

在非SDA EWC交換機上配置和板載AP(C9800-SW)

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簡介

本檔案介紹在非SDA部署（沒有使用中的Cisco DNA中心）中，在Catalyst 9000(Catalyst 9K)交換器(EWC-Switch)上加入和預配具有嵌入式無線控制器的存取點(AP)的流程。

必要條件

需求

您必須執行以下先決條件：

- 在將充當無線LAN控制器(WLC)的Catalyst 9K交換機上安裝無線子軟體包。
- 確保環回介面已配置，以便將其配置為無線管理介面(WMI)。
- 確保啟用對Catalyst 9K交換機的GUI訪問，因為建議通過GUI進行配置。



註：僅17.3.X版本支援非SDA部署上的EWC-Switch。

採用元件

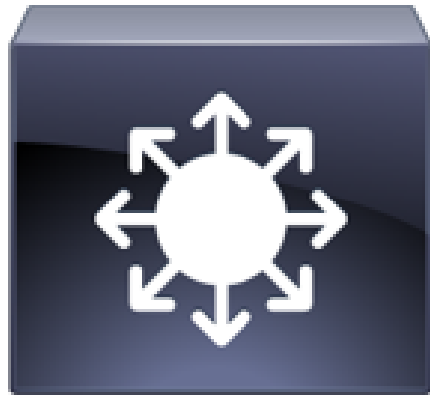
本文中的資訊係根據以下軟體和硬體版本：

- C9300-24P交換機，Cisco IOS® XE版本17.3.4
- 17.3.4版無線子包
- C9120-AXE AP

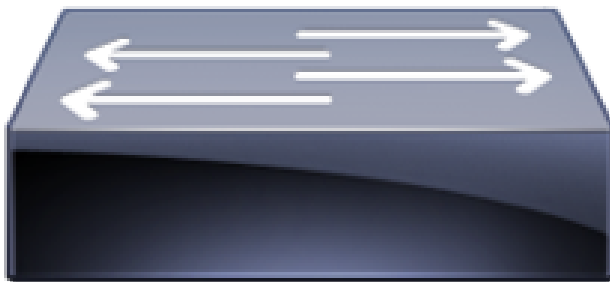
本文中的資訊是根據特定實驗室環境內的裝置所建立。文中使用到的所有裝置皆從已清除 (預設) 的組態來啟動。如果您的網路運作中，請確保您瞭解任何指令可能造成的影響。

設定

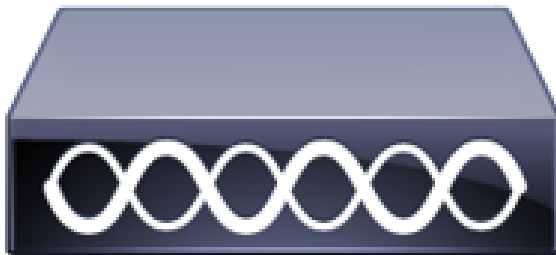
網路圖表



C9300 Switch
EWC-Switch




Layer 2
Switch



允許將AP直接連線到EWC-Switch，但這不是一項要求。建議使用接入交換機插入AP，以便在活動EWC交換機關閉時實現高可用性(HA)故障切換。

組態

步驟 1. 為將要部署AP的地理位置配置國家/地區代碼。這是強制性的，以使AP能夠註冊並確保遵守部署所在國家/地區的監管領域指南。在GUI中，導航到Configuration > Wireless > Access Points，然後點選Country頁籤。選擇所有適用的國家/地區代碼以匹配AP的管制域。

 注意：在17.3.1到17.3.3的版本中，EWC交換機GUI列出國家/地區代碼，但不會應用任何選擇，除非按照Cisco錯誤ID [CSCvw20478](#)所述，通過CLI新增了一個國家/地區代碼。配置了一個國家/地區代碼後，您可以通過GUI新增更多國家/地區代碼。

Configuration > Wireless > Access Points

> All Access Points

> 5 GHz Radios

> 2.4 GHz Radios

> Dual-Band Radios

▼ Country

[Click here](#) for list of access point models and protocols supported per country and regulatory domain.

Selected Country MX, US

Apply

Regulatory Domain

802.11a/n/ac: [Indoor: -ABN, Outdoor: -ABN]

802.11b/g/n: [Indoor: -A, Outdoor: -ABN]

Q Search

	Country Code	Name
<input type="checkbox"/>	MX	Mexico
<input type="checkbox"/>	MO	Macau
<input type="checkbox"/>	MT	Malta
<input checked="" type="checkbox"/>	MX	Mexico
<input type="checkbox"/>	MY	Malaysia
<input type="checkbox"/>	NG	Nigeria
<input type="checkbox"/>	NL	Netherlands
<input type="checkbox"/>	NO	Norway

CLI配置 (17.3.1到17.3.3) :

```
<#root>
```

```
9300-1#
```

```
configure terminal
```

```
9300-1(config)#
```

```
ap dot11 5ghz shutdown
```

Disabling the 802.11a network may strand mesh APs.

Are you sure you want to continue? (y/n)[y]:

y

```
9300-1(config)#
```

```
ap dot11 24ghz shutdown
```

Disabling the 802.11b network may strand mesh APs.
Are you sure you want to continue? (y/n)[y]:

y

```
9300-1(config)#
```

```
wireless country MX
```

```
9300-1(config)#
```

```
no ap dot11 5ghz shutdown
```

```
9300-1(config)#
```

```
no ap dot11 24ghz shutdown
```

步驟 2. 啟用無線控制器功能並配置AP將駐留的VLAN。導覽至Configuration > Embedded Wireless Setup，將Embedded Wireless Setup幻燈片Enabled，然後在Location Configuration下，按一下+ Add。

The screenshot shows the 'Embedded Wireless Setup' configuration page. On the left is a dark sidebar menu with options: Dashboard, Monitoring, Configuration (highlighted), Administration, Licensing, and Troubleshooting. The main content area has a breadcrumb 'Configuration > Embedded Wireless Setup'. Below this, there is a toggle switch for 'Embedded Wireless Setup' which is currently 'DISABLED', and an 'Apply' button. Underneath is a section titled 'Location Configuration' with a '+ Add' button. At the bottom right of this section, it says 'No locations available'.

啟用嵌入式無線設定後，這些命令會被推送到CLI。這些CLI在Catalyst 9K交換機上啟用lisp交換矩陣，因此它將作為控制平面/對映伺服器節點、具有環回作為WMI的無線控制器以及WLC與控制平面對映以允許接入點和客戶端入網。

<#root>

9300-1(config)#

router lisp

9300-1(config-router-lisp)#

locator-table default

9300-1(config-router-lisp)#

locator-set rloc_ewlc

9300-1(config-router-lisp-locator-set)#

IPv4-interface Loopback0

9300-1(config-router-lisp-locator-set)#

auto-discover-rlocs

9300-1(config-router-lisp-locator-set)#

exit-locator-set

9300-1(config-router-lisp)#

locator-set WLC

9300-1(config-router-lisp-locator-set)#

9300-1(config-router-lisp-locator-set)#

exit-locator-set

9300-1(config-router-lisp)#

service ipv4

9300-1(config-lisp-srv-ipv4)#

encapsulation vxlan

9300-1(config-lisp-srv-ipv4)#

itr map-resolver

9300-1(config-lisp-srv-ipv4)#

etr map-server

key

9300-1(config-lisp-srv-ipv4)#

etr map-server

proxy-reply

9300-1(config-lisp-srv-ipv4)#

etr

9300-1(config-lisp-srv-ipv4)#

sgt

9300-1(config-lisp-srv-ipv4)#

no map-cache away-eids send-map-request

9300-1(config-lisp-srv-ipv4)#

proxy-etr

9300-1(config-lisp-srv-ipv4)#

proxy-itr

```
9300-1(config-lisp-srv-ipv4)#
```

```
map-server
```

```
9300-1(config-lisp-srv-ipv4)#
```

```
map-resolver
```

```
9300-1(config-lisp-srv-ipv4)#
```

```
exit-service-ipv4
```

```
9300-1(config-router-lisp)#
```

```
service ethernet
```

```
9300-1(config-lisp-srv-eth)#
```

```
itr map-resolver
```

```
9300-1(config-lisp-srv-eth)#
```

```
itr
```

```
9300-1(config-lisp-srv-eth)#
```

```
etr map-server
```

```
key
```

```
9300-1(config-lisp-srv-eth)#
```

```
etr map-server
```


proxy-reply

9300-1(config-lisp-srv-eth)#

etr

9300-1(config-lisp-srv-eth)#

map-server

9300-1(config-lisp-srv-eth)#

map-resolver

9300-1(config-lisp-srv-eth)#

exit-service-ethernet

9300-1(config-router-lisp)#

ipv4 source-locator Loopback0

9300-1(config-router-lisp)#

map-server session passive-open WLC

9300-1(config-router-lisp)#

exit

9300-1(config)#

interface LISP0

9300-1(config-if)#

exit

9300-1(config)#

router lisp

9300-1(config-router-lisp)#

```
site site_uci
```

```
9300-1(config-router-lisp-site)#
```

```
description map-server configured from Wireless LAN Controller
```

```
9300-1(config-router-lisp-site)#
```

```
authentication-key
```

```
9300-1(config-router-lisp-site)#
```

```
exit-site
```

```
9300-1(config-router-lisp)#
```

```
exit-router-lisp
```

```
9300-1(config)#
```

```
ip dhcp relay information option
```

```
9300-1(config)#
```

```
wireless fabric
```

```
9300-1(config)#
```

```
wireless management interface Loopback0
```

```
9300-1(config-mgmt-interface)#
```

```
exit
```

```
9300-1(config)#
```

```
wireless fabric control-plane default-control-plane
```

```
9300-1(config-wireless-cp)#
```

```
ip address
```

```
key 0
```

```
9300-1(config-wireless-cp)#
```

```
exit
```

步驟 3. 在彈出生成的帖子步驟2中，在General 頁籤中，輸入Location Name和AP Onboarding詳細資訊，如VLAN和子網掩碼。預設情況下，VLAN欄位預填充為2045。允許使用不同的VLAN ID，但VLAN ID必須介於2045和4094之間，並且必須獨立於客戶端流量（不允許有線或無線客戶端使用此VLAN）。完成詳細資訊後，按一下Apply

[Configuration](#) > [Embedded Wireless Setup](#)

Location Configuration

[← Back](#)

General [Wireless Networks](#) [AP Provisioning](#)

Location Name*	<input type="text" value="EWC-Location"/>	AP Onboarding	
Description	<input type="text" value="Enter Description"/>	VLAN*	<input type="text" value="2674"/>
Client Density	<input type="range" value="Typical"/>	IP Address*	<input type="text" value="172.16.80.1"/>
	Low Typical High	Subnet Mask*	<input type="text" value="255.255.255.0"/>
		DHCP Server*	<input type="text" value="172.16.80.1"/>

這會為AP建立VLAN，為該AP VLAN建立SVI（AP的預設網關）、AP位置、策略和RF標籤以及L2和L3虛擬網路識別符號(VNID)。作為步驟3的結果，這些命令在CLI中可見。

```
<#root>
```

```
9300-1(config)#
```

```
interface LISP0.4097
```

```
9300-1(config-subif)#
```

```
router lisp
```

```
9300-1(config-router-lisp)#
```

```
locator-set rloc_ewlc
```

```
9300-1(config-router-lisp-locator-set)#
exit-locator-set

9300-1(config-router-lisp)#
instance-id 4097

9300-1(config-lisp-inst)#
remote-rloc-probe on-route-change

9300-1(config-lisp-inst)#
dynamic-eid APONBOARDING_0_2674_4097_8188

9300-1(config-lisp-inst-dyn-eid)#
database-mapping 172.16.80.0/24 locator-set rloc_ewlc

9300-1(config-lisp-inst-dyn-eid)#
exit-dynamic-eid

9300-1(config-lisp-inst)#
service ipv4

9300-1(config-lisp-inst-srv-ipv4)#
eid-table default

9300-1(config-lisp-inst-srv-ipv4)#
map-cache 172.16.80.0/24 map-request

9300-1(config-lisp-inst-srv-ipv4)#
route-export site-registrations

9300-1(config-lisp-inst-srv-ipv4)#
distance site-registrations 250

9300-1(config-lisp-inst-srv-ipv4)#
map-cache site-registration

9300-1(config-lisp-inst-srv-ipv4)#
exit-service-ipv4

9300-1(config-lisp-inst)#
exit-instance-id
```

```
9300-1(config-router-lisp)#
```

```
instance-id 8188
```

```
9300-1(config-lisp-inst)#
```

```
remote-rloc-probe on-route-change
```

```
9300-1(config-lisp-inst)#
```

```
service ethernet
```

```
9300-1(config-lisp-inst-srv-eth)#
```

```
eid-table vlan 2674
```

```
9300-1(config-lisp-inst-srv-eth)#
```

```
database-mapping mac locator-set rloc_ewlc
```

```
9300-1(config-lisp-inst-srv-eth)#
```

```
exit-service-ethernet
```

```
9300-1(config-lisp-inst)#
```

```
exit-instance-id
```

```
9300-1(config-router-lisp)#
```

```
site site_uci
```

```
9300-1(config-router-lisp-site)#
```

```
eid-record instance-id 4097 172.16.80.0/24 accept-more-specifics
```

```
9300-1(config-router-lisp-site)#
```

```
eid-record instance-id 8188 any-mac
```

```
9300-1(config-router-lisp-site)#
```

```
exit-site
```

```
9300-1(config-router-lisp)#
```

```
exit
```

```
9300-1(config)#
```

```
vlan 2674
```

```
9300-1(config-vlan)#
```

```
name AP_VLAN2674
```

```
9300-1(config-vlan)#
```

```
exit
```

```
9300-1(config)#
```

```
interface Vlan2674
```

```
9300-1(config-if)#
```

```
description APONBOARDING_0_2674_4097_8188
```

```
9300-1(config-if)#
```

```
mac-address 0000.0C9F.FAD1
```

```
9300-1(config-if)#
```

```
ip address 172.16.80.1 255.255.255.0
```

```
9300-1(config-if)#
```

```
ip helper-address 172.16.80.1
```

```
9300-1(config-if)#
```

```
no ip redirects
```

```
9300-1(config-if)#
```

```
ip route-cache same-interface
```

```
9300-1(config-if)#
```

```
no lisp mobility liveness test
```

```
9300-1(config-if)#
```

```
ip directed-broadcast
```

```
9300-1(config-if)#
```

```
lisp mobility APONBOARDING_0_2674_4097_8188
```

```
9300-1(config-if)#
```

```
exit
```

```
9300-1(config)#
```

```
wireless fabric name APONBOARDING_0_2674_4097_8188 12-vnid 8188 13-vnid 4097 ip 172.16.80.0 255.255.255.0
```

步驟 4. 配置Catalyst 9K交換機作為AP VLAN的DHCP伺服器，並建立相應的DHCP池。導航到 Administration > DHCP Pools，然後點選+ Add。設定池名稱和網路引數，確保將預設網關設定為 SVI IP地址；否則AP將部分加入控制器。

Create DHCP Pool

Basic Advanced

DHCP Pool Name* (1-236 Characters)

IP Type

Network*

Subnet Mask*

Starting ip*

Ending ip*

Reserved Only DISABLED

Lease*

(0-365 days) (0-23 hours) (0-59 minutes)

Create DHCP Pool

Basic Advanced

Enable DNS Proxy

Default Router(s) +

IP Address	Remove
172.16.80.1	×

DNS Server(s) +

IP Address	Remove
No items to display	

NetBios Name Server(s) +

IP Address	Remove
No items to display	

Domain

DHCP Options List

CLI配置：

```
<#root>
```

```
9300-1#
```

```
configure terminal
```

```
9300-1(config)#
```

```
ip dhcp excluded-address 172.16.80.0 172.16.80.9
```

```
9300-1(config)#
```

```
ip dhcp pool
```

```
9300-1(dhcp-config)#
```

```
network 172.16.80.0 255.255.255.0
```

```
9300-1(dhcp-config)#
```

```
default-router 172.16.80.1
```

步驟 5. 在接入模式下配置switchport並將其分配給先前定義的VLAN。

```
<#root>
```

```
3850-1(config)#
```

```
interface
```


```
3850-1(config-if)#
```

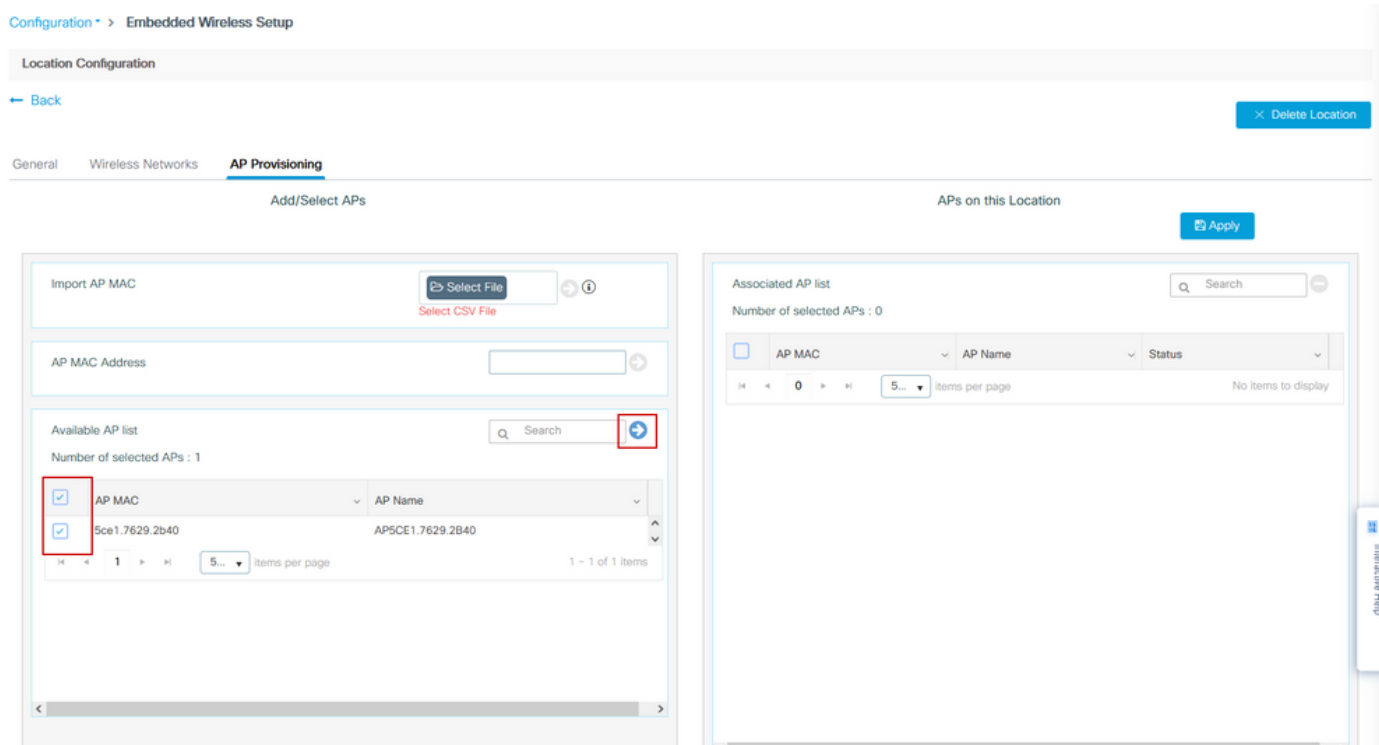
```
switchport mode access
```

```
3850-1(config-if)#
```

```
switchport access vlan
```


步驟 6. 導覽至 Configuration > Embedded Wireless Setup，然後選擇步驟3中建立的站點。按一下 AP Provisioning 頁籤，然後從 Available AP 清單中選擇需要調配的 AP，然後按一下藍色箭頭圖示將其更改為 Associated AP 清單。將感興趣的所有接入點分配給特定位置後，按一下 Apply。

 注意: EWC-Switch 允許手動建立和分配標籤；但這不是支援的配置，唯一支援的標籤分配是由 Location Assignment 分配的。EWC-Switch 上僅支援一個位置，因此所有 AP 必須位於同一子網中，並分配到同一位置。



Configuration > Embedded Wireless Setup

Location Configuration

← Back Delete Location

General Wireless Networks **AP Provisioning**

Add/Select APs APs on this Location Apply

Import AP MAC Select File Select CSV File

AP MAC Address

Available AP list Search ➔

Number of selected APs : 1

<input checked="" type="checkbox"/>	AP MAC	AP Name
<input checked="" type="checkbox"/>	5ce1.7629.2b40	AP5CE1.7629.2B40

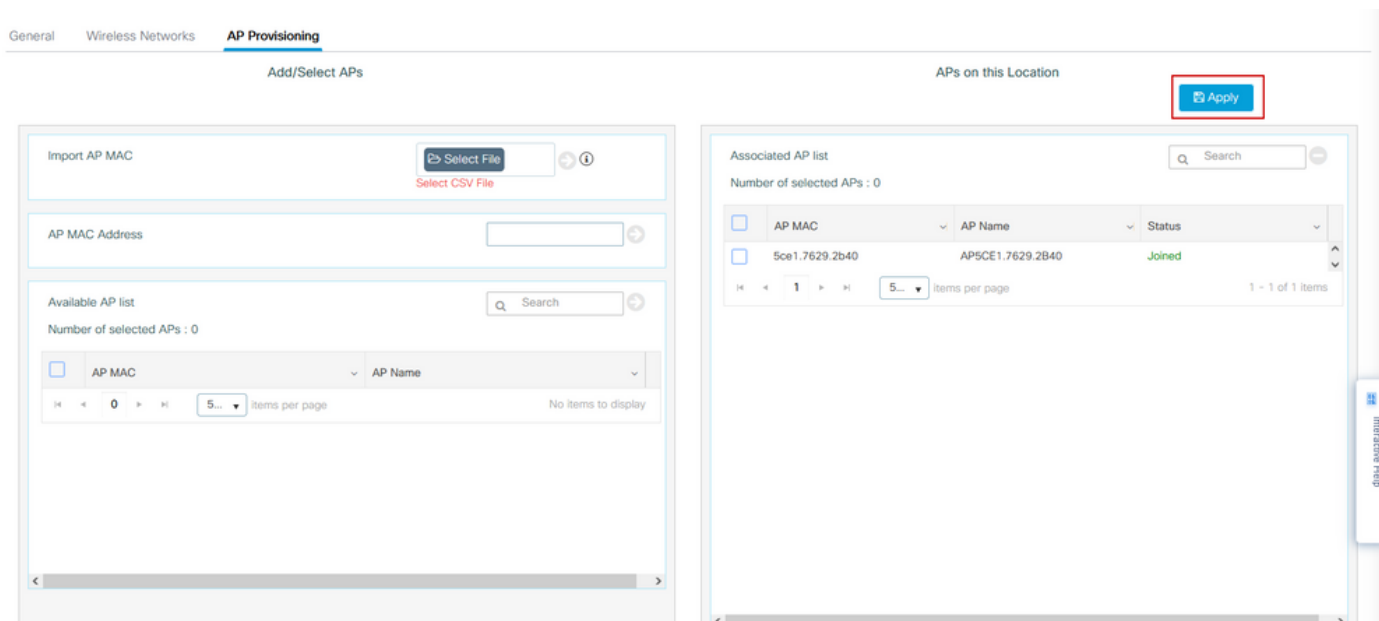
1 - 1 of 1 items

Associated AP list Search

Number of selected APs : 0

<input type="checkbox"/>	AP MAC	AP Name	Status
--------------------------	--------	---------	--------

0 items per page No items to display



General Wireless Networks **AP Provisioning**

Add/Select APs APs on this Location Apply

Import AP MAC Select File Select CSV File

AP MAC Address

Available AP list Search

Number of selected APs : 0

<input type="checkbox"/>	AP MAC	AP Name
--------------------------	--------	---------

0 items per page No items to display

Associated AP list Search

Number of selected APs : 0

<input type="checkbox"/>	AP MAC	AP Name	Status
<input type="checkbox"/>	5ce1.7629.2b40	AP5CE1.7629.2B40	Joined

1 - 1 of 1 items

此步驟將此配置新增到 EWC-Switch:

<#root>

```
9300-1(config)#  
ap location name EWC-Location
```

```
9300-1(config-ap-location)#  
ap-eth-mac
```

```
9300-1(config-ap-location)#  
tag policy EWC-Location
```

```
9300-1(config-ap-location)#  
tag rf EWC-Location
```

對新增到位置的每個AP重複執行ap-eth-mac <AP mac address> 命令。單個站點最多可支援500個AP。

驗證

使用此命令驗證WMI和AP Onboard的VLAN建立和狀態。

```
<#root>
```

```
9300-1#
```

```
show wireless fabric summary
```

```
Fabric Status : Enabled
```

```
Control-plane:
```

```
Name IP-address Key Status
```

```
-----  
default-control-plane 172.16.0.1 ciscoeca Up
```

```
Fabric VNID Mapping:
```

```
Name L2-VNID L3-VNID IP Address Subnet Control plane name
```

```
-----  
APONBOARDING_0_2674_4097_8188 8188 4097 172.16.80.0 255.255.255.0
```

使用以下命令驗證AP註冊狀態：

```
<#root>
```

```
9300-1#
```

```
show wireless stats ap join summary
```

```
Number of APs: 1
```

```
Base MAC Ethernet MAC AP Name IP Address Status Last Failure Phase Last Disconnect Reason
```

```
-----  
ac4a.569c.f560 5ce1.7629.2b40
```

```
AP5CE1.7629.2B40 172.16.80.10 Joined
```

```
Run Tag modified
```

```
9300-1#show fabric ap summary
```

```
Number of Fabric AP : 1
```

```
AP Name Slots AP Model Ethernet MAC Radio MAC Location Country IP Address State
```

```
-----  
AP5CE1.7629.2B40
```

```
2 9120AXI 5ce1.7629.2b40 ac4a.569c.f560 default location US
```

```
172.16.80.10 Registered
```

使用此命令驗證AP的VxLAN隧道狀態。

```
<#root>
```

```
9300-1#
```

```
show access-tunnel summary
```

```
Access Tunnels General Statistics:
```

```
Number of AccessTunnel Data Tunnels = 1
```

```
Name RLOC IP(Source) AP IP(Destination) VRF ID Source Port Destination Port
```

```
-----  
Ac0 172.16.0.1 172.16.80.10 0 N/A 4789
```

```
Name IfId Uptime
```

```
-----  
Ac0 0x00000069 0 days, 00:20:11
```

使用此命令驗證AP標籤分配。AP必須具有相同的標籤並在源下顯示位置。

```
<#root>
```

```
9300-1#
```

```
show ap tag summary
```

```
Number of APs: 1
```

```
AP Name AP Mac Site Tag Name Policy Tag Name RF Tag Name Misconfigured Tag Source
```


```
-----  
AP5CE1.7629.2B40
```

```
5ce1.7629.2b40 default-site-tag
```

```
EWC-Location EWC-Location
```

```
No
```

```
Location
```

 註：在本示例中，172.16.0.1是Loopback0 IP地址（即無線管理），AP將加入該地址。由於這是機箱中的交換矩陣，因此所有交換矩陣元件也指向該交換矩陣。

疑難排解

條件式偵錯和無線電主動式追蹤

啟用條件調試和捕獲無線活動(RA)跟蹤以對加入進程進行故障排除，RA跟蹤為與指定條件（本例中為AP MAC地址）互動的所有進程提供調試級別跟蹤。若要啟用條件式偵錯，請執行以下步驟。

步驟 1.確保未啟用調試條件。

```
<#root>
```

```
9300-1#
```

```
clear platform condition all
```

步驟 2.為要監控的AP MAC地址啟用調試條件。

預設情況下，monitor-time為30分鐘（1800秒）。您可以增加調試以運行最多2085978494秒。

```
<#root>
```

```
9300-1#
```

debug wireless mac

{monitor-time


}


9300-1#

debug wireless mac

{monitor-time

}

 注意：為了調試多個AP，請對每個AP的無線電和乙太網MAC地址運行debug wireless mac命令。只有乙太網MAC調試才會顯示DTLS事務。

 注意:C9800調試在儲存和進程模式下運行。也就是說，調試不會顯示在終端會話上，並且所有日誌都會在內部緩衝以便以後檢視。

步驟 3.從AP CLI退回AP交換機埠或capwap重置AP以捕獲完整跟蹤。

步驟 4.如果在預設或配置的監控器時間開啟之前重現問題，則停止調試。

```
<#root>
```

```
9300-1#
```

```
no debug wireless mac
```

```
9300-1#
```

```
no debug wireless mac
```

監控時間過後或手動停止偵錯無線後，EWC-Switch會生成一個名為：

ra_trace_MAC_aaaabbbbcccc_HHMMSS.XXX_timezone_DayWeek_Month_Day_year.log

步驟 5. 收集 MAC 位址活動的檔案。 您可以選擇將ra trace.log複製到外部伺服器以進行離線分析，或直接在終端會話上顯示輸出。由於生成的跟蹤日誌數量較大，因此首選離線分析。

檢查 RA 追蹤檔案的名稱。

```
<#root>
```

```
9300-1#
```

```
dir flash: | inc
```

```
ra_trace
```

將檔案複製到外部伺服器：

```
<#root>
```

```
9300-1#
```

```
copy flash:
```

```
ra_trace_MAC_<AP_RADIO_MAC>_HHMMSS.XXX_timezone_DayWeek_Month_Day_year.log
```

```
tftp://
```

```
/
```

```
ra-AP_RADIO_MAC.txt
```

```
9300-1#
```

```
copy flash:
```

```
ra_trace_MAC_<AP_ETHERNET_MAC>_HHMMSS.XXX_timezone_DayWeek_Month_Day_year.log
```

```
tftp://
```

/

```
ra-AP_ETHERNET_MAC.txt
```

若要顯示終端作業階段上的tracelogs:

```
<#root>
```

```
9300-1#
```

```
more flash:
```

```
ra_trace_MAC_<AP_RADIO_MAC>_HHMMSS.XXX_timezone_DayWeek_Month_Day_year.log  
9300-1#
```

```
more flash:
```

```
ra_trace_MAC_<AP_ETHERNET_MAC>_HHMMSS.XXX_timezone_DayWeek_Month_Day_year.log
```

步驟 6.如果根本原因不明顯，請收集內部日誌，這些日誌是更詳細的tracelogs檢視。您無需再次調試客戶端，因為命令提供已收集並在內部儲存的調試日誌。

```
<#root>
```

```
9300-1#
```

```
show logging profile wireless internal filter
```

```
to-file flash:
```

```
ra-internal-<AP_RADIO_MAC>.txt
```


```
9300-1#
```

```
show logging profile wireless internal filter
```



```
to-file flash:
```

```
ra-internal-<AP_RADIO_MAC>.txt
```

 **注意：**此命令輸出返回所有進程的所有日誌記錄級別的跟蹤，而且非常大。請與技術支援中心 (TAC) 聯絡，以幫助分析這些跟蹤。

```
<#root>
```

```
9300-1#
```

```
copy flash:
```

```
ra-internal-<AP_RADIO_MAC>.txt
```

```
tftp://
```

```
/
```

```
ra-internal-<AP_RADIO_MAC>.txt
```

```
9300-1#
```

```
copy flash:
```

```
ra-internal-<AP_RADIO_MAC>.txt
```

```
tftp://
```

/

```
ra-internal-<AP_RADIO_MAC>.txt
```

若要顯示終端作業階段上的tracelogs:

```
<#root>
```

```
9300-1#
```

```
more flash:
```


```
ra-internal-<AP_RADIO_MAC>.txt
```

```
9300-1#
```

```
more flash:
```

```
ra-internal-<AP_ETHERNET_MAC>.txt
```

步驟 7. 移除偵錯條件。

 注意：在排除故障之後，請確保始終刪除調試條件。

成功的AP連線示例

從RA跟蹤的角度來看，這是成功連線嘗試的輸出。使用日誌示例驗證AP在哪個階段被停滯。

CAPWAP發現請求和響應：

```
<#root>
```

```
2021/09/30 17:49:13.823492 {wncmgrd_R0-0}{1}: [capwapac-discovery] [7353]: (note): MAC: ac4a.569c.f560
```

```
Discovery Request received
```

```
2021/09/30 17:49:13.823519 {wncmgrd_R0-0}{1}: [capwapac-discovery] [7353]: (note): MAC: ac4a.569c.f560
```

```
2021/09/30 17:49:13.823793 {wncmgrd_R0-0}{1}: [ewlc-infra-evq] [7353]: (debug): instance :0 port:12289M
```

```
2021/09/30 17:49:13.824314 {wncmgrd_R0-0}{1}: [capwapac-discovery] [7353]: (note): MAC: ac4a.569c.f560
```

```
2021/09/30 17:49:13.824414 {wncmgrd_R0-0}{1}: [capwapac-discovery] [7353]: (note): MAC: ac4a.569c.f560
```

```
Discovery Response sent
```

證書有效性檢查的DTLS握手：

<#root>

2021/09/30 17:49:23.259157 {wncd_x_R0-0}{1}: [capwapac-smgr-srvr] [7770]: (note): MAC: ac4a.569c.f560

DTLS session create callback received.

2021/09/30 17:49:23.259393 {wncd_x_R0-0}{1}: [capwapac-smgr-sess] [7770]: (info): Session-IP: 172.16.80

2021/09/30 17:49:23.259406 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 22, ha

2021/09/30 17:49:23.259406 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (info):

DTLS client hello

2021/09/30 17:49:23.260931 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 22, ha

2021/09/30 17:49:23.260931 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (info):

DTLS client hello

2021/09/30 17:49:23.267234 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 22, ha

2021/09/30 17:49:23.267332 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 22, ha

2021/09/30 17:49:23.267891 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 22, ha

2021/09/30 17:49:23.270741 {wncd_x_R0-0}{1}: [ewlc-dtls-sessmgr] [7770]: (info): Remote Host: 172.16.80

Completed cert verification, status: CERT_VALIDATE_SUCCESS

2021/09/30 17:49:23.608757 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 22, ha

2021/09/30 17:49:23.608990 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 20, ch

2021/09/30 17:49:23.609255 {wncd_x_R0-0}{1}: [ewlc-dtls-sess] [7770]: (info): Remote Host: 172.16.80.10

2021/09/30 17:49:23.609348 {wncd_x_R0-0}{1}: [capwapac-smgr-sess] [7770]: (info): Session-IP: 172.16.80

2021/09/30 17:49:23.609361 {wncd_x_R0-0}{1}: [capwapac-smgr-srvr] [7770]: (info): Session-IP: 172.16.80

DTLS session has been established for AP

2021/09/30 17:49:23.650838 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 23, ap

CAPWAP加入請求和響應：

<#root>

2021/09/30 17:49:23.650970 {wncd_x_R0-0}{1}: [capwapac-smgr-sess] [7770]: (info): Session-IP: 172.16.80

2021/09/30 17:49:23.650972 {wncd_x_R0-0}{1}: [capwapac-smgr-sess] [7770]: (note): MAC: ac4a.569c.f560

Received CAPWAP join request

2021/09/30 17:49:23.652901 {wncd_x_R0-0}{1}: [rrm-client] [7770]: (ERR): ac4a.569c.f560 Failed to overr

2021/09/30 17:49:23.653789 {wncd_x_R0-0}{1}: [rrm-client] [7770]: (ERR): ac4a.569c.f560 Failed to overr

2021/09/30 17:49:23.653959 {wncd_x_R0-0}{1}: [apmgr-capwap-join] [7770]: (info): ac4a.569c.f560 Retrie

2021/09/30 17:49:23.653967 {wncd_x_R0-0}{1}: [apmgr-db] [7770]: (info): ac4a.569c.f560 Operation state

2021/09/30 17:49:23.654039 {wncd_x_R0-0}{1}: [apmgr-capwap-join] [7770]: (note): MAC: ac4a.569c.f560

Successfully processed Join request

. AP name: AP5CE1.7629.2B40, Model: C9120AXI-B, radio slots: 2, rlan slots: 0, site tag name: default-s
policy tag name: EWC-Location, rf tag name: EWC-Location

2021/09/30 17:49:23.654112 {wncmgrd_R0-0}{1}: [ewlc-infra-evq] [7353]: (note): Msg type :mesg->msgtype
2021/09/30 17:49:23.654233 {wncd_x_R0-0}{1}: [capwapac-smgr-srvr] [7770]: (info): MAC: ac4a.569c.f560 J
2021/09/30 17:49:23.654311 {wncd_x_R0-0}{1}: [capwapac-smgr-srvr] [7770]: (note): MAC: ac4a.569c.f560
Join processing complete. AP in joined state

CAPWAP配置 :

<#root>

2021/09/30 17:49:23.947851 {wncd_x_R0-0}{1}: [apmgr-ap-global] [7770]: (info): ac4a.569c.f560 Lispagent
2021/09/30 17:49:23.948023 {wncd_x_R0-0}{1}: [capwapac-smgr-srvr] [7770]: (info): Session-IP: 172.16.80

Config status request was processed and Config status response was sent. AP in Configuration state.

2021/09/30 17:49:23.948157 {wncd_x_R0-0}{1}: [lisp-agent-db] [7770]: (ERR): Invalid source IP address t
2021/09/30 17:49:23.948344 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (note): Map request msg sent succ
2021/09/30 17:49:23.949993 {wncmgrd_R0-0}{1}: [hl-core] [7353]: (debug): Radio change on AP ac4a.569c.f
2021/09/30 17:49:23.950130 {wncmgrd_R0-0}{1}: [hl-core] [7353]: (debug): Radio change on AP ac4a.569c.f
2021/09/30 17:49:24.889682 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 23, ap
2021/09/30 17:49:24.889807 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 23, ap
2021/09/30 17:49:24.889992 {wncd_x_R0-0}{1}: [capwapac-smgr-sess] [7770]: (info): Session-IP: 172.16.80

Capwap message received, type: config_status_request

2021/09/30 17:49:24.890020 {wncd_x_R0-0}{1}: [capwapac-smgr-sess-fsm] [7770]: (info): Session-IP: 172.1
2021/09/30 17:49:24.890045 {wncd_x_R0-0}{1}: [capwapac-smgr-srvr] [7770]: (info): Session-IP: 172.16.80
2021/09/30 17:49:24.890048 {wncd_x_R0-0}{1}: [capwapac-smgr-sess] [7770]: (info): Session-IP: 172.16.80
2021/09/30 17:49:24.890134 {wncd_x_R0-0}{1}: [apmgr-msgelem] [7770]: (info): ac4a.569c.f560 AP domain n
2021/09/30 17:49:24.890135 {wncd_x_R0-0}{1}: [apmgr-msgelem] [7770]: (info): ac4a.569c.f560 AP IPv6 nam
[...]
2021/09/30 17:49:24.890818 {wncd_x_R0-0}{1}: [capwapac-smgr-srvr] [7770]: (info): Session-IP: 172.16.80

Config status request was processed and Config status response was sent. AP in Configuration state

.
2021/09/30 17:49:24.892967 {wncmgrd_R0-0}{1}: [hl-core] [7353]: (debug): Radio change on AP ac4a.569c.f
2021/09/30 17:49:24.892993 {wncmgrd_R0-0}{1}: [hl-core] [7353]: (debug): Radio change on AP ac4a.569c.f
2021/09/30 17:49:24.964085 {wncd_x_R0-0}{1}: [ewlc-infra-evq] [7770]: (debug): DTLS record type: 23, ap
[...]
2021/09/30 17:49:24.964384 {wncd_x_R0-0}{1}: [ble-d] [7770]: (debug): BLE LTX DB: Creating AP ac4a.569c
2021/09/30 17:49:24.964474 {wncd_x_R0-0}{1}: [ble-d] [7770]: (debug): BLE LTX DB:

Successfully created AP

ac4a.569c.f560

2021/09/30 17:49:24.964479 {wncd_x_R0-0}{1}: [ble-d] [7770]: (debug): BLE LTX DB: Setting capability
2021/09/30 17:49:24.964479 {wncd_x_R0-0}{1}: [ble-d] [7770]: (debug): BLE LTX DB: Updating AP ac4a.569c
2021/09/30 17:49:24.964483 {wncd_x_R0-0}{1}: [ble-d] [7770]: (debug): BLE LTX DB:

Successfully updated AP a

c4a.569c.f560

[...]

2021/09/30 17:49:25.000954 {wncd_x_R0-0}{1}: [apmgr-capwap-config] [7770]: (info): ac4a.569c.f560

AP is in config ready state. Initial configuration will be pushed.

```
2021/09/30 17:49:25.000972 {wncd_x_R0-0}{1}: [apmgr-capwap-config] [7770]: (info): ac4a.569c.f560 Sendi
2021/09/30 17:49:25.000975 {wncd_x_R0-0}{1}: [apmgr-capwap-config] [7770]: (info): Preparing FIPS confi
2021/09/30 17:49:25.000978 {wncd_x_R0-0}{1}: [apmgr-capwap-config] [7770]: (info): Preparing WLANCC con
2021/09/30 17:49:25.001064 {wncd_x_R0-0}{1}: [apmgr-ap-global] [7770]: (info): ac4a.569c.f560 AP is in
2021/09/30 17:49:25.001064 {wncd_x_R0-0}{1}: [apmgr-ap-global] [7770]: (info): ac4a.569c.f560
```

Mode update on AP join : AP already in Local mode which matches site configuration

```
2021/09/30 17:49:25.001081 {wncd_x_R0-0}{1}: [apmgr-db] [7770]: (info): ac4a.569c.f560 Tag process ap w
```

如果AP未處於本地模式，則它會重新啟動以應用模式更改。EWC-Switch控制檯上會顯示類似以下的日誌：

<#root>

```
*Sep 29 20:54:07.769: %APMGR_TRACE_MESSAGE-4-WLC_CONFIG_CHECKER_WARNING: Switch 1 R0/0: wncd: config ch
*Sep 29 20:54:07.769: %APMGR_TRACE_MESSAGE-3-WLC_EXEC_MSG: Switch 1 R0/0: wncd: % Error: AP: AP5CE1.762
will go for a reboot due to Mode change from Flexconnect to Local
```

關於此翻譯

思科已使用電腦和人工技術翻譯本文件，讓全世界的使用者能夠以自己的語言理解支援內容。請注意，即使是最佳機器翻譯，也不如專業譯者翻譯的內容準確。Cisco Systems, Inc. 對這些翻譯的準確度概不負責，並建議一律查看原始英文文件（提供連結）。