APPENDIX D

Configuring Cisco IOS Gateways

Revised: June 08, 2010, OL-19142-02

The example in this appendix illustrates how to configure Cisco IOS gateways to enable Alternative Network Address Types (ANAT), the ANAT addressing preference, and SIP trunk signaling.

For additional information on IPv6 configuration, refer to the following documentation:

- *Cisco IOS Voice Command Reference*

  http://www.cisco.com/en/US/docs/ios/voice/command/reference/vr_book.html
- *Cisco IOS IPv6 Command Reference*

  http://www.cisco.com/en/US/docs/ios/ipv6/command/reference/ipv6_book.html

Cisco IOS Gateway Configuration

```
2800-Router(config)#voice service voip
```

Shut down the **voice service voip** to configure dual-stack mode and ANAT preference:

```
2800-Router (conf-voi-serv)#shutdown
2800-Router (conf-voi-serv)#sip-ua

2800-Router (config-sip-ua)#protocol mode dual-stack preference ?
  ipv4  IPv4 address is preferred
  ipv6  IPv6 address is preferred

2800-Router (config-sip-ua)#protocol mode dual-stack preference ipv4
2800-Router (config-sip-ua)#voice service voip
2800-Router (conf-voi-serv)#no shutdown
```

Now the gateway is configured as dual-stack gateway with IPv4 preference.

ANAT is enabled globally by default, but can also be enabled by the following commands:

```
2800-Router (config-sip-ua)#voice service voip
2800-Router (conf-voi-serv)#sip
2800-Router (conf-serv-sip)#anat
```

Use the following command to enable ANAT on each dial-peer:

```
dial-peer voice 1 voip
 description **** SIP Trunk to CUCM ****
 destination-pattern 5...
 voice-class sip anat
 session protocol sipv2
 session target ipv6:[2001:db8:caf0:101:21b:78ff:fe7a:5d86]
```

For signaling, only one destination address can be set, and it should be either IPv4 or IPv6.

```
session transport tcp
dtmf-relay rtp-nte
no vad
```