Prime Performance Manager and IPv6

The following topics describe Prime Performance Manager IPv6 behavior and configuration practices:

IPv6 Support in Prime Performance Manager

You can use Prime Performance Manager to set up gateways and units with IPv6 addresses:

- Install a gateway and unit with IPv6 addresses.
- Support web access gateway with IPv6 address or hostname
- Support device discovery with IPv6 addresses.
- Install units with connectivity to an IPv6 address and hostname.
- Integrate with Cisco Prime Network using IPv6 addresses, including cross launch and device inventory imports.
- Set up an OSS with IPv6 as the source and (or) destination server.

Adding SNMP and Telnet/SSH Credentials

Prime Performance Manager can manage both IPv4 and IPv6 devices. The address format complies with the RFC 2732 and RFC 4291. To configure the credentials with wildcard matching, the IPv6 prefix can be used.

Unit Configuration

To allocate the devices to a different unit, you can configure the unit using either an IPv4 or an IPv6 address. The IPv4 CIDR or IPv6 prefix is supported for both IPv4 and IPv6. Always verify that the device is reachable from the Prime Performance Manager unit regardless of whether the device is IPv4 or IPv6.

Device Discovery

Unlike IPv4 device discovery, the IPv6 prefix cannot be used for device discovery. To match the IPv6 device for getting the credential used for discovery, the algorithm of longest match is used to find the SNMP or Telnet/SSH credential. If none is found, the default entry,::/0, is used.

For some software versions, the SNMP isn't supported over IPv6. Before applying your IPv6 settings to the device, verify that the software versions support SNMP over IPv6.

Reports

IPv4 and IPv6 devices can be polled by Prime Performance Manager units to generate stats reports. There is no difference in report itself regardless of whether the data is polled by an IPv4 or IPv6 address. For reports related to IP addresses, there is limitation on the device because most of the MIBs required for these reports do not support IPv6 addresses, for example, pseudowires, MPLS TE and VidMon. For reports with MIB data that supports IPv6, only IPSLA reports support the IPv6 in Prime Performance Manager in the current release. More are planned for the future.

Device Management Actions

For device management, you can perform the same actions on IPv6 devices as you can for IPv4 devices. For information about device actions, see Creating and Editing Device Polling Groups, page 8-29.

Alarms and Events

Similar as IPv4 device, the alarms or events generated for IPv6 device are also available in Alarm and Event GUI.

Clients

You can use both IPv4 and IPv6 addresses and hostname to access the Prime Performance Manager gateway using a web browser. If you connect to the gateway using a literal IPv6 address. enclose the address with "[" and "]" in the URL.

For example,

```
http://[2011::2:21b:78ff:febd:9e16]:4440
```

Trap Forwarding

Trap forwarding can be configured in the Prime Performance Manager web GUI. Both IPv4 and IPv6 addresses are supported.

Prime Network Integration

Both IPv4 and IPv6 address can be used for Prime Network integration, including inventory import and cross-launch Installation. After installing the cross-launch with a Prime Network IPv6 address, the Prime Performance Manager gateway IPv6 address is used to navigate to the Prime Performance Manager web report from Prime Network. If notifications are sent out from Prime Network to Prime Performance Manager, the IPv6 address is used to connect to the Prime Performance Manager gateway.

Command Line Interface

IPv6 is supported by Prime Performance Manager that have an IP address as a parameter, such as snmpget/snmpwalk and addsnmpcomm, and others.

If you are using ipaccess to control the login access in a Prime Performance Manager gateway, verify that the addresses used by the Prime Performance Manager unit are in this access list. The access list must include both IPv4 and IPv6 addresses.

IPv6 Troubleshooting

The DNS server is usually enabled. You can view the install log to get the configurations, for example:

```
==================- TCP/IP Address Check -==================
…
INFO: Local address resolution -> Primary:files, Secondary:dns
```

- Linux and Solaris—Verify that the following line is present in your /etc/nsswitch.conf file:

  ```
  hosts: files dns
  ```

- Solaris only

  - Verify that your /etc/hosts file is a soft link file link to /etc/inet/hosts. If the soft link is broken, add the link to /etc/inet/hosts using **ln** command.

  - Verify that your /etc/nsswitch.conf file has the following line:

    ```
    ipnodes:   files dns
    ```

IPv6 Troubleshooting