



CHAPTER 13

IP Telephony Migration Options

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For first-time installations of IPv6 with Cisco Unified Communications Manager (Unified CM), Cisco recommends the following guidelines:

Deployment Models

For Cisco Unified CM 8.0, IPv6 is supported for single-site deployments, multi-site deployments with distributed call processing, and multi-site deployments with centralized call processing.

Campus Network and WAN

Before you enable IPv6 in the Unified CM cluster, make sure that both the campus network and the WAN support both IPv4 and IPv6 traffic. Dual-stack (IPv4 and IPv6) routing is recommended for Layer 3 campuses and WANs.

Cluster-Wide IPv6 Configuration Settings

To maximize the amount of IPv6 traffic on your Unified Communications network, use the following settings for the cluster-wide IPv6 Enterprise Parameters:

- Enable IPv6: True
- IP Addressing Mode Preference for Media: IPv6
- IP Addressing Mode Preference for Signaling: IPv6

Common Device Configuration Profiles

Use multiple Common Device Configuration Profiles so that individual phones and trunks or groups of phones and SIP trunks can be selectively configured to support IPv6.

The Common Device Configuration Profile in Unified CM Administration (**Device > Device Settings > Common Device Configuration**) contains the following IPv6 configuration information:

- IP Addressing Mode
- IP Addressing Mode Preference for Signaling
- Allow Auto-Configuration for Phones

DHCP

Stateful DHCPv6 is recommended, although stateless DHCP can also be used in conjunction with Stateless Address Auto-Configuration (SLAAC) for phones.

MTPs

For multi-site distributed call processing deployments, you will most likely need to use Cisco IOS media termination points (MTPs) for conversions between IPv4 and IPv6. These MTPs should be associated with both phone and SIP trunk media resource groups (MRGs).

IPv6 SIP Trunks

IPv6 SIP trunks should be configured as dual-stack (IPv4 and IPv6) with Alternative Network Address Types (ANAT) enabled. Either Delayed Offer or Early Offer may be used. Bear in mind, however, that SIP trunks configured for Early Offer (MTP Required) use an MTP resource for every call and do not support video calls or encrypted calls.

IP Phones

IPv6-only phones have a number of functional limitations (see [Unified Communications Endpoints, page 15-1](#)), and they should be used only for non-production purposes. IPv6-capable phones should be configured as **IPv4 only** or **IPv4 and IPv6**.