includes the following sections:

Configuring Object Tracking

This chapter in *Unicast Routing Configuration Guide, Cisco DCNM for LAN, Release 7.x* describes how to configure object tracking on the Cisco NX-OS Cisco NX-OS device.

This chapter includes the following sections:

Object tracking allows you to track specific objects on the device, such as the interface line protocol state, IP routing, and route reachability, and to take action when the tracked object's state changes. This feature allows you to increase the availability of the network and shorten recovery time if an object state goes down.

System-message logging levels for the Object Tracking feature must meet or exceed Cisco DCNM requirements. During device discovery, Cisco DCNM detects inadequate logging levels and raises them to the minimum requirements. Cisco Nexus 7000 Series switches that run Cisco NX-OS Release 4.0 are an exception. For Cisco NX-OS Release 4.0, prior to device discovery, use the command-line interface to configure logging levels to meet or exceed Cisco DCNM requirements.