CLI Commands

The Cisco Wireless LAN solution command-line interface (CLI) enables operators to connect an ASCII console to the Cisco Wireless LAN Controller and configure the controller and its associated access points.

show Commands

This section lists the **show** commands that you can use to display information about the controller ports and interfaces.

show advanced sip-snooping-ports

To display the port range for call snooping, use the **show advanced sip-snooping-ports** command.

show advanced sip-snooping-ports

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following is a sample output of the **show advanced sip-snooping-ports** command:

```
(Cisco Controller) > show advanced sip-snooping-ports
 SIP Call Snoop Ports: 1000 - 2000
```

show interface

To display details of the system interfaces, use the **show interface** command.

show interface {**summary** | **detailed** {*interface_name* | **management** | **redundancy-management** | **redundancy-port** | **service-port** | **virtual**}

Syntax Description

summary	Displays a summary of the local interfaces.
detailed	Displays detailed interface information.
interface_name	Interface name for detailed display.
management	Displays detailed management interface information.
redundancy-management	Displays detailed redundancy management interface information.
redundancy-port	Displays detailed redundancy port information.
service-port	Displays detailed service port information.
virtual	Displays detailed virtual gateway interface information.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to display a summary of the local interfaces:

```
(Cisco Controller) > show interface summary
Interface Name        Port  Vlan Id    IP Address        Type    Ap Mgr
Guest
-------------------   ----   ---------   ----------------  ------ ------
------
ap-manager            1       untagged    xxx.xxx.xxx.xxx  Static   Yes
No
management            1        untagged   xxx.xxx.xxx.xxx  Static   No
No
service-port          N/A     N/A         xxx.xxx.xxx.xxx  Static   No
No
```

```
virtual              N/A     N/A         xxx.xxx.xxx.xxx  Static   No
 No
```

The following example shows how to display the detailed interface information:

```
(Cisco Controller) > show interface detailed management
Interface Name..................................... management
MAC Address........................................ 88:43:e1:7e:0b:20
IP Address......................................... 9.4.120.99
IP Netmask......................................... 255.255.255.0
IP Gateway......................................... 9.4.120.1
External NAT IP State.............................. Disabled
External NAT IP Address............................ 0.0.0.0
VLAN............................................... 120
Quarantine-vlan.................................... 0
NAS-Identifier..................................... Building1
Active Physical Port............................... 1
Primary Physical Port.............................. 1
Backup Physical Port............................... Unconfigured
DHCP Proxy Mode.................................... Global
Primary DHCP Server................................ 9.1.0.100
Secondary DHCP Server.............................. Unconfigured
DHCP Option 82..................................... Disabled
ACL................................................ Unconfigured
mDNS Profile Name.................................. Unconfigured
AP Manager......................................... Yes
Guest Interface.................................... No
L2 Multicast....................................... Enabled
```

Note Some WLAN controllers may have only one physical port listed because they have only one physical port.

The following example shows how to display the detailed redundancy management interface information:

```
(Cisco Controller) > show interface detailed redundancy-management
Interface Name..................................... redundancy-management
MAC Address........................................ 88:43:e1:7e:0b:20
IP Address......................................... 209.165.201.2
```

The following example shows how to display the detailed redundancy port information:

```
(Cisco Controller) > show interface detailed redundancy-port
Interface Name..................................... redundancy-port
MAC Address........................................ 88:43:e1:7e:0b:22
IP Address......................................... 169.254.120.5
```

The following example shows how to display the detailed service port information:

```
(Cisco Controller) > show interface detailed service-port
Interface Name..................................... redundancy-port
MAC Address........................................ 88:43:e1:7e:0b:22
IP Address......................................... 169.254.120.5
```

The following example shows how to display the detailed virtual gateway interface information:

```
(Cisco Controller) > show interface detailed virtual
```

```
Interface Name................................. virtual
MAC Address.................................... 88:43:e1:7e:0b:20
IP Address..................................... 1.1.1.1
Virtual DNS Host Name.......................... Disabled
AP Manager..................................... No
Guest Interface................................ No
```

show interface group

To display details of system interface groups, use the **show interface group** command.

show interface group {**summary** | **detailed** *interface_group_name*}

Syntax Description

summary	Displays a summary of the local interface groups.
detailed	Displays detailed interface group information.
interface_group_name	Interface group name for a detailed display.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to display a summary of local interface groups:

```
(Cisco Controller) > show interface group summary
Interface Group Name    Total Interfaces   Total WLANs     Total AP
Groups     Quarantine
--------------------   ----------------   ---------     --------------      ---------
mygroup1                    1                0                0              No
mygroup2                    1                0                0              No
mygroup3                    5                1                0              No
```

The following example shows how to display the detailed interface group information:

```
(Cisco Controller) > show interface group detailed mygroup1
Interface Group Name.............................. mygroup1
Quarantine ....................................... No
Number of Wlans using the Interface Group........ 0
Number of AP Groups using the Interface Group.... 0
Number of Interfaces Contained.................... 1
mDNS Profile Name.............................. NCS12Prof
Interface Group Description..................... My Interface Group
Next interface for allocation to client.......... testabc
Interfaces Contained in this group .............. testabc
Interface marked with * indicates DHCP dirty interface
Interface list sorted based on vlan:

Index  Vlan     Interface Name
```

```
-----  ----    --------------------------------
0       42      testabc
```

show lag eth-port-hash

To display the physical port used for specific MAC addresses, use the **show lag eth-port-hash** command.

show lag eth-port-hash *dest_MAC* [*source_MAC*]

Syntax Description

dest_MAC	MAC address to determine output port for non-IP packets.
source_MAC	(Optional) MAC address to determine output port for non-IP packets.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to display the physical port used for a specific MAC address:

```
(Cisco Controller) > show lag eth-port-hash 11:11:11:11:11:11
Destination MAC 11:11:11:11:11:11 currently maps to port 1
```

show lag ip-port-hash

To display the physical port used for specific IP addresses, use the **show lag ip-port-hash** command.

show lag ip-port-hash *dest_IP* [*source_IP*]

Syntax Description

dest_IP	IP address to determine the output port for IP packets.
source_IP	(Optional) IP address to determine the output port for IP packets.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

For CAPWAP packets, enter the AP's IP address. For EOIP packets, enter the WLC's IP address. For WIRED_GUEST packets, enter its IP address. For non tunneled IP packets from WLC, enter the destination IP address. For other nontunneled IP packets, enter both destination and source IP addresses.

Examples

The following example shows how to display the physical port used for a specific IP address:

```
(Cisco Controller) > show lag ip-port-hash 192.168.102.138
Destination IP 192.168.102.138 currently maps to port 1
```

show lag summary

To display the current link aggregation (LAG) status, use the **show lag summary** command.

show lag summary

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to display the current status of the LAG configuration:

```
(Cisco Controller) > show lag summary
LAG Enabled
```

show port

To display the Cisco wireless LAN controller port settings on an individual or global basis, use the **show port** command.

show port {*port* | **summary**}

Syntax Description

port	Information on the individual ports.
summary	Displays all ports.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to display information about an individual wireless LAN controller port:

```
(Cisco Controller) > show port 1
            STP   Admin    Physical   Physical   Link   Link    Mcast
Pr  Type   Stat   Mode     Mode      Status   Status  Trap   Appliance   POE
-- ------- ---- ------- ---------- ---------- ------ ------- ---------
-------
1  Normal  Disa Enable  Auto      1000 Full  Down   Enable  Enable    N/A
```

Note Some WLAN controllers may not have multicast or Power over Ethernet (PoE) listed because they do not support those features.

The following example shows how to display a summary of all ports:

```
(Cisco Controller) > show port summary
            STP   Admin    Physical   Physical   Link   Link    Mcast
Pr  Type   Stat   Mode     Mode      Status   Status  Trap   Appliance   POE
 SFPType
-- ------- ---- ------- ---------- ---------- ------ ------- ---------
-------------
1  Normal  Forw Enable  Auto      1000 Full  Up     Enable  Enable    N/A
 NotPresent
2  Normal  Disa Enable  Auto      1000 Full  Down   Enable  Enable    N/A
 NotPresent
3  Normal  Disa Enable  Auto      1000 Full  Down   Enable  Enable    N/A
```

```
 NotPresent
4  Normal  Disa Enable  Auto      1000 Full  Down   Enable  Enable    N/A
 NotPresent
```

Note Some WLAN controllers may have only one port listed because they have only one physical port.

show serial

To display the serial (console) port configuration, use the **show serial** command.

show serial

Syntax Description

This command has no arguments or keywords.

Command Default

The default values for Baud rate, Character, Flow Control, Stop Bits, Parity type of the port configuration are 9600, 8, off, 1, none.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to display EIA-232 parameters and the serial port inactivity timeout:

```
(Cisco Controller) > show serial
Serial Port Login Timeout (minutes)..... 45
Baud Rate............................... 9600
Character Size.......................... 8
Flow Control:........................... Disable
Stop Bits............................... 1
Parity Type:............................ none
```

show spanningtree port

To display the Cisco wireless LAN controller spanning tree port configuration, use the **show spanningtree port** command.

show spanningtree port *port*

Syntax Description

port	Physical port number: • 1 through 4 on Cisco 2100 Series Wireless LAN Controller. • 1 or 2 on Cisco 4402 Series Wireless LAN Controller. • 1 through 4 on Cisco 4404 Series Wireless LAN Controller.

Command Default

The default SPT configuration output values are 800C, Disabled, 802.1D, 128, 100, Auto.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

When the a Cisco 4400 Series wireless LAN controller is configured for port redundancy, the Spanning Tree Protocol (STP) must be disabled for all ports on the Cisco 4400 Series Wireless LAN Controller. STP can remain enabled on the switch connected to the Cisco 4400 Series Wireless LAN Controller.

Note Some WLAN controllers do not support the spanning tree function.

Examples

The following example shows how to display spanning tree values on a per port basis:

```
(Cisco Controller) > show spanningtree port 3
STP Port ID..................................... 800C
STP Port State.................................. Disabled
STP Port Administrative Mode.................... 802.1D
STP Port Priority............................... 128
STP Port Path Cost.............................. 100
STP Port Path Cost Mode......................... Auto
```

show spanningtree switch

To display the Cisco wireless LAN controller network (DS port) spanning tree configuration, use the **show spanningtree switch** command.

show spanningtree switch

Syntax Description

This command has no arguments or keywords.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

Some WLAN controllers do not support the spanning tree function.

Examples

The following example shows how to display spanning tree values on a per switch basis:

```
(Cisco Controller) > show spanningtree switch
STP Specification..................... IEEE 802.1D
STP Base MAC Address.................. 00:0B:85:02:0D:20
Spanning Tree Algorithm............... Disable
STP Bridge Priority................... 32768
STP Bridge Max. Age (seconds)......... 20
STP Bridge Hello Time (seconds)....... 2
STP Bridge Forward Delay (seconds)..... 15
```

show stats port

To display physical port receive and transmit statistics, use the **show stats port** command.

show stats port {**detailed** *port* | **summary** *port*}

Syntax Description

detailed	Displays detailed port statistics.
summary	Displays port summary statistics.
port	Physical port number: • 1 through 4 on Cisco 2100 Series Wireless LAN Controllers. • 1 or 2 on Cisco 4402 Series Wireless LAN Controllers. • 1 through 4 on Cisco 4404 Series Wireless LAN Controllers. • 1 on Cisco WLCM Series Wireless LAN Controllers.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to display the port summary information:

```
(Cisco Controller) > show stats port summary
Packets Received Without Error.................. 399958
Packets Received With Error..................... 0
Broadcast Packets Received...................... 8350
Packets Transmitted Without Error............... 106060
Transmit Packets Errors......................... 0
Collisions Frames............................... 0
Time Since Counters Last Cleared................ 2 day 11 hr 16 min 23 sec
```

The following example shows how to display the detailed port information:

```
(Cisco Controller) > show stats port detailed 1
```

```
PACKETS RECEIVED (OCTETS)
Total Bytes..................................... 267799881
64 byte pkts        :918281
65-127 byte pkts    :354016         128-255 byte pkts   :1283092
256-511 byte pkts   :8406           512-1023 byte pkts  :3006
1024-1518 byte pkts :1184           1519-1530 byte pkts :0
> 1530 byte pkts    :2
PACKETS RECEIVED SUCCESSFULLY
Total.......................................... 2567987
Unicast Pkts  :2547844      Multicast Pkts:0         Broadcast Pkts:20143
PACKETS RECEIVED WITH MAC ERRORS
Total.......................................... 0
Jabbers   :0              Undersize :0              Alignment :0
FCS Errors:0              Overruns  :0
RECEIVED PACKETS NOT FORWARDED
Total.......................................... 0
Local Traffic Frames:0              RX Pause Frames     :0
Unacceptable Frames :0              VLAN Membership     :0
VLAN Viable Discards:0              MulticastTree Viable:0
ReserveAddr Discards:0
CFI Discards        :0              Upstream Threshold  :0
PACKETS TRANSMITTED (OCTETS)
Total Bytes..................................... 353831
64 byte pkts        :0              65-127 byte pkts    :0
128-255 byte pkts   :0              256-511 byte pkts   :0
512-1023 byte pkts  :0              1024-1518 byte pkts :2
1519-1530 byte pkts :0              Max Info            :1522
PACKETS TRANSMITTED SUCCESSFULLY
Total.......................................... 5875
Unicast Pkts  :5868          Multicast Pkts:0          Broadcast Pkts:7
TRANSMIT ERRORS
Total Errors................................... 0
FCS Error     :0          TX Oversized  :0          Underrun Error:0
TRANSMIT DISCARDS
Total Discards................................. 0
Single Coll Frames  :0              Multiple Coll Frames:0
Excessive Coll Frame:0              Port Membership     :0
VLAN Viable Discards:0
PROTOCOL STATISTICS
BPDUs Received      :6              BPDUs Transmitted   :0
802.3x RX PauseFrame:0
Time Since Counters Last Cleared.............. 2 day 0 hr 39 min 59 sec
```

show stats switch

To display the network (DS port) receive and transmit statistics, use the **show stats switch** command.

show stats switch {**detailed** | **summary**}

Syntax Description

detailed	Displays detailed switch statistics.
summary	Displays switch summary statistics.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to display switch summary statistics:

```
(Cisco Controller) > show stats switch summary
Packets Received Without Error..................... 136410
Broadcast Packets Received......................... 18805
Packets Received With Error........................ 0
Packets Transmitted Without Error.................. 78002
Broadcast Packets Transmitted...................... 3340
Transmit Packet Errors............................. 2
Address Entries Currently In Use................... 26
VLAN Entries Currently In Use...................... 1
Time Since Counters Last Cleared................... 2 day 11 hr 22 min 17 sec
```

The following example shows how to display detailed switch statistics:

```
(Cisco Controller) > show stats switch detailed
RECEIVE
Octets............................................. 19351718
Total Pkts......................................... 183468
Unicast Pkts....................................... 180230
Multicast Pkts..................................... 3219
Broadcast Pkts..................................... 19
Pkts Discarded..................................... 0
TRANSMIT
Octets............................................. 354251
Total Pkts......................................... 5882
Unicast Pkts....................................... 5875
Multicast Pkts..................................... 0
Broadcast Pkts..................................... 7
Pkts Discarded..................................... 0
```

```
ADDRESS ENTRIES
Most Ever Used..................................... 1
Currently In Use................................... 1
VLAN ENTRIES
Maximum............................................ 128
Most Ever Used..................................... 1
Static In Use...................................... 1
Dynamic In Use..................................... 0
VLANs Deleted...................................... 0
Time Since Ctrs Last Cleared....................... 2 day 0 hr 43 min 22
sec
```

config Commands

This section lists the **config** commands to configure controller ports and interfaces.

config interface acl

To configure access control list of an interface, use the **config interface acl** command.

config interface acl {**ap-manager** | **management** | *interface_name*} {*ACL* | **none**}

Syntax Description

ap-manager	Configures the access point manager interface.
management	Configures the management interface.
interface_name	Interface name.
ACL	ACL name up to 32 alphanumeric characters.
none	Specifies none.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

For a Cisco 2100 Series Wireless LAN Controller, you must configure a preauthentication ACL on the wireless LAN for the external web server. This ACL should then be set as a wireless LAN preauthentication ACL under Web Policy. However, you do not need to configure any preauthentication ACL for Cisco 4400 Series Wireless LAN Controllers.

Examples

The following example shows how to configure an access control list with a value None:

```
(Cisco Controller) > config interface acl management none
```

config interface address

To configure address information for an interface, use the **config interface address** command.

config interface address {**ap-manager** *IP_address netmask gateway* | **management** *IP_address netmask gateway* | **service-port** *IP_address netmask* | **virtual** *IP_address* | **dynamic-interface** *IP_address dynamic_interface netmask gateway* | **redundancy-management** *IP_address* **peer-redundancy-management** *IP_address* }

Syntax Description

ap-manager	Specifies the access point manager interface.
IP_address	IP address.
netmask	Network mask.
gateway	IP address of the gateway.
management	Specifies the management interface.
service-port	Specifies the out-of-band service port interface.
virtual	Specifies the virtual gateway interface.
interface-name	Specifies the interface identified by the *interface-name* parameter.
interface-name	Interface name.
redundancy-management	Configures redundancy management interface IP address.
peer-redundancy-management	Configures the peer redundancy management interface IP address.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

For Cisco 5500 Series Controllers, you are not required to configure an AP-manager interface. The management interface acts like an AP-manager interface by default.

Usage Guidelines

Ensure that the management interfaces of both controllers are in the same subnet. Ensure that the Redundant Management IP address for both controllers is the same. Likewise, ensure that the Peer Redundant Management IP address for both the controllers is the same.

Examples

The following example shows how to configure an access point manager interface with IP address 209.165.201.31, network mask 255.255.0.0, and gateway address 209.165.201.30:

```
(Cisco Controller) > config interface address ap-manager 209.165.201.31 255.255.0.0
209.165.201.30
```

The following example shows how to configure a redundancy management interface on the controller:

```
(Cisco Controller) > config interface address redundancy-management 209.4.120.5
peer-redundancy-management 209.4.120.6
```

The following example shows how to configure a virtual interface:

```
(Cisco Controller) > config interface address virtual 1.1.1.1
```

Related Commands

show interface

config interface address redundancy-management

To configure the management interface IP address, subnet and gateway of the controller, use the **config interface address redundancy-management** command.

config interface address redundancy-management *IP_address netmask gateway*

Syntax Description

IP_address	Management interface IP address of the active controller.
netmask	Network mask.
gateway	IP address of the gateway.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

You can use this command to check the Active-Standby reachability when the keep-alive fails.

Examples

The following example shows how to configure the management IP addresses of the controller:

```
(Cisco Controller) > config interface address redundancy-management 209.165.201.31 255.255.0.0
 209.165.201.30
```

Related Commands

config redundancy mobilitymac

config redundancy interface address peer-service-port

config redundancy peer-route

config redundancy unit

config redundancy timer

show redundancy timers

show redundancy summary

debug rmgr

debug rsyncmgr

config interface ap-manager

To enable or disable access point manager features on the management or dynamic interface, use the **config interface ap-manager** command.

config interface ap-manager {**management** | *interface_name*} {**enable** | **disable**}

Syntax Description

management	Specifies the management interface.
interface_name	Dynamic interface name.
enable	Enables access point manager features on a dynamic interface.
disable	Disables access point manager features on a dynamic interface.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

Use the **management** option to enable or disable dynamic AP management for the management interface. For Cisco 5500 Series Controllers, the management interface acts like an AP-manager interface by default. If desired, you can disable the management interface as an AP-manager interface and create another dynamic interface as an AP manager.

When you enable this feature for a dynamic interface, the dynamic interface is configured as an AP-manager interface (only one AP-manager interface is allowed per physical port). A dynamic interface that is marked as an AP-manager interface cannot be used as a WLAN interface.

Examples

The following example shows how to disable an access point manager myinterface:

```
(Cisco Controller) > config interface ap-manager myinterface disable
```

config interface create

To create a dynamic interface (VLAN) for wired guest user access, use the **config interface create** command.

config interface create *interface_name vlan-id*

Syntax Description

interface_name	Interface name.
vlan-id	VLAN identifier.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to create a dynamic interface with the interface named lab2 and VLAN ID 6:

```
(Cisco Controller) > config interface create lab2 6
```

config interface delete

To delete a dynamic interface, use the **config interface delete** command.

config interface delete *interface-name*

Syntax Description

interface-name	*interface-name*Interface name.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to delete a dynamic interface named VLAN501:

```
(Cisco Controller) > config interface delete VLAN501
```

config interface dhcp

To configure DHCP options on an interface, use the **config interface dhcp** command.

config interface dhcp {**ap-manager** [**primary** *dhcp_server* **secondary** *dhcp_server* | **option-82** [**enable** | **disable**]] | **management** [**primary** *dhcp_server* **secondary** *dhcp_server* | **option-82** [**enable** | **disable**]] | **service-port** {**enable** | **disable**} | **dynamic-interface***interface_name* [**primary** *dhcp_server* **secondary** *dhcp_server* | **option-82** [**enable** | **disable**] | **proxy-mode** {**enable** | **disable** | **global**}]}

Syntax Description

ap-manager	Configures the access point manager interface.
primary	(Optional) Specifies the primary DHCP server.
dhcp_server	IP address of the server.
secondary	(Optional) Specifies the secondary DHCP server.
option-82	(Optional) Configures DHCP Option 82 on the interface.
enable	(Optional) Enables the feature.
disable	(Optional) Disables the feature.
management	Configures the management interface.
service-port	Specifies the DHCP for the out-of-band service port.
dynamic-interface	Specifies the interface and the primary DHCP server. Optionally, you can also enter the address of the alternate DHCP server.
name	Specifies the interface name
proxy-mode	(Optional) Configures the DHCP proxy mode on the interface.
enable	(Optional) Enables the DHCP proxy mode on the interface.
disable	(Optional) Disables the DHCP proxy mode on the interface.
global	(Optional) Uses the global DHCP proxy mode on the interface.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure ap-manager server with the primary DHCP server 10.21.15.01 and secondary DHCP server 10.21.15.25:

```
(Cisco Controller) > config interface dhcp ap-manager server-1 10.21.15.01 server-2
10.21.15.25
```

The following example shows how to configure DHCP option 82 on the ap-manager:

```
(Cisco Controller) > config interface dhcp ap-manager option-82 enable
```

The following example shows how to enable the DHCP for the out-of-band service port:

```
(Cisco Controller) > config interface dhcp service-port enable
```

Related Commands

config dhcp

config dhcp proxy

config interface dhcp

config wlan dhcp_server

debug dhcp

debug dhcp service-port

debug disable-all

show dhcp

show dhcp proxy

show interface

config interface address

To configure interface addresses, use the **config interface address** command.

config interface address {**dynamic-interface** *dynamic_interface netmask gateway* | **management** | **redundancy-management** *IP_address* **peer-redundancy-management** | **service-port** *netmask* | **virtual**} *IP_address*

Syntax Description

dynamic-interface	Configures the dynamic interface of the controller.
dynamic_interface	Dynamic interface of the controller.
IP_address	IP address of the interface.
netmask	Netmask of the interface.
gateway	Gateway of the interface.
management	Configures the management interface IP address.
redundancy-management	Configures redundancy management interface IP address.
peer-redundancy-management	Configures the peer redundancy management interface IP address.
service-port	Configures the out-of-band service port.
virtual	Configures the virtual gateway interface.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

Ensure that the management interfaces of both controllers are in the same subnet. Ensure that the redundant management IP address for both controllers is the same and that the peer redundant management IP address for both the controllers is the same.

Examples

The following example shows how to configure a redundancy management interface on the controller:

```
(Cisco Controller) >config interface address redundancy-management 209.4.120.5
peer-redundancy-management 209.4.120.6
```

The following example shows how to configure a virtual interface:

```
(Cisco Controller) > config interface address virtual 1.1.1.1
```

Related Commands

show interface group summary

show interface summary

config interface guest-lan

To enable or disable the guest LAN VLAN, use the **config interface guest-lan** command.

config interface guest-lan *interface_name* {*enable* | *disable*}

Syntax Description

interface_name	Interface name.
enable	Enables the guest LAN.
disable	Disables the guest LAN.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to enable the guest LAN feature on the interface named myinterface:

```
(Cisco Controller) > config interface guest-lan myinterface enable
```

Related Commands

config guest-lan create

config interface hostname

To configure the Domain Name System (DNS) hostname of the virtual gateway interface, use the **config interface hostname** command.

config interface hostname virtual *DNS_host*

Syntax Description

virtual	Specifies the virtual gateway interface to use the specified virtual address of the fully qualified DNS name. The virtual gateway IP address is any fictitious, unassigned IP address, such as 1.1.1.1, to be used by Layer 3 security and mobility managers.
DNS_host	DNS hostname.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure virtual gateway interface to use the specified virtual address of the fully qualified DNS hostname DNS_Host:

```
(Cisco Controller) > config interface hostname virtual DNS_Host
```

config interface nasid

To configure the Network Access Server identifier (NAS-ID) for the interface, use the **config interface nasid** command.

config interface nasid {*NAS-ID* | **none**} *interface_name*

Syntax Description

NAS-ID	Network Access Server identifier (NAS-ID) for the interface. The NAS-ID is sent to the RADIUS server by the controller (as a RADIUS client) using the authentication request, which is used to classify users to different groups. You can enter up to 32 alphanumeric characters. Beginning in Release 7.4 and later releases, you can configure the NAS-ID on the interface, WLAN, or an access point group. The order of priority is AP group NAS-ID > WLAN NAS-ID > Interface NAS-ID.
none	Configures the controller system name as the NAS-ID.
interface_name	Interface name up to 32 alphanumeric characters.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

The NAS-ID configured on the controller for AP group or WLAN or interface is used for authentication. The NAS-ID is not propagated across controllers.

Examples

The following example shows how to configure the NAS-ID for the interface:

```
(Cisco Controller) > config interface nasid
```

Related Commands

config wlan nasid

config wlan apgroup

config interface nat-address

To deploy your Cisco 5500 Series Controller behind a router or other gateway device that is using one-to-one mapping network address translation (NAT), use the **config interface nat-address** command.

config interface nat-address {**management** | **dynamic-interface** *interface_name*} {{**enable** | **disable**} | {**set** *public_IP_address*}}

Syntax Description

management	Specifies the management interface.
dynamic-interface *interface_name*	Specifies the dynamic interface name.
enable	Enables one-to-one mapping NAT on the interface.
disable	Disables one-to-one mapping NAT on the interface.
public_IP_address	External NAT IP address.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

These NAT commands can be used only on Cisco 5500 Series Controllers and only if the management interface is configured for dynamic AP management.

These commands are supported for use only with one-to-one-mapping NAT, where each private client has a direct and fixed mapping to a global address. They do not support one-to-many NAT, which uses source port mapping to enable a group of clients to be represented by a single IP address.

Examples

The following example shows how to enable one-to-one mapping NAT on the management interface:

```
(Cisco Controller) > config interface nat-address management enable
```

The following example shows how to set the external NAP IP address 10.10.10.10 on the management interface:

```
(Cisco Controller) > config interface nat-address management set 10.10.10.10
```

config interface port

To map a physical port to the interface (if a link aggregation trunk is not configured), use the **config interface port** command.

config interface port {**management** | *interface_name* | **redundancy-management**} *primary_port* [*secondary_port*]

Syntax Description

management	Specifies the management interface.
interface_name	Interface name.
redundancy-management	Specifies the redundancy management interface.
primary_port	Primary physical port number.
secondary_port	(Optional) Secondary physical port number.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

You can use the **management** option for all controllers except the Cisco 5500 Series Controllers.

Examples

The following example shows how to configure the primary port number of the LAb02 interface to 3:

```
(Cisco Controller) > config interface port lab02 3
```

config interface quarantine vlan

To configure a quarantine VLAN on any dynamic interface, use the **config interface quarantine vlan** command.

config interface quarantine vlan *interface-name vlan_id*

Syntax Description

interface-name	Interface's name.
vlan_id	VLAN identifier. **Note** Enter 0 to disable quarantine processing.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure a quarantine VLAN on the quarantine interface with the VLAN ID 10:

```
(Cisco Controller) > config interface quarantine vlan quarantine 10
```

config interface vlan

To configure an interface VLAN identifier, use the **config interface vlan** command.

config interface vlan {**ap-manager** | **management** | *interface-name* | **redundancy-management**} *vlan*

Syntax Description

ap-manager	Configures the access point manager interface.
management	Configures the management interface.
interface_name	Interface name.
vlan	VLAN identifier.
redundancy-management	Specifies the redundancy management interface.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

You cannot change the redundancy management VLAN when the system redundancy management interface is mapped to the redundancy port. You must configure the redundancy management port first.

Examples

The following example shows how to configure VLAN ID 10 on the management interface:

```
(Cisco Controller) > config interface vlan management 10
```

config interface group mdns-profile

To configure an mDNS (multicast DNS) profile for an interface group, use the **config interface group mdns-profile** command.

config interface group mdns-profile {**all** | *interface-group-name*} {*profile-name* | **none**}

Syntax Description

all	Configures an mDNS profile for all interface groups.
interface-group-name	Name of the interface group to which the mDNS profile has to be associated. The interface group name can be up to 32 case-sensitive, alphanumeric characters.
profile-name	Name of the mDNS profile.
none	Removes all existing mDNS profiles from the interface group. You cannot configure mDNS profiles on the interface group.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

If the mDNS profile is associated to a WLAN, an error appears.

Examples

The following example shows how to configure an mDNS profile for an interface group floor1:

```
(Cisco Controller) > config interface group mdns-profile floor1 profile1
```

Related Commands

config mdns query interval

config mdns service

config mdns snooping

config interface mdns-profile

config mdns profile

config wlan mdns

show mdns profile

show mnds service

clear mdns service-database

debug mdns all

debug mdns error

debug mdns detail

debug mdns message

config interface mdns-profile

To configure an mDNS (multicast DNS) profile for an interface, use the **config interface mdns-profile** command.

config interface mdns-profile {**management** | **all** *interface-name*} {*profile-name* | **none**}

Syntax Description

management	Configures an mDNS profile for the management interface.
all	Configures an mDNS profile for all interfaces.
interface-name	Name of the interface on which the mDNS profile has to be configured. The interface name can be up to 32 case-sensitive, alphanumeric characters.
profile-name	Name of the mDNS profile.
none	Removes all existing mDNS profiles from the interface. You cannot configure mDNS profiles on the interface.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

If the mDNS profile is associated to a WLAN, an error appears.

Examples

The following example shows how to configure an mDNS profile for an interface lab1:

```
(Cisco Controller) > config interface mdns-profile lab1 profile1
```

Related Commands

config mdns query interval

config mdns service

config mdns snooping

config mdns profile

config interface group mdns-profile

config wlan mdns

show mdns profile

show mnds service

clear mdns service-database

debug mdns all

debug mdns error

debug mdns detail

debug mdns message

config lag

To enable or disable link aggregation (LAG), use the **config lag** command.

config lag {**enable** | **disable**}

Syntax Description

enable	Enables the link aggregation (LAG) settings.
disable	Disables the link aggregation (LAG) settings.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to enable LAG settings:

```
(Cisco Controller) > config lag enable
Enabling LAG will map your current interfaces setting to LAG interface,
All dynamic AP Manager interfaces and Untagged interfaces will be deleted
All WLANs will be disabled and mapped to Mgmt interface
Are you sure you want to continue? (y/n)
You must now reboot for the settings to take effect.
```

The following example shows how to disable LAG settings:

```
(Cisco Controller) > config lag disable
Disabling LAG will map all existing interfaces to port 1.
Are you sure you want to continue? (y/n)
You must now reboot for the settings to take effect.
```

config macfilter

To create or delete a MAC filter entry on the Cisco wireless LAN controller, use the **config macfilter** command.

config macfilter {**add** *client_MAC wlan_id* [*interface_name*] [*description*] [*macfilter_IP*] | **delete** *client_MAC*}

Syntax Description

add	Adds a MAC filter entry on the controller.
client_MAC	Client MAC address.
wlan_id	Wireless LAN identifier with which the MAC filter entry should associate. A zero value associates the entry with any wireless LAN.
interface_name	(Optional) Name of the interface. Enter **0** to specify no interface.
description	(Optional) Short description of the interface (up to 32 characters) in double quotes. **Note** A description is mandatory if *macfilterIP* is specified.
macfilter_IP	(Optional) IP address of the local MAC filter database.
delete	Deletes a MAC filter entry on the controller.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

Use the **config macfilter add** command to add a client locally to a wireless LAN on the Cisco wireless LAN controller. This filter bypasses the RADIUS authentication process.

Examples

The following example shows how to add a MAC filter entry 00:E0:77:31:A3:55 with the wireless LAN ID 1, interface name labconnect, and MAC filter IP 10.92.125.51 on the controller:

```
(Cisco Controller) > config macfilter add 00:E0:77:31:A3:55 1 lab02 “labconnect” 10.92.125.51
```

Related Commands **show macfilter**

config macfilter ip-address

config macfilter description

To add a description to a MAC filter, use the **config macfilter description** command.

config macfilter description *MAC description*

Syntax Description

MAC	Client MAC address.
description	(Optional) Description within double quotes (up to 32 characters).

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure the description MAC filter 01 to MAC address 11:11:11:11:11:11:

```
(Cisco Controller) > config macfilter description 11:11:11:11:11:11 "MAC Filter 01"
```

Related Commands

show macfilter

config macfilter interface

To create a MAC filter client interface, use the **config macfilter interface** command.

config macfilter interface *MAC interface*

Syntax Description

MAC	Client MAC address.
interface	Interface name. A value of zero is equivalent to no name.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure a MAC filer interface Lab01 on client 11:11:11:11:11:11:

```
(Cisco Controller) > config macfilter interface 11:11:11:11:11:11 Lab01
```

Related Commands

show macfilter

config macfilter ip-address

To assign an IP address to an existing MAC filter entry if one was not assigned using the **config macfilter add** command, use the **config macfilter ip-address** command.

config macfilter ip-address *MAC_address IP_address*

Syntax Description

MAC_address	Client MAC address.
IP_address	IP address for a specific MAC address in the local MAC filter database.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure IP address 10.92.125.51 for a MAC 00:E0:77:31:A3:55 in the local MAC filter database:

```
(Cisco Controller) > config macfilter ip-address 00:E0:77:31:A3:55 10.92.125.51
```

Related Commands

show macfilter

config macfilter

config macfilter mac-delimiter

To set the MAC delimiter (colon, hyphen, none, and single-hyphen) for MAC addresses sent to RADIUS servers, use the **config macfilter mac-delimiter** command.

config macfilter mac-delimiter {**none** | **colon** | **hyphen** | **single-hyphen**}

Syntax Description

none	Disables the delimiters (for example, xxxxxxxxxx).
colon	Sets the delimiter to a colon (for example, xx:xx:xx:xx:xx:xx).
hyphen	Sets the delimiter to a hyphen (for example, xx-xx-xx-xx-xx-xx).
single-hyphen	Sets the delimiter to a single hyphen (for example, xxxxxx-xxxxxx).

Command Default

The default delimiter is hyphen.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to have the operating system send MAC addresses to the RADIUS server in the form aa:bb:cc:dd:ee:ff:

```
(Cisco Controller) > config macfilter mac-delimiter colon
```

The following example shows how to have the operating system send MAC addresses to the RADIUS server in the form aa-bb-cc-dd-ee-ff:

```
(Cisco Controller) > config macfilter mac-delimiter hyphen
```

The following example shows how to have the operating system send MAC addresses to the RADIUS server in the form aabbccddeeff:

```
(Cisco Controller) > config macfilter mac-delimiter none
```

Related Commands

show macfilter

config macfilter radius-compat

To configure the Cisco wireless LAN controller for compatibility with selected RADIUS servers, use the **config macfilter radius-compat** command.

config macfilter radius-compat {**Cisco** | **free** | **other**}

Syntax Description

Cisco	Configures the Cisco ACS compatibility mode (password is the MAC address of the server).
free	Configures the Free RADIUS server compatibility mode (password is secret).
other	Configures for other server behaviors (no password is necessary).

Command Default

Other

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure the Cisco ACS compatibility mode to “other”:

```
(Cisco Controller) > config macfilter radius-compat other
```

Related Commands

show macfilter

config macfilter wlan-id

To modify a wireless LAN ID for a MAC filter, use the **config macfilter wlan-id** command.

config macfilter wlan-id *MAC wlan_id*

Syntax Description

MAC	Client MAC address.
wlan_id	Wireless LAN identifier to associate with. A value of zero is not allowed.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to modify client wireless LAN ID 2 for a MAC filter 11:11:11:11:11:11:

```
(Cisco Controller) > config macfilter wlan-id 11:11:11:11:11:11 2
```

Related Commands

show macfilter

show wlan

config port adminmode

To enable or disable the administrative mode for a specific controller port or for all ports, use the **config port adminmode** command.

config port adminmode {**all** | *port*} {**enable** | **disable**}

Syntax Description

all	Configures all ports.
port	Number of the port.
enable	Enables the specified ports.
disable	Disables the specified ports.

Command Default

Enabled

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to disable port 8:

```
(Cisco Controller) > config port adminmode 8 disable
```

The following example shows how to enable all ports:

```
(Cisco Controller) > config port adminmode all enable
```

config port autoneg

To configure 10/100BASE-T Ethernet ports for physical port autonegotiation, use the **config port autoneg** command.

config port autoneg {**all** | *port*} {**enable** | **disable**}

Syntax Description

all	Configures all ports.
port	Number of the port.
enable	Enables the specified ports.
disable	Disables the specified ports.

Command Default

The default for all ports is that auto-negotiation is enabled.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

You must disable port auto-configuration before you make physical mode manual settings by using the **config port physicalmode** command. The **config port autoneg** command overrides settings that you made using the **config port physicalmode** command.

Examples

The following example shows how to turn on physical port autonegotiation for all front-panel Ethernet ports:

```
(Cisco Controller) > config port autoneg all enable
```

The following example shows how to disable physical port autonegotiation for front-panel Ethernet port 19:

```
(Cisco Controller) > config port autoneg 19 disable
```

config port linktrap

To enable or disable the up and down link traps for a specific controller port or for all ports, use the **config port linktrap** command.

config port linktrap {**all** | *port*} {**enable** | **disable**}

Syntax Description

all	Configures all ports.
port	Number of the port.
enable	Enables the specified ports.
disable	Disables the specified ports.

Command Default

The default value for down link traps for a specific controller port or for all ports is enabled.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to disable port 8 traps:

```
(Cisco Controller) > config port linktrap 8 disable
```

The following example shows how to enable all port traps:

```
(Cisco Controller) > config port linktrap all enable
```

config port multicast appliance

To enable or disable the multicast appliance service for a specific controller port or for all ports, use the **config port multicast appliance** commands.

config port multicast appliance {**all** | *port*} {**enable** | **disable**}

Syntax Description

all	Configures all ports.
port	Number of the port.
enable	Enables the specified ports.
disable	Disables the specified ports.

Command Default

The default multicast appliance service for a specific controller port or for all ports is enabled.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to enable multicast appliance service on all ports:

```
(Cisco Controller) > config port multicast appliance all enable
```

The following example shows how to disable multicast appliance service on port 8:

```
(Cisco Controller) > config port multicast appliance 8 disable
```

config port power

To enable or disable Power over Ethernet (PoE) for a specific controller port or for all ports, use the **config port power** command.

config port power {**all** | *port*} {**enable** | **disable**}

Syntax Description

all	Configures all ports.
port	Port number.
enable	Enables the specified ports.
disable	Disables the specified ports.

Command Default

Enabled

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to enable PoE on all ports:

```
(Cisco Controller) > config port power all enable
```

The following example shows how to disable PoE on port 8:

```
(Cisco Controller) > config port power 8 disable
```

config route add

To configure a network route from the service port to a dedicated workstation IP address range, use the **config route add** command.

config route add *ip_address netmask gateway*

Syntax Description

ip_address	Network IP address.
netmask	Subnet mask for the network.
gateway	IP address of the gateway for the route network.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure a network route to a dedicated workstation IP address 10.1.1.0, subnet mask 255.255.255.0, and gateway 10.1.1.1:

```
(Cisco Controller) > config route add 10.1.1.0 255.255.255.0 10.1.1.1
```

config route delete

To remove a network route from the service port, use the **config route delete** command.

config route delete *ip_address*

Syntax Description

ip_address	Network IP address.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to delete a route from the network IP address 10.1.1.0:

```
(Cisco Controller) > config route delete 10.1.1.0
```

config serial baudrate

To set the serial port baud rate, use the **config serial baudrate** command.

config serial baudrate {**1200** | **2400** | **4800** | **9600** | **19200** | **38400** | **57600**}

Syntax Description

1200	Specifies the supported connection speeds to 1200.
2400	Specifies the supported connection speeds to 2400.
4800	Specifies the supported connection speeds to 4800.
9600	Specifies the supported connection speeds to 9600.
19200	Specifies the supported connection speeds to 19200.
38400	Specifies the supported connection speeds to 38400.
57600	Specifies the supported connection speeds to 57600.

Command Default

The default serial port baud rate is 9600.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to configure a serial baud rate with the default connection speed of 9600:

```
(Cisco Controller) > config serial baudrate 9600
```

config serial timeout

To set the timeout of a serial port session, use the **config serial timeout** command.

config serial timeout *minutes*

Syntax Description

minutes	Timeout in minutes from 0 to 160. A value of 0 indicates no timeout.

Command Default

0 (no timeout)

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

Use this command to set the timeout for a serial connection to the front of the Cisco wireless LAN controller from 0 to 160 minutes where 0 is no timeout.

Examples

The following example shows how to configure the timeout of a serial port session to 10 minutes:

```
(Cisco Controller) > config serial timeout 10
```

config spanningtree port mode

To turn fast or 802.1D Spanning Tree Protocol (STP) on or off for one or all Cisco wireless LAN controller ports, use the **config spanningtree port mode** command.

config spanningtree port mode {**off** | **802.1d** | **fast**} {*port* | **all**}

Syntax Description

off	Disables STP for the specified ports.
802.1d	Specifies a supported port mode as 802.1D.
fast	Specifies a supported port mode as fast.
port	Port number (1 through 12 or 1 through 24).
all	Configures all ports.

Command Default

The default is that port STP is off.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

When the Cisco 4400 Series Wireless LAN Controller is configured for port redundancy, STP must be disabled for all ports on the controller. STP can remain enabled on the switch connected to the controller.

Entering this command allows the controller to set up STP, detect logical network loops, place redundant ports on standby, and build a network with the most efficient pathways.

Examples

The following example shows how to disable STP for all Ethernet ports:

```
(Cisco Controller) > config spanningtree port mode off all
```

The following example shows how to turn on STP 802.1D mode for Ethernet port 24:

```
(Cisco Controller) > config spanningtree port mode 802.1d 24
```

The following example shows how to turn on fast STP mode for Ethernet port 2:

```
(Cisco Controller) > config spanningtree port mode fast 2
```

config spanningtree port pathcost

To set the Spanning Tree Protocol (STP) path cost for an Ethernet port, use the **config spanningtree port pathcost** command.

config spanningtree port pathcost {*cost* | **auto**} {*port* | **all**}

Syntax Description

cost	Cost in decimal as determined by the network planner.
auto	Specifies the default cost.
port	Port number (1 through 12 or 1 through 24), or **all** to configure all ports.
all	Specifies to configure all ports.

Command Default

The default STP path cost for an Ethernet port is auto.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

When the Cisco 4400 Series Wireless LAN Controller is configured for port redundancy, STP must be disabled for all ports on the controller. STP can remain enabled on the switch that is connected to the controller.

Examples

The following example shows how to have the STP algorithm automatically assign a path cost for all ports:

```
(Cisco Controller) > config spanningtree port pathcost auto all
```

The following example shows how to have the STP algorithm use a port cost of 200 for port 22:

```
(Cisco Controller) > config spanningtree port pathcost 200 22
```

config spanningtree port priority

To configure the Spanning Tree Protocol (STP) port priority, use the **config spanningtree port priority** command.

config spanningtree port priority *priority_num port*

Syntax Description

priority_num	Priority number from 0 to 255.
port	Port number (1 through 12 or 1 through 24).

Command Default

The default STP priority value is 128.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

When the Cisco 4400 Series Wireless LAN Controller is configured for port redundancy, STP must be disabled for all ports on the controller. STP can remain enabled on the switch connected to the controller.

Examples

The following example shows how to set Ethernet port 2 to STP priority 100:

```
(Cisco Controller) > config spanningtree port priority 100 2
```

config spanningtree switch bridgepriority

To set the bridge ID, use the **config spanningtree switch bridgepriority** command.

config spanningtree switch bridgepriority *priority_num*

Syntax Description

priority_num	Priority number between 0 and 65535.

Command Default

The default priority number value to set the bridge ID is 32768.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

Note When the Cisco 4400 Series Wireless LAN Controller is configured for port redundancy, STP must be disabled for all ports on the controller. STP can remain enabled on the switch connected to the controller.

The value of the writable portion of the Bridge ID, that is, the first two octets of the (8 octet long) Bridge ID. The other (last) 6 octets of the Bridge ID are given by the value of Bridge MAC address. The value may be specified as a number between 0 and 65535.

Examples

The following example shows how to configure spanning tree values on a per switch basis with the bridge priority 40230:

```
(Cisco Controller) > config spanningtree switch bridgepriority 40230
```

config spanningtree switch forwarddelay

To set the bridge timeout, use the **config spanningtree switch forwarddelay** command.

config spanningtree switch forwarddelay *seconds*

Syntax Description

seconds	Timeout in seconds (between 4 and 30).

Command Default

The default value to set a bridge timeout is 15 seconds.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

The value that all bridges use for forward delay when this bridge is acting as the root. 802.1D-1990 specifies that the range for this setting is related to the value of the STP bridge maximum age. The granularity of this timer is specified by 802.1D-1990 to be 1 second. An agent may return a badValue error if a set is attempted to a value that is not a whole number of seconds. The default is 15. Valid values are 4 through 30 seconds.

Examples

The following example shows how to configure spanning tree values on a per switch basis with the bridge timeout as 20 seconds:

```
(Cisco Controller) > config spanningtree switch forwarddelay 20
```

config spanningtree switch hellotime

To set the hello time, use the **config spanningtree switch hellotime** command.

config spanningtree switch hellotime *seconds*

Syntax Description

seconds	STP hello time in seconds.

Command Default

The default hello time value is 15.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

All bridges use this value for HelloTime when this bridge is acting as the root. The granularity of this timer is specified by 802.1D- 1990 to be 1 second. Valid values are 1 through 10 seconds.

Examples

The following example shows how to configure the STP hello time to 4 seconds:

```
(Cisco Controller) > config spanningtree switch hellotime 4
```

Related Commands

show spanningtree switch

show spanningtree switch bridgepriority

config spanningtree switch forwarddelay

config spanningtree switch maxage

config spanningtree switch mode

config spanningtree switch maxage

To set the maximum age, use the **config spanningtree switch maxage** command.

config spanningtree switch maxage *seconds*

Syntax Description

seconds	STP bridge maximum age in seconds.

Command Default

The default value for maximum age is 20.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

All bridges use this value for MaxAge when this bridge is acting as the root. 802.1D-1990 specifies that the range for this parameter is related to the value of Stp Bridge Hello Time. The granularity of this timer is specified by 802.1D-1990 to be 1 second. Valid values are 6 through 40 seconds.

Examples

The following example shows how to configure the STP bridge maximum age to 30 seconds:

```
(Cisco Controller) > config spanningtree switch maxage 30
```

config spanningtree switch mode

To turn the Cisco wireless LAN controller Spanning Tree Protocol (STP) on or off, use the **config spanningtree switch mode** command.

config spanningtree switch mode {**enable** | **disable**}

Syntax Description

enable	Enables STP on the switch.
disable	Disables STP on the switch.

Command Default

The default is that STP is disabled.

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Usage Guidelines

Using this command allows the controller to set up STP, detect logical network loops, place redundant ports on standby, and build a network with the most efficient pathways.

Examples

The following example shows how to support STP on all Cisco wireless LAN controller ports:

```
(Cisco Controller) > config spanningtree switch mode enable
```

clear Commands

This section lists the **clear** commands to clear the configurations on the controller ports and interfaces.

clear stats port

To clear statistics counters for a specific port, use the **clear stats port** command.

clear stats port *port*

Syntax Description

port	Physical interface port number.

Command Default

None

Command History

Release	Modification
7.6	This command was introduced in a release earlier than Release 7.6.

Examples

The following example shows how to clear the statistics counters for port 9:

```
(Cisco Controller) > clear stats port 9
```

Related Commands

clear transfer

clear download datatype

clear download datatype

clear download filename

clear download mode

clear download serverip

clear download start

clear upload datatype

clear upload filename

clear upload mode

clear upload path

clear upload serverip

clear upload start

clear stats port