



CHAPTER 1

Overview

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

This chapter includes the following sections:

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- [First-Hop Redundancy Protocols, page 1-1](#)
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IPv4 and IPv6

Layer 3 uses either the IPv4 or IPv6 protocol. IPv6 is a new IP protocol designed to replace IPv4, the Internet protocol that is predominantly deployed and used throughout the world. IPv6 increases the number of network address bits from 32 bits (in IPv4) to 128 bits. For more information, see [Chapter 2, “Configuring IPv4”](#) or [Chapter 3, “Configuring IPv6.”](#)

First-Hop Redundancy Protocols

First-hop redundancy protocols allow you to provide redundant connections to your hosts. In the event that an active first-hop router fails, the FHRP automatically selects a standby router to take over. You do not need to update the hosts with new IP addresses since the address is virtual and shared between each router in the FHRP group. For more information on the Gateway Load Balancing Protocol (GLBP), see [Chapter 4, “Configuring GLBP”](#). For more information on the Hot Standby Router Protocol (HSRP), see [Chapter 5, “Configuring HSRP”](#).

Object Tracking

Object tracking allows you to track specific objects on the network, such as the interface line protocol state, IP routing, and route reachability, and 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. For more information, see [Chapter 6, “Configuring Object Tracking”](#).

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