This chapter describes the following:

- How to configure an IPv6 prefix list.
- How to display IPv6 prefix list information.

**Configuring an IPv6 Prefix List**

HP supports IPv6 prefix lists, which you can use for basic traffic filtering. You can configure up to 100 IPv6 prefix lists.

An IPv6 prefix list is composed of one or more conditional statements that pose an action (permit or deny) if a packet matches a specified prefix. In prefix lists with multiple statements, you can specify a sequence number for each statement. The specified sequence number determines the order in which the statement appears in the prefix.

You can configure an IPv6 prefix list on a global basis, then use it as input to other commands or processes, such as route aggregation, route redistribution, route distribution, route maps, and so on. When a router interface sends or receives an IPv6 packet, it applies the statement(s) within the IPv6 prefix list in their order of appearance to the packet. As soon as a match occurs, the Routing Switch takes the specified action (permit or deny the packet) and stops further comparison for that packet.

You can use permit statements in the prefix list to specify the traffic that you want to send to the other feature. If you use deny statements, the traffic specified by the deny statements is not supplied to the other feature.

To configure an IPv6 prefix list and use it as input to the RIPng **distribute-list** command, enter commands such as the following:

```
ProCurveRS(config)# ipv6 prefix-list routesfor2001 permit 2001::/16
ProCurveRS(config)# ipv6 router rip
ProCurveRS(config-ripng-router)# distribute-list prefix-list routesfor2001 out
ethernet 3/1
```

These commands permit the inclusion of routes with the IPv6 prefix 2001::/16 in RIPng routing updates sent from Ethernet interface 3/1.

**Syntax:** `[no] ipv6 prefix-list <name> [seq <sequence-number>] deny <ipv6-prefix>/<prefix-length> | permit <ipv6-prefix>/<prefix-length> | description <string> [ge <ge-value>] [le <le-value>]`

The `<name>` parameter specifies the prefix list name. You use this name when using the prefix list as input to command or route map.
IPv6 Configuration Guide for the ProCurve 9408sl Routing Switch

The seq <seq-number> parameter is optional and specifies the IPv6 prefix list's sequence number. If you do not specify a sequence number, the software numbers them in increments of 5, beginning with prefix list entry 5. The Routing Switch interprets the prefix list entries in numerical order, beginning with the lowest sequence number.

The description <string> parameter is a text string describing the prefix list.

The deny <ipv6-prefix/</prefix-length> | permit <ipv6-prefix/</prefix-length> parameters specify the action the Routing Switch takes if a packet contains a route specified in this prefix list.

You must specify the <ipv6-prefix> parameter in hexadecimal using 16-bit values between colons as documented in RFC 2373.

You must specify the <prefix-length> parameter as a decimal value. A slash mark (/) must follow the <ipv6-prefix> parameter and precede the <prefix-length> parameter.

The prefix list matches only on the specified prefix/prefix length unless you use the ge <prefix-length> or le <prefix-length> parameters. (See below.)

You can specify a range of prefix lengths for prefixes that are more specific than <ipv6-prefix/</prefix-length>.

- If you specify only ge <ge-value>, then the range is from <ge-value> to 128.
- If you specify only le <le-value>, then the range is from <le-value> to the <prefix-length> parameter.

The <ge-value> or <le-value> you specify must meet the following condition:

\[\text{prefix-length} < \text{ge-value} \leq \text{le-value} \leq 128\]

If you do not specify ge <ge-value> or le <le-value>, the prefix list matches only on the exact prefix you specify with the <ipv6-prefix/</prefix-length> parameter.

To delete the prefix list entry, use the no form of this command.

**Displaying Prefix List Information**

To display the IPv6 prefix lists configured on a Routing Switch, enter the following command at any level of the CLI:

```
ProCurveRS(config)# show ipv6 prefix-lists
```

```
ipv6 prefix-list routesfor2001: 1 entries
  seq 5 permit 2001::/16
```

**Syntax:** show ipv6 prefix-lists [<name>]

The <name> parameter restricts the display to the specified prefix list. Specify the name of the prefix list that you want to display.