



# FlexConnect Commands

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- [show Commands, on page 2](#)
- [config Commands, on page 5](#)
- [debug Commands, on page 11](#)

# show Commands

## show ap flexconnect

To view the details of APs in FlexConnect mode, use the **show ap flexconnect** command.

**show ap flexconnect module-vlan** *ap-name*

Syntax Description	<b>module-vlan</b>	Displays the status of FlexConnect local switching and VLAN ID value
	<i>ap-name</i>	Cisco AP name

## show capwap reap association

To display the list of clients associated with an access point and their SSIDs, use the **show capwap reap association** command.

**show capwap reap association**

**Syntax Description** This command has no arguments or keywords.

The following example shows how to display clients associated to an access point and their SSIDs:

```
(Cisco Controller) >show capwap reap association
```

### Related Topics

[config flexconnect group](#)

[show capwap reap status](#), on page 2

## show capwap reap status

To display the status of the FlexConnect access point (connected or standalone), use the **show capwap reap status** command.

**show capwap reap status**

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

**Usage Guidelines** The command shows only the VLAN when configured as AP-specific.

The following example shows how to display the status of the FlexConnect access point:

```
(Cisco Controller) >show capwap reap status
```

**Related Topics**[config flexconnect group](#)[show capwap reap association](#), on page 2

## show flexconnect acl detailed

To display a detailed summary of FlexConnect access control lists, use the **show flexconnect acl detailed** command.

**show flexconnect acl detailed** *acl-name*

Syntax Description	<i>acl-name</i>	Name of the access control list.
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Command Default	None
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The following example shows how to display the FlexConnect detailed ACLs:

```
(Cisco Controller) >show flexconnect acl detailed acl-2
```

**Related Topics**[config flexconnect \[ipv6\] acl](#), on page 7

## show flexconnect acl summary

To display a summary of all access control lists on FlexConnect access points, use the **show flexconnect acl summary** command.

**show flexconnect acl summary**

Syntax Description	This command has no arguments or keywords.
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Command Default	None
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The following example shows how to display the FlexConnect ACL summary:

```
(Cisco Controller) >show flexconnect acl summary
ACL Name                               Status
-----
acl1                                   Modified
acl10                                  Modified
acl100                                 Modified
acl101                                 Modified
acl102                                 Modified
acl103                                 Modified
acl104                                 Modified
acl105                                 Modified
acl106                                 Modified
```

## show flexconnect group detail

To display details of a FlexConnect group, use the **show flexconnect group detail** command.

**show flexconnect group detail** *group\_name*

### Syntax Description

<i>group_name</i>	Name of the FlexConnect group.
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The following example shows how to display the detailed information for a specific FlexConnect group:

```
(Cisco Controller) >show flexconnect group detail myflexgroup
Number of Ap's in Group: 1
00:0a:b8:3b:0b:c2    AP1200    Joined
Group Radius Auth Servers:
  Primary Server Index ..... Disabled
  Secondary Server Index ..... Disabled
```

### Related Topics

[config flexconnect group](#)

## show flexconnect group summary

To display the current list of FlexConnect groups, use the **show flexconnect group summary** command.

**show flexconnect group summary**

### Syntax Description

This command has no arguments or keywords.

### Command Default

None

The following example shows how to display the current list of FlexConnect groups:

```
(Cisco Controller) >show flexconnect group summary
flexconnect Group Summary: Count 1
Group Name          # Aps
Group 1              1
```

### Related Topics

[config flexconnect group](#)

# config Commands

## config ap flexconnect vlan

To enable or disable VLAN tagging for a FlexConnect access, use the **config ap flexconnect vlan** command.

**config ap flexconnect vlan** {**enable** | **disable**} *cisco\_ap*

Syntax Description	<b>enable</b>	Enables the access point's VLAN tagging.
	<b>disable</b>	Disables the access point's VLAN tagging.
	<i>cisco_ap</i>	Name of the Cisco lightweight access point.

**Command Default** Disabled. Once enabled, WLANs enabled for local switching inherit the VLAN assigned at the Cisco WLC.

This example shows how to enable the access point's VLAN tagging for a FlexConnect access:

```
(Cisco Controller) >config ap flexconnect vlan enable AP02
```

### Related Topics

- [config ap flexconnect radius auth set](#)
- [config ap flexconnect vlan](#), on page 5
- [config ap flexconnect vlan native](#), on page 6
- [config ap flexconnect vlan wlan](#), on page 6

## config ap flexconnect vlan add

To add a VLAN to a FlexConnect access point, use the **config ap flexconnect vlan add** command.

**config ap flexconnect vlan add** *vlan-id acl in-acl out-acl cisco\_ap*

Syntax Description	<i>vlan-id</i>	VLAN identifier.
	<i>acl</i>	ACL name that contains up to 32 alphanumeric characters.
	<i>in-acl</i>	Inbound ACL name that contains up to 32 alphanumeric characters.
	<i>out-acl</i>	Outbound ACL name that contains up to 32 alphanumeric characters.
	<i>cisco_ap</i>	Name of the Cisco lightweight access point.

**Command Default** None

The following example shows how to configure the FlexConnect access point:

```
(Cisco Controller) >config ap flexconnect vlan add 21 acl inacl1 outacl1 ap1
```

#### Related Topics

[config ap flexconnect vlan](#), on page 5  
[config ap flexconnect radius auth set](#)  
[config ap flexconnect vlan native](#), on page 6  
[config ap flexconnect vlan wlan](#), on page 6

## config ap flexconnect vlan native

To configure a native VLAN for a FlexConnect access point, use the **config ap flexconnect vlan native** command.

**config ap flexconnect vlan native** *vlan-id cisco\_ap*

<b>Syntax Description</b>	<i>vlan-id</i>	VLAN identifier.
	<i>cisco_ap</i>	Name of the Cisco lightweight access point.

**Command Default** None

The following example shows how to configure a native VLAN for a FlexConnect access point mode:

```
(Cisco Controller) >config ap flexconnect vlan native 6 AP02
```

#### Related Topics

[config ap flexconnect vlan](#), on page 5  
[config ap flexconnect radius auth set](#)  
[config ap flexconnect vlan add](#), on page 5  
[config ap flexconnect vlan wlan](#), on page 6

## config ap flexconnect vlan wlan

To assign a VLAN ID to a FlexConnect access point, use the **config ap flexconnect vlan wlan** command.

**config ap flexconnect vlan wlan** *wlan-id vlan-id cisco\_ap*

<b>Syntax Description</b>	<i>wlan-id</i>	WLAN identifier
	<i>vlan-id</i>	VLAN identifier (1 - 4094).
	<i>cisco_ap</i>	Name of the Cisco lightweight access point.

**Command Default** VLAN ID associated to the WLAN.

The following example shows how to assign a VLAN ID to a FlexConnect access point:

```
(Cisco Controller) >config ap flexconnect vlan wlan 192.12.12.1 6 AP02
```

#### Related Topics

[config ap flexconnect vlan](#), on page 5

[config ap flexconnect radius auth set](#)

[config ap flexconnect vlan add](#), on page 5

[config ap flexconnect vlan native](#), on page 6

## config flexconnect [ipv6] acl

To apply access control lists that are configured on a FlexConnect access point, use the **config flexconnect [ipv6] acl** command. Use the **ipv6** keyword to configure IPv6 FlexConnect ACLs .

**config flexconnect [ipv6] acl {apply | create | delete} acl\_name**

Syntax Description		
<b>ipv6</b>		Use this option to configure IPv6 FlexConnect ACLs. If you don't use this option, then IPv4 FlexConnect ACLs will be configured.
<b>apply</b>		Applies an ACL to the data path.
<b>create</b>		Creates an ACL.
<b>delete</b>		Deletes an ACL.
<i>acl_name</i>		ACL name that contains up to 32 alphanumeric characters.

The following example shows how to apply the IPv4 ACL configured on a FlexConnect access point:

```
(Cisco Controller) >config flexconnect acl apply acl1
```

## config flexconnect [ipv6] acl rule

To configure access control list (ACL) rules on a FlexConnect access point, use the **config flexconnect [ipv6] acl rule** command.

**config flexconnect [ipv6] acl rule {action rule\_name rule\_index {permit | deny} | add rule\_name rule\_index | change index rule\_name old\_index new\_index | delete rule\_name rule\_index | destination address rule\_name rule\_index ip\_address netmask | destination port range rule\_name rule\_index start\_port end\_port | direction rule\_name rule\_index {in | out | any} | dscp rule\_name rule\_index dscp | protocol rule\_name rule\_index protocol | source address rule\_name rule\_index ip\_address netmask | source port range rule\_name rule\_index start\_port end\_port | swap index rule\_name index\_1 index\_2 }**

Syntax Description		
<b>ipv6</b>		Use this option to configure IPv6 FlexConnect ACL rules. If you don't use this option, then IPv4 FlexConnect ACL rules will be configured.

<b>action</b>	Configures whether to permit or deny access.
<i>rule_name</i>	ACL name that contains up to 32 alphanumeric characters.
<i>rule_index</i>	Rule index between 1 and 32.
<b>permit</b>	Permits the rule action.
<b>deny</b>	Denies the rule action.
<b>add</b>	Adds a new rule.
<b>change</b>	Changes a rule's index.
<b>index</b>	Specifies a rule index.
<b>delete</b>	Deletes a rule.
<b>destination address</b>	Configures a rule's destination IP address and netmask.
<i>ip_address</i>	IP address of the rule.
<i>netmask</i>	Netmask of the rule.
<i>start_port</i>	Start port number (between 0 and 65535).
<i>end_port</i>	End port number (between 0 and 65535).
<b>direction</b>	Configures a rule's direction to in, out, or any.
<b>in</b>	Configures a rule's direction to in.
<b>out</b>	Configures a rule's direction to out.
<b>any</b>	Configures a rule's direction to any.
<b>dscp</b>	Configures a rule's DSCP.
<i>dscp</i>	Number between 0 and 63, or <b>any</b> .
<b>protocol</b>	Configures a rule's DSCP.
<i>protocol</i>	Number between 0 and 255, or <b>any</b> .
<b>source address</b>	Configures a rule's source IP address and netmask.
<b>source port range</b>	Configures a rule's source port range.
<b>swap</b>	Swaps two rules' indices.
<i>index_1</i>	The rule first index to swap.
<i>index_2</i>	The rule index to swap the first index with.



**Command Default** None

This example shows how to configure an ACL to permit access:

```
(Cisco Controller) >config flexconnect acl rule action lab1 4 permit
```

## config flexconnect arp-caching

To save an ARP entry for a client in the cache with locally switched WLAN on FlexConnect APs or in a software-defined access (Fabric) deployment, use **config flexconnect arp-caching** command.

```
config flexconnect arp-caching {enable } disable}
```

<b>Syntax Description</b>	<b>arp-caching enable</b>	Instructs the access point to save the ARP entry for a client in the cache and reply on its behalf of the client for locally switched WLAN.
	<b>arp-caching disable</b>	Disables ARP caching.

**Command Default** None

### Example

The following example shows how to apply the proxy ARP with locally switched WLAN on FlexConnect APs.

```
(Cisco Controller) >config flexconnect arp-caching enable
```

## config flexconnect group vlan

To configure VLAN for a FlexConnect group, use the **config flexconnect group vlan** command.

```
config flexconnect group group_name vlan {add vlan-id acl in-aclname out-aclname | delete vlan-id}
```

<b>Syntax Description</b>	<i>group_name</i>	FlexConnect group name.
	<b>add</b>	Adds a VLAN for the FlexConnect group.
	<i>vlan-id</i>	VLAN ID.
	<b>acl</b>	Specifies an access control list.
	<i>in-aclname</i>	In-bound ACL name.
	<i>out-aclname</i>	Out-bound ACL name.
	<b>delete</b>	Deletes a VLAN from the FlexConnect group.

The following example shows how to add VLAN ID 1 for the FlexConnect group myflexacl where the in-bound ACL name is in-acl and the out-bound ACL is out-acl:

```
(Cisco Controller) >config flexconnect group vlan myflexacl vlan add 1 acl in-acl out-acl
```

Related Topics

- [debug flexconnect group](#), on page 14
- [show flexconnect group detail](#), on page 4
- [show flexconnect group summary](#), on page 4

# config flexconnect join min-latency

To enable or disable the access point to choose the controller with the least latency when joining, use the **config flexconnect join min-latency** command.

**config flexconnect join min-latency** {enable | disable} *cisco\_ap*

Syntax Description	enable	Enables the access point to choose the controller with the least latency when joining.
	disable	Disables the access point to choose the controller with the least latency when joining.
	<i>cisco_ap</i>	Cisco lightweight access point.

**Command Default** The access point cannot choose the controller with the least latency when joining.

**Usage Guidelines** When you enable this feature, the access point calculates the time between the discovery request and discovery response and joins the controller that responds first.

This configuration overrides the HA setting on the controller, and is applicable only for OEAP access points.

The following example shows how to enable the access point to choose the controller with the least latency when joining:

```
(Cisco Controller) >config flexconnect join min-latency enable CISCO_AP
```

# debug Commands

## debug capwap reap

To configure the debugging of Control and Provisioning of Wireless Access Points (CAPWAP) settings on a FlexConnect access point, use the **debug capwap reap** command.

**debug capwap reap** [**mgmt** | **load**]

<b>Syntax Description</b>	<b>mgmt</b>	(Optional) Configures the debugging for client authentication and association messages.
	<b>load</b>	(Optional) Configures the debugging for payload activities, which is useful when the FlexConnect access point boots up in standalone mode.

**Command Default** None

The following example shows how to configure the debugging of FlexConnect client authentication and association messages:

```
(Cisco Controller) >debug capwap reap mgmt
```

## debug dot11 mgmt interface

To configure debugging of 802.11 management interface events, use the **debug dot11 mgmt interface** command.

**debug dot11 mgmt interface**

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

The following example shows how to debug 802.11 management interface events:

```
(Cisco Controller) >debug dot11 mgmt interface
```

## debug dot11 mgmt msg

To configure debugging of 802.11 management messages, use the **debug dot11 mgmt msg** command.

**debug dot11 mgmt msg**

**Syntax Description** This command has no arguments or keywords.

**Command Default** None

This example shows how to debug dot11 management messages:

```
(Cisco Controller) >debug dot11 mgmt msg
```

## debug dot11 mgmt ssid

To configure debugging of 802.11 SSID management events, use the **debug dot11 mgmt ssid** command.

### debug dot11 mgmt ssid

<b>Syntax Description</b>	This command has no arguments or keywords.
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<b>Command Default</b>	None
------------------------	------

The following example shows how to configure the debugging of 802.11 SSID management events:

```
(Cisco Controller) >debug dot11 mgmt ssid
```

## debug dot11 mgmt state-machine

To configure debugging of the 802.11 state machine, use the **debug dot11 mgmt state-machine** command.

### debug dot11 mgmt state-machine

<b>Syntax Description</b>	This command has no arguments or keywords.
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<b>Command Default</b>	None
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The following example shows how to configure the debugging of 802.11 state machine:

```
(Cisco Controller) >debug dot11 mgmt state-machine
```

## debug dot11 mgmt station

To configure the debugging of the management station settings, use the **debug dot11 mgmt station** command.

### debug dot11 mgmt station

<b>Syntax Description</b>	This command has no arguments or keywords.
---------------------------	--

<b>Command Default</b>	None
------------------------	------

The following example shows how to configure the debugging of the management station settings:

```
(Cisco Controller) >debug dot11 mgmt station
```

## debug flexconnect aaa

To configure debugging of FlexConnect backup RADIUS server events or errors, use the **debug flexconnect aaa** command.

**debug flexconnect aaa** { **event** | **error** } { **enable** | **disable** }

<b>Syntax Description</b>	<b>event</b>	Configures the debugging for FlexConnect RADIUS server events.
	<b>error</b>	Configures the debugging for FlexConnect RADIUS server errors.
	<b>enable</b>	Enables the debugging of FlexConnect RADIUS server settings.
	<b>disable</b>	Disables the debugging of FlexConnect RADIUS server settings.

**Command Default** None

The following example shows how to enable the debugging of FlexConnect RADIUS server events:

```
(Cisco Controller) >debug flexconnect aaa event enable
```

## debug flexconnect acl

Configures debugging of FlexConnect access control lists (ACLs), use the **debug flexconnect acl** command.

**debug flexconnect acl** { **enable** | **disable** }

<b>Syntax Description</b>	<b>enable</b>	Enables the debugging of FlexConnect ACLs.
	<b>disable</b>	Disables the debugging of FlexConnect ACLs.

**Command Default** None

The following example shows how to enable the debugging of FlexConnect ACLs:

```
(Cisco Controller) >debug flexconnect acl enable
```

## debug flexconnect cckm

Configure debugging of FlexConnect Cisco Centralized Key Management (CCKM) fast roaming, use the **debug flexconnect cckm** command.

**debug flexconnect cckm** { **enable** | **disable** }

<b>Syntax Description</b>	<b>enable</b>	Enables the debugging of FlexConnect CCKM fast roaming settings.
	<b>disable</b>	Disables the debugging of FlexConnect CCKM fast roaming settings.

**Command Default** None

The following example shows how to enable the debugging of FlexConnect CCKM fast roaming events:

```
(Cisco Controller) >debug flexconnect cckm event enable
```

## debug flexconnect group

To configure debugging of FlexConnect access point groups, use the **debug flexconnect group** command.

**debug flexconnect group { enable | disable }**

<b>Syntax Description</b>	<b>enable</b>	Enables the debugging of FlexConnect access point groups.
	<b>disable</b>	Disables the debugging of FlexConnect access point groups.

**Command Default** None

The following example shows how to enable the debugging of FlexConnect access point groups:

```
(Cisco Controller) >debug flexconnect group enable
```

## debug pem

To configure debugging of the access policy manager, use the **debug pem** command.

**debug pem { events | state } { enable | disable }**

<b>Syntax Description</b>	<b>events</b>	Configures the debugging of the policy manager events.
	<b>state</b>	Configures the debugging of the policy manager state machine.
	<b>enable</b>	Enables the debugging of the access policy manager.
	<b>disable</b>	Disables the debugging of the access policy manager.

**Command Default** None

The following example shows how to enable the debugging of the access policy manager:

```
(Cisco Controller) >debug pem state enable
```

debug pem