F Commands

feature bgp

To enable the Border Gateway Protocol (BGP), use the **feature bgp** command. To disable BGP, use the **no** form of this command.

feature bgp

no feature bgp

Syntax Description This command has no arguments or keywords.

Command Default Disabled

Command Modes Global configuration.

Command History

Release	Modified
4.0(1)	This command was introduced.

Usage Guidelines You must enable the BGP feature before you can configure BGP.

This command requires the Enterprise Services license.

Examples This example shows how to enable a BGP configuration:

```
switch# configure terminal
switch(config)# feature bgp
```

Related Commands

Command	Description
show bgp	Displays BGP configuration information.
router bgp	Creates a BGP instance.

feature eigrp

To enable the Enhanced Interior Gateway Protocol (EIGRP), use the **feature eigrp** command. To disable EIGRP, use the **no** form of this command.

feature eigrp

no feature eigrp

Syntax Description   This command has no arguments or keywords.

Command Default   Disabled

Command Modes   Global configuration

Command History

Release	Modified
4.0(1)	This command was introduced.

Usage Guidelines   You must enable the EIGRP feature before you can configure EIGRP.

This command requires the Enterprise Services license.

Examples   This example shows how to enable the EIGRP feature:

```
switch# configure terminal
switch(config)# feature eigrp
```

Related Commands

Command	Description
show {**ip** | **ipv6**} **eigrp**	Displays EIGRP configuration information.
router eigrp	Creates a EIGRP instance.

feature glbp

To enable the Gateway Load Balancing Protocol (GLBP), use the **feature glbp** command. To disable GLBP, use the **no** form of this command.

feature glbp

no feature glbp

Syntax Description This command has no arguments or keywords.

Command Default Disabled

Command Modes Global configuration

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines You must globally enable GLBP before you can configure any GLBP options or create a GLBP group.

This command does not require a license.

Examples This example shows how to enable GLBP:

```
switch# configure terminal
switch(config)# feature glbp
```

Related Commands

Command	Description
authentication	Configures an authentication string for the GLBP group.
forwarder preempt	Configures a gateway to take over as AVF for a GLBP group if it has a higher priority than the current AVF.
ip (GLBP)	Activates the GLBP group.
load-balancing	Specifies the load-balancing method used by the AVG of GLBP.

Command	Description
preempt	Configures the gateway to take over as AVG for a GLBP group if it has a higher priority than the current AVG.
priority	Sets the priority level of the gateway within a GLBP group.
show glbp	Displays GLBP information.
timers	Configures the time between hello packets sent by the GLBP gateway and the time for which the virtual gateway and virtual forwarder information is considered valid.
timers redirect	Configures the time during which the AVG for a GLBP group continues to redirect clients to a secondary AVF.
track	Configures an interface to be tracked where the GLBP weighting changes are based on the state of the interface.
weighting	Specifies the initial weighting value of the GLBP gateway.
weighting track	Specifies a tracking object where the GLBP weighting changes are based on the availability of the object being tracked.

feature hsrp

To enter Hot Standby Router Protocol (HSRP) configuration mode and enable HSRP, use the **feature hsrp** command. To disable HSRP, use the **no** form of this command.

feature hsrp

no feature hsrp

Syntax Description   The command has no arguments or keywords.

Command Default   Disabled

Command Modes   Global configuration

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines   Use the **feature hsrp** command to enter HSRP configuration mode and enable HSRP.

This command does not require a license.

Examples   This example shows how to enable HSRP on Ethernet interface 1/1:

```
switch# configure terminal
switch(config)# feature hsrp
switch(config-hsrp)#
```

Related Commands

Command	Description
hsrp group	Creates and activates an HSRP group.
show hsrp	Displays HSRP information.

feature imp

To enable the authentication package for Open Short Path First version 3 (OSPFv3) packets, use the **feature imp** command. To disable the authentication package, use the **no** form of this command.

feature imp

no feature imp

Syntax Description	The command has no arguments or keywords.

Command Default	Disabled

Command Modes	Global configuration

Command History

Release	Modification
7.3(1)D1(1)	This command was introduced.

Usage Guidelines   This command does not require a license.

Examples   This example shows how to enable authentication package:

```
switch# configure terminal
switch(config)# feature imp
switch(config)#
```

feature isis

To enable the Intermediate System to Intermediate System Protocol (IS-IS), use the **feature isis** command. To disable ISIS, use the **no** form of this command.

feature isis

no feature isis

Syntax Description   This command has no arguments or keywords.

Command Default   Disabled

Command Modes   Global configuration

Command History

Release	Modified
4.0(1)	This command was introduced.

Usage Guidelines   You must enable the IS-IS feature before you can configure IS-IS.

This command requires the Enterprise Services license.

Examples   This example shows how to enable the IS-IS feature:

```
switch# configure terminal
switch(config)# feature isis
```

Related Commands

Command	Description
show isis	Displays IS-IS configuration information.
router isis	Creates an IS-IS instance.

feature ospf

To enable the Open Shortest Path First Protocol (OSPF), use the **feature ospf** command. To disable OSPF, use the **no** form of this command.

feature ospf

no feature ospf

Syntax Description   This command has no arguments or keywords.

Command Default   Disabled

Command Modes   Global configuration

Command History

Release	Modified
4.0(1)	This command was introduced.

Usage Guidelines   You must enable the OSPF feature before you can configure OSPF.

This command requires the Enterprise Services license.

Examples   This example shows how to enable the OSPF feature:

```
switch# configure terminal
switch(config)#feature ospf
```

Related Commands

Command	Description
show ospf	Displays OSPF configuration information.
router ospf	Creates an OSPF instance.

feature ospfv3

To enable the Open Shortest Path First version 3 Protocol (OSPFv3), use the **feature ospfv3** command. To disable OSPFv3, use the **no** form of this command.

feature ospfv3

no feature ospfv3

Syntax Description   This command has no arguments or keywords.

Command Default   Disabled

Command Modes   Global configuration

Command History

Release	Modified
4.0(1)	This command was introduced.

Usage Guidelines   You must enable the OSPFv3 feature before you can configure OSPFv3.

This command requires the Enterprise Services license.

Examples   This example shows how to enable the OSPv3 feature:

```
switch# configure terminal
switch(config)# feature ospfv3
```

Related Commands

Command	Description
show ospfv3	Displays OSPFv3 configuration information.
router ospfv3	Creates an OSPFv3 instance.

feature pbr

To enable the policy-based routing (PBR) feature, use the **feature pbr** command. To disable PBR, use the **no** form of this command.

feature pbr

no feature pbr

Syntax Description   This command has no arguments or keywords.

Command Default   Disabled

Command Modes   Global configuration

Command History

Release	Modified
4.0(1)	This command was introduced.

Usage Guidelines   You must enable the PBR feature before you can configure policy-based routing.

This command requires the Enterprise Services license.

Examples   This example shows how to enable the PBR feature:

```
switch# configure terminal
switch(config)# feature pbr
```

Related Commands

Command	Description
ip policy route-map	Assigns a policy-based route map to an interface.
show ip policy	Displays information about policy-based routing.

feature rip

To enable the Routing Information Protocol (RIP), use the **feature rip** command. To disable RIP, use the **no** form of this command.

feature rip

no feature rip

Syntax Description This command has no arguments or keywords.

Command Default Disabled

Command Modes Global configuration

Command History

Release	Modified
4.0(1)	This command was introduced.

Usage Guidelines You must enable the RIP feature before you can configure RIP.

This command does not require a license.

Examples This example shows how to enable the RIP feature:

```
switch# configure terminal
switch(config)# feature rip
```

Related Commands

Command	Description
show rip	Displays RIP configuration information.
router rip	Creates a RIP instance.

feature vrrp

To enable the Virtual Router Redundancy Protocol (VRRP), use the **feature vrrp** command. To disable VRRP, use the **no** form of this command.

feature vrrp

no feature vrrp

Syntax Description   This command has no arguments or keywords.

Command Default   Disabled

Command Modes   Global configuration

Command History

Release	Modified
4.0(1)	This command was introduced.

Usage Guidelines   You must enable the VRRP feature before you can configure VRRP.

This command does not require a license.

Examples   This example shows how to enable the VRRP feature:

```
switch# configure terminal
switch(config)# feature vrrp
```

Related Commands

Command	Description
show vrrp	Displays VRRP configuration information.
clear vrrp	Clears all the software counters for the specified virtual router.

feature vrrpv3

To enable Virtual Router Redundancy Protocol (VRRP) version 3 and Virtual Router Redundancy Service (VRRS), use the **feature vrrpv3** command. To disable VRRPv3 and VRRS in a VDC, use the **no** form of this command.

feature vrrpv3

no feature vrrpv3

Syntax Description   This command has no arguments or keywords.

Command Default   Disabled

Command Modes   Global configuration mode

Command History

Release	Modification
6.2(2)	This command was introduced.

Usage Guidelines   If VRRPv2 is configured, use the no feature vrrp command in global configuration mode to remove the VRRPv2 configuration and then use the feature vrrpv3 command to enable VRRPv3.

This command requires the Enterprise Services license.

Examples   This example shows how to enable VRRPv3 and VRRS:

```
switch# configure terminal
switch(config)# feature vrrpv3
```
This example shows how to disable VRRPv3 and VRRS:

```
switch# configure terminal
switch(config)# no feature vrrpv3
```

Related Commands

Command	Description
vrrpv3 address-family	Creates a VRRPv3 group and enters VRRPv3 group configuration mode.

feature wccp

To enable the Web Cache Communication Protocol (WCCP), use the **feature wccp** command. To disable WCCP, use the **no** form of this command.

feature wccp

no feature wccp

Syntax Description	This command has no arguments or keywords.

Command Default	Disabled

Command Modes	Global configuration

Command History

Release	Modified
4.2(1)	This command was introduced.

Usage Guidelines

You must enable the WCCP feature before you can configure WCCPv2.

This command does not require a license.

Examples

This example shows how to enable the WCCP feature:

```
switch# configure terminal
switch(config)# feature wccp
switch(config)# show ip wccp

Global WCCP information:
Router information:
Router Identifier: 20.20.20.2
Protocol Version: 2.0
```

Related Commands

Command	Description
clear ip wccp	Clears all the software counters for WCCPv2.
show running-config wccp	Displays the WCCPv2 configuration.
show ip wccp	Displays the status of the WCCP service group.

flush-routes (OSPF)

To flush routes on a nongraceful controlled restart for the Open Shortest Path First (OSPF) protocol, use the **flush-routes** command. To disable this feature, use the **no** form of this command.

flush-routes

no flush-routes

Syntax Description

This command has no arguments or keywords.

Command Default

Disabled

Command Modes

Router configuration

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

Use the **flush-routes** command when the OSPF Graceful Restart feature is not enabled.

This commands causes OSPF to unregister from the unicast RIB when OSPF shuts down. The unicast RIB removes all the routes associated with this OSPF instance. If you do not configure the **flush-routes** command, OSPF will not unregister and the OSPF routes will be stale. The OSPF routs are eventually removed from the unicast RIB after a timeout period. If OSPF comes back up in p in graceful restart mode, the routes will be refreshed in the unicast RIB.

This command requires the Enterprise Services license.

Examples

This example shows how to flush routes for a nongraceful restart:

```
switch# configure terminal
switch(config)# router ospf 202
switch(config-router)# flush-routes
```

Related Commands

Command	Description
graceful-restart	Enables OSPF Graceful Restart.

flush-routes (OSPFv3)

To flush routes on a nongraceful controlled restart for the Open Shortest Path First version 3 (OSPFv3) protocol, use the **flush-routes** command. To disable this feature, use the **no** form of this command.

flush-routes

no flush-routes

Syntax Description
This command has no arguments or keywords.

Command Default
Disabled

Command Modes
Router configuration

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines
Use the **flush-routes** command when the OSPFv3 Graceful Restart feature is not enabled.

This commands causes OSPF to unregister from the unicast RIB when OSPFv3 shuts down. The unicast RIB removes all the routes associated with this OSPF instance. If you do not configure the **flush-routes** command, OSPFv3 will not unregister and the OSPFv3 routes will be stale. The OSPFv3 routs are eventually removed from the unicast RIB after a timeout period. If OSPFv3 comes back up in p in graceful restart mode, the routes will be refreshed in the unicast RIB.

This command requires the Enterprise Services license.

Examples
This example shows how to flush routes for a nongraceful restart:

```
switch# configure terminal
switch(config)# router ospfv3 202
switch(config-router)# flush-routes
```

Related Commands

Command	Description
graceful-restart	Enables OSPFv3 graceful restart.

follow

To configure a regular Hot Standby Redundancy Protocol (HSRP) group as a slave group, use the **follow** command. To return the slave group to a regular HSRP group, use the **no** form of this command.

follow *master-group*

no follow *master-group*

Syntax Description

master-group	Master group.

Command Default　　None

Command Modes　　config-if-hsrp mode

Command History

Release	Modification
6.2(2)	This command was introduced.

Usage Guidelines　　Configuring an HSRP group as a slave group clears the group's other configurations, such as its virtual IP address without notification, so you must enter the follow command before you enter the ip command.

Slave groups may forward reference master group names that are undefined.

This command requires the Enterprise Services license.

Examples　　This example shows how to configure a regular HSRP group as a slave group:

```
switch# configure terminal
switch(config)# interface ethernet 3/5
switch(config-if)# ip address 11.0.0.1/24
switch(config-if)# hsrp version 2
switch(config-if)# hsrp mac-refresh 90
switch(config-if)# hsrp 10
switch(config-if-hsrp)# name Master-Group-1
switch(config-if-hsrp)# follow Master-Group-1
switch(config-if-hsrp)#
```
This example shows how to remove a regular HSRP group from a slave group:

```
switch(config-if-hsrp)# no follow Master-Group-1
```

Related Commands

Command	Description
hsrp	Creates an HSRP group and enters HSRP configuration mode.

forwarder preempt

To configure a gateway to take over as the active virtual forwarder (AVF) for a Gateway Load Balancing Protocol (GLBP) group if the current AVF falls below its low weighting threshold, use the **forwarder preempt** command. To disable this function, use the **no** form of this command.

forwarder preempt [**delay minimum** *seconds*]

no forwarder preempt [**delay minimum** *seconds*]

Syntax Description

delay minimum *seconds*	(Optional) Specifies a minimum number of seconds that the gateway delays before taking over the role of AVF. The range is from 0 to 3600 seconds with a default delay of 30 seconds.

Command Default

Forwarder preemption is enabled with a default delay of 30 seconds.

Command Modes

GLBP configuration

Command History

Release	Modification
4.0(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Examples

This example shows how to configure a gateway to preempt the current AVF when the current AVF falls below its low weighting threshold. If the gateway preempts the current AVF, it waits 60 seconds before taking over the role of the AVF.

```
switch# configure terminal
switch(config)# interface ethernet 1/1
switch(config-if)# glbp 2
switch(config-glbp)# forwarder preempt delay minimum 60
```

Related Commands

Command	Description
glbp	Enters GLBP configuration mode and creates a GLBP group.