NOTE: The global BGP and BGP4 unicast address family configuration levels are present only on HP devices that support IPv6 and ProCurve 9408xl Routing Switches only.

A global BGP command is a command that configures the BGP routing protocol. You can access the global BGP commands while at the global BGP configuration level.

A BGP4 unicast address family command is a command that configures a BGP4 unicast route. For backward compatibility, you can currently access BGP4 unicast address family commands at both global BGP configuration and BGP4 unicast address family configuration levels.

This chapter describes the following:

- The global BGP commands and BGP4 unicast address family commands that you can access at the global BGP configuration level.
- The BGP4 unicast address family commands that you can access at the BGP4 unicast address family level.

The BGP4 unicast address family commands that you can access at the global BGP configuration level are the same as those you can access at the BGP4 unicast address family level.

To help you distinguish the global BGP commands from the BGP4 address family commands described in this chapter, see the "CLI level" heading in each command description.

address-family

Allows you to enter the following configuration levels:

- BGP4 unicast address family – While at this level, you can access commands that allow you to configure BGP4 unicast routes. The commands that you enter at this level apply only to the BGP4 unicast address family only. You can generate a configuration for BGP4 unicast routes that is separate and distinct from configurations for BGP4 multicast routes and IPv6 BGP unicast routes.

- BGP4 multicast address family – While at this level, you can access commands that allow you to configure BGP4 multicast routes. The commands that you enter at this level apply only to the BGP4 multicast address family only. You can generate a configuration for BGP4 multicast routes that is separate and distinct from configurations for BGP4 unicast routes and IPv6 BGP unicast routes.

- IPv6 BGP unicast address family – While at this level, you can access commands that allow you to configure IPv6 BGP unicast routes. The commands that you enter at this level apply only to the IPv6 BGP unicast address family only. You can generate a configuration for IPv6 BGP unicast routes that is separate and distinct from configurations for BGP4 unicast routes and BGP4 multicast routes.
NOTE: Each address family configuration level allows you to access commands that apply to that particular address family only. To enable a feature in a particular address family, you must specify any associated commands for that feature in that particular address family. You cannot expect the feature, which you may have configured in the BGP4 unicast address family, to work in the IPv6 BGP unicast address family unless it is explicitly configured in the IPv6 BGP unicast address family.

For backward compatibility, you can currently access commands related to BGP4 unicast routes at both global BGP configuration and BGP4 unicast address family configuration levels. Both of these levels are indicated by the `{config-bgp)# prompt.

For information about the commands that you can access from the BGP4 multicast address family level, see “BGP4 Multicast Address Family Commands” on page 19-1. For information about the commands that you can access from the IPv6 BGP unicast address family level, see “IPv6 BGP Unicast Address Family Commands” on page 20-1.

CLI level: Global BGP and BGP4 unicast address family

EXAMPLE:
To enter the BGP4 unicast address family configuration level, enter a command such as the following:

ProCurveRS(config-bgp)# address-family ipv4 unicast
ProCurveRS(config-bgp)#

The `{config-bgp)# prompt indicates that you are at the default BGP4 level, where you can access both global BGP and BGP4 unicast address family commands.

To enter the IPv4 BGP multicast address family configuration level, enter a command such as the following:

ProCurveRS(config-bgp)# address-family ipv4 multicast
ProCurveRS(config-bgp-ipv4m)#

The `{config-bgp-ipv4m)# prompt indicates that you are at the IPv4 BGP multicast address family configuration level.

To enter the IPv6 BGP unicast address family configuration level, enter a command such as the following:

ProCurveRS(config-bgp)# address-family ipv6 unicast
ProCurveRS(config-bgp-ipv6u)#

The `{config-bgp-ipv6u)# prompt indicates that you are at the IPv6 BGP unicast address family configuration level.

Syntax: address-family ipv4 unicast | ipv4 multicast | ipv6 unicast

Specify the `ipv4 unicast`, `ipv4 multicast`, and `ipv6 unicast` keywords to enter the BGP4 unicast, BGP4 multicast, and IPv6 BGP unicast address family configuration levels, respectively.

Possible values: See above

Default value: N/A

address-filter

Configures an address filter for filtering routes in BGP4 updates based on IP address.

CLI level: Global BGP

EXAMPLE:
To define an IP address filter to deny routes to 209.157.0.0, enter the following command:

ProCurveRS(config-bgp)# address-filter 1 deny 209.157.0.0 255.255.0.0

Syntax: address-filter <num> permit | deny <ip-addr> <wildcard> <mask> <wildcard>

The `<num>` parameter is the filter number.

The `permit | deny` parameter indicates the action the Routing Switch takes if the filter match is true.
- If you specify **permit**, the Routing Switch permits the route into the BGP4 table if the filter match is true.
- If you specify **deny**, the Routing Switch denies the route from entering the BGP4 table if the filter match is true.

**NOTE:** Once you define a filter, the default action for addresses that do not match a filter is “deny”. To change the default action to “permit”, configure the last filter as “permit any”.

The `<ip-addr>` parameter specifies the IP address. If you want the filter to match on all addresses, enter **any**.

The `<wildcard>` parameter specifies the portion of the IP address to match against. The `<wildcard>` is a four-part value in dotted-decimal notation (IP address format) consisting of ones and zeros. Zeros in the mask mean the packet's source address must match the `<source-ip>`. Ones mean any value matches. For example, the `<ip-addr>` and `<wildcard>` values 209.157.22.26 0.0.0.255 mean that all hosts in the Class C sub-net 209.157.22.x match the policy.

If you prefer to specify the wildcard (mask value) in Classless Interdomain Routing (CIDR) format, you can enter a forward slash after the IP address, then enter the number of significant bits in the mask. For example, you can enter the CIDR equivalent of “209.157.22.26 0.0.0.255” as “209.157.22.26/24”. The CLI automatically converts the CIDR number into the appropriate mask (where zeros instead of ones are the significant bits) and changes the non-significant portion of the IP address into zeros. For example, if you specify 209.157.22.26/24 or 209.157.22.26 0.0.0.255, then save the changes to the startup-config file, the value appears as 209.157.22.0/24 (if you have enabled display of sub-net lengths) or 209.157.22.0 0.0.0.255 in the startup-config file.

If you enable the software to display IP sub-net masks in CIDR format, the mask is saved in the file in “/<mask-bits>” format. To enable the software to display the CIDR masks, enter the `ip show-subnet-length` command at the global CONFIG level of the CLI. You can use the CIDR format to configure the filter regardless of whether the software is configured to display the masks in CIDR format.

The `<mask>` parameter specifies the network mask. If you want the filter to match on all destination addresses, enter **any**. The wildcard works the same as described above.

**Possible values:** see above

**Default value:** N/A

### aggregate-address

Configures the Routing Switch to aggregate routes in a range of networks into a single CIDR number.

**NOTE:** To summarize CIDR networks, you must use the aggregation feature. The auto summary feature does not summarize networks that use CIDR numbers instead of class A, B, or C numbers.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**

To aggregate routes for 209.157.22.0, 209.157.23.0, and 209.157.24.0, enter the following command:

```
ProCurveRS(config-bgp)# aggregate-address 209.157.0.0 255.255.0.0
```

**Syntax:** aggregate-address `<ip-addr>` `<ip-mask>` [as-set] [nlri multicast | unicast | multicast unicast] [summary-only] [suppress-map `<map-name>`] [advertise-map `<map-name>`] [attribute-map `<map-name>`]

The `<ip-addr>` and `<ip-mask>` parameters specify the aggregate value for the networks. Specify 0 for the host portion and for the network portion that differs among the networks in the aggregate. For example, to aggregate 10.0.1.0, 10.0.2.0, and 10.0.3.0, enter the IP address 10.0.0.0 and the network mask 255.255.0.0.

The **as-set** parameter causes the router to aggregate AS-path information for all the routes in the aggregate address into a single AS-path.

The **nlri multicast | unicast | multicast unicast** parameter specifies whether the neighbor is a multicast neighbor or a unicast neighbor. For MBGP, you must specify **multicast**. Optionally, you also can specify **unicast** if you want the Routing Switch to exchange unicast (BGP4) routes as well as multicast routes with the neighbor. The default is **unicast** only.
The **summary-only** parameter prevents the router from advertising more specific routes contained within the aggregate route.

The **suppress-map** `<map-name>` parameter prevents the more specific routes contained in the specified route map from being advertised.

The **advertise-map** `<map-name>` parameter configures the router to advertise the more specific routes in the specified route map.

The **attribute-map** `<map-name>` parameter configures the router to set attributes for the aggregate routes based on the specified route map.

**NOTE:** For the **suppress-map**, **advertise-map**, and **attribute-map** parameters, the route map must already be defined. See the "Configuring BGP4" chapter of the *Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches* for information on defining a route map.

**Possible values:** see above

**Default value:** N/A

### always-compare-med

Configures the Routing Switch to compare the MEDs for all paths for a route, regardless of the AS through which the paths pass.

**CLI level:** Global BGP

**EXAMPLE:**

To configure the router to always compare MEDs, enter the following command:

```bash
ProCurveRS(config-bgp)# always-compare-med
```

**Syntax:** `[no] always-compare-med

**Possible values:** N/A

**Default value:** Disabled

### as-path-filter

Configures an AS-path filter for filtering routes in BGP4 updates based on AS-path.

**CLI level:** Global BGP

**EXAMPLE:**

To define AS-path filter 4 to permit AS 2500, enter the following command:

```bash
ProCurveRS(config-bgp)# as-path-filter 4 permit 2500
```

**Syntax:** `as-path-filter <num> permit | deny <as-path>

The `<num>` parameter identifies the filter's position in the AS-path filter list and can be from 1 – 100. Thus, the AS-path filter list can contain up to 100 filters. The Routing Switch applies the filters in numerical order, beginning with the lowest-numbered filter. When a filter match is true, the Routing Switch stops and does not continue applying filters from the list.

**NOTE:** If the filter is referred to by a route map's match statement, the filter is applied in the order in which the filter is listed in the match statement.

The **permit I deny** parameter indicates the action the router takes if the filter match is true.

- If you specify **permit**, the router permits the route into the BGP4 table if the filter match is true.
- If you specify **deny**, the router denies the route from entering the BGP4 table if the filter match is true.

The `<as-path>` parameter indicates the AS-path information. You can enter an exact AS-path string if you want to filter for a specific value. You also can use regular expressions in the filter string.
NOTE: You can use regular expressions as part of the AS-path. See the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches.

Possible values: N/A
Default value: Disabled

as-path-ignore
Disables AS-Path comparison, which is Step 5 in the algorithm BGP4 uses to select the next path for a route.

CLI level: Global BGP

EXAMPLE:
ProCurveRS(config-bgp)# as-path-ignore

This command disables comparison of the AS-Path lengths of otherwise equal paths. When you disable AS-Path length comparison, the BGP4 algorithm skips from Step 4 to Step 6.

For information about the algorithm, see the "How BGP4 Selects a Path for a Route" section in the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches.

Syntax: [no] as-path-ignore

Possible values: N/A
Default value: Enabled

auto-summary
Enables or disables auto summary. The auto summary feature summarizes the routes it redistributes from IGP to BGP4. The router summarizes sub-nets into their natural class A, B, or C networks. For example, if an AS contains sub-nets 1.1.0.0, 1.2.0.0, and 1.3.0.0 with the network mask 255.255.0.0, the auto summary feature summarizes the sub-nets in its advertisements to BGP4 neighbors as 1.0.0.0/8. The auto summary feature is disabled by default.

NOTE: The auto summary feature summarizes only the routes that are redistributed from IGP into BGP4.

NOTE: The auto summary feature does not summarize networks that use CIDR numbers instead of class A, B, or C numbers. To summarize CIDR networks, use the aggregation feature. See the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches.

CLI level: BGP4 unicast address family

EXAMPLE:
To enable auto summary, enter the following command:

ProCurveRS(config-bgp)# auto-summary

Syntax: [no] auto-summary

Possible values: N/A
Default value: Disabled

bgp-redistribute-internal
Enables redistribution of IBGP routes from BGP4 into RIP or OSPF.

CLI level: Global BGP

EXAMPLE:
To enable the Routing Switch to redistribute BGP4 routes into OSPF and RIP, enter the following command:
ProCurveRS(config-bgp)# bgp-redistribute-internal

**Syntax:** [no] bgp-redistribute-internal

To disable redistribution of IBGP routes into RIP and OSPF, enter the following command:

ProCurveRS(config-bgp)# no bgp-redistribute-internal

**Possible values:** N/A

**Default value:** Disabled

**client-to-client-reflection**

Disables or re-enables route reflection. For more information about route reflection, see the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**

If you need to disable route reflection on a router, enter the following command. Disabling route reflection allows you to turn off the feature without removing Cluster ID and route reflector client information from the system configuration file.

ProCurveRS(config-bgp)# no client-to-client-reflection

Enter the following command to re-enable the feature:

ProCurveRS(config-bgp)# client-to-client-reflection

**Syntax:** [no] client-to-client-reflection

**Possible values:** N/A

**Default value:** Enabled

**cluster-id**

Changes the BGP4 cluster ID. Use this command only on a BGP4 Routing Switch that you are using as a route reflector. For more information about route reflection, see the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches.

**CLI level:** Global BGP

**EXAMPLE:**

Enter the following commands to configure a ProCurve Routing Switch as a route reflector for two neighbors in cluster 1:

ProCurveRS(config-bgp)# cluster-id 1
ProCurveRS(config-bgp)# neighbor 10.0.1.0 route-reflector-client
ProCurveRS(config-bgp)# neighbor 10.0.2.0 route-reflector-client

**Syntax:** [no] cluster-id <num> | <ip-addr>

**Possible values:** a number from 1 – 4294967295 or an IP address. You can configure one cluster ID on the router. All route-reflector clients for the router are members of the cluster.

**Default value:** the router ID

**community-filter**

Configures a community address filter for filtering routes in BGP4 updates based on community.

**CLI level:** Global BGP

**EXAMPLE:**

To define filter 3 to permit routes that have the NO_ADVERTISE community, enter the following command:

ProCurveRS(config-bgp)# community-filter 3 permit no-advertise

**Syntax:** community-filter <num> permit | deny <num>:<num> | internet | local-as | no-advertise | no-export
The `<num>` parameter identifies the filter's position in the community filter list and can be from 1 – 100. Thus, the community filter list can contain up to 100 filters. The router applies the filters in numerical order, beginning with the lowest-numbered filter. When a filter match is true, the router stops and does not continue applying filters from the list.

**NOTE:** If the filter is referred to by a route map's match statement, the filter is applied in the order in which the filter is listed in the match statement.

The `permit | deny` parameter indicates the action the router takes if the filter match is true.
- If you specify `permit`, the router permits the route into the BGP4 table if the filter match is true.
- If you specify `deny`, the router denies the route from entering the BGP4 table if the filter match is true.

The `<community-number>` parameter indicates a specific community number to filter. Use this parameter to filter for a private (administrator-defined) community. If you want to filter for the well-known communities “NO_EXPORT” or “NO_ADVERTISE”, use the corresponding keyword (described below).

The `internet` keyword checks for routes that do not have the community attribute. Routes without a specific community are considered by default to be members of the largest community, the Internet.

The `local-as` parameter specifies a community value. If a BGP4 route received by the Routing Switch from a peer has the community type LOCAL_AS, the Routing Switch advertises the route only within the sub-AS. If the route has the community type NO_EXPORT, the Routing Switch advertises the route only within the confederation.

The `no-advertise` keyword filters for routes with the well-known community “NO_ADVERTISE”. A route in this community should not be advertised to any BGP4 neighbors.

The `no-export` keyword filters for routes with the well-known community “NO_EXPORT”. A route in this community should not be advertised to any BGP4 neighbors outside the local AS.

**Possible values:** N/A

**Default value:** Disabled

**compare-routerid**
Enables Router ID comparison, which is Step 10 in the algorithm BGP4 uses to select the next path for a route.

**NOTE:** Comparison of router IDs is applicable only when BGP4 load sharing is disabled.

When router ID comparison is enabled, the path comparison algorithm compares the router IDs of the neighbors that sent the otherwise equal paths.
- If BGP4 load sharing is disabled (maximum-paths 1), the Routing Switch selects the path that came from the neighbor with the lower router ID.
- If BGP4 load sharing is enabled, the Routing Switch load shares among the remaining paths. In this case, the router ID is not used to select a path.

**CLI level:** Global BGP

**EXAMPLE:**
To enable router ID comparison, enter the following command at the BGP configuration level of the CLI:

```text
ProCurveRS(config-bgp)# compare-routerid
```

**Syntax:** `[no] compare-routerid

For more information, see the "How BGP4 Selects a Path for a Route" section in the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches.

**Possible values:** N/A

**Default value:** Disabled
confederation

Configures a Routing Switch to be a member of a BGP confederation.

**CLI level:** Global BGP

**EXAMPLE:**
To configure a Routing Switch to be a member of confederation 10, consisting of two sub-ASs (64512 and 64513):

```
ProCurveRS(config-bgp)# confederation identifier 10
ProCurveRS(config-bgp)# confederation peers 64512 64513
```

**Syntax:** confederation identifier <num>

**Syntax:** confederation peers <num> [<num> …]

The `<num>` parameter with the `confederation identifier` command indicates the confederation number. The confederation ID is the AS number by which BGP routers outside the confederation know the confederation. Thus, a BGP router outside the confederation is not aware and does not care that your BGP routers are in multiple sub-ASs. BGP routers use the confederation ID when communicating with routers outside the confederation. The confederation ID must be different from the sub-AS numbers. You can specify a number from 1 – 65535.

The `<num>` parameter with the `confederation peers` command indicates the sub-AS numbers for the sub-ASs in the confederation. You must specify all the sub-ASs contained in the confederation. All the routers within the same sub-AS use IBGP to exchange router information. Routers in different sub-ASs within the confederation use EBGP to exchange router information. You can specify a number from 1 – 65535.

**Possible values:** 1 – 65535

**Default value:** N/A

dampening

Configures route flap dampening.

This section shows how to globally configure dampening. You also can use route maps to configure dampening for specify neighbors and routes.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**
The following example shows how to change the dampening parameters.

```
ProCurveRS(config-bgp)# dampening 20 200 2500 40
```

This command changes the half-life to 20 minutes, the reuse threshold to 200, the suppression threshold to 2500, and the maximum number of minutes a route can be dampened to 40.

**Syntax:** dampening [<half-life> <reuse> <suppress> <max-suppress-time>] 

The `<half-life>` parameter specifies the number of minutes after which the route’s penalty becomes half its value. The route penalty allows routes that have remained stable for a while despite earlier instability to eventually become eligible for use again. The decay rate of the penalty is proportional to the value of the penalty. After the half-life expires, the penalty decays to half its value. Thus, a dampened route that is no longer unstable can eventually become eligible for use again. You can configure the half-life to be from 1 – 45 minutes. The default is 15 minutes.

The `<reuse>` parameter specifies how low a route’s penalty must become before the route becomes eligible for use again after being suppressed. You can set the reuse threshold to a value from 1 – 20000. The default is 750 (0.75, or three-fourths, of the penalty assessed for a one “flap”).

The `<suppress>` parameter specifies how high a route’s penalty can become before the Routing Switch suppresses the route. You can set the suppression threshold to a value from 1 – 20000. The default is 2000 (two “flaps”).

The `<max-suppress-time>` parameter specifies the maximum number of minutes that a route can be suppressed regardless of how unstable it is. You can set the maximum suppression time to a value from 1 – 20000 minutes.
The default is four times the half-life setting. Thus, if you use the default half-life of 15 minutes, the maximum suppression time is 60 minutes.

**NOTE:** To change any of the parameters, you must specify all the parameters with the command. If you want to leave some parameters unchanged, enter their default values.

**Possible values:** See above

**Default value:** Disabled

### default-information-originate

Enables the Routing Switch to advertise a default BGP4 route.

**NOTE:** The ProCurve Routing Switch checks for the existence of an IGP route for 0.0.0.0/0 in the IP route table before creating a local BGP route for 0.0.0.0/0.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**

To enable the router to advertise a default BGP4 route, enter the following command:

```
ProCurveRS(config-bgp)# default-information-originate
```

**Syntax:** [no] default-information-originate

**Possible values:** N/A

**Default value:** Enabled

### default-local-preference

Changes the local preference. The local preference is an attribute that indicates a degree of preference for a route relative to other routes in the local AS. BGP4 neighbors can send the local preference value as an attribute of a route in an UPDATE message. Local preference applies only to routes within the local AS.

**CLI level:** Global BGP

**EXAMPLE:**

To change the default local preference to 200, enter the following command:

```
ProCurveRS(config-bgp)# default-local-preference 200
```

**Syntax:** default-local-preference <num>

**Possible values:** 0 – 4294967295

**Default value:** 100

### default-metric

Sets the default BGP4 MED (metric), a global parameter that specifies the cost that will be applied to all routes by default when they are redistributed into BGP4. When routes are selected, lower metric values are preferred over higher metric values.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**

To change the default metric to 40, enter the following command:

```
ProCurveRS(config-bgp)# default-metric 40
```

**Syntax:** default-metric <num>

**Possible values:** 0 – 4294967295

**Default value:** 0
distance
Changes the administrative distance for IBGP, EBGP, or Local BGP routes. To select one route over another based on the source of the route information, the Routing Switch can use the administrative distances assigned to the sources.

See the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches for a list of the default administrative distances for all types of routes.

CLI level: Global BGP

EXAMPLE:
To change the default administrative distances for EBGP, IBGP, and Local BGP, enter a command such as the following:

ProCurveRS(config-bgp)# distance 180 160 40

Syntax: distance <external-distance> <internal-distance> <local-distance>
The <external-distance> sets the EBGP distance and can be a value from 1 – 255. The default is 20.
The <internal-distance> sets the IBGP distance and can be a value from 1 – 255. The default is 200.
The <local-distance> sets the Local BGP distance and can be a value from 1 – 255. The default is 200.
Possible values: see above
Default value: see above

end
Moves activity to the privileged EXEC level from any level of the CLI except the user EXEC level.

CLI level: Global BGP and BGP4 unicast address family

EXAMPLE:
To move to the privileged level, enter the following from any level of the CLI.

ProCurveRS(config-bgp)# end
ProCurveRS#

Syntax: end
Possible values: N/A
Default value: N/A

enforce-first-as
Requires the first AS listed in the AS_SEQUENCE field of an AS path Update from an EBGP neighbor to be the AS that the neighbor who sent the Update is in. By default, the HP device does not require this.

When you enable the HP device to require the AS that an EBGP neighbor is in to be the same as the first AS in the AS_SEQUENCE field of an Update from the neighbor, the HP device accepts the Update only if the ASs match. If the ASs do not match, the HP device sends a Notification message to the neighbor and closes the session. The requirement applies to all Updates received from EBGP neighbors.

CLI level: Global BGP

EXAMPLE:
ProCurveRS(config-bgp)# enforce-first-as

Syntax: [no] enforce-first-as
Possible values: N/A
Default value: N/A

exit
Moves activity up one level from the current level. In this case, activity will be moved to the global level.
**CLI level:** Global BGP and BGP4 unicast address family

**EXAMPLE:**
ProCurveRS(config-bgp)# exit
ProCurveRS(config)#

**Syntax:** exit
**Possible values:** N/A
**Default value:** N/A

**exit-address-family**
Allows you to exit from the BGP4 unicast address family configuration level and return to the default BGP level, where you can access both global BGP and BGP4 unicast address family commands.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**
ProCurveRS(config-bgp)# exit-address-family
ProCurveRS(config-bgp)#

The (config-bgp)# prompt indicates that you are at the default BGP level.

**Syntax:** exit-address-family
**Possible values:** N/A
**Default value:** N/A

**fast-external-fallover**
Configures the Routing Switch to immediately close the BGP4 session and TCP connection to locally attached neighbors that die. This feature is disabled by default.

**CLI level:** Global BGP

**EXAMPLE:**
To enable fast external fallover, enter the following command:
ProCurveRS(config-bgp)# fast-external-fallover

**Syntax:** [no] fast-external-fallover
**Possible values:** N/A
**Default value:** Disabled

**local-as**
The local AS number identifies the AS the HP BGP4 router is in. The AS number can be from 1 – 65535. AS numbers 64512 – 65535 are the well-known private BGP4 AS numbers. There is no default local AS number.

**CLI level:** Global BGP

**EXAMPLE:**
To set the local AS, enter a command such as the following:
ProCurveRS(config-bgp)# local-as 64512

**Syntax:** local-as <num>
**Possible values:** 1 – 65535
**Default value:** None
maximum-paths
Changes the maximum number of shared paths. When IP load sharing is enabled, BGP4 can balance traffic to a
specific destination across up to four equal paths. You can set the maximum number of paths to a value from
1 – 8. The default is 1.

NOTE: The maximum number of BGP4 load sharing paths cannot be greater than the maximum number of IP
load sharing paths. To increase the maximum number of IP load sharing paths, use the ip load-sharing <num>
command at the global CONFIG level of the CLI or use the # of Paths field next to Load Sharing on the IP
configuration panel of the Web management interface.

CLI level: BGP4 unicast address family

EXAMPLE:
To change the maximum number of shared paths:
ProCurveRS(config-bgp)# maximum-paths 4

Syntax: [no] maximum-paths <num>

Possible values: The <num> parameter specifies the maximum number of paths across which the Routing
Switch can balance traffic to a given BGP4 destination. You can change the maximum number of paths to a value
from 2 – 8.

Default value: The default is 1.

med-missing-as-worst
Configures the Routing Switch to favor a route that has a MED over a route that is missing its MED.
By default, the Routing Switch favors a lower MED over a higher MED during MED comparison. Since the Routing
Switch assigns the value 0 to a route path’s MED if the MED value is missing, the default MED comparison results
in the Routing Switch favoring the route paths that are missing their MEDs.

CLI level: Global BGP

EXAMPLE:
ProCurveRS(config-bgp)# med-missing-as-worst

Syntax: [no] med-missing-as-worst

NOTE: This command affects route selection only when route paths are selected based on MED comparison. It
is still possible for a route path that is missing its MED to be selected based on other criteria. For example, a route
path with no MED can be selected if its weight is larger than the weights of the other route paths. For information
about how BGP4 selects a route path, see the “How BGP4 Selects a Path for a Route” section in the “Configuring
BGP4” chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing
Switches.

Possible values: N/A

Default value: Disabled

multipath
Disables load sharing of EBGP paths.
By default, when BGP4 load sharing is enabled, both IBGP and EBGP paths are eligible for load sharing, while
paths from different neighboring ASs are not eligible. You can change load sharing to apply only to IBGP or EBGP
paths, or to support load sharing among paths from different neighboring ASs.

CLI level: BGP4 unicast address family

EXAMPLE:
ProCurveRS(config-bgp)# multipath ibgp
To enable load sharing of EBGP paths only, enter the following command at the BGP configuration level of the CLI:

ProCurveRS(config-bgp)# multipath ebgp

To enable load sharing of paths from different neighboring ASs, enter the following command at the BGP configuration level of the CLI:

ProCurveRS(config-bgp)# multipath multi-as

**Syntax:** [no] multipath ebgp | ibgp | multi-as

The `ebgp | ibgp | multi-as` parameter specifies the change you are making to load sharing:

- **ebgp** – Load sharing applies only to EBGP paths. Load sharing is disabled for IBGP paths.
- **ibgp** – Load sharing applies only to IBGP paths. Load sharing is disabled for EBGP paths.
- **multi-as** – Load sharing is enabled for paths from different ASs.

By default, load sharing applies to EBGP and IBGP paths, and does not apply to paths from different neighboring ASs.

**Possible values:** See above.

**Default value:** Load sharing of IBGP and EBGP paths is enabled.

**neighbor**

Adds a BGP4 neighbor (peer). In addition to identifying the neighbor's IP address and AS number, you can set other parameters that control the Routing Switch's interaction with the neighbor.

**CLI level:**

BGP global:

neighbor <ip-addr> | <peer-group-name>
[advertisement-interval <num>]
[description <string>]
[distribute-list in | out <num,num,...> | acl-num in | out]
[ebgp-multihop | <num>]
[filter-list in | out <num,num,...> | acl-num in | out | weight]
[next-hop-self]
[password [0 | 1] <string>]
[remote-as <as-number>]
[remove-private-as]
[shutdown]
[timers keep-alive <num> hold-time <num>]
[update-source <ip-addr> | ethernet <portnum> | loopback <num> | ve <num>]

BGP4 unicast address family:

neighbor <ip-addr> | <peer-group-name>
[capability orf prefixlist [send | receive]]
[default-originate [route-map <map-name>]]
[filter-list in | out <num,num,...> | acl-num in | out | weight]
[maximum-prefix <num> [<threshold>] [teardown]]
[prefix-list <string> in | out]
[route-map in | out <map-name>]
[route-reflector-client]
[send-community]
[unsuppress-map <map-name>]
[weight <num>]

**EXAMPLE:**

You can add a neighbor by specifying just the IP address and AS number. To set additional options, see the syntax descriptions below.
ProCurveRS(config-bgp)# neighbor 1.1.1.10 remote-as 1

**Syntax:**

```
[no] neighbor <ip-addr> | <peer-group-name>
```

- `<advertisement-interval <num>>`
- `[capability orf prefixlist [send | receive]]`
- `[default-originate [route-map <map-name>]]`
- `[description <string>>]
- `[distribute-list in | out <num,num,...> | <acl-num> in | out]
- `[ebgp-multihop <num>>]
- `[filter-list in | out <num,num,...> | <acl-num> in | out | weight]
- `[maximum-prefix <num> [<threshold>]] [teardown]]
- `[next-hop-self]
- `[niri multicast | unicast | multicast unicast]
- `[password [0 | 1] <string>>]
- `[prefix-list <string> in | out]
- `[remote-as <as-number>>]
- `[remove-private-as]
- `[route-map in | out <map-name>]
- `[route-reflector-client]
- `[send-community]
- `[soft-reconfiguration inbound]
- `[shutdown]
- `[timers keep-alive <num> hold-time <num>>]
- `[unsuppress-map <map-name>]
- `[update-source <ip-addr> | ethernet <portnum> | loopback <num> | ve <num>]
- `[weight <num>]
```

**Syntax:**

The `<ip-addr> | <peer-group-name>` parameter indicates whether you are configuring an individual neighbor or a peer group. If you specify a neighbor's IP address, you are configuring that individual neighbor. If you specify a peer group name, you are configuring a peer group.

- `advertisement-interval <num>` specifies the minimum delay (in seconds) between messages to the specified neighbor. The default is 30 for EBGP neighbors (neighbors in other ASs). The default is 5 for IBGP neighbors (neighbors in the same AS). The range is 0 – 600.

**NOTE:** The Routing Switch applies the advertisement interval only under certain conditions. The Routing Switch does not apply the advertisement interval when sending initial updates to a BGP4 neighbor. As a result, when a Routing Switch needs to send its entire routing table to a BGP4 neighbor, it sends the updates one immediately after another at a rate of one TCP window per second, without waiting for the advertisement interval.

The Routing Switch still applies the advertisement interval to an update if the update contains a route for which the it has just sent an update. For example, if the Routing Switch sends an update for routes 1,2, and 3, then receives a change to an attribute of one of the routes before the advertisement interval has expired, the Routing Switch waits to send an update for the change until the advertisement interval has expired.

**capability orf prefixlist [send | receive]** configures cooperative router filtering. The `send | receive` parameter specifies the support you are enabling:

- **send** – The Routing Switch sends the IP prefix lists as Outbound Route Filters (ORFs) to the neighbor.
- **receive** – The Routing Switch accepts filters as Outbound Route Filters (ORFs) from the neighbor.

If you do not specify the capability, both capabilities are enabled.

The `prefixlist` parameter specifies the type of filter you want to send to the neighbor.

**NOTE:** The current release supports cooperative filtering only for filters configured using IP prefix lists.

**default-originate [route-map <map-name>]** configures the Routing Switch to send the default route 0.0.0.0 to the neighbor. If you use the `route-map <map-name>` parameter, the route map injects the default route conditionally, based on the match conditions in the route map.
**description** <string> specifies a name for the neighbor. You can enter an alphanumeric text string up to 80 characters long.

**distribute-list in | out** <num,num,...> specifies a distribute list to be applied to updates to or from the specified neighbor. The in | out keyword specifies whether the list is applied on updates received from the neighbor or sent to the neighbor. The <num,num,...> parameter specifies the list of address-list filters. The router applies the filters in the order in which you list them and stops applying the filters in the distribute list when a match is found.

Alternatively, you can specify **distribute-list** <acl-num> in | out to use an IP ACL instead of a distribute list. In this case, <acl-num> is an IP ACL.

**NOTE:** By default, if a route does not match any of the filters, the Routing Switch denies the route. To change the default behavior, configure the last filter as “permit any any”.

**NOTE:** The address filter must already be configured.

**ebgp-multihop** [<num>] specifies that the neighbor is more than one hop away and that the session type with the neighbor is thus EBGP-multihop. This option is disabled by default. The <num> parameter specifies the TTL you are adding for the neighbor. You can specify a number from 0 – 255. The default is 0. If you leave the EBGP TTL value set to 0, the software uses the IP TTL value.

**filter-list in | out** <num,num,...> specifies an AS-path filter list or a list of AS-path Access Control Lists (ACLs). The in | out keyword specifies whether the list is applied on updates received from the neighbor or sent to the neighbor. If you specify in or out, The <num,num,...> parameter specifies the list of AS-path filters. The router applies the filters in the order in which you list them and stops applying the filters in the AS-path filter list when a match is found. The **weight** <num> parameter specifies a weight that the Routing Switch applies to routes received from the neighbor that match the AS-path filter or ACL. You can specify a number from 0 – 65535.

Alternatively, you can specify **filter-list** <acl-num> in | out | weight to use an AS-path ACL instead of an AS-path filter list. In this case, <acl-num> is an AS-path ACL.

**NOTE:** By default, if an AS-path does not match any of the filters or ACLs, the Routing Switch denies the route. To change the default behavior, configure the last filter or ACL as “permit any any”.

**NOTE:** The AS-path filter or ACL must already be configured. See “ip as-path” on page 6-52.

**maximum-prefix** <num> specifies the maximum number of IP network prefixes (routes) that can be learned from the specified neighbor or peer group. You can specify a value from 0 – 4294967295. The default is 0 (unlimited).

- The <num> parameter specifies the maximum number. You can specify a value from 0 – 4294967295. The default is 0 (unlimited).
- The <threshold> parameter specifies the percentage of the value you specified for the **maximum-prefix** <num>, at which you want the software to generate a Syslog message. You can specify a value from 1 (one percent) to 100 (100 percent). The default is 100.
- The **teardown** parameter tears down the neighbor session if the maximum-prefix limit is exceeded. The session remains shutdown until you clear the prefixes using the **clear ip bgp neighbor all** or **clear ip bgp neighbor <ip-addr>** command, or change the neighbor configuration. The software also generates a Syslog message.

**next-hop-self** specifies that the router should list itself as the next hop in updates sent to the specified neighbor. This option is disabled by default.

**nlri multicast | unicast | multicast unicast** specifies whether the neighbor is a multicast neighbor or a unicast neighbor. For MBGP, you must specify **multicast**. Optionally, you also can specify **unicast** if you want the Routing Switch to exchange unicast (BGP4) routes as well as multicast routes with the neighbor. The default is **unicast** only.
password [0 | 1] <string> specifies an MD5 password for securing sessions between the Routing Switch and the neighbor. You can enter a string up to 80 characters long. The string can contain any alphanumeric characters, but the first character cannot be a number. If the password contains a number, do not enter a space following the number.

The 0 | 1 parameter is the encryption option, which you can omit (the default) or which can be one of the following.

- 0 – Disables encryption for the authentication string you specify with the command. The password or string is shown as clear text in the output of commands that display neighbor or peer group configuration information.
- 1 – Assumes that the authentication string you enter is the encrypted form, and decrypts the value before using it.

**NOTE:** If you want the software to assume that the value you enter is the clear-text form, and to encrypt display of that form, do not enter 0 or 1. Instead, omit the encryption option and allow the software to use the default behavior.

If you specify encryption option 1, the software assumes that you are entering the encrypted form of the password or authentication string. In this case, the software decrypts the password or string you enter before using the value for authentication. If you accidentally enter option 1 followed by the clear-text version of the password or string, authentication will fail because the value used by the software will not match the value you intended to use.

prefix-list <string> in | out specifies an IP prefix list. You can use IP prefix lists to control routes to and from the neighbor. IP prefix lists are an alternative method to AS-path filters. The in | out keyword specifies whether the list is applied on updates received from the neighbor or sent to the neighbor. You can configure up to 1000 prefix list filters. The filters can use the same prefix list or different prefix lists. To configure an IP prefix list, see “ip prefix-list” on page 6-77.

remote-as <as-number> specifies the AS the remote neighbor is in. The <as-number> can be a number from 1 – 65535. There is no default.

remove-private-as configures the router to remove private AS numbers from UPDATE messages the router sends to this neighbor. The router will remove AS numbers 64512 – 65535 (the well-known BGP4 private AS numbers) from the AS-path attribute in UPDATE messages the Routing Switch sends to the neighbor. This option is disabled by default.

route-map in | out <map-name> specifies a route map the Routing Switch will apply to updates sent to or received from the specified neighbor. The in | out keyword specifies whether the list is applied on updates received from the neighbor or sent to the neighbor.

**NOTE:** The route map must already be configured.

route-reflector-client specifies that this neighbor is a route-reflector client of the router. Use the parameter only if this router is going to be a route reflector. This option is disabled by default.

send-community enables sending the community attribute in updates to the specified neighbor. By default, the router does not send the community attribute.

soft-reconfiguration inbound enables the soft reconfiguration feature, which stores all the route updates received from the neighbor. If you request a soft reset of inbound routes, the software performs the reset by comparing the policies against the stored route updates, instead of requesting the neighbor's BGP4 route table or resetting the session with the neighbor.

shutdown administratively shuts down the session with this neighbor. Shutting down the session allows you to completely configure the neighbor and save the configuration without actually establishing a session with the neighbor. This option is disabled by default.

timers keep-alive <num> hold-time <num> overrides the global settings for the Keep Alive Time and Hold Time. For the Keep Alive Time, you can specify from 0 – 65535 seconds. For the Hold Time, you can specify 0 or 3 – 65535 (1 and 2 are not allowed). If you set the Hold Time to 0, the router waits indefinitely for messages from a neighbor without concluding that the neighbor is dead. The defaults for these parameters are the currently configured global Keep Alive Time and Hold Time.
unsuppress-map <map-name> removes route dampening from a neighbor's routes when those routes have been dampened due to aggregation. See the "Removing Route Damping from a Neighbor's Routes Suppressed Due to Aggregation" section in the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches.

update-source <ip-addr> | ethernet <portnum> | loopback <num> | ve <num> configures the router to communicate with the neighbor through the specified interface. There is no default.

weight <num> specifies a weight the Routing Switch will add to routes received from the specified neighbor. BGP4 prefers larger weights over smaller weights. The default weight is 0.

Possible values: see above
Default value: N/A

network
Specifies a list of networks for the Routing Switch to advertise through BGP4 or MBGP.

CLI level: BGP4 unicast address family

EXAMPLE:
To configure the Routing Switch to advertise network 209.157.22.0/24, enter the following command:

ProCurveRS(config-bgp)# network 209.157.22.0 255.255.255.0

To configure the Routing Switch to advertise network 207.95.22.0/24 as a multicast route, enter the following command:

ProCurveRS(config-bgp)# network 207.95.22.0 255.255.255.0 nlri multicast

Syntax: network <ip-addr> <ip-mask> [nlri multicast | unicast | multicast unicast] [route-map <map-name>] | [weight <num>] | [backdoor]

The <ip-addr> is the network number and the <ip-mask> specifies the network mask.

The nlri multicast | unicast | multicast unicast parameter specifies whether the neighbor is a multicast neighbor or a unicast neighbor. For MBGP, you must specify multicast. Optionally, you also can specify unicast if you want the Routing Switch to exchange unicast (BGP4) routes as well as multicast routes with the neighbor. The default is unicast only.

The route-map <map-name> parameter specifies the name of the route map you want to use to set or change BGP4 or MBGP attributes for the network you are advertising. The route map must already be configured.

The weight <num> parameter specifies a weight to be added to routes to this network.

The backdoor parameter changes the administrative distance of the route to this network from the EBGP administrative distance (20 by default) to the Local BGP weight (200 by default), thus tagging the route as a backdoor route. Use this parameter when you want the router to prefer IGP routes such as RIP or OSPF routes over the EBGP route for the network.

NOTE: The weight and backdoor parameters do not apply to MBGP.

Possible values: See above
Default value: N/A

next-hop-enable-default
Enables the Routing Switch to use the default IP route to resolve a BGP4 next-hop route.

By default, the Routing Switch does not use a default route to resolve a BGP4 next-hop route. If the IP route lookup for the BGP4 next hop does not result in a valid IGP route (including static or direct routes), the BGP4 next hop is considered to be unreachable and the BGP4 route is not used.

In some cases, such as when the Routing Switch is acting as an edge router, you might want to allow the device to use the default route as a valid next hop.
CLI level: BGP4 unicast address family

EXAMPLE:
ProCurveRS(config-bgp)# next-hop-enable-default

Syntax: [no] next-hop-enable-default
Possible values: N/A
Default value: Disabled

next-hop-recursion

Enables the BGP4 next-hop recursive lookups. When you enable this feature, the Routing Switch finds the IGP route to a BGP route's next-hop gateway. If the first lookup for a BGP route results in an IBGP path originated within the same Autonomous System (AS), rather than an IGP path or static route path, the Routing Switch performs a lookup on the next-hop gateway's next-hop IP address. If this second lookup results in an IGP path, the software considers the BGP route to be valid and thus eligible for installation in the IP route table. Otherwise, the Routing Switch performs a lookup on the next-hop IP address of the next-hop gateway's next hop, and so on, until one of the lookups results in an IGP route.

CLI level: BGP4 unicast address family

EXAMPLE:
To enable recursive next-hop lookups, enter the following command at the BGP configuration level of the CLI:

ProCurveRS(config-bgp)# next-hop-recursion

Syntax: [no] next-hop-recursion
Possible values: N/A
Default value: Disabled

no

Disables other commands. To disable a command, place the word no before the command.

quit

Returns you from any level of the CLI to the User EXEC mode.

CLI level: BGP global and BGP4 unicast address family

EXAMPLE:
ProCurveRS(config-bgp)# quit
ProCurveRS>

Syntax: quit
Possible values: N/A
Default value: N/A

readvertise

Allows or prevents readvertising of a learned best BGP4 route unless that route also is installed in the IP route table. By default, the Routing Switch readvertises all learned best BGP4 routes to BGP4 neighbors, unless the routes are discarded or blocked by route maps or other filters.

CLI level: BGP global

EXAMPLE:
To disable readvertisement of BGP4 routes to BGP4 neighbors except for routes that the software also installs in the route table, enter the following command:

ProCurveRS(config-bgp)# no readvertise

To re-enable readvertisement, enter the following command:
ProCurveRS(config-bgp)# readvertise

**Syntax:** [no] readvertise

**Possible values:** N/A

**Default value:** Enabled

**redistribute connected**

Configures parameters for redistributing routes to directly attached devices into BGP4. Redistribution into BGP4 is disabled by default.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**

To configure the Routing Switch to redistribute routes to directly attached devices, enter the following command:

ProCurveRS(config-bgp)# redistribute connected

**Syntax:** redistribute connected [metric <num>] [route-map <map-name>]

The connected parameter indicates that you are redistributing routes to directly attached devices into BGP4.

The metric <num> parameter changes the metric. You can specify a value from 0 – 4294967295. The default is 0.

The route-map <map-name> parameter specifies a route map to be consulted before adding the filter to the IP route table.

**NOTE:** The route map you specify must already be configured on the router. See the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches for information about defining route maps.

**Possible values:** See above

**Default value:** See above

**redistribute ospf**

Configures parameters for redistributing OSPF routes into BGP4. Redistribution into BGP4 is disabled by default.

**NOTE:** If you use both the redistribute ospf route-map <map-name> command and the redistribute ospf match internal | external1 | external2 command, the software uses only the route map for filtering.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**

To configure the Routing Switch to redistribute OSPF external type 1 routes, enter the following command:

ProCurveRS(config-bgp)# redistribute ospf match external1

**Syntax:** redistribute ospf [match internal | external1 | external2] [metric <num>] [route-map <map-name>]

The ospf parameter indicates that you are redistributing OSPF routes into BGP4.

The match internal | external1 | external2 parameter applies only to OSPF. This parameter specifies the types of OSPF routes to be redistributed into BGP4. The default is internal.

**NOTE:** If you do not enter a value for the match parameter, (for example, you enter redistribute ospf only) then only internal OSPF routes will be redistributed.

The metric <num> parameter changes the metric. You can specify a value from 0 – 4294967295. The default is 0.

The route-map <map-name> parameter specifies a route map to be consulted before adding the OSPF route to the BGP4 route table.
NOTE: The route map you specify must already be configured on the router. See the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches for information about defining route maps.

Possible values: See above
Default value: See above

redistribute rip
Configures parameters for redistributing RIP routes into BGP4. Redistribution into BGP4 is disabled by default.

CLI level: BGP4 unicast address family

EXAMPLE:
To configure BGP4 to redistribute RIP routes and add a metric of 10 to the redistributed routes, enter the following command:

ProCurveRS(config-bgp)# redistribute rip metric 10

Syntax: redistribute rip [metric <num>] [route-map <map-name>]
The rip parameter indicates that you are redistributing RIP routes into BGP4.
The metric <num> parameter changes the metric. You can specify a value from 0 – 4294967295. The default is 0.
The route-map <map-name> parameter specifies a route map to be consulted before adding the RIP route to the BGP4 route table.

NOTE: The route map you specify must already be configured on the router. See the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches for information about defining route maps.

Possible values: See above
Default value: See above

redistribute static
Configures parameters for redistributing static routes into BGP4. Redistribution into BGP4 is disabled by default.

CLI level: BGP4 unicast address family

EXAMPLE:
To configure the Routing Switch to redistribute static routes, enter the following command:

ProCurveRS(config-bgp)# redistribute static

Syntax: redistribute static [metric <num>] [route-map <map-name>]
The static parameter indicates that you are redistributing static routes into BGP4.
The metric <num> parameter changes the metric. You can specify a value from 0 – 4294967295. The default is 0.
The route-map <map-name> parameter specifies a route map to be consulted before adding the static route to the BGP4 route table.

NOTE: The route map you specify must already be configured on the router. See the "Configuring BGP4" chapter of the Advanced Configuration and Management Guide for ProCurve 9300/9400 Series Routing Switches for information about defining route maps.

Possible values: See above
Default value: See above
show
Displays a variety of configuration and statistical information about the device. See “Show Commands” on page 40-1.

table-map
Configures an existing route map to change the route tag in routes when adding them to the IP route table.

**CLI level:** BGP4 unicast address family

**EXAMPLE:**
To create a route map and identify it as a table map, enter commands such as following. These commands create a route map that uses an address filter. For routes that match the address filter, the route map changes the tag value to 100. This route map is then identified as a table map. As a result, the route map is applied only to routes that the Routing Switch places in the IP route table. The route map is not applied to all routes. This example assumes that address filter 11 has already been configured.

```
ProCurveRS(config-bgp)# route-map TAG_IP permit 1
ProCurveRS(config-routemap TAG_IP)# match address-filters 11
ProCurveRS(config-routemap TAG_IP)# set tag 100
ProCurveRS(config-routemap TAG_IP)# router bgp
ProCurveRS(config-bgp-router)# table-map TAG_IP
```

**Syntax:** table-map <route-map>

**Possible values:** A route-map name

**Default value:** N/A

timers
Sets the BGP4 Keep Alive Time and Hold Time on the Routing Switch.

**CLI level:** BGP global

**EXAMPLE:**
To change the Keep Alive Time to 30 and Hold Time to 90, enter the following command:

```
ProCurveRS(config-bgp)# timers keep-alive 30 hold-time 90
```

**Syntax:** timers keep-alive <num> hold-time <num>

**Possible values:**
Keep Alive Time 0 – 65535.
Hold Time 0 or 3 – 65535 (1 and 2 are not allowed).
If you set the Hold Time to 0, the router waits indefinitely for messages from a neighbor without concluding that the neighbor is dead.

**Default value:**
Keep Alive Time 60 seconds.
Hold Time 180 seconds.

update-time
Changes the BGP4 update timer. The update timer controls how often the Routing Switch updates its BGP4 next-hop tables and affected BGP4 routes.

By default, the Routing Switch updates its BGP4 next-hop tables and affected BGP4 routes five seconds after IGP route changes.

**CLI level:** Global BGP

**EXAMPLE:**

```
ProCurveRS(config-bgp)# update-time 15
```
This command changes the update timer to 15 seconds.

**Syntax:** [no] update-time <secs>

The `<secs>` parameter specifies the number of seconds and can be from 1 – 30. The default is 5.

**Possible values:** 1 – 30 seconds after IGP route changes

**Default value:** 5 seconds after IGP route changes

**write memory**

Saves the running configuration into the startup-config file.

**CLI level:** Global BGP and BGP4 unicast address family

**EXAMPLE:**

```
ProCurveRS(config-bgp)# write memory
```

**Syntax:** write memory

**Possible values:** N/A

**Default value:** N/A

**write terminal**

Displays the running configuration of the HP device on the terminal screen.

**NOTE:** This command is equivalent to the `show running-config` command.

**CLI level:** Global BGP and BGP4 unicast address family

**EXAMPLE:**

```
ProCurveRS(config-bgp)# write terminal
```

**Syntax:** write terminal

**Possible values:** N/A

**Default value:** N/A