

# WPA2-PSK和使用Cisco 5760 WLC的開放式身份驗證配置示例

## 目錄

[簡介](#)

[必要條件](#)

[需求](#)

[採用元件](#)

[設定](#)

[網路圖表](#)

[使用CLI進行WPA2-PSK配置](#)

[使用GUI的WPA2-PSK配置](#)

[使用CLI開放式身份驗證配置](#)

[使用GUI的開放式身份驗證配置](#)

[驗證](#)

[疑難排解](#)

## 簡介

本檔案將說明在無線LAN(WLAN)中使用Wi-Fi保護存取2(WPA2)的優勢。本文檔提供了在WLAN上實施WPA2的兩個配置示例：

- 配置WPA2預共用金鑰(PSK)
- 開放式身份驗證的配置

## 必要條件

### 需求

思科建議您瞭解以下主題：

- 無線保護存取(WPA)
- WLAN安全解決方案

### 採用元件

本文中的資訊係根據以下軟體和硬體版本：

- 採用Cisco IOS<sup>®</sup> XE軟體版本3.3的Cisco 5700系列無線LAN控制器(WLC)

- Cisco Aironet 3600系列輕量型存取點
- Microsoft Windows 7本機無線請求方

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。如果您的網路正在作用，請確保您已瞭解任何指令可能造成的影響。

## 設定

附註：使用[命令查詢工具](#)（僅供已註冊客戶使用）可獲取本節中使用的命令的更多資訊。

## 網路圖表

此圖顯示網路圖：

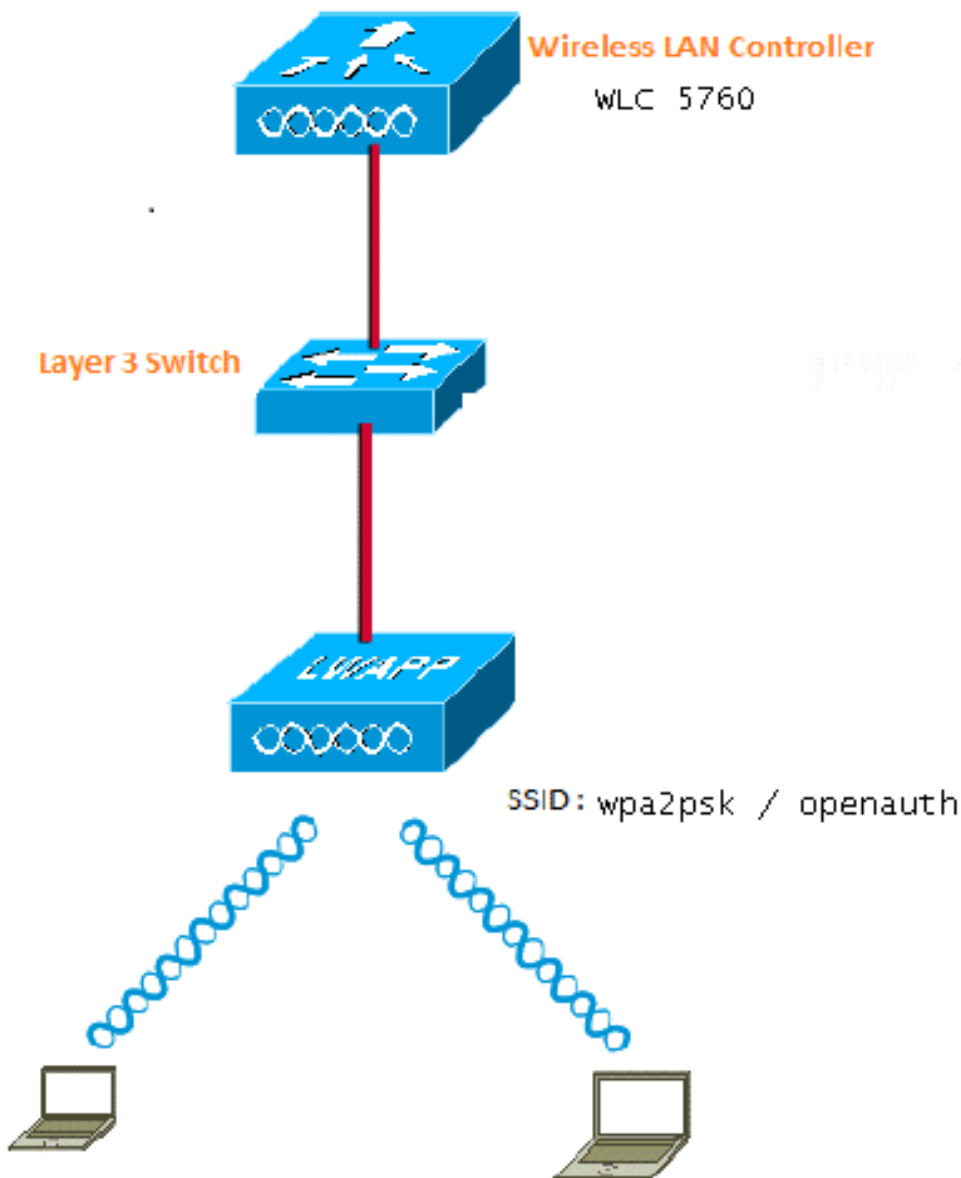


圖1.網路圖

## 使用CLI進行WPA2-PSK配置

此範例介紹使用指令行介面(CLI)為用於使用者端的VLAN設定DHCP窺探的程式。

VLAN20用於使用者端，且池是在同一個WLC上設定的。Cisco 5700 WLC中的TenGigabitEthernet1/0/1連線到上行鏈路交換器。如果在除WLC之外的伺服器上或在外部DHCP伺服器上配置DHCP伺服器，則必須信任DHCP監聽和中繼資訊。

```
ip device tracking
ip dhcp snooping vlan 12,20,30,40
ip dhcp snooping
!
ip dhcp pool vlan20
 network 20.20.20.0 255.255.255.0
 default-router 20.20.20.1

interface Vlan20
 ip address 20.20.20.1 255.255.255.0

interface TenGigabitEthernet1/0/1
 switchport trunk native vlan 12
 switchport mode trunk
 ip dhcp relay information trusted
 ip dhcp snooping trust

wlan wpa2psk 1 wpa2psk
 client vlan 20
 no security wpa akm dot1x
 security wpa akm psk set-key ascii 0 Cisco123
 no shutdown
```

**附註：**如果配置中的PSK密碼包含空格，則使用「password PSK」格式。如果也使用GUI進行配置，則應使用相同的格式。

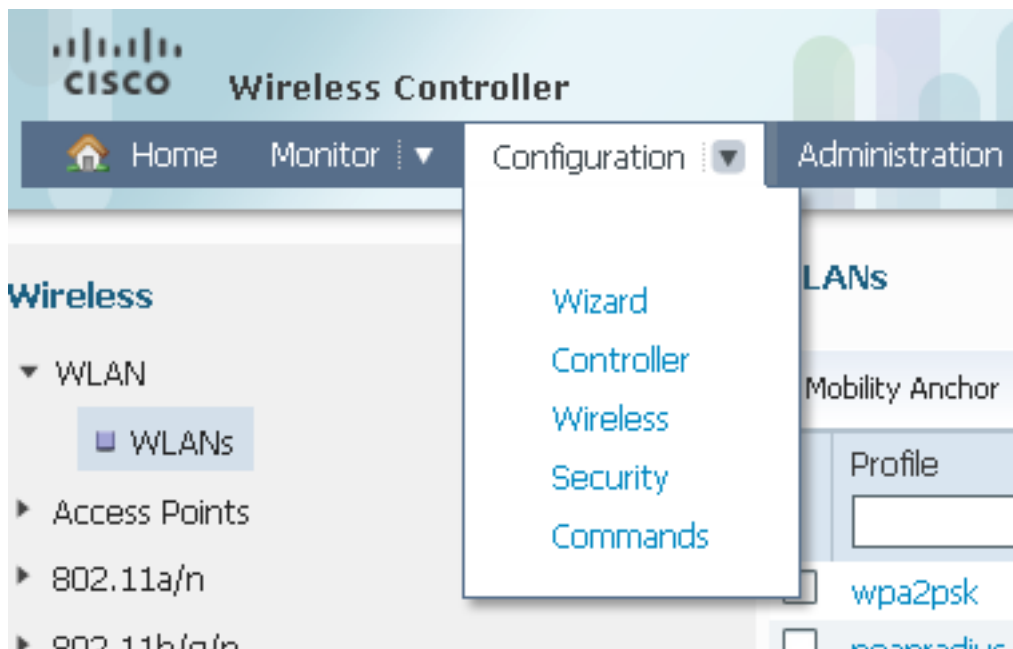
## 範例

```
security wpa akm psk set-key ascii 0 "Cisco 123"
```

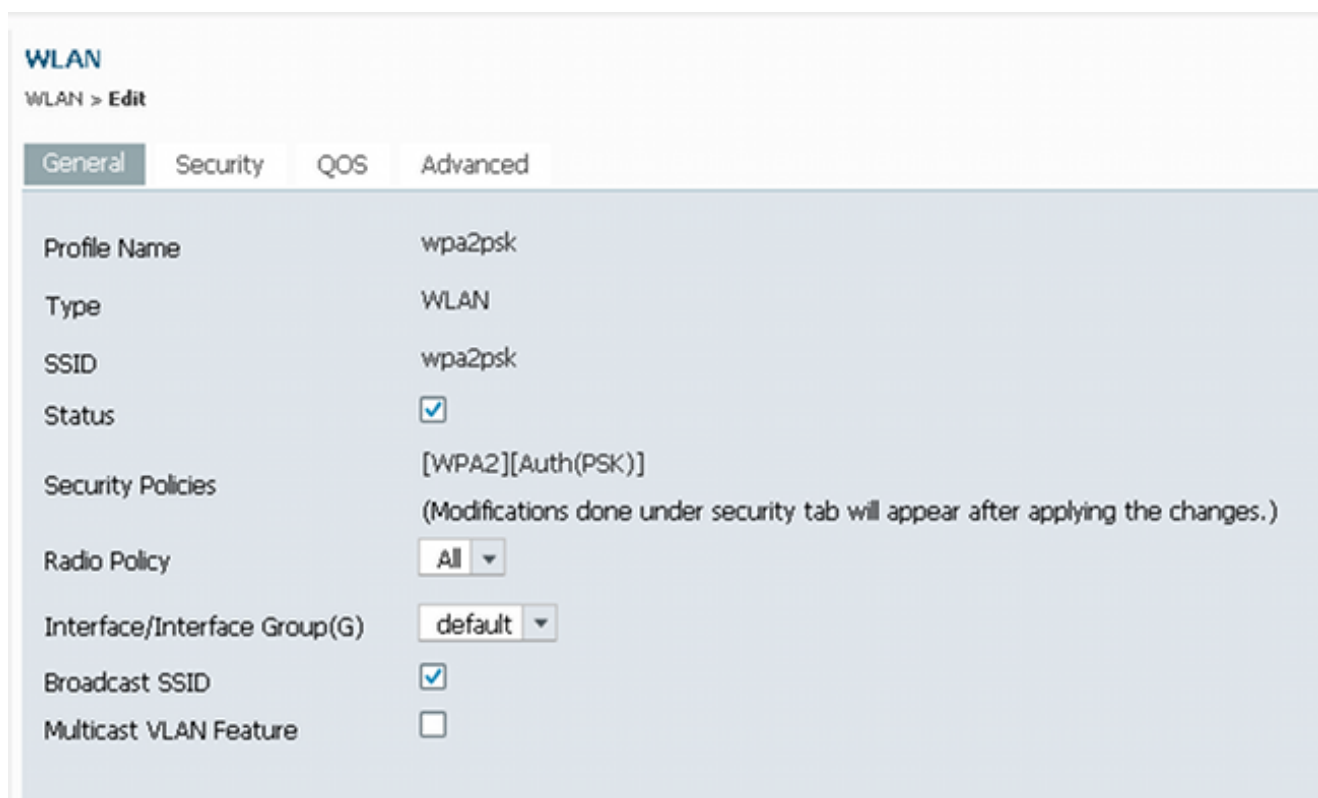
## 使用GUI的WPA2-PSK配置

完成以下步驟，以便在WLC GUI中設定WPA2 PSK:

1. 導覽至Configuration > Wireless > WLAN > WLANs，然後建立一個新的WLAN:



2. 啟用WPA2，並將其對映到所需的介面：



3. 按一下**Security**頁籤，選中**WPA2 Policy**覈取方塊，然後選擇**AES**作為**WPA2**加密。在「Auth Key Mgmt」下拉選單中，選擇**PSK**。輸入客戶端將用於連線的**PSK**：

## WLAN

WLAN > Edit

General Security QOS Advanced

Layer2 Layer3 AAA Server

Layer 2 Security WPA + WPA2

MAC Filtering

### WPA+WPA2 Parameters

WPA Policy

WPA2 Policy

WPA2 Encryption  AES  TKIP

Auth Key Mgmt PSK

PSK Format ASCII

••••••••

## 使用CLI開放式身份驗證配置

以下範例顯示如何使用CLI為用於使用者端的VLAN設定DHCP窺探；在本例中，VLAN20用於客戶端。池是在同一個WLC上設定的。

5760 WLC中的10GigabitEthernet1/0/1連線到上行鏈路交換機。如果您在WLC之外的伺服器或外部DHCP伺服器上配置了DHCP伺服器，則必須信任DHCP監聽和中繼資訊。

```
ip device tracking
ip dhcp snooping vlan 12,20,30,40
ip dhcp snooping
!
ip dhcp pool vlan20
 network 20.20.20.0 255.255.255.0
 default-router 20.20.20.1

interface Vlan20
 ip address 20.20.20.1 255.255.255.0

interface TenGigabitEthernet1/0/1
 switchport trunk native vlan 12
 switchport mode trunk
```

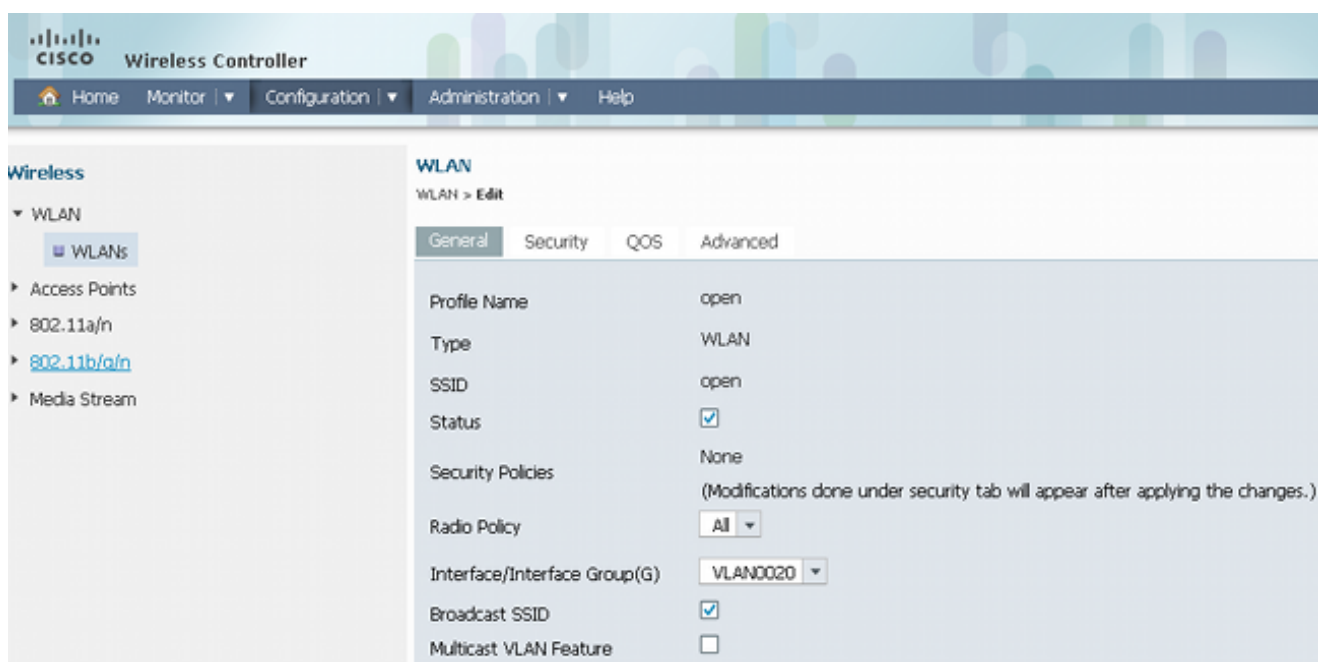
```
ip dhcp relay information trusted
ip dhcp snooping trust
```

```
wlan open 5 open
client vlan VLAN0020
no security wpa
no security wpa akm dot1x
no security wpa wpa2
no security wpa wpa2 ciphers aes
session-timeout 1800
no shutdown
```

## 使用GUI的開放式身份驗證配置

以下程式說明如何在WLC GUI中設定開放驗證：

1. 導覽至Configuration > Wireless > WLAN > WLANs，然後建立一個新的WLAN:



2. 按一下Security頁籤。在Layer2頁籤和Layer3頁籤下，將所有內容設定為無。以下是組態結果的範例：

<input type="checkbox"/>	open	5	open	20	Enabled
--------------------------	------	---	------	----	---------

## 驗證


使用本節內容，確認您的組態是否正常運作。

確認WPA2-PSK客戶端已連線：

Intel® PROSet/Wireless WiFi Connection Utility

File Tools Advanced Profiles Help


















 You are connected to wpa2psk.

Network Name: wpa2psk  
Speed: 78.0 Mbps  
Signal Quality: Excellent  
IP Address: 20.20.20.3

[Details...](#)

WiFi Networks (59)

	<b>wpa2psk</b>	Connected	  
	This network has security enabled		  
	<b>EAPFAST</b>		 
	This network has security enabled		  
	<b>DVA</b>	Manual	  
	This network has security enabled		  
	<b>peapradius</b>	Manual	  
	This network has security enabled		  

[Disconnect](#) [Properties...](#) [Refresh](#)

To manage profiles of previously connected WiFi networks, click the Profiles button. [Profiles...](#)

[WiFi On](#) Hardware radio switch: ON [Help?](#) [Close](#)

確認客戶端已連線到開放式身份驗證：

**Intel® PROSet/Wireless WiFi Connection Utility**

File Tools Advanced Profiles Help

**You are connected to open.**

Network Name: open  
 Speed: 78.0 Mbps  
 Signal Quality: Excellent  
 IP Address: 20.20.20.3

Details...

WiFi Networks (56)

Network Name	Status	Security	Standards
open	Connected	None	a, g, n
EAPFAST		Enabled	a, g, n
wpa2psk		Enabled	a, g, n
DVA	Manual	Enabled	a, g, n

Disconnect Properties... Refresh

To manage profiles of previously connected WiFi networks, click the Profiles button.

Profiles...

WiFi On Hardware radio switch: ON Help? Close

## 疑難排解

本節提供的資訊可用於對組態進行疑難排解。

附註：

[輸出直譯器工具](#) (僅供已註冊客戶使用) 支援某些 `show` 命令。使用輸出直譯器工具來檢視 `show` 命令輸出的分析。



## 使用 debug 指令之前，請先參閱[有關 Debug 指令的重要資訊。](#)

以下是有用debug和trace命令的輸出示例：

```
debug client mac XXXX.XXXX.XXXX
```

```
Controller#sh debugging
```

```
Nova Platform:
```

```
dot11/state debugging is on
pem/events debugging is on
client/mac-addr debugging is on
dot11/detail debugging is on
mac/ filters[string 0021.5c8c.c761] debugging is on
dot11/error debugging is on
dot11/mobile debugging is on
pem/state debugging is on
```

```
set trace group-wireless-client filter mac XXXX.XXXX.XXXX
set trace wcm-dot1x event filter mac XXXX.XXXX.XXXX
set trace wcm-dot1x aaa filter mac XXXX.XXXX.XXXX
set trace aaa wireless events filter mac XXXX.XXXX.XXXX
set trace access-session core sm filter mac XXXX.XXXX.XXXX
set trace access-session method dot1x filter XXXX.XXXX.XXXX
```

```
*Sep 1 05:55:01.321: 0021.5C8C.C761 Association received from mobile on AP
C8F9.F983.4260 1 wcm: i.D^Iw for client
*Sep 1 05:55:01.321: 0021.5C8C.C761 qos upstream policy is unknown and
downstream policy is unknown 1 wcm: r client
*Sep 1 05:55:01.321: 0021.5C8C.C761 apChanged 0 wlanChanged 1 mscb ipAddr
20.20.20.3, apf RadiusOverride 0x0, numIPv6Addr=0 1 wcm: •nJ^Iwy_status 0
attr len^G$8\227v^K
*Sep 1 05:55:01.321: 0021.5C8C.C761 Applying WLAN policy on MSCB. 1 wcm:
ipAddr 20.20.20.3, apf RadiusOverride 0x0, numIPv6Addr=0
*Sep 1 05:55:01.321: 0021.5C8C.C761 Scheduling deletion of Mobile Station: 1
wcm: (callerId: 50) in 1 seconds
*Sep 1 05:55:01.321: 0021.5C8C.C761 Disconnecting client due to switch of
WLANS from 6(wep) to 5(open) 1 wcm:
*Sep 1 05:55:02.193: 0021.5C8C.C761 apfMsExpireCallback (apf_ms.c: 1 wcm: 664)
Expiring Mobile!
*Sep 1 05:55:02.193: 0021.5C8C.C761 apfMsExpireMobileStation (apf_ms.c: 1 wcm:
6953) Changing state for mobile 0021.5C8C.C761 on AP C8F9.F983.4260 from
Associated to Disassociated
*Sep 1 05:55:02.193: 0021.5C8C.C761 Sent Deauthenticate to mobile on BSSID
C8F9.F983.4260 slot 1(caller apf_ms.c: 1 wcm: 7036)
*Sep 1 05:55:02.193: 0021.5C8C.C761 apfMsExpireMobileStation (apf_ms.c: 1 wcm:
7092) Changing state for mobile 0021.5C8C.C761 on AP C8F9.F983.4260 from
Disassociated to Idle
*Sep 1 05:55:02.193: 0021.5C8C.C761 20.20.20.3 RUN (20) Deleted mobile LWAPP
rule on AP [ C8F9.F983.4260 ] 1 wcm: 5C8C.C761 on AP C8F9.F983.4260 from
Disassociated to Idle
*Sep 1 05:55:02.193: 0021.5C8C.C761 20.20.20.3 RUN (20) FastSSID for the
client [ C8F9.F983.4260 ] NOTENABLED 1 wcm: C.C761 on AP C8F9.F983.4260
from Disassociated to Idle
*Sep 1 05:55:02.193: 0021.5C8C.C761 Incrementing the Reassociation Count 1 for
client (of interface VLAN0020) 1 wcm: D
*Sep 1 05:55:02.193: 0021.5C8C.C761 Clearing Address 20.20.20.3 on mobile 1
wcm: for client (of interface VLAN0020)
*Sep 1 05:55:02.193: PEM rcv processing msg Del SCB(4) 1 wcm: 0.20.3 on
mobile
*Sep 1 05:55:02.193: 0021.5C8C.C761 20.20.20.3 RUN (20) Skipping TMP rule
add 1 wcm: lient (of interface VLAN0020)
```

\*Sep 1 05:55:02.193: 0021.5C8C.C761 20.20.20.3 RUN (20) Change state to DHCP\_REQD (7) last state RUN (20) 1 wcm:

\*Sep 1 05:55:02.193: 0021.5C8C.C761 WCDB\_CHANGE: 1 wcm: Client 1 m\_vlan 20 Radio iif id 0xbfcd00000003a bssid iif id 0x8959800000004a, bssid C8F9.F983.4260

\*Sep 1 05:55:02.193: 0021.5C8C.C761 WCDB\_AUTH: 1 wcm: Adding opt82 len 0

\*Sep 1 05:55:02.193: 0021.5C8C.C761 WCDB\_CHANGE: 1 wcm: Suppressing SPI (client pending deletion) pemstate 7 state LEARN\_IP(2) vlan 20 client\_id 0xac70800000004b mob=Local(1) ackflag 2 dropd 0, delete 1

\*Sep 1 05:55:02.193: 0021.5C8C.C761 Sending SPI spi\_epm\_epm\_terminate\_session successfull 1 wcm: pemstate 7 state LEARN\_IP(2) vlan 20 client\_id 0xac70800000004b mob=Local(1) ackflag 2 dropd 0, delete 1

\*Sep 1 05:55:02.194: 0021.5C8C.C761 Sending SPI spi\_epm\_epm\_terminate\_session successfull 1 wcm: pemstate 7 state LEARN\_IP(2) vlan 20 client\_id 0xac70800000004b mob=Local(1) ackflag 2 dropd 0, delete 1

\*Sep 1 05:55:02.194: 0021.5C8C.C761 Deleting wireless client; Reason code 0, Preset 1, AAA cause 1 1 wcm: 7 state LEARN\_IP(2) vlan 20 client\_id 0xac70800000004b mob=Local(1) ackflag 2 dropd 0, delete 1

\*Sep 1 05:55:02.194: 0021.5C8C.C761 WCDB\_DEL: 1 wcm: Successfully sent

\*Sep 1 05:55:02.194: 0021.5C8C.C761 Expiring mobile state delete 1 wcm: on code 0, Preset 1, AAA cause 1

\*Sep 1 05:55:02.194: 0021.5C8C.C761 0.0.0.0 DHCP\_REQD (7) Handling pemDelScb Event skipping delete 1 wcm: state LEARN\_IP(2) vlan 20 client\_id 0xac70800000004b mob=Local(1) ackflag 2 dropd 0, delete 1

\*Sep 1 05:55:02.197: 0021.5C8C.C761 WCDB SPI response msg handler client code 1 mob state 1 1 wcm: g delete

\*Sep 1 05:55:02.197: 0021.5C8C.C761 apfProcessWcdbClientDelete: 1 wcm: Delete ACK from WCDB.

\*Sep 1 05:55:02.197: 0021.5C8C.C761 WCDB\_DELACK: 1 wcm: wcdbAckRecvdFlag updated

\*Sep 1 05:55:02.197: 0021.5C8C.C761 WCDB\_DELACK: 1 wcm: Client IIF Id dealloc SUCCESS w/ 0xac70800000004b.

\*Sep 1 05:55:02.197: 0021.5C8C.C761 Invoked platform delete and cleared handle 1 wcm: w/ 0xac70800000004b.

\*Sep 1 05:55:02.197: 0021.5C8C.C761 Deleting mobile on AP C8F9.F983.4260 (1) 1 wcm: w/ 0xac70800000004b.

\*Sep 1 05:55:02.197: 0021.5C8C.C761 Unlinked and freed mscb 1 wcm: 8F9.F983.4260 (1)

\*Sep 1 05:55:02.197: WCDB\_IIF: 1 wcm: Ack Message ID: 0xac70800000004b code 1003

\*Sep 1 05:55:02.379: 0021.5C8C.C761 Adding mobile on LWAPP AP C8F9.F983.4260 (1) 1 wcm: xac7080000.D^Iwb.

\*Sep 1 05:55:02.379: 0021.5C8C.C761 Creating WL station entry for client - rc 0 1 wcm:

\*Sep 1 05:55:02.379: 0021.5C8C.C761 Association received from mobile on AP C8F9.F983.4260 1 wcm: 0.D^Iwb.

\*Sep 1 05:55:02.379: 0021.5C8C.C761 qos upstream policy is unknown and downstream policy is unknown 1 wcm:

\*Sep 1 05:55:02.379: 0021.5C8C.C761 apChanged 0 wlanChanged 0 mscb ipAddr 0.0.0.0, apf RadiusOverride 0x0, numIPv6Addr=0 1 wcm: \2105H.nJ^Iwlient\_id 0xac708000^G\$8\227v^K

\*Sep 1 05:55:02.379: 0021.5C8C.C761 Applying WLAN policy on MSCB. 1 wcm: ipAddr 0.0.0.0, apf RadiusOverride 0x0, numIPv6Addr=0

\*Sep 1 05:55:02.379: 0021.5C8C.C761 Applying WLAN ACL policies to client 1 wcm: 0.0.0.0, apf RadiusOverride 0x0, numIPv6Addr=0

\*Sep 1 05:55:02.379: 0021.5C8C.C761 No Interface ACL used for Wireless client in WCM(NGWC) 1 wcm: usOverride 0x0, numIPv6Addr=0

\*Sep 1 05:55:02.379: 0021.5C8C.C761 Applying site-specific IPv6 override for station 0021.5C8C.C761 - vapId 5, site 'default-group', interface 'VLAN0020' 1 wcm:

\*Sep 1 05:55:02.379: 0021.5C8C.C761 Applying local bridging Interface Policy for station 0021.5C8C.C761 - vlan 20, interface 'VLAN0020' 1 wcm: erface 'VLAN0020'

\*Sep 1 05:55:02.379: 0021.5C8C.C761 STA - rates (8): 1 wcm:

```
140 18 152 36 176 72 96 108 0 0 0 0 0 0 0
*Sep 1 05:55:02.379: 0021.5C8C.C761 new capwap_wtp_iif_id b6818000000038,
sm capwap_wtp_iif_id 0 1 wcm: 8C.C761 - vlan 20, interface 'VLAN0020'
*Sep 1 05:55:02.379: 0021.5C8C.C761 WCDB_ADD: 1 wcm: Radio IIFID
0xbfc0c00000003a, BSSID IIF Id 0xbb30c000000046, COS 4
*Sep 1 05:55:02.379: Load Balancer: 1 wcm: Success, Resource allocated are:
Active Switch number: 1, Active Asic number : 0, Reserve Switch number 0
Reserve Asic number 0. AP Asic num 0
*Sep 1 05:55:02.379: 0021.5C8C.C761 WCDB_ADD: 1 wcm: Anchor Sw 1, Doppler 0
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_ALLOCATE: 1 wcm: Client IIF Id alloc
SUCCESS w/ client 8e7bc00000004d (state 0).
*Sep 1 05:55:02.380: 0021.5C8C.C761 iifid Clearing Ack flag 1 wcm: F Id alloc
SUCCESS w/ client 8e7bc00000004d (state 0).
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_ADD: 1 wcm: Adding opt82 len 0
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_ADD: 1 wcm: Cleaering Ack flag
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_ADD: 1 wcm: ssid open bssid
C8F9.F983.4260 vlan 20 auth=ASSOCIATION(0) wlan(ap-group/global) 5/5
client 0 assoc 1 mob=Unassoc(0) radio 1 m_vlan 20 ip 0.0.0.0 src
0xb6818000000038 dst 0x0 cid 0x8e7bc00000004d glob rsc id 14dhcpsrv
0.0.0.0 ty
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_ADD: 1 wcm: msch iifid
0x8e7bc00000004d msinfo iifid 0x0
*Sep 1 05:55:02.380: 0021.5C8C.C761 0.0.0.0 START (0) Initializing policy 1
wcm: info iifid 0x0
*Sep 1 05:55:02.380: 0021.5C8C.C761 0.0.0.0 START (0) Change state to
AUTHCHECK (2) last state AUTHCHECK (2) 1 wcm: -group/global) 5/5 client 0
assoc 1 mob=Unassoc(0) radio 1 m_vlan 20 ip 0.0.0.0 src 0xb6818000000038
dst 0x0 cid 0x8e7bc00000004d glob rsc id 14dhcpsrv 0.0.0.0 ty
*Sep 1 05:55:02.380: 0021.5C8C.C761 0.0.0.0 AUTHCHECK (2) Change state to
L2AUTHCOMPLETE (4) last state L2AUTHCOMPLETE (4) 1 wcm: 5/5 client 0 assoc
1 mob=Unassoc(0) radio 1 m_vlan 20 ip 0.0.0.0 src 0xb6818000000038 dst 0x0
cid 0x8e7bc00000004d glob rsc id 14dhcpsrv 0.0.0.0 ty
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_CHANGE: 1 wcm: Client 1 m_vlan 20
Radio iif id 0xbfc0c00000003a bssid iif id 0xbb30c000000046, bssid
C8F9.F983.4260
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_AUTH: 1 wcm: Adding opt82 len 0
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_LLM: 1 wcm: NoRun Prev Mob 0, Curr
Mob 0 llmReq 1, return False
*Sep 1 05:55:02.380: 0021.5C8C.C761 auth state 1 mob state 0 setWme 0 wme 1
roam_sent 0 1 wcm: rn False
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_CHANGE: 1 wcm: auth=L2_AUTH(1) vlan
20 radio 1 client_id 0x8e7bc00000004d mobility=Unassoc(0) src_int
0xb6818000000038 dst_int 0x0 ackflag 0 reassoc_client 0 llm_notif 0 ip
0.0.0.0 ip_learn_type UNKNOWN
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_CHANGE: 1 wcm: In L2 auth but l2ack
waiting lfag not set,so set
*Sep 1 05:55:02.380: 0021.5C8C.C761 0.0.0.0 L2AUTHCOMPLETE (4) DHCP Not
required on AP C8F9.F983.4260 vapId 5 apVapId 5for this client 1 wcm:
6818000000038 dst_int 0x0 ackflag 0 reassoc_client 0 llm_notif 0 i$=6v.0.0.0
it^_Dv^\7HnP6v^D6H15Ht^_Dv$6H8^ r^D6H>&5v8^ r^D6H>&5v^D6Ht^M^Lw^\7H8^ r
*Sep 1 05:55:02.380: WCDB_IIF: 1 wcm: Ack Message ID: 0x8e7bc00000004d code
1001
*Sep 1 05:55:02.380: 0021.5C8C.C761 Not Using WMM Compliance code qosCap 00 1
wcm: quired on AP C8F9.F983.4260 vapId 5 apVapId 5for this client
*Sep 1 05:55:02.380: 0021.5C8C.C761 0.0.0.0 L2AUTHCOMPLETE (4) Plumbed
mobile LWAPP rule on AP C8F9.F983.4260 vapId 5 apVapId 5 1 wcm: client
*Sep 1 05:55:02.380: 0021.5C8C.C761 0.0.0.0 L2AUTHCOMPLETE (4) Change state
to DHCP_REQD (7) last state DHCP_REQD (7) 1 wcm: apVapId 5
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_CHANGE: 1 wcm: Client 1 m_vlan 20
Radio iif id 0xbfc0c00000003a bssid iif id 0xbb30c000000046, bssid
C8F9.F983.4260
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_AUTH: 1 wcm: Adding opt82 len 0
*Sep 1 05:55:02.380: 0021.5C8C.C761 WCDB_CHANGE: 1 wcm: Suppressing SPI
(Mobility state not known) pemstate 7 state LEARN_IP(2) vlan 20 client_id
```

0x8e7bc00000004d mob=Unassoc(0) ackflag 1 dropd 0  
\*Sep 1 05:55:02.380: 0021.5C8C.C761 Incrementing the Reassociation Count 1 for client (of interface VLAN0020) 1 wcm: EARN\_IP(2) vlan 20 client\_id  
0x8e7bc00000004d mob=Unassoc(0) ackflag 1 dropd 0  
\*Sep 1 05:55:02.380: 0021.5C8C.C761 apfPemAddUser2 (apf\_policy.c: 1 wcm: 161) Changing state for mobile 0021.5C8C.C761 on AP C8F9.F983.4260 from Idle to Associated  
\*Sep 1 05:55:02.380: 0021.5C8C.C761 Scheduling deletion of Mobile Station: 1 wcm: (callerId: 49) in 1800 seconds  
\*Sep 1 05:55:02.380: 0021.5C8C.C761 Ms Timeout = 1800, Session Timeout = 1800 1 wcm: llerId: 49) in 1800 seconds  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 Sending Assoc Response to station on BSSID C8F9.F983.4260 (status 0) ApVapId 5 Slot 1 1 wcm: .F983.4260 from Idle to Associated  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 apfProcessAssocReq (apf\_80211.c: 1 wcm: 5260) Changing state for mobile 0021.5C8C.C761 on AP C8F9.F983.4260 from Associated to Associated  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0 DHCP\_REQD (7) pemAdvanceState2: 1 wcm: MOBILITY-INCOMPLETE with state 7.  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0 DHCP\_REQD (7) pemAdvanceState2: 1 wcm: MOBILITY-INCOMPLETE with state 7.  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0 DHCP\_REQD (7) pemAdvanceState2: 1 wcm: MOBILITY-COMPLETE with state 7.  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0 DHCP\_REQD (7) State Update from Mobility-Incomplete to Mobility-Complete, mobility role=Local, client state=APF\_MS\_STATE\_ASSOCIATED 1 wcm: 1 dropd 0  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0 DHCP\_REQD (7) pemAdvanceState2 3611, Adding TMP rule 1 wcm: o Mobility-Complete, mobility role=Local, client state=APF\_MS\_STATE\_ASSOCIATED  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0 DHCP\_REQD (7) Adding Fast Path rule on AP C8F9.F983.4260 , slot 1 802.1P = 0 1 wcm: role=Local, client state=APF\_MS\_STATE\_ASSOCIATED  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0 DHCP\_REQD (7) Successfully plumbed mobile rule 1 wcm: F9.F983.4260 , slot 1 802.1P = 0^M  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 WCDB\_CHANGE: 1 wcm: Client 1 m\_vlan 20 Radio iif id 0xbfcfdc000000003a bssid iif id 0xbb30c0000000046, bssid C8F9.F983.4260  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 WCDB\_AUTH: 1 wcm: Adding opt82 len 0  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 WCDB\_LLM: 1 wcm: NoRun Prev Mob 0, Curr Mob 1 llmReq 1, return False  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 WCDB\_CHANGE: 1 wcm: Suppressing SPI (ACK message not recvd) pemstate 7 state LEARN\_IP(2) vlan 20 client\_id  
0x8e7bc000000004d mob=Local(1) ackflag 1 dropd 1  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 Error updating wcdb on mobility complete 1 wcm: not recvd) pemstate 7 state LEARN\_IP(2) vlan 20 client\_id  
0x8e7bc000000004d mob=Local(1) ackflag 1 dropd 1  
\*Sep 1 05:55:02.381: PEM recv processing msg Epm spi response(12) 1 wcm: complete  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 aaa attribute list length is 79 1 wcm: complete  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 Sending SPI spi\_epm\_epm\_session\_create successfull 1 wcm: ) pemstate 7 state LEARN\_IP(2) vlan 20 client\_id  
0x8e7bc000000004d mob=Local(1) ackflag 1 dropd 1  
\*Sep 1 05:55:02.381: PEM recv processing msg Add SCB(3) 1 wcm: pm\_session\_create successfull  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0, auth\_state 7 mmRole Local !!! 1 wcm: successfull  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 0.0.0.0, auth\_state 7 mmRole Local, updating wcdb not needed 1 wcm: 7 state LEARN\_IP(2) vlan 20 client\_id  
0x8e7bc000000004d mob=Local(1) ackflag 1 dropd 1  
\*Sep 1 05:55:02.381: 0021.5C8C.C761 Tclas Plumb needed: 1 wcm: 0  
\*Sep 1 05:55:02.384: EPM: 1 wcm: Session create resp - client handle  
8e7bc000000004d session b8000020  
\*Sep 1 05:55:02.384: EPM: 1 wcm: Netflow session create resp - client handle

8e7bc00000004d sess b8000020  
\*Sep 1 05:55:02.384: PEM rcv processing msg Epm spi response(12) 1 wcm:  
le 8e7bc00000004d sess b8000020  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 Received session\_create\_response for  
client handle 40105511256850509 1 wcm: LEARN\_IP(2) vlan 20 client\_id  
0x8e7bc00000004d mob=Local(1) ackflag 1 dropd 1  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 Received session\_create\_response with EPM  
session handle 3087007776 1 wcm:  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 Send request to EPM 1 wcm: ate\_response  
with EPM session handle 3087007776  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 aaa attribute list length is 5 1 wcm: e  
with EPM session handle 3087007776  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 Sending Activate request for session  
handle 3087007776 successful 1 wcm: 6  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 Post-auth policy request sent! Now wait  
for post-auth policy ACK from EPM 1 wcm: N\_IP(2) vlan 20 client\_id  
0x8e7bc00000004d mob=Local(1) ackflag 1 dropd 1  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 WCDB SPI response msg handler client code  
0 mob state 0 1 wcm: licy ACK from EPM  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 WcdbClientUpdate: 1 wcm: L2 Auth ACK from  
WCDB  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 WCDB\_L2ACK: 1 wcm: wcdbAckRecvdFlag  
updated  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 WCDB\_CHANGE: 1 wcm: Client 1 m\_vlan 20  
Radio iif id 0xbfcfdc00000003a bssid iif id 0xbb30c000000046, bssid  
C8F9.F983.4260  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 WCDB\_AUTH: 1 wcm: Adding opt82 len 0  
\*Sep 1 05:55:02.384: 0021.5C8C.C761 WCDB\_LLM: 1 wcm: NoRun Prev Mob 0, Curr  
Mob 1 llmReq 1, return False  
\*Sep 1 05:55:02.385: 0021.5C8C.C761 auth state 2 mob state 1 setWme 0 wme 1  
roam\_sent 0 1 wcm: rn False  
\*Sep 1 05:55:02.385: 0021.5C8C.C761 WCDB\_CHANGE: 1 wcm: auth=LEARN\_IP(2) vlan  
20 radio 1 client\_id 0x8e7bc00000004d mobility=Local(1) src\_int  
0xb6818000000038 dst\_int 0x0 ackflag 2 reassoc\_client 0 llm\_notif 0 ip  
0.0.0.0 ip\_learn\_type UNKNOWN  
\*Sep 1 05:55:02.385: EPM: 1 wcm: Init feature, client handle 8e7bc00000004d  
session b8000020 authz ec00000e  
\*Sep 1 05:55:02.385: EPM: 1 wcm: Activate feature client handle  
8e7bc00000004d sess b8000020 authz ec00000e  
\*Sep 1 05:55:02.385: PEM rcv processing msg Epm spi response(12) 1 wcm: 004d  
sess b8000020 authz ec00000e  
\*Sep 1 05:55:02.385: 0021.5C8C.C761 Received activate\_features\_resp for client  
handle 40105511256850509 1 wcm: 004d mobility=Local(1) src\_int  
0xb6818000000038 dst\_int 0x0 ackflag 2 reassoc\_client 0 llm\_notif 0  
ip\$=6v0.0.0 ipt^\_Dv^\\7HnP6v^D6Hl5Ht^\_Dv\$6H8^ r^D6H>&5v8^  
r^D6H>&5v^D6Ht^M^Lw^\\7H8^ r  
\*Sep 1 05:55:02.385: 0021.5C8C.C761 Received activate\_features\_resp for EPM  
session handle 3087007776 1 wcm: 9  
\*Sep 1 05:55:02.385: EPM: 1 wcm: Policy enforcement - client handle  
8e7bc00000004d session 2800000e authz ec00000e  
\*Sep 1 05:55:02.385: EPM: 1 wcm: Netflow policy enforcement - client handle  
8e7bc00000004d sess 2800000e authz ec00000e msg\_type 0 policy\_status 0 attr  
len 0  
\*Sep 1 05:55:02.385: PEM rcv processing msg Epm spi response(12) 1 wcm: e  
8e7bc00000004d sess 2800000e authz ec00000e msg\_type 0 policy\_status 0 attr  
len 0  
\*Sep 1 05:55:02.385: 0021.5C8C.C761 Received policy\_enforcement\_response for  
client handle 40105511256850509 1 wcm: 00e msg\_type 0 policy\_status 0 attr  
len 0  
\*Sep 1 05:55:02.385: 0021.5C8C.C761 Received policy\_enforcement\_response for  
EPM session handle 671088654 1 wcm: 09  
\*Sep 1 05:55:02.385: 0021.5C8C.C761 Received response for  
\_EPM\_SPI\_ACTIVATE\_FEATURES request sent for client 1 wcm: 00e msg\_type 0  
policy\_status 0 attr len 0

\*Sep 1 05:55:02.385: 0021.5C8C.C761 Received \_EPM\_SPI\_STATUS\_SUCCESS for request sent for client 1 wcm: for client

\*Sep 1 05:55:02.385: 0021.5C8C.C761 Post-auth policy ACK recvd from EPM, unset flag on MSCB 1 wcm: ient

\*Sep 1 05:55:02.400: 0021.5C8C.C761 WCDB\_IP\_BIND: 1 wcm: w/ IPv4 20.20.20.3 ip\_learn\_type DHCP add\_delete 1,options\_length 0

\*Sep 1 05:55:02.400: 0021.5C8C.C761 WcdbClientUpdate: 1 wcm: IP Binding from WCDB ip\_learn\_type 1, add\_or\_delete 1

\*Sep 1 05:55:02.400: 0021.5C8C.C761 IPv4 Addr: 1 wcm: 20:20:20:3

\*Sep 1 05:55:02.400: 0021.5C8C.C761 MS got the IP, resetting the Reassociation Count 0 for client 1 wcm: \_delete 1

\*Sep 1 05:55:02.400: 0021.5C8C.C761 20.20.20.3 DHCP\_REQD (7) Change state to RUN (20) last state RUN (20) 1 wcm: length 0

\*Sep 1 05:55:02.400: 0021.5C8C.C761 WCDB\_CHANGE: 1 wcm: Client 1 m\_vlan 20 Radio iif id 0xbfcfdc00000003a bssid iif id 0xbb30c000000046, bssid C8F9.F983.4260

\*Sep 1 05:55:02.400: 0021.5C8C.C761 WCDB\_AUTH: 1 wcm: Adding opt82 len 0

\*Sep 1 05:55:02.401: 0021.5C8C.C761 WCDB\_LLM: 1 wcm: prev Mob state 1 curr Mob State 1 llReq flag 0

\*Sep 1 05:55:02.401: 0021.5C8C.C761 auth state 4 mob state 1 setWme 0 wme 1 roam\_sent 0 1 wcm: g 0

\*Sep 1 05:55:02.401: 0021.5C8C.C761 WCDB\_CHANGE: 1 wcm: auth=RUN(4) vlan 20 radio 1 client\_id 0x8e7bc00000004d mobility=Local(1) src\_int 0xb6818000000038 dst\_int 0x0 ackflag 2 reassoc\_client 0 llm\_notif 0 ip 20.20.20.3 ip\_learn\_type DHCP

\*Sep 1 05:55:02.401: 0021.5C8C.C761 20.20.20.3 RUN (20) Reached PLUMBFASPATH: 1 wcm: from line 4430

\*Sep 1 05:55:02.401: 0021.5C8C.C761 20.20.20.3 RUN (20) Replacing Fast Path rule on AP C8F9.F983.4260 , slot 1 802.1P = 0

1 wcm: 0xb6818000000038 dst\_int 0x0 ackflag 2 reassoc\_client 0 llm\_notif 0 ip 20.\$=6v0.3 ip\_lt^\_Dv^\7HnP6v^D6Hl5Ht^\_Dv\$6H8^ r^D6H>&5v8^ r^D6H>&5v^D6Ht^M^Lw^\7H8^ r

\*Sep 1 05:55:02.401: 0021.5C8C.C761 20.20.20.3 RUN (20) Successfully plumbed mobile rule 1 wcm: C8F9.F983.4260 , slot 1 802.1P = 0^M

\*Sep 1 05:55:02.401: 0021.5C8C.C761

Sending IPv4 update to Controller 10.105.135.176 1 wcm: e

\*Sep 1 05:55:02.401: 0021.5C8C.C761 Assigning Address 20.20.20.3 to mobile 1 wcm: 05.135.176

\*Sep 1 05:55:02.401: PEM recv processing msg Add SCB(3) 1 wcm: 20.20.3 to mobile

\*Sep 1 05:55:02.401: 0021.5C8C.C761 20.20.20.3, auth\_state 20 mmRole Local !!! 1 wcm: 135.176

\*Sep 1 05:55:02.401: 0021.5C8C.C761 20.20.20.3, auth\_state 20 mmRole Local, updating wcdb not needed 1 wcm: 3.4260 , slot 1 802.1P = 0^M

\*Sep 1 05:55:02.401: 0021.5C8C.C761 Tclas Plumb needed: 1 wcm: 0

\*Sep 1 05:55:20.083: 0021.5C8C.C761

Client stats update: 1 wcm: Time now in sec 1378014920, Last Acct Msg Sent at 1378014902 sec