Chapter 7
Interface Commands

appletalk address

Assigns AppleTalk addresses to a seed router.

EXAMPLE:

To assign an AppleTalk address of 10.5 to interface 3, module 2, enter the following:

```
HP9300(config)# int e 2/3
HP9300(config-if-2/3)# appletalk address 10.5
```

Syntax: appletalk address <node.network>

Possible values: N/A

Default value: N/A

appletalk cable-range

Assigns network numbers (cable range) to an AppleTalk seed router.

EXAMPLE:

To support network numbers from 10 – 50 on interface 3 (module 2):

```
HP9300(config)# int e 2/3
HP9300(config-if-2/3)# appletalk cable-range 10 - 50
```

Syntax: appletalk cable-range <network-number> | <network-number> - <network number>

Possible values: N/A

Default value: N/A

appletalk deny

Restricts access to an AppleTalk zone.

EXAMPLE:

To deny Marketing (interface 2/1) and Field Service (interface e 2/3) zones access to the Finance server, enter the following:

```
HP9300(config)# int e 2/1
HP9300(config-if-2/1)# appletalk deny zone finance
HP9300(config-if-2/1)# exit
```

```
HP9300(config)# int e 2/3
HP9300(config-if-2/3)# appletalk deny zone finance
```

Syntax: appletalk deny zone <zone-name> | additional-zones rtmp-filtering | no-rtmp-filtering

Possible values: N/A

Default value: N/A

appletalk deny additional-zones

Denies access to Appletalk zones not specifically addressed in permit zone filters.

EXAMPLE:

```
HP9300(config)# int e 2/1
HP9300(config-if-2/1)# appletalk permit zone HR
HP9300(config-if-2/1)# appletalk deny additional-zones
```

Syntax: appletalk deny additional-zones [rtmp-filtering | no-rtmp-filtering]

Possible values: The **rtmp-filtering** option causes the denied network numbers of the filtered zone to be removed from the RTMP packets.

Default value: N/A

appletalk permit

Allows access to an AppleTalk zone.

EXAMPLE:

To allow the Marketing (interface 2/1) and Field Service (interface e 2/3) zones access to the Finance server, enter the following:

```
HP9300(config)# int e 2/1
HP9300(config-if-2/1)# appletalk permit zone finance
HP9300(config-if-2/1)# exit
HP9300(config)# int e 2/3
HP9300(config-if-2/3)# appletalk permit zone finance
```

Syntax: appletalk permit zone <name>

Possible values: N/A

Default value: N/A

appletalk routing

Enables AppleTalk routing on a seed router.

You also can use this command, when preceded by **no** (**no appletalk routing**) to disable routing on an interface. Disable routing when you need to make configuration changes to the seed router. After all the changes are made, re-enable routing on the interface using the **appletalk routing** command.

EXAMPLE:

To enable AppleTalk routing on interface 2/1, enter the following:

```
HP9300(config)# int e 2/1
HP9300(config-if-2/1)# appletalk routing
```

Syntax: [no] appletalk routing

Possible values: N/A

Default value: N/A

appletalk zone-name

Assigns AppleTalk zones to a seed router.

EXAMPLE:

To assign Marketing and Sales zones to interface 2/1, enter the following:

```
HP9300(config)# int e 2/1
HP9300(config-if-2/1)# appletalk zone sales
HP9300(config-if-2/1)# appletalk zone marketing
```

Syntax: appletalk zone-name <name>

Possible values: N/A

Default value: N/A

dhcp-gateway-list

This parameter assigns a defined DHCP gateway list to a specific interface on an HP 6208M-SX. DHCP gateway lists must be defined at the Global CONFIG level and the DHCP Assist feature enabled to support assignment of this feature on switches.

This feature is not supported on HP routers.

NOTE: For more details on this command and the DHCP Assist feature, see the “Configuring BGP4” chapter of the *Advanced Configuration and Management Guide*.

EXAMPLE:

To assign a defined DHCP gateway list (1) to interface 2/5, enter the following:

```
HP9300(config)# int e 2/5
HP9300(config-if-2/5)# dhcp-gateway-list 1
```

Syntax: dhcp-gateway-list <number>

Possible values: N/A

Default value: N/A

disable

Disables a specific interface.

EXAMPLE:

```
HP9300(config)# interface e 1/5
HP9300(config-if-1/5)# disable
```

EXAMPLE:

```
HP9300(config)# interface v 6
HP9300(config-vif-6)# disable
```

Syntax: disable

Possible values: N/A

Default value: N/A

enable

Enables a specific interface. All interfaces are enabled at initial startup. This command is necessary only if an interface has been disabled.

EXAMPLE:

```
HP9300(config)# interface e 1/5
```

```
HP9300(config-if-1/5)# enable
```

EXAMPLE:

```
HP9300(config)# interface v 6
HP9300(config-vif-6)# enable
```

Syntax: enable

Possible values: N/A

Default value: All ports are enabled at system startup.

end

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

EXAMPLE:

To move to the privileged level, enter the following:

```
HP9300(config-if-5/3)# end
HP9300#
```

Syntax: end

Possible values: N/A

Default value: N/A

exit

Moves activity up one level from the current level of the CLI. This command is available at all levels.

EXAMPLE:

To move from the Interface level back to the global CONFIG level, enter the following:

```
HP9300(config-if-4/3)# exit
HP9300(config)#
```

Syntax: exit

Possible values: N/A

Default value: N/A

flow-control

Allows you to turn flow control (802.3x) for full-duplex ports on or off (no). Flow control is on by default.

EXAMPLE:

To turn the feature off, enter the following:

```
HP9300(config)# int e5
HP9300(config-if-5)# no flow control
```

To turn the feature on after being turned off, enter the following:

```
HP9300(config-if-5)# flow-control
```

Syntax: [no] flow-control

Possible values: N/A

Default value: on

gig-default

Overrides the global default setting for Gigabit negotiation mode. You can configure the Gigabit negotiation mode for a port to be one of the following:

- Default – The port uses the negotiation mode that was set at the global level.
- Negotiate-full-auto – The port first tries to perform a handshake with the other port to exchange capability information. If the other port does not respond to the handshake attempt, the port uses the manually configured configuration information (or the defaults if an administrator has not set the information). This is the default.
- Auto-Gigabit – The port tries to perform a handshake with the other port to exchange capability information.
- Negotiation-off – The port does not try to perform a handshake. Instead, the port uses configuration information manually configured by an administrator.

See the "Configuring Basic features" chapter of the *Installation and Getting Started Guide* for more information.

EXAMPLE:

To override the global setting and set the negotiation mode to auto-Gigabit for ports 4/1 – 4/4, enter the following commands:

```
HP9300(config)# int ethernet 4/1 to 4/4
HP9300(config-mif-4/1-4/4)# gig-default auto-gig
```

Syntax: gig-default neg-full-auto | auto-gig | neg-off

Possible values: see above

Default value: neg-full-auto

ip access-policy-group

Applies an IP access policy group to an interface on a routing switch and defines whether the policies are applied to incoming packets, outgoing packets, both. You must configure the access policies using the **ip access-policy** command before you can apply them using this command. See "ip access-policy" on page 6-20.

This command is not supported on HP switches.

NOTE: For backward compatibility, the routing switches also support the **ip filter-group** and **ip policy-group** commands. The parameters are the same as those for the **ip access-policy-group** command.

EXAMPLE:

To apply IP access policies 2, 3, and 4 to interface 1 (module 4), enter the following commands:

```
HP9300(config)# int e 4/1
HP9300(config-if-4/1)# ip filter-gr in 2 3 4
```

EXAMPLE:

You also can specify policy ranges. For example, to apply policies 1 – 3, policy 9, and policies 11 – 25 to port 2/4's outbound policy group, enter the following commands:

```
HP9300(config)# int ethernet 2/4
HP9300(config-if-2/4)# ip access-policy-group out 1 to 3 9 11 to 25
```

Syntax: ip access-policy-group in | out <policy-list>

Possible values: access policy numbers; enter all the policies you want to apply on the same command.

Default value: N/A

ip address

Assigns interface (sub-net) addresses to router interfaces. By default, you can configure up to 24 IP addresses on each interface on an HP routing switch. You can configure one IP address on an HP switch using this command.

EXAMPLE:

```
HP9300(config)# int e 2/3
HP9300(config-if-2/3)# ip address 192.55.6.54 255.255.0.0
```

Syntax: ip address <ip-addr> <ip-mask> [secondary]

or

Syntax: ip address <ip-addr>/<mask-bits> [secondary]

Use the **secondary** parameter if you have already configured an IP address within the same sub-net on the interface.

Possible values: Valid IP address

Default value: N/A

ip bootp-gateway

Specifies the interface address the routing switch should use for stamping BootP/DHCP packets. Use this command when the interface has multiple IP sub-net addresses. By default, the routing switch uses the lowest numbered IP address for stamping BootP/DHCP requests.

EXAMPLE:

```
HP9300(config)# int e 2/3
HP9300(config-if-2/3)# ip bootp-gateway 192.55.6.54
```

Syntax: ip bootp-gateway <ip-addr>

Possible values: Valid IP address

Default value: N/A

ip dont-advertise

Configures the routing switch to block advertisement of the attached network on the interface. If you do not block advertisement of the network, the routing switch will advertise a route to the network containing the host even if the host itself is unavailable.

Use this command when configuring a routing switch to assist third-party SLBs or web servers with Geographically-distributed SLB. Globally-distributed SLB allows the same web site (and same IP address) to reside on multiple servers, which usually are in geographically dispersed locations. See the “Route Health Injection” chapter of the *Advanced Configuration and Management Guide*.

After you enter the **ip dont-advertise** command, the routing switch advertises only a host route to the IP address. Thus, if the web site fails the HTTP health check, the routing switch removes the static host route for the web site’s IP address and also does not advertise a network route for the network containing the IP address.

NOTE: An IP address within the sub-net you want to block must already be configured on the interface.

EXAMPLE:

To block advertisement of a network route for a Class-C host with IP address 209.157.22.1, enter the following commands.

```
HP9300(config-if-1/9) ip address 209.157.22.1/24
HP9300(config-if-1/9) ip dont-advertise 209.157.22.1/24
```

Syntax: [no] ip dont-advertise <ip-addr> <mask>

Or

Syntax: [no] ip dont-advertise <ip-addr>/<mask-bits>

Possible values: see above

Default value: network routes are advertised

ip dvmrp advertise-local

Enables (on) or disables (off) advertisement of a local route on an interface with DVMRP enabled. DVMRP must be enabled on the routing switch for this command to be operational.

This command is not supported on HP switches.

EXAMPLE:

```
HP9300(config)# int e 1/4
HP9300(config-if-1/4)# ip dvmrp advertise-local on
```

Syntax: advertise-local on | off

Possible values: on, off

Default value: off

ip dvmrp metric

Sets the default metric for a directly connected interface, when operating with DVMRP multicast.

This command is not supported on HP switches.

EXAMPLE:

```
HP9300(config)# interface 3/5
HP9300(config-if-3/5)# ip dvmrp metric 10
```

Syntax: ip dvmrp metric <value>

Possible values: 1 – 31 hops

Default value: 1 hop

ip dvmrp ttl-threshold

Specifies how long a packet is considered viable on an interface configured for DVMRP multicast.

This command is not supported on HP switches.

EXAMPLE:

To modify the default TTL value for interface 1 that is configured to operate with DVMRP, enter the following:

```
HP9300(config)# int e 1/4
HP9300(config-if-1/4)# ip dvmrp ttl 60
```

Syntax: ttl-threshold <value>

Possible values: 1 – 254

Default value: 1

ip encapsulation

Enables IP encapsulation and defines the type of encapsulation to be used on a given port.

This command is not supported on HP switches.

EXAMPLE:

```
HP9300(config)# int e 1/6
HP9300(config-if-1/6)# ip dvmrp encap ethernet-2
```

Syntax: ip encapsulation ethernet-2 | snap

Possible values: ethernet-2, snap

Default value: ethernet-2

ip follow

Configures a virtual interface to "follow" the IP address configured on another virtual interface. Thus, you can use this command to conserve your IP address space by configuring multiple virtual interfaces with the same IP address.

EXAMPLE:

To configure an IP sub-net address on virtual interface 1, then configure virtual interfaces 2 and 3 to "follow" the IP sub-net address configured on virtual interface 1, enter the following commands.

```
HP9300(config-vlan-3)# interface ve 1
HP9300(config-vif-1)# ip address 10.0.0.1/24
HP9300(config-vif-1)# interface ve 2
HP9300(config-vif-2)# ip follow ve 1
HP9300(config-vif-2)# interface ve 3
HP9300(config-vif-3)# ip follow ve 1
```

NOTE: Since virtual interfaces 2 and 3 do not have their own IP sub-net addresses but instead are "following" virtual interface 1's IP address, you still can configure an IPX or AppleTalk interface on virtual interfaces 2 and 3.

Syntax: ip follow ve <num>

Possible values: a configured virtual interface

Default value: N/A

ip helper-address

HP routers support the relay of UDP/DHCP packets to a destination for a specific application (for example; bootps, domain, tftp), when the destination server is not on the local LAN segment.

To aid in relaying packets to a specific application on a server (for example; bootps, bootpc, domain, TFTP, NetBIOS, time) on a remote network, the routing switch is configured with the destination address of the remote server.

To enter the address of the remote server, enter the commands below. Note that the interface entered is the interface on which the originating host is attached. The value '1' seen in the example, is the identifier of that UDP address. The valid range for identifiers for each interface is 1 – 4.

EXAMPLE:

To support relaying of UDP/DHCP packets to a remote server with an IP address of 207.95.7.6, enter the following:

```
HP9300(config)# interface e 5/2
HP9300(config-if-5/2)# ip helper-address 1 207.95.7.6
```

Syntax: ip helper-address <value> <ip-addr>

Possible values: 1, 2, 3 or 4

Default value: N/A

ip metric

Defines the cost applied to all IP routes by default.

EXAMPLE:

```
HP9300(config)# int e 3/1
HP9300(config-if-3/1)# ip metric 15
```

Syntax: ip metric <value>

Possible values: 1 – 16

Default value: 1

NOTE: RIP considers the metric 16 to be unreachable.

ip mtu

Defines the maximum transmission unit (MTU) for IP packets on a given routing switch interface.

EXAMPLE:

To change the MTU for an interface to 1000, enter the following:

```
HP9300(config)# int e 4/11
HP9300(config-if-4/11)# ip mtu 1000
```

Syntax: ip mtu <572 – 1492> (Ethernet SNAP); ip mtu <572 – 1500> (Ethernet II);

Possible values: Ethernet type: 572 – 1500; SNAP type: 572 – 1492

Default value: Ethernet type: 1500; SNAP type: 1492

ip-multicast-disable

Disables transmission and receipt of IGMP queries on a port. Transmission and receipt of IGMP queries is enabled by default.

EXAMPLE:

To disable the queries on an interface, enter commands such as the following:

```
HP6208(config)# int e5
HP6208(config-if-5)# ip-multicast-disable
```

To re-enable the queries, enter the following:

```
HP6208(config-if-5)# no ip-multicast-disable
```

Syntax: [no] ip-multicast-disable

Possible values: N/A

Default value: on

ip ospf area

Assigns interfaces to an OSPF area. OSPF must be active on the routing switch and reference the area IP address to which the routing switch will be attached, for this command to be operational. OSPF is enabled at the global CONFIG level.

EXAMPLE:

To assign interface (port) 1, module 5, of an HP 9304M or HP 9308M to area ID, 192.45.1.0, enter the following commands:

```
HP9300(config)# int e 5/1
HP9300(config-if-5/1)# ip ospf area 192.45.1.0
```

NOTE: Each port supports eight interfaces. All eight interfaces can be assigned to a port at one time using this command.

Syntax: ip ospf area <ip-addr> | <area-number>

Possible values: N/A

Default value: N/A

ip ospf authentication-key

Assigns a password for managed interface access when operating with OPSF.

OSPF must be active, and the areas to which the routing switch will be attached assigned on the routing switch, for this command to be operational.

EXAMPLE:

To assign an authentication key (password) of 'passkey' for access to interface 1 (module 4), enter the following:

```
HP9300(config)# int e 4/1
HP9300(config-if-4/1)# ip ospf authentication-key passkey
HP9300(config-if-4/1)# end
HP9300# write memory
```

Syntax: ip ospf authentication-key <password>

Possible values: Up to eight alphanumeric characters.

Default*:* None.

ip ospf cost

Represents the cost that will be advertised for an interface for various types of service (for example; low delay, high bandwidth (10^8/ Interface Speed), or link reliability).

Use this command to assign higher or lower costs than the default. This allows you to bias traffic to or from links. The higher the cost on the link, the less desirable the path.

EXAMPLE:

To assign a cost of 10 to interface 8 (module 2), enter the following:

```
HP9300(config)# int e 2/8
HP9300(config-if-2/8)# ip ospf cost 10
```

Syntax: ip ospf cost <num>

Possible values: 1 – 65,535

Default: 1 for 100 or 1000 Mbps links; 10 for 10Mbps links

ip ospf database-filter

Blocks flooding of outbound OSPF LSAs on the interface.

By default, the routing switch floods all outbound LSAs on all the OSPF interfaces within an area. You can configure a filter to block outbound LSAs on an OSPF interface. This feature is particularly useful when you want to block LSAs from some, but not all, of the interfaces attached to the area.

After you apply filters to block the outbound LSAs, the filtering occurs during the database synchronization and flooding.

If you remove the filters, the blocked LSAs are automatically re-flooded. You do not need to reset OSPF to re-flood the LSAs.

NOTE: You cannot block LSAs on virtual links.

EXAMPLE:

To apply a filter to an OSPF interface to block flooding of outbound LSAs on the interface, enter the following command at the Interface configuration level for that interface.

```
HP9300(config-if-1/1)# ip ospf database-filter all out
```

The command in this example blocks all outbound LSAs on the OSPF interface configured on port 1/1.

Syntax: [no] ip ospf database-filter all out

To remove the filter, enter a command such as the following:

```
HP9300(config-if-1/1)# no ip ospf database-filter all out
```

Possible values: see above

Default: Outbound LSAs are not blocked

ip ospf dead-interval

Defines the number of seconds that a neighbor OSPF router will wait for receipt of a hello packet, before declaring the router down.

EXAMPLE:

To change the dead interval time for interface 5 (module 3) from the default of 40 seconds, enter the following:

```
HP9300(config)# int e 3/5
HP9300(config-if-3/5)# ip ospf dead-interval
```

Syntax: ip ospf dead-interval <value>

Possible values: 1 – 65,535 seconds.

Default: 40 seconds

ip ospf hello-interval

Defines the length of time between the transmission of OSPF hello packets.

EXAMPLE:

To change the hello interval for interface 5 to 20 seconds from the default value of 10 seconds, enter the following:

```
HP9300(config)# int e 3/5
HP9300(config-if-3/5)# ip ospf hello-interval 20
```

Syntax: ip ospf hello-interval <value>

Possible values: 1 – 65,535 seconds

Default: 10 seconds

ip ospf md5-authentication

Configures MD5 authentication parameters for OSPF. You can configure the following parameters using this command:

- MD5 key-activation wait time – specifies how many seconds the routing switch waits before placing a new MD5 key into effect. The wait time provides a way to gracefully transition from one MD5 key to another without disturbing the network. The wait time can be from 0 – 14400 seconds. The default is 300 seconds (5 minutes).
- Key ID and key string – specifies the MD5 key ID and the string value for the key. The key ID can be from 1 – 255. The string can be up to 16 alphanumeric characters long. The routing switch encrypts the key in each OSPF packet sent on this interface.

EXAMPLE:

To change the key activation wait time from 300 seconds to 45 seconds, enter the following:

```
HP9300(config)# int e 2/5
HP9300(config-if-2/5)# ip ospf md5-authentication key-activation-wait-time 30
```

EXAMPLE:

To configure key ID 35 with the string value "UR2crusty", enter the following:

```
HP9300(config)# int e 2/5
HP9300(config-if-2/5)# ip ospf md5-authentication key-id 35 key UR2crusty
```

Syntax: ip ospf md5-authentication key-activation-wait-time <num> | key-id <num> key <string>

Possible values: key-activation wait time 0 – 14400; key ID 1 – 255; key up to 16 alphanumeric characters.

Default: key-activation wait time 300 seconds (5 minutes)

ip ospf passive

Configures an OSPF network interface to be passive. When you configure an OSPF interface to be passive, that interface does not send or receive OSPF route updates. By default, all OSPF interfaces are active and thus can send and receive OSPF route information. Since a passive interface does not send or receive route information, the interface is in effect a stub network.

EXAMPLE:

```
HP9300(config)# int eth 1/1
HP9300(config-if-1/1)# ip ospf passive
```

Syntax: ip ospf passive

Possible values: N/A

Default: N/A

ip ospf priority

Indicates the priority of an interface. Priority is used to select the designated router. The higher the number, the greater the priority. In the case of equal priority, the router with the highest IP Address will be the designated router. A value of zero signifies that the router is not eligible to become the designated router on its network.

EXAMPLE:

To modify the priority of interface 5 (module 2) to 15 from the default of 1 second, enter the following:

```
HP9300(config)# int e 2/5
HP9300(config-if-2/5)# ip ospf priority 15
```

Syntax: ip ospf priority <value>

Possible values: 0 – 255. If you set the priority to 0, the routing switch does not participate in DR and BDR election.

Default: 1 second

ip ospf retransmit-interval

Defines the time between retransmits of link state advertisements to router adjacencies for an interface.

EXAMPLE:

To modify the retransmit interval of interface 5 (module 2) to 15 from the default of 5 seconds, enter the following:

```
HP9300(config)# int e 2/5
HP9300(config-if-2/5)# ip ospf retransmit-interval 15
```

Syntax: ip ospf retransmit-interval <value>

Possible values: 0 – 3600 seconds

Default: 5 seconds

ip ospf transmit-delay

Indicates the time it takes to transmit Link State Update packets on an interface.

EXAMPLE:

To modify the transit delay of interface 5 (module 2) to 10, from the default of 1 second, enter the following:

```
HP9300(config)# int e 2/5
HP9300(config-if-2/5)# ip ospf transmit-delay 10
```

Syntax: ip ospf transmit-delay <value>

Possible values: 0 – 3600 seconds

Default: 1 second

ip-policy

Locally applies a Layer 4 QoS policy to a port on a switch. If you use the **local** parameter instead of the **global** parameter when you configure the policy using the **ip policy** command, you need to use the **ip-policy** command at the Interface level to apply the policy to a specific port.

NOTE: You must use the **ip access policy** command to configure the policy before using the **ip-policy** command. See “ip access-policy” on page 6-20.

EXAMPLE:

To configure a Layer 4 QoS policy to give high priority to DNS packets on ports 5 and 7 on an HP 6208M-SX, enter the following commands:

```
HP6208(config)# ip access policy 1 high tcp dns local
HP6208(config)# int e 5
HP6208(config-if-5)# ip-policy 1
HP6208(config-if-5)# int e 7
HP6208(config-if-7)# ip-policy 1
```

Syntax: ip-policy <num>

Possible values: See above

Default value: N/A

ip rip

Sets the RIP type on all interfaces that will route RIP. The following RIP types are supported:

- RIP version 1 only
- RIP version 2 only
- RIP v1-compatible-v2

RIP must be active and the redistribution table set (using the **permit** and **deny** commands) for this command to be operational. RIP is enabled at the Global CONFIG Level.

EXAMPLE:

To modify the RIP type for interface 1 (module 4), to version 1 only, enter the following:

```
HP9300(config)# int e 4/1
HP9300(config-if-4/1)# ip rip v1-only
HP9300(config-if-4/1)# end
HP9300# write memory
```

Syntax: ip rip v1-only | v1-compatible-v2 | v2-only

Possible values: v1-only, v1-compatible-v2, v2-only

Default value: v2-only

ip rip filter-group

Allows a group of RIP filters to be applied to an IP interface. The filter can be applied to either incoming or outgoing traffic.

EXAMPLE:

To apply filters to an individual interface basis (for example, interface 2/2), enter the following:

```
HP9300(config)# int e 2/2
HP9300(config-if-2/2)# ip rip filter-group in 1 2 3 10
```

Syntax: ip rip filter-group in | out <index>

Possible values: in or out, defined filter indices

Default value: disabled

ip rip learn-default

This feature allows a routing switch to learn and advertise default IP/RIP routes. This command can be applied on a global or interface basis. This example shows the feature enabled at the interface level.

EXAMPLE:

```
HP9300(config)# int e 2/2
HP9300(config-if-2/2)# ip rip learn-default
```

Syntax: ip rip learn-default

Possible values: N/A

Default value: N/A

ip rip poison-reverse

Enables poison-reverse on the RIP routing protocol to prevent routing loops and slow convergence within the network.

For this command to be operational, RIP must be enabled and active on the routing switch, and the RIP type configured.

EXAMPLE:

```
HP9300(config)# int e 4/1
HP9300(config-if-4/1)# ip rip poison-reverse
```

Syntax: ip rip poison-reverse

Possible values: N/A

Default value: enabled

ip srp address preference

Modifies the priority for a routing switch interface configured for SRP operation. The routing switch in the network with the highest value will be the ***active*** (master) routing switch.

SRP must be active on the routing switch for this command to be operational. SRP is enabled at the global CONFIG level.

EXAMPLE:

To modify the preference (priority) of a routing switch interface, enter the following command:

```
HP9300(config)# inter e1
```

```
HP9300(config-if-1)# ip srp add 192.33.52.5 pref 200
```

Syntax: ip srp address <ip-addr> preference <value>

Possible values: 1 – 255

Default value: 60

ip srp address track-port

Assigns a track port for use by the SRP protocol. The ***track port*** feature is used to track the status of those ports that provide redundant paths. If change in state occurs (up or down), the track port will detect this and the priority of the SRP Group Interface will be increased or decreased.

SRP must be active on the routing switch for this command to be operational. SRP is enabled at the global CONFIG level.

EXAMPLE:

```
HP9300(config)# inter e 2/1
```

```
HP9300(config-if-2/1)# ip srp add 192.33.52.5 track 1
```

Syntax: ip srp address <ip-addr> track-port <portnum>

Possible values: 1 – 26; range is determine by port capacity of the switch or routing switch

Default value: Disabled

ip srp address vir-rtr-ip

Defines the virtual router and its address for the specified interface. The virtual router IP address needs to be configured on at least one routing switch in the SRP group.

NOTE: The virtual router is what arbitrates the redundant path management under the SRP protocol.

SRP must be active on the routing switch for this command to be operational. SRP is enabled at the global CONFIG level.

Syntax: ip srp address <ip-addr> vir-rtr-ip <ip-addr>

NOTE: The virtual IP router must belong to the same sub-net and SRP group as the defined SRP interface.

EXAMPLE:

```
HP9300(config)# inter e 1/5
```

```
HP9300(config-if-1/5)# ip srp add 192.33.52.5 vir-rtr-ip 195.45.5.1
```

EXAMPLE:Possible values: N/ A

Default value: 0.0.0.0

ip srp address vir-rtr-ip other-rtr-ip

Defines the partner router interface address. SRP must be active on the routing switch for this command to be operational.

EXAMPLE:

```
HP9300(config)# inter e 1/3
```

```
HP9300(config-if-1/3)# ip srp add 192.33.52.5 vir-rtr-ip 195.45.5.1 other-rtr-ip
195.55.2.1
```

Syntax: ip srp address <ip-addr> vir-rtr-ip <ip-addr> other-rtr-ip <ip-addr>

Possible values: N/A

Default value: 0.0.0.0

ip srp address keep-alive-time

The **keep-alive-time** parameter allows you to modify how often the SRP hello message will be sent on a routing switch's interface on which the keep alive time is being configured.

NOTE: The keep-alive-time value must be set to the same value on both the active and standby routing switches when both routers are connected to the same sub-net.

EXAMPLE:

```
HP9300(config)# int 2
```

```
HP9300(config-if-2)# ip srp address 192.55.4.3 keep-alive-time 15
```

Syntax: ip srp address <ip-addr> keep-alive-time <value>

Possible values: 1 – 120 seconds

Default value: 3 seconds

ip srp address router-dead-time

The **router-dead-time** parameter allows you to define the period of time (hold time) that the standby routing switch will wait before determining the active routing switch unavailable (dead). When the configured period of time expires, the standby routing switch will become active.

NOTE: The router-dead-time value must be set to the same value on both the active and standby routing switch when both routers are connected to the same sub-net.

EXAMPLE:

```
HP9300(config)# int 4/2
HP9300(config-if-4/2)# ip srp address 192.55.4.3 router-dead-time 30
```

Syntax: ip srp address <ip-addr> router-dead-time <value>

Possible values: 3 – 255

Default value: 9 seconds

ip tunnel

This is a launch command that moves activity to the IP tunnel CONFIG level. It allows you to define an IP tunnel for a specific interface. The requested IP address is the end point of the tunnel (the destination interface). IP tunnels must be defined for PIM and DVMRP multicast traffic that will be passing through routers that are not IP-multicast capable.

For this command to be operational, PIM or DVMRP must be enabled on the routing switch. IP tunneling must also be enabled and defined on the destination router interface.

EXAMPLE:

```
HP9300(config)# inter e 3/1
HP9300(config-if-3/1)# ip address 192.33.65.4/24
HP9300(config-if-3/1)# ip tunnel 209.157.22.26 pim
HP9300(config-if-pim-tunnel)# end
HP9300# write mem
```

Syntax: ip tunnel <ip-addr> dvmrp | pim

Possible values: valid ip address

Default value: N/A

ip vrrp

Lets you configure a Virtual Router Redundancy Protocol (VRRP) virtual router on an interface.

EXAMPLE:

```
HP9300(config)# int e 4/1
HP9300(config-if-4/1)# ip vrrp 1
```

Syntax: ip vrrp vrid <vrid>

Possible values: VRID is a virtual router ID.

Default value: N/A

ip vrrp auth-type

Configures the authentication type for a virtual router interface.

EXAMPLE:

```
HP9300(config)# int e 4/1
HP9300(config-if-4/1)# ip vrrp auth-type simple-text-auth pword
```

Syntax: ip vrrp auth-type no-auth | simple-text-auth <auth-data>

Possible values: <auth-data> is a simple text password.

Default value: N/A

ipg10

Allows you to modify the inter-packet gap (delay) between packets on a 10Mbps Ethernet segment. By default, the delay between packets will be 12 bytes or 9.6 microseconds.

Use this command only to adjust the inter-packet gap to match older adapters that do not meet the default IPG requirements for Ethernet.

In determining the value to enter in the CLI command, note that one byte equals.8 microseconds for packets on a 10Mbps segment, so the following equation can be used:

IPG10 = 9.6 microseconds + (value *.8)

where value is the number of bytes by which you want to increase the inter-packet gap.

EXAMPLE:

To increase the delay between packets by 3.2 microseconds, enter the port to be modified and then enter the value of 4 (4*.8 =3.2 microseconds):

```
HP9300(config)# int e 4/4
HP9300(config-if-4/4)# ipg10 4
```

Syntax: ipg10 <value>

Possible values: 0 – 100 bytes

Default value: 12 bytes or ipg10 0

NOTE: Entering the value of 0 with the **ipg10**, **ipg100**, and **ipg1000** commands restores the inter-packet gap (IPG) to the default of 12 bytes.

ipg100

Allows you to modify the inter-packet gap (delay) between packets on a 100Mbps Ethernet segment on a port-by-port basis. By default, the delay between packets will be 12 bytes or 0.96 microseconds.

Use this command only to adjust the inter-packet gap to match that of older adapters that do not meet the default IPG requirements for Fast Ethernet.

In determining the value to enter in the CLI command, note that one byte equals.08 microseconds for packets on a 100Mbps segment, so the following equation can be used:

IPG100 = 0.96 microseconds + (value *.08)

where value is the number of bytes by which you want to increase the inter-packet gap.

EXAMPLE:

To increase the delay between packets by 3.2 microseconds, enter the port to be modified and then enter the value of 40 (40*.08 =3.2 microseconds):

```
HP9300(config)# int e 3/4
HP9300(config-if-3/4)# ipg100 40
```

Syntax: ipg100 <value>

Possible values: 0 – 100

Default value: 12 bytes or ipg100 0

NOTE: Entering the value of 0 with the **ipg10**, **ipg100**, and **ipg1000** commands restores the inter-packet gap (IPG) to the default of 12 bytes.

ipg1000

Allows you to modify the inter-packet gap (delay) between packets on a 1000Mbps Gigabit Ethernet segment on a port-by-port basis. By default, the delay between packets will be 12 bytes or.096 microseconds.

Use this command only to adjust the inter-packet gap to match that of older adapters that do not meet the default IPG requirements for Gigabit Ethernet.

In determining the value to enter in the CLI command, note that one byte equals.008 microseconds for packets on a 1000Mbps segment, so the following equation can be used:

IPG1000 =.096 microseconds + (value *.008)

where value is the number of bytes by which you want to increase the inter-packet gap.

EXAMPLE:

To increase the delay between packets by.32 microseconds, first enter the port to be modified and then enter the value of 40 (40*.008 =.32 microseconds):

```
HP9300(config)# int e 3/4
HP9300(config-if-3/4)# ipg1000 40
```

Syntax: ipg1000 <value>

Possible values: 1 – 100

Default value: 12 bytes or ipg1000 0

NOTE: Entering the value of 0 with the **ipg10**, **ipg100**, and **ipg1000** commands restores the inter-packet gap (IPG) to the default of 12 bytes.

ipx forward-filter-group

Allows a group of defined forward filters to be applied to an IPX interface. The filter can be applied to either **in**coming or **out**going traffic.

Prior to using this command, you must first enable IPX on the routing switch using the **router ipx** command.

EXAMPLE:

```
HP9300(config)# int e 4/1
HP9300(config-if-4/1)# ipx forward-filter-group in 2 3 5
```

Syntax: ipx forward-filter-group in | out <index>

Possible values: in or out, defined filter indexes

Default value: N/A

ipx gns-reply-disable

Disables GNS replies on individual routing switch ports.

EXAMPLE:

To disable IPX GNS replies for all IPX interfaces on port 1/1:

```
HP9300(config)# int eth 1/1
HP9300(config-if-1/1)# ipx gns-reply-disable
```

Syntax: [no] ipx gns-reply-disable

Possible values: When IPX is enabled in the routing switch, the device responds to all GNS requests by default.

Default value: N/A

ipx netbios-allow

Enables NetBIOS broadcasts (type 20) to be routed over IPX. IPX must be enabled on the routing switch and a network number and frame type defined for each IPX interface.

EXAMPLE:

To enable NetBIOS on an interface (for example, module 5 on port 2), enter the following:

```
HP9300(config)# int e 5/2
HP9300(config-if-5/2)# ipx netbios-allow
```

Syntax: ipx netbios-allow

Possible values: N/A

Default value: disabled

ipx network

Assigns network numbers and frame types for each IPX interface. This is the second step in using IPX on the routing switch. Prior to using this command, enable IPX on the routing switch using the **router ipx** command.

EXAMPLE:

```
HP9300(config)# int e 3/2
HP9300(config-if-3/2)# ipx network 11110055 ethernet_snap
```

NOTE: Other frame types are supported:

ethernet_802.2

ethernet_802.3

ethernet_ii

Syntax: ipx network <network-number> <frame-type> [netbios-allow | netbios-disallow]

EXAMPLE:Possible values: see above

EXAMPLE:Default value: NetBIOS allowed

ipx output-gns-filter

Applies IPX access lists for filtering GNS replies to an interface.

EXAMPLE:

To apply previously defined IPX ACLs 10, 20, and 32 to port 2/2 to control responses to GNS requests on that port:

```
HP9300(config)# int e 2/2
HP9300(config-if-2/2)# ipx output-gns-filter 10 20 32
```

Syntax: [no] ipx output-gns-filter <num> [<num>…]

Possible values: Defined filter indices

Default value: N/A

ipx rip-filter-group

Allows a group of RIP filters to be applied to an IPX interface. The filter can be applied to either incoming or outgoing traffic.

EXAMPLE:

To apply filters to an individual interface basis (for example, interface 2/2), enter the following:

```
HP9300(config)# int e 2/2
HP9300(config-if-2/2)# ipx rip-filter-group in 1 2 3 10
```

Syntax: ipx rip-filter-group in | out <index>

Possible values: in or out, defined filter indices

Default value: disabled

ipx rip-max-packetsize

Changes the maximum size of IPX RIP update packets sent by the routing switch.

EXAMPLE:

To change the maximum packet size of IPX RIP advertisements sent on interface 1/1 from the default 432 bytes to 832 bytes, enter the following command. This command increases the number of IPX RIP routes an advertisement packet holds from 50 to 100.

```
HP9300(config) int e 1/1
HP9300(config-if-1/1) ipx rip-max-packetsize 832
```

Syntax: ipx rip-max-packetsize <bytes>

The number of bytes can be from 40 bytes (enough for one route) – 1488 bytes (enough for 182 routes). The default is 432 bytes.

Possible values: 40 – 1488 bytes

Default value: 432

ipx rip-multiplier

Changes the age time for learned IPX routes. The software calculates the age time by multiplying the advertisement interval times the age timer. For example, the default age time for IPX routes is 180 seconds, which is 60 (the default advertisement interval) multiplied by 3 (the default age timer).

EXAMPLE:

To change the age timer for IPX routes from 3 to 4 on interface 1/1, enter the following commands.

```
HP9300(config) int e 1/1
HP9300(config-if-1/1) ipx rip-multiplier 4
```

Syntax: ipx rip-multiplier <num>

The <num> parameter specifies the age time and can be from 1 – 65535. The default is 3.

Possible values: 1 – 65535

Default value: 3

ipx sap-filter-group

Allows a group of defined IPX/SAP filters to be applied to IPX interfaces. The filters can be applied to either incoming or outgoing traffic.

EXAMPLE:

To apply filters to an individual interface's inbound IPX filter group, enter commands such as the following:

```
HP9300(config)# int e 3/2
HP9300(config-if-3/2)# ipx sap-filter-group in 2 3 5
```

Syntax: ipx sap-filter-group in | out <index>

Possible values: in or out, defined filter indexes

Default value: N/A

ipx sap-interval

Changes how often the routing switch sends IPX SAP updates to neighboring IPX routers.

EXAMPLE:

To change the advertisement interval for IPX SAP advertisements sent on interface 1/1 from 60 seconds to 120 seconds, enter the following commands:

```
HP9300(config) int e 1/1
HP9300(config-if-1/1) ipx sap-interval 120
```

Syntax: ipx sap-interval <interval>

The <interval> can be from 10 – 65535 seconds. The default is 60.

Possible values: 10 – 65535

Default value: 60

ipx sap-max-packetsize

Changes the maximum size of IPX SAP update packets sent by the routing switch.

EXAMPLE:

To change the maximum number of bytes in IPX SAP advertisements sent on interface 5/1 from 480 to 672 (enough for 10 servers plus the 32 bytes of packet header), enter the following commands:

```
HP9300(config) int e 5/1
HP9300(config-if-5/1) ipx sap-max-packetsize 672
```

Syntax: ipx sap-max-packetsize <bytes>

The number of bytes can be from 96 bytes (enough for one server) – 1440 bytes (enough for 22 servers). The default is 480 bytes.

Possible values: 96 – 1440 bytes

Default value: 480

ipx sap-multiplier

Changes the age time for learned IPX SAP entries. The software calculates the age time by multiplying the advertisement interval times the age timer. For example, the default age time for IPX SAP entries is 180 seconds, which is 60 (the default advertisement interval) multiplied by 3 (the default age timer).

EXAMPLE:

To change the age timer for IPX servers from 3 to 2 on interface 5/1, enter the following commands.

```
HP9300(config) int e 5/1
HP9300(config-if-5/1) ipx sap-multiplier 2
```

Syntax: ipx sap-multiplier <num>

The <num> parameter specifies the age time and can be from 1 – 65535. The default is 3.

Possible values: 1 – 65535

Default value: 3

ipx update-time

Changes how often the routing switch sends IPX RIP updates to neighboring IPX routers.

EXAMPLE:

To change the advertisement interval for IPX RIP advertisements sent on interface 1/1 from 60 seconds to 30 seconds, enter the following commands:

```
HP9300(config) int e 1/1
HP9300(config-if-1/1) ipx update-time 30
```

Syntax: ipx update-time <interval>

The <interval> can be from 10 – 65535 seconds. The default is 60.

Possible values: 10 – 65535

Default value: 60

mac filter-group

Applies a group of MAC filters to an interface. You can configure one filter group on each interface.

NOTE: You must define the filters at the global CONFIG level using the **mac filter** command (see “mac filter” on page 6-39) before you can apply the filters to a port.

EXAMPLE:

To assign MAC filter 1 to interface port 1 on slot 1, enter the following:

```
HP9300(config-if-1/1)# mac filter-group 1
```

Syntax: mac-filter-group <filter-list>

Possible values: 1 – 1024

Default value: N/A

mac filter-group log_en

Enables logging of packets that are denied by Layer 2 MAC filters. When you enable this feature, the device generates Syslog entries and SNMP traps for denied packets.

See Example 4 in “show logging” on page 20-35 for an example of log entries generated by this feature.

EXAMPLE:

```
HP9300(config)# int e 1/1
HP9300(config-if-1/1)# mac filter-group log_en
```

Syntax: mac filter-group log_en

Possible values: N/A

Default value: Disabled

monitor

Allows you to select a port to be diagnosed by a designated mirror port. You can configure incoming, outgoing or both incoming and outgoing traffic to be monitored on the port.

EXAMPLE:

To monitor both incoming and outgoing traffic on interface 5/1:

```
HP9300(config)# interface e5
HP9300(config-if-5/1)# monitor both
```

Syntax: monitor input | output | both

Possible values: N/A

Default value: Disabled

no

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

phy-mode

If a port on an HP switch or routing switch is to be attached to a Bay Networks™ 28000 switch, enter this command at the Interface Level as shown below.

This command helps the HP switch or routing switch to adjust to interoperability requirements of the 28000.

EXAMPLE:

```
HP9300(config)# int e 3/1

HP9300(config-if-3/1)# phy-mode 28k
```

Syntax: phy-mode 28k

Possible values: 28k

Default value: Option is turned off.

port-name

Assigns a name to a port. Assigning a name to a physical interface (port) provides additional identification for a segment on the network.

EXAMPLE:

```
HP9300(config)# interface e 5/1

HP9300(config-if-1)# port-name Techpubs
```

Syntax: port-name <string>

Possible values: N/A

Default value: N/A

priority

Sets the QoS priority for a port. The priority values depend on the device type:

- Chassis devices – You can select one of the following:
  - 0 or 1– Assigns an internal priority queue of 0. This is the default and is normal priority.
  - 2 or 3 – Assigns an internal priority queue of 1.
  - 4 or 5 – Assigns an internal priority queue of 2.
  - 6 or 7 – Assigns an internal priority queue of 3

See the “Quality of Service (QoS)” chapter in the *Advanced Configuration and Management Guide* for information about how the queues work.

EXAMPLE:

```
HP9300(config)# interface e 5/1

HP9300(config-if-5/1)# priority 7
```

Syntax: priority <0-7>

Possible values: see above

Default value: 0 or normal

quit

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

EXAMPLE:

```
HP9300(config-if-1)# quit

HP9300>
```

Syntax: quit

Possible values: N/A

Default value: N/A

route-only

Disables Layer 2 switching on an interface.

NOTE: Make sure you really want to disable all Layer 2 switching operations on the interface before you use this option. Consult your reseller or HP for information.

NOTE: You also can disable Layer 2 switching globally. See “route-only” on page 6-52.

EXAMPLE:

To disable Layer 2 switching only on a specific interface, go to the Interface configuration level for that interface, then disable the feature. The following commands show how to disable Layer 2 switching on port 3/2:

```
HP9300(config)# interface ethernet 3/2
HP9300(config-if-3/2)# route-only
```

To re-enable Layer 2 switching, enter the command with “no”, as in the following example:

```
HP9300(config-if-3/2)# no route-only
```

Syntax: [no] route-only

Possible values: N/A

Default value: N/A

show

Displays a variety of configuration and statistical information about the switch or routing switch. See “Show Commands” on page 20-1.

spanning-tree

Spanning tree can be disabled or enabled on an interface basis.

EXAMPLE:

To disable spanning tree on physical port 4 of a system with no VLANs operating, enter the following:

```
HP9300(config)# interface ethernet 4
HP9300(config-if-4) no spanning-tree
```

EXAMPLE:

To disable spanning tree on VLAN 2, enter the following:

```
HP9300(config)# vlan 2
HP9300(config-vlan-2) no spanning-tree
```

Syntax: spanning-tree

Possible values: N/A

Default value: Disabled

speed-duplex

Modifies port speed and duplex. It defines the speed and duplex mode for a 10BaseT and 100BaseTx ports.

Gigabit (1000BaseSx and 1000BaseLx) and 100BaseFx ports operate at a fixed speed and mode (full-duplex) and cannot be modified.

EXAMPLE:

```
HP9300(config)# interface e8
HP9300(config-if-8)# speed-duplex 10-full
```

Syntax: speed-duplex <value>

Possible values: 10-full, 10-half, 100-full, 100-half, auto

Default value: 10/100 autosense

write memory

Saves the running configuration into the startup-config file.

EXAMPLE:

```
HP9300(config-if-1/1)# wr mem
```

Syntax: write memory

Possible values: N/A

Default value: N/A

write terminal

Displays the running configuration of the HP switch or routing switch on the terminal screen.

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

EXAMPLE:

```
HP9300(config-if-1/1)# wr term
```

Syntax: write terminal

Possible values: N/A

Default value: N/A