

CAPWAP Link Aggregation Support

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Information About CAPWAP LAG Support

Link aggregation (LAG) simplifies controller configuration because you no longer require to configure primary and secondary ports for each interface. If any of the controller ports fail, traffic is automatically migrated to one of the other ports. As long as at least one controller port is functioning, the system continues to operate, access points remain connected to the network, and wireless clients continue to send and receive data.

The CAPWAP LAG support feature is applicable for access points that support multiple ethernet ports for CAPWAP.

The 11AC APs with dual ethernet ports require the CAPWAP AP LAG support for data channel.

Cisco Aironet 1850, 2800, and 3800 Series APs' second Ethernet port is used as a link aggregation port, by default. It is possible to use this LAG port as an RLAN port when LAG is disabled.

The following APs use LAG port as an RLAN port:

- 1852E
- 1852I
- 2802E
- 2802I
- 3802E

- 3802I
- 3802P

Restrictions for CAPWAP LAG Support

- APs must be specifically enabled for CAPWAP AP LAG support.
- CAPWAP data does not support IPv6.
- Data DTLS must not be enabled when LAG is enabled.
- APs behind NAT and PAT are not supported.

Enabling CAPWAP LAG Support on Controller (GUI)

Procedure

- **Step 1** Choose **Configuration** > **Wireless** > **Wireless** Global.
- **Step 2** Check the **AP LAG Mode** check box.
- Step 3 Click Apply.

Enabling CAPWAP LAG Support on Controller

Procedure

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	Example: Device# configure terminal	
Step 2	ap lag support	Enables CAPWAP LAG support on the
	Example:	controller.
	Device(config)# ap lag support	Note After executing this command, you get to view the following warning statement:
		Changing the lag support will cause all the APs to disconnect.
		Thus, all APs with LAG capability reboots and joins the enabled CAPWAP LAG.

	Command or Action	Purpose
Step 3	<pre>end Example: Device(config)# end</pre>	Returns to privileged EXEC mode. Alternatively, you can also press Ctrl-Z to exit global configuration mode.

Enabling CAPWAP LAG Globally on Controller

If the CAPWAP LAG is enabled globally on the controller, the following occurs:

- AP joins the controller.
- AP exchanges its CAPWAP support.
- LAG mode starts, if LAG is enabled on AP.

Disabling CAPWAP LAG Globally on Controller

If the CAPWAP LAG is disabled globally on the controller, the following occurs:

- AP joins the controller.
- AP exchanges its CAPWAP support.
- AP LAG config is sent to AP, if LAG is already enabled on AP.
- AP reboots.
- AP joins back with the disabled LAG.

Enabling CAPWAP LAG for an AP Profile (GUI)

Procedure

- Step 1Choose Configuration > Tags & Profiles > AP Join.
- Step 2 Click Add.
- **Step 3** Under the **General** tab, enter the **Name** of the AP Profile and check the **LAG Mode** check box to set the CAPWAP LAG for the AP profile.
- Step 4 Click Apply to Device.

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Enabling CAPWAP LAG for an AP Profile

Procedure

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	Example:	
	Device# configure terminal	
Step 2	ap profile ap-profile	Configures an AP profile and enters AP profile
	Example:	configuration mode.
	Device(config)# ap profile xyz-ap-profile	Note When you delete a named profile, the APs associated with that profile will not revert to the default profile.
Step 3	lag	Enables CAPWAP LAG for an AP profile.
	Example:	
	<pre>Device(config-ap-profile)# lag</pre>	
Step 4	end	Exits configuration mode and returns to privileged EXEC mode.
	Example:	
	Device(config-ap-profile)# end	

Disabling CAPWAP LAG for an AP Profile

Procedure

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	Example: Device# configure terminal	
Step 2	<pre>ap profile ap-profile Example: Device(config)# ap profile xyz-ap-profile</pre>	Configures an AP profile and enters AP profile configuration mode. Note When you delete a named profile, the APs associated with that profile will not revert to the default profile.
Step 3	no lag Example: Device(config-ap-profile)# no lag	Disables CAPWAP LAG for an AP profile.

	Command or Action	Purpose
Step 4	end	Exits configuration mode and returns to
	Example:	privileged EXEC mode.
	<pre>Device(config-ap-profile)# end</pre>	

Disabling CAPWAP LAG Support on Controller

Procedure

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	Example: Device# configure terminal	
Step 2	no ap lag support Example: Device(config)# no ap lag support	 Disables CAPWAP LAG support on the controller . Note All APs with LAG capability reboots and joins the disabled CAPWAP LAG.
Step 3	end Example: Device(config)# end	Exits configuration mode and returns to privileged EXEC mode.

Verifying CAPWAP LAG Support Configurations

To verify the global LAG status for all Cisco APs, use the following command:

Device# **show ap lag-mode** AP Lag-Mode Support Enabled

To verify the AP LAG configuration status, use the following command:

```
Device# show ap name <ap-name> config general
Cisco AP Identifier : 0008.3291.6360
Country Code : US
Regulatory Domain Allowed by Country : 802.11bg:-A 802.11a:-AB
AP Country Code : US - United States
::
AP Lag Configuration Status : Enabled/Disabled
Has AP negotiated lag based on AP capability and per AP config.
```