在 CUWN 中使用 Cisco alOS WGB 和 EAP-TLS 驗證

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簡介

此範例顯示如何在思科整合無線網路(CUWN)中設定和使用在工作組橋接器(WGB)模式下使用EAP-TLS驗證的自治IOS(aIOS)AP。 在本例中,Microsoft證書頒發機構(Windows 2003)頒發了WGB的 證書,並且通過複製和貼上方法,這些證書在WGB上手動輸入。ACS充當RADIUS伺服器。使用具 有802.1X金鑰管理的WPA1/TKIP加密。

必要條件

需求

嘗試此組態設定之前,請確保您符合以下需求:

- 瞭解Cisco自主解決方案和基於Cisco IOS的接入點。
- 輕量型存取點通訊協定(LWAPP)知識

採用元件

本文中的資訊係根據以下軟體和硬體版本:

• 執行Cisco IOS[®]軟體版本12.4(10b)JA2的WGB

使用Cisco IOS軟體版本12.4(10b)JA2或更新版本非常重要,原因如下:

- 802.11a WGB無法禁用DFS通道或啟用「 移動站」
- ◎ 思科錯誤ID <u>CSCsl85798</u>(僅限<u>註冊</u>客戶) 在DFS事件之後,WGB不會重新掃描
- 思科錯誤ID <u>CSCsm37686</u>(僅供<u>註冊</u>客戶使用) 為僅TKIP配置的WGB無法與 (WPA+TKIP)+(WPA2+AES)相關聯
- ◎ 思科錯誤ID <u>CSCsk85945</u>(僅供<u>註冊</u>客戶使用)- WPA1 WGB無法與WPA1+WPA2 WLAN關聯
- ◎ 思科錯誤ID <u>CSCsk52437</u>(僅限<u>註冊</u>客戶) 當AP離開通道時,WGB重新傳輸失敗
- ◎ 思科錯誤ID CSCsb85791(僅供註冊客戶使用) 新映像安裝後立即發生1130故障
- ◎ 思科錯誤ID <u>CSCsk63882</u>(僅限<u>註冊</u>客戶) 當基於12.4的802.11 AP啟動時,出現錯誤 ID和回溯錯誤
- ◎ 思科錯誤ID <u>CSCsl36227</u>(僅限<u>註冊</u>客戶)- WGB上的回溯:%SM-4-BADEVENT:事件「 eapResp」無效
- ◎ 思科錯誤ID <u>CSCsl46209(</u>僅供<u>註冊</u>客戶使用)—WGB 1242 11g無線電在重置時停滯,停 止傳輸
- 思科錯誤ID <u>CSCsl58071</u>(僅供<u>註冊</u>客戶使用)- WGB在EAP-TLS中間歇性需要較長時間
 重新進行身份驗證
- 執行4.2.99.0版的WLC

使用4.1.185.0或更高版本非常重要,原因如下:

 思科錯誤ID <u>CSCsk41360</u>(僅限<u>註冊</u>客戶) — 控制器在收到EAPOL後繼續處理EAPOL註 銷

注意:您必須是註冊客戶,才能檢視錯誤的詳細資訊。

ACS正在運行4.1;ca運行的是Microsoft Windows 2003 Advanced Server SP1。在任何情況下,當 您瀏覽到CA時,客戶端瀏覽器都是啟用了Active X的Internet Explorer。

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。

慣例

<mark>請參閱<u>思科技術提示慣例以瞭解更多有關文件慣例的資訊。</u></mark>

組態概觀

- 1. <u>啟動Microsoft CA(如有必要)</u>
- 2. <u>在ACS中安裝伺服器證書</u>
- 3. <u>在ACS上安裝CA證書</u>
- 4. <u>設定ACS以使用伺服器證書</u>
- 5. 配置ACS以讓WGB在EAP-TLS中進行身份驗證
- 6. <u>配置WLC的WLAN以向ACS進行身份驗證</u>
- 7. <u>配置WGB的證書</u>
 - a. 根據需要設定主機名、域名和時間
 - b. 配置信任點。
 - c. 安裝CA證書。
 - d. 生成AP證書請求。
 - e. 向CA傳送AP證書請求。
 - f. 核發憑證。
 - g. 安裝AP證書。
- 8. 根據需要配置WGB SSID、請求方和無線電
- 9. <u>配置被動客戶端的條目(如有必要)</u>
- 10. 使用802.11a(5 GHz)時的特別說明
- 11. <u>同步Cisco IOS請求者的時鐘並將其時間儲存到NVRAM(適用於使用Cisco IOS軟體版本</u> <u>12.4(21a)JY的系統)</u>

設定

本節提供用於設定本文件中所述功能的資訊。

註:使用<u>Command Lookup Tool</u>(僅限<u>註冊</u>客戶)可獲取本節中使用的命令的詳細資訊。

啟動Microsoft CA(如有必要)

完成以下步驟,以便使用Windows 2003 Advanced Server開啟Microsoft CA:

1. 首先,安裝IIS。選擇控制面板>新增/刪除程式> Windows元件>應用程式伺服器。

2. 然後安裝CA。選擇控制面板>新增刪除程式> Windows元件>證書服務。

a. 選擇企業根CA。

b. 為CA指定一個名稱, 並記下該名稱。

在ACS中安裝伺服器證書

完成這些步驟,以便在ACS中安裝伺服器證書。

1. 在ACS伺服器上執行的瀏覽器中,瀏覽到CA:http://ip.of.CA.server/certsrv

a. 請求證書>高級請求>建立並向此CA提交請求。

b. 在名稱(CN)欄位中,輸入內容。記下它。

c. 在「需要證書的型別」下拉選單中,選擇Server Authentication Certificate。

d. 在關鍵選項下,選擇:

- CSP Microsoft Base加密提供程式v1.0
- 金鑰大小 1024
- 選中Mark keys as exportable。
- 選中Store cert in the local computer cert store。

e. 將其他所有內容保留為預設值,然後按一下Submit。

- f. 您應該會看到「Certificate Pending」狀態報告,其中顯示「Your certificate request has been received」。如果您遇到問題,請參閱MS KB 323172,或者其它可能會影響Active X的內容。
- 2. 現在,在CA上,進入CA管理實用程式並選擇開始>管理工具>證書頒發機構。
 - a. 在左側,展開CA圖示,並檢視Pending Requests下。
 - b. 在右側,按一下右鍵來自ACS的請求,然後選擇All Tasks > Issue。現在該請求應該顯 示在「已簽發的證書」下。
- 3. 返回ACS伺服器,再次瀏覽到http://ip.of.CA.server/certsrv。

- a. 按一下View the status of a pending certificate request。
- b. 按一下「Server Authentication Certificate」。
- c. 按一下「Install this certificate」。

在ACS上安裝CA證書

請完成以下步驟:

- 在ACS伺服器上執行的瀏覽器中,瀏覽到CA:http://ip.of.CA.server/certsrv
 - a. 按一下「Download a CA certificate, certificate chain, or CRL」。
 - b. 選擇Encoding方法:基地64。
 - c. 選擇Download CA certificate。
 - d. 開啟.cer檔案,然後按一下Install Certificate。
 - e. 在「證書匯入嚮導」中,按一下下一步,然後將所有證書放入以下儲存,然後瀏覽。
 - f. 選中Show physical stores框。
 - g. 展開受信任的根憑證授權單位,選擇Local Computer,然後按一下Ok。
 - h. 按一下匯入成功框的下一步、完成和確定。

設定ACS以使用伺服器證書

請完成以下步驟:

- 1. 在ACS伺服器上,選擇System Configuration。
- 2. 選擇ACS Certificate Setup。
- 3. 選擇安裝ACS證書。
- 4. 選擇使用來自儲存的證書。
- 5. 鍵入CN名稱,該名稱與上一步驟中使用的名稱相同。
- 6. 按一下「Submit」。
- 7. 在ACS伺服器中,按一下System configuration。
- 8. 選擇ACS Certificate Setup。
- 9. 選擇Edit Certificate Trust List。
- 10. 選中CA的覈取方塊。

11. 按一下「Submit」。

將ACS配置為讓WGB在EAP-TLS中進行身份驗證

完成以下步驟,將ACS配置為允許WGB在ACS中進行身份驗證:

1. 將WLC新增為NAS(AAA客戶端)。

- a. 在ACS GUI中,按一下左側的Network Configuration。
- b. 在AAA Clients下,按一下Add Entry。
- c. 在AAA Client Hostname下輸入名稱。
- d. 在AAA Client IP Address下輸入WLC的管理介面IP地址。
- e. 在Shared Secret下輸入RADIUS金鑰,並記下該金鑰。
- f. 在「Authenticate Using」下拉選單中,選擇「RADIUS(Cisco Airespace)」。
- g. 按一下「Submit+Apply」。

2. 在ACS中啟用EAP-TLS。

- a. 選擇System Configuration > Global Authentication Setup。
- b. 在EAP-TLS下(例如,頂級EAP-TLS),在EAP-FAST之後,而不是在PEAP下的EAP-TLS,選中Allow EAP-TLS。
- c. 檢查所有三個證書驗證選項。
- d. 選擇Submit + Restart。
- 3. 將WGB新增為ACS。
 - a. 在使用者設定中,在「使用者」面板中輸入WGB的名稱,然後按一下Add/Edit。此範例 使用「WGB」。
 - b. 輸入難以猜測的密碼。這是必需的,但在EAP-TLS中未使用。
 - c. 按一下「Submit」。

配置WLC的WLAN以向ACS進行身份驗證

請完成以下步驟:

- 1. 瀏覽WLC的GUI。
- 2. 將ACS新增到RADIUS伺服器清單:
 - a. 選擇Security > AAA > RADIUS > Authentication, 然後按一下New。

b. 在「伺服器IP地址」面板中輸入ACS IP地址。

- c. 輸入上一步的RADIUS共用金鑰。
- d. 按一下「Apply」。
- 3. 為EAP-TLS客戶端新增WLAN:
 - a. 在WLANs下,按一下New。
 - b. 輸入SSID作為配置檔名稱和WLAN SSID。

c. 在General頁籤中,選中Enabled覈取方塊和Broadcast SSID(如果需要)。

d. 在Security頁籤下:

- a. 在Layer 2頁籤下,在Layer 2 Security下拉選單中選擇WPA+WPA2,選中WPA Policy with TKIP encryption,取消選中WPA2 policy with AES encryption,然後選 擇802.1X進行身份驗證金鑰管理。
- b. 在AAA Servers下,新增ACS,除非ACS是全域性預設RADIUS伺服器。

e. 按一下「Apply」。

配置WGB的證書

請完成以下步驟:

注意:此方法使用複製和貼上方法。有關如何使用TFTP和SCEP方法的詳細資訊,請參閱Cisco 3200系列無線MIC軟體配置指南中的<u>使用加密pki CLI配置證書</u>。

- 1. 根據需要設定WGB的主機名、域名和時間。
 - a. 主機名必須與在ACS中為其輸入的使用者名稱匹配,如前<u>步驟</u>所示:

```
<#root>
ap#
configure terminal
ap(config)#
hostname WGB
WGB(config)#
```

b. 時間必須正確,認證才能正常工作(時鐘設定exec CLI或配置sntp伺服器)。

2. 配置CA的信任點:

<#root>
WGB#
config term
WGB(config)#
crypto pki trustpoint CUT-PASTE
WGB(config)#
enrollment terminal
WGB(config)#
subject-name CN=WGB

附註: subject-name CN=<ClientName>是必需的。如果沒有證書, Microsoft CA將無法頒發證書, 因為_{請求主題名稱無效或過長。}0x80094001錯誤消息。

<#root>

```
WGB(config)#
```

revocation-check none

附註: revocation-check none命令是避免思科錯誤ID <u>CSCsl07349</u>(僅限<u>註冊</u>客戶)中所述問 題的必要條件。WGB經常取消關聯/重新關聯,重新連線需要很長時間。

<#root>

```
WGB(config)#
```

rsakeypair manual-keys 1024

3. 在WGB上安裝CA證書:

a. 獲取CA證書的副本:

- a. 瀏覽到CA:http://ip.of.CA.server/certsrv
- b. 按一下「Download a CA certificate, certificate chain, or CRL」。
- c. 選擇Encoding方法:基地64。
- d. 按一下「Download CA certificate」。
- e. 儲存.cer檔案。

b. 安裝CA憑證:

<#root>
WGB(config)#
crypto pki authenticate CUT-PASTE
Enter the base 64 encoded CA certificate.
End with a blank line or the word "quit" on a line by itself

現在,從上一步下載的.cer檔案中貼上文本。

-----BEGIN CERTIFICATE-----[...] -----END CERTIFICATE-----

quit

Certificate has the following attributes:

Fingerprint: 45EC6866 A66B4D8F 2E05960F BC5C1B76

% Do you accept this certificate? [yes/no]: yes

Trustpoint CA certificate accepted.

% Certificate successfully imported

4. 在WGB上請求並安裝客戶端證書:

a. 在WGB上生成證書請求:

<#root>

WGB(config)#

crypto pki enroll CUT-PASTE

% Start certificate enrollment ..

% The subject name in the certificate will include: CN=WGB % Include the router serial number in the subject name? [yes/no]: no % Include an IP address in the subject name? [no]: no Display Certificate Request to terminal? [yes/no]: yes Certificate Request follows:

MIIBjzCB+QIBADAvMQwwCgYDVQQDEwNXR0IxHzAdBgkqhkiG9w0BCQIWEFdHQi5j Y211d21maS5jb20wgZ8wDQYJKoZIhvcNAQEBBQADgY0AMIGJAoGBAMuyZ0Y/xI30 6Pwch3qA/JoBobYcvKH1c0B0qvqPgCmZgNb8nsFDV8ZFQKb3ySdIx1q0Gtrn/Yoh 2LHzRKi+AWQHFGAB2vkFD0SJD8A6+YD/GqEdXGoo/e0eqJ7LgFq0wpUQoY1PxsPn QUcK9ZDwd8EZNYdxU/jBtLG9MLX4gta9AgMBAAGgITAfBgkqhkiG9w0BCQ4xEjAQ MA4GA1UdDwEB/wQEAwIFoDANBgkqhkiG9w0BAQQFAA0BgQAsCItCKRtu16JmG4rz cDR001QdmNYDuwkswHRgSHDMjVvBmoqA2bKeNsTj+svuX5S/Q2cGbzC60LN/ftQ7 fw+RcKKm8+SpaEnU3eYGs3HhY7W9L4MY4JkY8I89ah15/V82SoIAOfCJDy5BvBP6 hk7GAPbMYkW9wJaNruVEvkYoLQ==

---End - This line not part of the certificate request---

Redisplay enrollment request? [yes/no]: no
WGB(config)#

- b. 使用之前收集的輸出向CA請求客戶端/使用者證書。使用具有訪問CA許可權的PC,並使 用此方法請求使用者證書:
 - a. 瀏覽到CA:http://ip.of.CA.server/certsrv
 - b. 選擇「Request a certificate」選項。
 - c. 選擇「advanced certificate request」選項。
 - d. 選擇「Submit a certificate request by using a base-64-encoded CMC or PKCS #10 files or submit a renewal request by using a base-64-encoded PKCS #7 file」選項。
 - e. 將之前使用的「crypto pki enroll」命令生成的IOS貼上到證書請求中,然後僅提交該請求。
 - f. 最後,僅以「Base 64 encoded」格式下載證書。

注意:您需要確保證書是為WGB實際生成的,主體具有「WGB」(您向WGB提供的使用者名稱)作為CN。

c. 在WGB上安裝使用者證書:

<#root>

WGB(config)#

crypto pki import CUT-PASTE certificate

Enter the base 64 encoded certificate. End with a blank line or the word "quit" on a line by itself

現在,從上一步下載的.cer檔案中貼上文本。

-----BEGIN CERTIFICATE-----[...] -----END CERTIFICATE-----

% Router Certificate successfully imported

5. 從WGB CLI驗證認證:

<#root> WGB# show crypto pki certificates Certificate Status: Available Certificate Serial Number: 1379B0720000000000 Certificate Usage: General Purpose Issuer: cn=AARONLAB Subject: Name: WGB cn=WGB CRL Distribution Points: http://wcswin/CertEnroll/AARONLAB.crl Validity Date: start date: 11:33:09 MST Mar 3 2008 end date: 11:43:09 MST Mar 3 2009 Associated Trustpoints: COPY-PASTE CA Certificate Status: Available Certificate Serial Number: 612683248DBA539B44B039BD51CD1D48 Certificate Usage: Signature Issuer: cn=AARONLAB Subject: cn=AARONLAB CRL Distribution Points: http://wcswin/CertEnroll/AARONLAB.crl Validity Date: start date: 16:34:48 MST Feb 28 2008 end date: 16:41:25 MST Feb 28 2018 Associated Trustpoints: COPY-PASTE

根據需要配置WGB SSID、請求方和無線電

請完成以下步驟:

1. 配置SSID。這應該與上一步驟中WLC上配置的SSID相符:

dot11 ssid EAPTLS
 authentication network-eap eap_methods
 authentication key-management wpa version 1
 dot1x credentials EAPTLS
 dot1x eap profile EAPTLS
 infrastructure-ssid

2. 配置EAP-TLS請求方。使用者名稱必須與信任點上的CN和ACS中的使用者名稱條目匹配。

eap profile EAPTLS
method tls
!
dot1x credentials EAPTLS
username WGB
pki-trustpoint CUT-PASTE

3. 根據需要配置無線電介面。在本示例中,使用2.4 GHz射頻(Dot11Radio0)。

```
interface Dot11Radio0
encryption mode ciphers aes-ccm tkip
ssid EAPTLS
!
packet retries 128 drop-packet
station-role workgroup-bridge
```

註:由於packet retries 128 drop-packet,只要可以,WGB就會保持與其根AP的關聯,因此 這是適用於不移動WGB的配置。對於物理漫遊的WGB,可以使用以下配置,以實施越來越積 極的漫遊:

packet retries 128

附註:或

packet retries 128 mobile station period 5 threshold 82 (tune the mobile station command as needed for a specialized application)

配置被動客戶端的條目(如有必要)

例如,如果一個或多個「被動使用者端」位於WGB之後(例如具有靜態IP位址且不會持續傳輸未經 請求的IP資料的有線裝置),則需要採取特殊步驟以確保WGB和CUWN可以找到這些使用者端。在 本範例中,使用者端的IP位址為10.0.47.66,MAC位址為0040.96b4.7e8f。

完成以下步驟即可使用此方法:

1. 在WGB上為客戶端配置靜態網橋條目:

<#root>

```
B(config)#
```

```
bridge 1 address 0040.96b4.7e8f
forward fastethernet0
```

2. 在WLC上設定靜態MAC到IP位址對應:

a. 配置WLAN以啟用MAC過濾、AAA覆蓋以及不要求DHCP:

<#root>
(Cisco Controller) >
show wlan summary

!--- Make a note of the WLAN ID for the SSID used for EAP-TLS.

(Cisco Controller) >
config wlan disable 6
(Cisco Controller) >
config wlan mac-filtering enable 6
(Cisco Controller) >
config wlan aaa-override enable 6
(Cisco Controller) >
config wlan dhcp_server 6 0.0.0.0

!--- Do not have DHCP required checked.

b. 為每個客戶端新增MAC過濾器(MAC到IP對映):

<#root>

(Cisco Controller) >

config macfilter add
 0040.96b4.7e8f 6 management "client1" 10.0.47.66

使用802.11a(5 GHz)時的特別說明

由於802.11a支援的通道數比802.11b/g(2.4 GHz)多得多,因此WGB掃描所有可用通道所需的時間 可能會長得多。因此,當您在5 GHz內漫遊時,或在與根AP發生連線問題後,中斷可能會持續幾秒 。此外,如果使用DFS通道,通道掃描可能需要更長的時間,並且可能會在DFS雷達檢測事件之後 發生短暫的中斷。

因此,如果您使用802.11a,建議您避免使用DFS通道(例如,在FCC域中),並僅使用UNII-1和 UNII-3波段。WGB的Dot11Radio1介面也應配置為僅掃描覆蓋區域中正在使用的通道。舉例來說:

<#root>

WGB(config-if)#

```
mobile station scan
36 40 44 48 149 153 157
```

組態

以下是使用Cisco IOS軟體版本12.4(10b)JA2(採用WPA1-TKIP、2.4 GHz的EAP-TLS驗證)的 AP1242的WGB組態範例。

注意:由於空間限制,此配置的某些行已移至第二行。

```
version 12.4
no service pad
service timestamps debug datetime msec
service timestamps log datetime msec
no service password-encryption
!
hostname WGB
I
logging buffered 200000 debugging
enable secret 5 $1$xPtX$hjxzdWVR9qa4ykoxLYba91
I
no aaa new-model
clock timezone MST -7
I
I
I
dot11 ssid EAPTLS
   authentication network-eap eap_methods
   authentication key-management wpa version 1
   dot1x credentials EAPTLS
   dot1x eap profile EAPTLS
   infrastructure-ssid
power inline negotiation prestandard source
```

```
eap profile EAPTLS
method tls
I
ļ
crypto pki trustpoint COPY-PASTE
 enrollment terminal
 subject-name CN=WGB
 revocation-check none
 rsakeypair manual-keys 1024
I
I
crypto pki certificate chain COPY-PASTE
certificate 1379B0720000000000
[...]
  quit
 certificate ca 612683248DBA539B44B039BD51CD1D48
[...]
 quit
dot1x credentials EAPTLS
username WGB
pki-trustpoint COPY-PASTE
I
username Cisco password O Cisco
ļ
bridge irb
i
ļ
interface Dot11Radio0
 no ip address
 no ip route-cache
 encryption mode ciphers tkip
 1
 ssid EAPTLS
 T
 packet retries 128 drop-packet
 station-role workgroup-bridge
 no dot11 gos mode
 bridge-group 1
bridge-group 1 spanning-disabled
ļ
interface Dot11Radio1
 no ip address
 no ip route-cache
 shutdown
 T
 station-role root
 bridge-group 1
 bridge-group 1 subscriber-loop-control
 bridge-group 1 block-unknown-source
 no bridge-group 1 source-learning
 no bridge-group 1 unicast-flooding
 bridge-group 1 spanning-disabled
interface FastEthernet0
no ip address
 no ip route-cache
 duplex auto
 speed auto
 bridge-group 1
 bridge-group 1 spanning-disabled
I
```

```
interface BVI1
ip address dhcp client-id FastEthernet0
no ip route-cache
1
ip http server
no ip http secure-server
ip http help-path
bridge 1 route ip
I
I
1
line con 0
line vty 0 4
login local
ļ
sntp server 10.0.47.1
end
```

同步Cisco IOS請求者的時鐘並將其時間儲存到NVRAM(適用於使用Cisco IOS軟體版本12.4(21a)JY的系統)

如果Cisco IOS裝置的請求方配置為對其網路連線執行基於證書的身份驗證,則該裝置(下文稱為 Supplicant)可能無法連線到網路,除非採取這些步驟。

為了確保請求方在重新載入後但在連線到網路之前大致知道當前時間,以便驗證伺服器的證書,您 必須配置請求方從NTP伺服器獲取時間,並將時間寫入其NVRAM。這是執行Cisco IOS軟體版本 12.4(21a)JY的任何系統的要求。

請完成以下步驟:

 1. 配置請求方,使其時間與已知良好的NTP伺服器(請求方可以訪問網路)同步,並將其時間儲 存到其NVRAM中。

示例1.1(在具有SNTP且沒有硬體日曆的系統上):

<#root>

Supp(config)#

```
sntp server 10.0.47.1
```

Supp(config)#

```
clock save interval 8
```

Supp(config)#

end

Supp#

write memory

<#root>

Supp(config)#

ntp server 10.0.47.1 iburst

Supp(config)#

ntp update-calendar

Supp(config)#

end

Supp#

write memory

2. 確保請求方具有與NTP伺服器的網路連線並同步其時間。

範例 2.1:

<#root>

Supp#

show sntp

SNTP serve	r Stratum	Version	Last Receive	
10.0.47.1	3	1	00:00:09	Synced

範例 2.2:

<#root>

Supp#

```
show ntp status
```

```
Clock is synchronized, stratum 4, reference is 10.95.42.129 [ ... ]
```

 3. 確保將正確的時間儲存到請求方的硬體日曆中(如果有的話),或者儲存到NVRAM中(如果 沒有的話)。

示例3.1.在沒有硬體日曆的系統上:

重新載入Supplicant客戶端,確保時間儲存到NVRAM。重新載入後,即使在NTP伺服器不可 用時,也要驗證時間是否大致正確: <#root>

Supp# show clock detail *08:24:30.103 -0700 Thu Apr 15 2010 No time source

示例3.2.在具有硬體日曆的系統上:

將當前正確的時間寫入硬體日曆:

<#root>

Supp#

clock update-calendar

驗證日曆是否正確:

<#root>

Supp#

show calendar

驗證

使用本節內容,確認您的組態是否正常運作。

<u>輸出直譯器工具</u>(僅供<u>已註冊</u>客戶使用)(OIT)支援某些show命令。使用OIT檢視show命令輸出的分析 。

檢驗WGB連線。

在WLC上,WGB的無線MAC地址應顯示為關聯客戶端。舉例來說:

<#root>

(Cisco Controller) >

show client summary

Number of Clients..... 5

MAC Address AP Name Status WLAN/ Auth Protocol Port Wired Guest-Lan ----- ---- ----- ----- ------ -----00:00:39:dd:4d:24 AP0019.e802.3034 Associated Yes N/A 4 6 No 802.11b 4 00:0e:9b:cb:d3:9c AP0019.e802.3034 Associated 1 No No 00:16:6f:50:e1:25 AP0019.e802.3034 Probing N/A No 802.11b 4 No 00:19:56:b0:7e:b6 AP0019.e802.3034 Associated Yes 802.11b 6 4 No 00:40:96:b4:7e:8f AP0019.e802.3034 Associated 6 Yes N/A 4 No Use "show client detail <MAC>" to see more information on the WGB: (Cisco Controller) > show client detail 00:19:56:b0:7e:b6 Client Username WGB Client State..... Associated Workgroup Bridge..... 2 client(s) Wireless LAN Id..... 6 BSSID......00:19:a9:42:e4:15 Channel..... 1 IP Address..... 10.0.47.23

在WGB上,可以使用show dot11 associations和show dot11 associations all-clients命令檢視有關 與AP關聯的更多詳細資訊。使用ping w.x.y.z命令對WGB的預設網關執行ping。

檢驗WGB的客戶端連線。

在WGB上,可以使用show bridge 1 fastethernet0命令檢視通過FastEthernet0介面獲知的地址:

```
<#root>
WGB.Cisco.COM#
show bridge 1 fastethernet0
Total of 300 station blocks, 292 free
Codes: P - permanent, S - self
Bridge Group 1:
                                      Age RX count TX count
               Action Interface
   Address
0000.39dd.4d24
               forward
                        FastEthernet0 1
                                                 328
                                                            71
0040.96b4.7e8f forward FastEthernet0 P
                                                  0
                                                           352
On the WLC, the WGB's wired clients will show up as associated clients with
protocol "N/A":
(Cisco Controller) >
show client summary
```

Number of Clients..... 5 AP Name MAC Address Status WLAN/ Auth Protocol Port Wired Guest-Lan 00:00:39:dd:4d:24 AP0019.e802.3034 Associated Yes N/A 4 No 00:0e:9b:cb:d3:9c AP0019.e802.3034 Associated 802.11b 4 1 No No 00:16:6f:50:e1:25 AP0019.e802.3034 Probing N/A 802.11b 4 No No Yes 00:19:56:b0:7e:b6 AP0019.e802.3034 Associated 802.11b 4 No 6 00:40:96:b4:7e:8f AP0019.e802.3034 Associated 6 Yes N/A 4 No (Cisco Controller) > show client detail 00:00:39:dd:4d:24 Client Username N/A Client State..... Associated Workgroup Bridge Client..... WGB: 00:19:56:b0:7e:b6 Wireless LAN Id..... 6 BSSID......00:19:a9:42:e4:15 Channel...... 1

疑難排解

本節提供的資訊可用於對組態進行疑難排解。

疑難排解指令

<u>輸出直譯器工具</u>(僅供<u>已註冊</u>客戶使用)(OIT)支援某些show命令。使用OIT檢視show命令輸出的分析 。

附註:使用 debug 指令之前,請先參閱<u>有關 Debug 指令的重要資訊</u>。

調試示例

- <u>WGB端示例</u>
- <u>WLC端範例</u>

WGB端示例

在WGB上,此範例假設為2.4 GHz;如果使用5 GHz,請指定Dot11Radio1而不是Dot11Radio0。

<#root>

WGB#

no debug dot11 dot11radio0 print printf

!--- This runs the radio debugs through !--- the standard Cisco IOS logger.

WGB#

debug dot11 dot11radio0 trace print mgmt uplink

!--- radio driver debugs: 802.11 management frames !--- and uplink events

WGB#

debug dot11 supp-sm-dot1x

!--- interface to the 802.1X supplicant

以下是上一個組態中提供的正常關聯的範例:

WGB端示例 Mar 4 23:22:39.427: 108DD0BF-0 Uplink: Enabling active scan Mar 4 23:22:39.427: 108DD0D0-0 Uplink: Not busy, scan all channels Mar 4 23:22:39.427: 108DD0DE-0 Uplink: Scanning Mar 4 23:22:39.430: 108DDF83-0 Uplink: Rcvd response from 0019.a942.e415 channel 1 3237 !--- WGB scans the 2.4 GHz channels, !--- found an AP on channel 1. Mar 4 23:22:39.470: 108E7B31-0 Uplink: dot11_uplink_scan_done: ssnie_accept returns 0x0 key_mgmt 0x50F201 encrypt_type 0x20 4 23:22:39.470: 108E7B67-0 Uplink: ssid EAPTLS auth leap Mar 4 23:22:39.471: 108E7B77-0 Uplink: try 0019.a942.e415, enc 20 key 1, Mar priv 1, eap 11 Mar 4 23:22:39.471: 108E7B93-0 Uplink: Authenticating Mar 4 23:22:39.479: 108E9C71 t 1 0 - B000 13A 42E415 B07EB6 42E415 D9E0 auth 1 6 algorithm 128 sequence 1 status 0 Mar 4 23:22:39.480: 108EA160 r 1 73/ 26- B000 13A B07EB6 42E415 42E415 5E70 auth 1 37 algorithm 128 sequence 2 status 0 221 - 0 40 96 C 1 A 22 79 95 1A 7C 18 1 0 0 CA 4 0 0 0 0 74 52 EA 31 F4 9E 89 5A !--- WGB completes 802.11 authentication. 4 23:22:39.480: 108EA1EB-0 Uplink: Associating Mar Mar 4 23:22:39.481: 108EA951 t 1 0 - 0000 13A 42E415 B07EB6 42E415 D9F0 assreq 1 119 cap 431 infra privacy shorthdr listen interval 200

ssid EAPTLS rates 82 84 8B C 12 96 18 24 extrates 30 48 60 6C aironet WGB.Cisco.COM load 0 clients 0 hops 0 device 7C-2700 refresh 15 CW 0-0 flags 0 distance 0 ccxver 5 221 - 0 40 96 14 0 IP 10.0.47.23 1 wpa1 mcst tkip ucst tkip keymgmt wpa cap 2800 221 - 0 40 96 6 2 4 23:22:39.484: 108EB2C6 r 1 80/77 19- 1000 13A B07EB6 42E415 42E415 Mar 5E80 assrsp 1 101 cap 31 infra privacy shorthdr status 0 aid COO3 rates 82 4 B 16 aironet AP0019.e802.303 load 0 clients 0 hops 0 device 8F-2700 refresh 15 CW 31-1023 flags 40 distance 0 IP 10.0.47.6 0 ccxver 5 221 - 0 40 96 14 0 221 - 0 40 96 C 1 A 22 7E 95 1A 7C 18 1 0 0 CB 4 0 0 0 0 FB 4C F3 7D D 29 71 E2 !--- WGB completes 802.11 association. 4 23:22:39.486: Uplink address set to 0019.a942.e415 Mar Mar 4 23:22:39.486: Initialising common IOS structures for dot1x Mar 4 23:22:39.486: Done. 4 23:22:39.486: DOT1X_SHIM: Start supplicant on Dot11Radio0 Mar (credentials EAPTLS) Mar 4 23:22:39.486: DOT1X_SHIM: Starting dot1x_mgr_auth (auth type 128) Mar 4 23:22:39.486: DOT1X_SHIM: Initialising WPA [or WPA-PSK or CCKM] key management module !--- Starting the EAP-TLS supplicant Mar 4 23:22:39.488: DOT1X_SHIM: Dot1x pkt sent (uplink) with dest 0019.a942.e415 Mar 4 23:22:39.489: DOT1X_SHIM: No AAA client found for 0019.a942.e415 (on Dot11Radio0) Mar 4 23:22:39.489: DOT1X_SHIM: Dot1x pkt sent (uplink) with dest 0019.a942.e415 Mar 4 23:22:39.490: DOT1X_SHIM: No AAA client found for 0019.a942.e415 (on Dot11Radio0) !--- The "No AAA client found" message appears !--- to be a bogon and can be ignored. Mar 4 23:22:39.491: DOT1X_SHIM: Dot1x pkt sent (uplink) with dest 0019.a942.e415 Mar 4 23:22:39.491: 108EB9B4-0 Uplink: EAP authenticating Mar 4 23:22:39.491: 108EBD22 r 11 73/ 4 - 0802 13A B07EB6 42E415 42E415 5E90 164 0100 0034 0101 0034 0100 6E65 7477 6F72 6B69 643D 4541 5054 4C53 2C6E 6173 6964 3D74 7563 736F 6E2D 776C 6332 3030 362C 706F 7274 6964 3D34 0000 Mar 4 23:22:39.492: 108EC770 t 11 0 - 0801 13A 42E415 B07EB6 42E415 DA00 168

EAPOL2 EAPOL start 74/ 18- 0802 13A B07EB6 42E415 42E415 Mar 4 23:22:39.492: 108ECA4D r 11 5EA0 164 0100 0034 0102 0034 0100 6E65 7477 6F72 6B69 643D 4541 5054 4C53 2C6E 6173 6964 3D74 7563 736F 6E2D 776C 6332 3030 362C 706F 7274 6964 3D34 0000 Mar 4 23:22:39.492: 108ECDE2 t 11 0 - 0801 13A 42E415 B07EB6 42E415 DA10 168 EAPOL2 EAP id 1 resp ident "WGB" Mar 4 23:22:39.493: 108ED000 t 11 0 - 0801 13A 42E415 B07EB6 42E415 DA20 168 EAPOL2 EAP id 2 resp ident "WGB" Mar 4 23:22:39.524: 108F50C4 r 11 74/ 18- 080A 13A B07EB6 42E415 42E415 5EC0 131 0100 0013 01AF 0013 1101 0008 E23F 829E AE45 57EB 5747 4200 0000 0000 0000 00 !--- The WGB sends an EAPOL START, !--- the WLC authenticator sends an EAP ID Request, !--- and the WG Mar 4 23:22:39.525: DOT1X_SHIM: No AAA client found for 0019.a942.e415 (on Dot11Radio0) Mar 4 23:22:39.525: DOT1X_SHIM: Dot1x pkt sent (uplink) with dest 0019.a942.e415 Mar 4 23:22:39.526: 108F57D0 t 11 0 - 0801 13A 42E415 B07EB6 42E415 DA30 168 EAPOL2 EAP id 175 resp nak OD Mar 4 23:22:39.547: 108FA89C r 11 86/77 19- 080A 13A B07EB6 42E415 42E415 5ED0 118 0100 0006 01B0 0006 0D20 0000 0000 0000 0000 Mar 4 23:22:39.547: DOT1X_SHIM: No AAA client found for 0019.a942.e415 (on Dot11Radio0) Mar 4 23:22:39.561: DOT1X_SHIM: Dot1x pkt sent (uplink) with dest 0019.a942.e415 Mar 4 23:22:39.561: 108FE059 t 11 0 - 0801 13A 42E415 B07EB6 42E415 DA40 186 EAPOL2 EAP id 176 resp tls 8000 0000 3216 0301 002D 0100 0029 0301 47CD D9BF CE1B 71B1 A815 CB99 8C80 8876 39F2 57A3 0F02 F382 147E 9D0C 657E 3AA7 Mar 4 23:22:39.572: DOT1X_SHIM: No AAA client found for 0019.a942.e415 (on Dot11Radio0) Mar 4 23:22:39.573: DOT1X_SHIM: Dot1x pkt sent (uplink) with dest 0019.a942.e415 86/77 20- 0802 13A B07EB6 42E415 42E415 Mar 4 23:22:39.573: 10900868 r 11 5EF0 11024 0100 03F4 01B1 03F4 0DC0 0000 079D 1603 0100 4A02 0000 4603 0147 CDD9 B413 0683 9734 4D26 136F EC8F ECD3 5D3B 77C7 4D20 7DA1 9B17 D7D3 E4A6 1720 Mar 4 23:22:39.574: 109012E6 t 11 1 - 0809 13A 42E415 B07EB6 42E415 DA50 168 EAPOL2 EAP id 177 resp tls 00 Mar 4 23:22:39.582: DOT1X_SHIM: No AAA client found for 0019.a942.e415 (on Dot11Radio0) Mar 4 23:22:39.734: DOT1X_SHIM: Dot1x pkt sent (uplink) with dest 0019.a942.e415 /78 19- 0802 13A B07EB6 42E415 42E415 Mar 4 23:22:39.735: 1090317E r 11 5F00 1965 0100 03B9 01B2 03B9 0D00 C687 1DB6 065B 2467 2609 EE5F 9C64 F3A9 C199 493E 2B79 F157 1765 6C2F C409 4D54 7DA4 6791 4859 ECAA 685B 0F66 C5E9 22A6 Mar 4 23:22:39.736: 10928A31 t 11 0 - 0801 13A 42E415 B07EB6 42E415 DA60 11239 EAPOL2 EAP id 178 resp tls 8000 0004 B316 0301 036D 0B00 0369 0003 6600 0363 3082 035F 3082 0247 A003 0201 0202 0A13 79B0 7200 0000 0C30 0D06 Mar 4 23:22:39.755: 1092D464 r 11 /78 18- 0802 13A B07EB6 42E415

42E415 5F40 165 0100 0035 01B3 0035 0D80 0000 002B 1403 0100 0101 1603 0100 20B8 EBFA 2DDB 2E1A BF84 37A8 892C 84C5 50B2 B1A5 6F3E B2B5 981A 2899 1DE2 B470 6800 4 23:22:39.755: DOT1X_SHIM: No AAA client found for 0019.a942.e415 Mar (on Dot11Radio0) Mar 4 23:22:39.760: DOT1X_SHIM: Dot1x pkt sent (uplink) with dest 0019.a942.e415 0 - 0801 13A 42E415 B07EB6 42E415 Mar 4 23:22:39.760: 1092E92C t 11 DA70 168 EAPOL2 EAP id 179 resp tls 00 Mar 4 23:22:39.770: 10930F50 r 11 75/80 19- 0802 13A B07EB6 42E415 42E415 5F60 116 0100 0004 03B3 0004 0000 0000 0000 0000 Mar 4 23:22:39.770: DOT1X_SHIM: No AAA client found for 0019.a942.e415 (on Dot11Radio0) Mar 4 23:22:39.774: DOT1X_SHIM: Received Dot1x success - Authenticated with EAP-TLS !--- EAP-TLS authentication is successful. !--- now come the keys. Mar 4 23:22:39.774: DOT1X_SHIM: treat key material as wpa-v1 v2 pmk 4 23:22:39.774: DOT1X_SHIM: WPA PMK key size truncated from 64 to 32 Mar 4 23:22:39.777: DOT1X_SHIM: Got Eapol key packet from dot1x manager Mar Mar 4 23:22:39.777: DOT1X_SHIM: Passing key packet to KM module 4 23:22:39.777: supp_km_processKey: descriptor type = 254 Mar 4 23:22:39.777: supp_km_processKey: key length = 137 Mar /77 16- 080A 13A B07EB6 42E415 42E415 Mar 4 23:22:39.778: 109319B7 r 11 5F70 1107 0103 005F FE00 8900 2000 0000 0000 0000 006E 64D0 C659 1C91 11D2 6040 C251 0592 E6B6 3799 0EDE B1BD B3A6 87B7 8C9B 0D5E DF00 0000 0000 0000 0000 1 - 0809 13A 42E415 B07EB6 42E415 Mar 4 23:22:39.779: 109332C2 t 11 DA80 1133 EAPOL key desc FE info 109 len 20 replay 000000000000000 nonce 11AADA303F5F9B2357A932B3093483905E69F8408D019FB2EF56F7AD706F0759 id 00000000000000 mic DBD06C383B83E3478F802844095E9444 datalen 1A key DD18 0050 F201 0100 0050 F202 0100 0050 F202 0100 0050 F201 2800 Mar 4 23:22:39.780: 109336C1 r 11 83/78 18- 0802 13A B07EB6 42E415 42E415 5F80 1133 0103 0079 FE01 C900 2000 0000 0000 016E 64D0 C659 1C91 11D2 6040 C251 0592 E6B6 3799 0EDE B1BD B3A6 87B7 8C9B 0D5E DF6E 64D0 C659 1C91 11D2 4 23:22:39.781: DOT1X_SHIM: Got Eapol key packet from dot1x manager Mar Mar 4 23:22:39.781: DOT1X_SHIM: Passing key packet to KM module Mar 4 23:22:39.781: supp_km_processKey: descriptor type = 254 4 23:22:39.781: supp_km_processKey: key length = 457 Mar 4 23:22:39.781: dot1x_pakio_plumb_keys: trying to plumb PTK key Mar Mar 4 23:22:39.782: 10933E11 t 11 0 - 0801 13A 42E415 B07EB6 42E415 DA90 1107 EAPOL key desc FE info 109 len 20 replay 000000000000001 id 00000000000000 mic 3A59680D1130EC24B00F7246F9D0738F datalen 0 key 88/77 17- 0842 13A B07EB6 42E415 42E415 Mar 4 23:22:39.785: 10934749 r 11 5F90 1155 IV 0103007F-FE039100 2000 0000 0000 0000 026E 64D0 C659 1C91 11D2 6040 C251 0592 E6B6 3799 0EDE B1BD B3A6 87B7 8C9B 0D5E D76E 64D0 C659 1C91 11D2 Mar 4 23:22:39.785: DOT1X_SHIM: Got Eapol key packet from dot1x manager

4 23:22:39.785: DOT1X_SHIM: Passing key packet to KM module Mar 4 23:22:39.785: supp_km_processKey: descriptor type = 254 Mar Mar 4 23:22:39.785: supp_km_processKey: key length = 913 Mar 4 23:22:39.786: dot1x_pakio_plumb_keys: trying to plumb vlan key - length: 32 Mar 4 23:22:39.787: %DOT11-4-UPLINK_ESTABLISHED: Interface Dot11Radio0, Associated To AP AP0019.e802.303 0019.a942.e415 [EAP-TLS WPA] Mar 4 23:22:39.787: %LINK-3-UPDOWN: Interface Dot11Radio0, changed state to up 4 23:22:39.789: 10934D63-0 Uplink: Done Mar Mar 4 23:22:39.789: 10934D94-0 Interface up Mar 4 23:22:39.790: 10934ED7 t 11 0 - 0841 13A 42E415 B07EB6 42E415 DAA0 1115 EAPOL key desc FE info 311 len 0 replay 000000000000002 id 00000000000000 mic DA60CCDAE27E7362B9B720B52715E081 datalen 0 key !--- The keys are all distributed, !--- and the Dot11Radio0 interface is fully up.

WLC端偵錯

<#root>
(Cisco Controller) >
debug mac addr 00:19:56:b0:7e:b6
! Filter debugs on the radio ! MAC address of the WGB.
(Cisco Controller) >
debug dot11 state enable
(Cisco Controller) > debug dot1x events enable
(Cisco Controller) >
(Cisco Controller) >
debug pem events enable
(Cisco Controller) >

```
debug pem state enable
(Cisco Controller) >
debug aaa packet enable
(Cisco Controller) >
debuug aaa events enable
(Cisco Controller) >
debug aaa events enable
Tue Mar 4 16:45:56 2008: 00:19:56:b0:7e:b6 Processing WPA IE type 221,
                          length 24 for mobile 00:19:56:b0:7e:b6
        4 16:45:56 2008: 00:19:56:b0:7e:b6 10.0.47.23 RUN (20)
Tue Mar
                          Change state to START (0) last state RUN (20)
Tue Mar 4 16:45:56 2008: 00:19:56:b0:7e:b6 10.0.47.23 START (0)
                          Initializing policy
        4 16:45:56 2008: 00:19:56:b0:7e:b6 10.0.47.23 START (0)
Tue Mar
                          Change state to AUTHCHECK (2) last state RUN (20)
Tue Mar 4 16:45:56 2008: 00:19:56:b0:7e:b6 10.0.47.23 AUTHCHECK (2)
                          Change state to 8021X_REQD (3) last state RUN (20)
Tue Mar
        4 16:45:56 2008: 00:19:56:b0:7e:b6 10.0.47.23 8021X_REQD (3)
                          Plumbed mobile LWAPP rule on AP 00:19:a9:42:e4:10
         4 16:45:56 2008: 00:19:56:b0:7e:b6 apfPemAddUser2 (apf_policy.c:209)
Tue Mar
                           Changing state for mobile 00:19:56:b0:7e:b6 on
  AP 00:19:a9:42:e4:10 from Associated to Associated
Tue Mar 4 16:45:56 2008: 00:19:56:b0:7e:b6 apfProcessAssocReq (apf_80211.c:4149)
                          Changing state for mobile 00:19:56:b0:7e:b6 on
                                  AP 00:19:a9:42:e4:10 from Associated to Associated
!--- WGB is associated in 802.11. !--- Note in this case that the WGB associated !--- when it was alre
        4 16:45:56 2008: 00:19:56:b0:7e:b6 dot1x - moving
Tue Mar
                          mobile 00:19:56:b0:7e:b6 into Connecting state
Tue Mar
         4 16:45:56 2008: 00:19:56:b0:7e:b6 Sending EAP-Request/Identity to
                          mobile 00:19:56:b0:7e:b6 (EAP Id 1)
        4 16:45:56 2008: 00:19:56:b0:7e:b6 10.0.47.23 Removed NPU entry.
Tue Mar
        4 16:45:59 2008: 00:19:56:b0:7e:b6 Received EAPOL START from
Tue Mar
                          mobile 00:19:56:b0:7e:b6
Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 dot1x - moving
                          mobile 00:19:56:b0:7e:b6 into Connecting state
Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Sending EAP-Request/Identity to
                          mobile 00:19:56:b0:7e:b6 (EAP Id 2)
Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Received EAPOL EAPPKT from
                          mobile 00:19:56:b0:7e:b6
Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Received EAP Response packet with
                          mismatching id (currentid=2, eapid=1) from mobile
   00:19:56:b0:7e:b6
Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Received EAPOL EAPPKT from
                          mobile 00:19:56:b0:7e:b6
Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Received Identity Response (count=2) from
                          mobile 00:19:56:b0:7e:b6
```

!--- WGB sends EAPOL START while !--- WLC sends its EAP ID-request, !--- which confuses the state mach 4 16:45:59 2008: 00:19:56:b0:7e:b6 EAP State update from Connecting to Tue Mar Authenticating for mobile 00:19:56:b0:7e:b6 Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 dot1x - moving mobile 00:19:56:b0:7e:b6 into Authenticating state 4 16:45:59 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Response Tue Mar state for mobile 00:19:56:b0:7e:b6 Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Successful transmission of Authentication Packet (id 17) to 10.0.47.42:1812, proxy state 00:19:56:b0:7e:b6-00:00 Tue Mar 4 16:45:59 2008: 00000000: 01 11 00 9c 85 82 35 15 62 Of 50 bd 32 60 Oc e65.b.P.2`.. 4 16:45:59 2008: 00000010: de 94 b2 40 01 05 57 47 Tue Mar 42 1f 13 30 30 2d 31 39 ...@..WGB..00-19 Tue Mar 4 16:45:59 2008: 00000020: 2d 35 36 2d 42 30 2d 37 45 2d 42 36 1e 1a 30 30 -56-B0-7E-B6..00 Tue Mar 4 16:45:59 2008: 00000030: 2d 31 39 2d 41 39 2d 34 32 2d 45 34 2d 31 30 3a -19-A9-42-E4-10: 4 16:45:59 2008: 00000040: 45 41 50 54 4c 53 05 06 Tue Mar 00 00 00 04 04 06 0a 00 EAPTLS..... 4 16:45:59 2008: 00000050: 2f 06 20 10 74 75 63 73 Tue Mar 6f 6e 2d 77 6c 63 32 30 /...tucson-wlc20 4 16:45:59 2008: 00000060: 30 36 1a 0c 00 00 37 63 Tue Mar 01 06 00 00 00 06 06 06 06....7c..... 4 16:45:59 2008: 00000070: 00 00 00 02 0c 06 00 00 Tue Mar 05 14 3d 06 00 00 00 13 = . . . 4 16:45:59 2008: 00000080: 4f 0a 02 02 00 08 01 57 Tue Mar 47 42 50 12 c5 f3 f5 9c 0.....WGBP..... Tue Mar 4 16:45:59 2008: 00000090: c0 81 0e 3e 23 c0 a7 1b 03 f7 af 5b ...>#.....[4 16:45:59 2008: 00000000: 0b 11 00 47 54 d3 b6 45 Tue Mar 75 eb 83 b7 97 7c 80 1b ...GT..Eu....|.. Tue Mar 4 16:45:59 2008: 00000010: 13 03 71 1d 4f 15 01 b0 00 13 11 01 00 08 3d 17 ...q.0......=. 4 16:45:59 2008: 00000020: 4a 94 eb c7 3b 3e 57 47 Tue Mar 42 18 Oc 53 56 43 3d 30 J...;>WGB..SVC=0 4 16:45:59 2008: 00000030: 2e 36 34 37 3b 50 12 67 Tue Mar 50 d3 ad 88 7d 16 8b 5b .647; P.gP...}..[Tue Mar 4 16:45:59 2008: 00000040: d1 25 57 56 b2 ec 76.%WV..v 4 16:45:59 2008: ****Enter processIncomingMessages: response code=11 Tue Mar 4 16:45:59 2008: ****Enter processRadiusResponse: response code=11 Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Access-Challenge received from Tue Mar RADIUS server 10.0.47.42 for mobile 00:19:56:b0:7e:b6 receiveId = 7Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Processing Access-Challenge for mobile 00:19:56:b0:7e:b6 !--- The WLC forwards the ID-request info, !--- that it had received !--- in 802.1X from the WGB suppl 4 16:45:59 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Req state Tue Mar (id=176) for mobile 00:19:56:b0:7e:b6 Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 WARNING: updated EAP-Identifer 2 ===> 176 for STA 00:19:56:b0:7e:b6 4 16:45:59 2008: 00:19:56:b0:7e:b6 Sending EAP Request from AAA to Tue Mar mobile 00:19:56:b0:7e:b6 (EAP Id 176) 4 16:45:59 2008: 00:19:56:b0:7e:b6 Received EAPOL EAPPKT from Tue Mar mobile 00:19:56:b0:7e:b6

Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Received EAP Response from

```
mobile 00:19:56:b0:7e:b6 (EAP Id 176, EAP Type 3)
Tue Mar
        4 16:45:59 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Response
                          state for mobile 00:19:56:b0:7e:b6
Tue Mar
         4 16:45:59 2008: 00:19:56:b0:7e:b6 Successful transmission of
                          Authentication Packet (id 18) to 10.0.47.42:1812,
  proxy state 00:19:56:b0:7e:b6-00:00
         4 16:45:59 2008: 00000000: 01 12 00 a6 d5 64 56 8a
Tue Mar
                          e8 27 fa de ca 69 c4 2a .....dV...'...i.*
         4 16:45:59 2008: 00000010: cd 06 26 0c 01 05 57 47
Tue Mar
                          42 1f 13 30 30 2d 31 39 ... WGB... 00-19
        4 16:45:59 2008: 00000020: 2d 35 36 2d 42 30 2d 37
Tue Mar
                          45 2d 42 36 1e 1a 30 30 -56-B0-7E-B6..00
Tue Mar
         4 16:45:59 2008: 00000030: 2d 31 39 2d 41 39 2d 34
                          32 2d 45 34 2d 31 30 3a -19-A9-42-E4-10:
         4 16:45:59 2008: 00000040: 45 41 50 54 4c 53 05 06
Tue Mar
                          00 00 00 04 04 06 0a 00 EAPTLS...
         4 16:45:59 2008: 00000050: 2f 06 20 10 74 75 63 73
Tue Mar
                          6f 6e 2d 77 6c 63 32 30 /...tucson-wlc20
Tue Mar
         4 16:45:59 2008: 00000060: 30 36 1a 0c 00 00 37 63
                          01 06 00 00 00 06 06 06 06....7c.....
         4 16:45:59 2008: 00000070: 00 00 00 02 0c 06 00 00
Tue Mar
                          05 14 3d 06 00 00 00 13
                                                   . . . . . . . . . . . = . . . . .
         4 16:45:59 2008: 00000080: 4f 08 02 b0 00 06 03 0d
Tue Mar
                          18 Oc 53 56 43 3d 30 2e 0.....SVC=0.
         4 16:45:59 2008: 00000090: 36 34 37 3b 50 12 43 6e
Tue Mar
                          32 b6 e9 11 a3 47 8e 96 647; P.Cn2....G..
         4 16:45:59 2008: 000000a0: dc f0 37 a8 37 9e..7.7.
Tue Mar
Tue Mar
         4 16:45:59 2008: 00000000: 0b 12 00 4b 71 7a 36 1d
                          d9 24 16 8d c0 2f 45 52 ...Kqz6..$.../ER
         4 16:45:59 2008: 00000010: 82 3d 58 cf 4f 08 01 b1
Tue Mar
                          00 06 0d 20 18 1d 45 41
                                                   .=X.0....EA
         4 16:45:59 2008: 00000020: 50 3d 30 2e 32 30 32 2e
Tue Mar
                          32 37 65 61 2e 31 3b 53 P=0.202.27ea.1;S
Tue Mar
         4 16:45:59 2008: 00000030: 56 43 3d 30 2e 36 34 37
                          3b 50 12 71 bf 1f 5c c7 VC=0.647;P.g...
         4 16:45:59 2008: 00000040: 69 7e e8 cc 9d 71 18 de
Tue Mar
                          b7 e5 b7
                                                   i~...q....
         4 16:45:59 2008: ****Enter processIncomingMessages: response code=11
Tue Mar
         4 16:45:59 2008: ****Enter processRadiusResponse: response code=11
Tue Mar
         4 16:45:59 2008: 00:19:56:b0:7e:b6 Access-Challenge received from
Tue Mar
                          RADIUS server 10.0.47.42 for mobile 00:19:56:b0:7e
   :b6 receiveId = 7
Tue Mar 4 16:45:59 2008: 00:19:56:b0:7e:b6 Processing Access-Challenge for
                          mobile 00:19:56:b0:7e:b6
         4 16:45:59 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Reg state
Tue Mar
                          (id=177) for mobile 00:19:56:b0:7e:b6
         4 16:45:59 2008: 00:19:56:b0:7e:b6 Sending EAP Request from AAA to
Tue Mar
                          mobile 00:19:56:b0:7e:b6 (EAP Id 177)
         4 16:45:59 2008: 00:19:56:b0:7e:b6 Received EAPOL EAPPKT from
Tue Mar
                          mobile 00:19:56:b0:7e:b6
        4 16:45:59 2008: 00:19:56:b0:7e:b6 Received EAP Response from
Tue Mar
                          mobile 00:19:56:b0:7e:b6 (EAP Id 177, EAP Type 13)
Tue Mar
        4 16:45:59 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Response
                          state for mobile 00:19:56:b0:7e:b6
Tue Mar
        4 16:45:59 2008: 00:19:56:b0:7e:b6 Successful transmission of
                          Authentication Packet (id 19) to 10.0.47.42:1812,
  proxy state 00:19:56:b0:7e:b6-00:00
Tue Mar 4 16:45:59 2008: 00000000: 01 13 00 ed 30 a2 b8 d3
                          6c 6a e9 08 04 f9 b9 32 ....0...1j....2
        4 16:45:59 2008: 00000010: 98 fe 36 62 01 05 57 47
Tue Mar
                          42 1f 13 30 30 2d 31 39 ...6b...WGB...00-19
        4 16:45:59 2008: 00000020: 2d 35 36 2d 42 30 2d 37
Tue Mar
```

í						
					15 2d 12 36 1a 1a 30 30	-56-B0-7E-B6 00
Tue	Mar	4	16:45:59	2008:	00000030: 2d 31 39 2d 41	39 2d 34
	- Idi	•	101.0100	20001	32 2d 45 34 2d 31 30 3a	-19-A9-42-E4-10:
Tue	Mar	4	16:45:59	2008:	00000040: 45 41 50 54 4c	53 05 06
					00 00 00 04 04 06 0a 00	EAPTLS
Tue	Mar	4	16:45:59	2008:	00000050: 2f 06 20 10 74	75 63 73
_					6f 6e 2d 77 6c 63 32 30	/tucson-wlc20
lue	Mar	4	16:45:59	2008:	00000060: 30 36 1a 0c 00	00 37 63
	Mar	Δ	16.45.50	2008.		0670
Tue	man	т	10.45.55	2000.	05 14 3d 06 00 00 00 13	=
Tue	Mar	4	16:45:59	2008:	00000080: 4f 3e 02 b1 00	3c 0d 80
					00 00 00 32 16 03 01 00	0><2
Tue	Mar	4	16:45:59	2008:	00000090: 2d 01 00 00 29	03 01 47
_					cd df 36 c4 bc 40 48 75)G6@Hu
Tue	Mar	4	16:45:59	2008:	000000a0: f4 09 ea 60 0C	40 TC 99
Тир	Mar	Δ	16.45.50	2008.	a0 e7 11 15 00 7e ca 90	he ca 00
Tue	inar	т	10.45.55	2000.	00 02 00 04 01 00 18 1d	.Z.9E
Tue	Mar	4	16:45:59	2008:	000000c0: 45 41 50 3d 30	2e 32 30
					32 2e 32 37 65 61 2e 31	EAP=0.202.27ea.1
Tue	Mar	4	16:45:59	2008:	000000d0: 3b 53 56 43 3d	30 2e 36
-			10 15 50		34 37 3b 50 12 c0 6b 4c	;SVC=0.647;PkL
Tue	Mar	4	10:45:59	2008:	000000e0: 37 6c 1a 4T 58	89 18 20 71 0V
Тие	Mar	4	16:45:59	2008:	00000000: 0b 13 04 3f 5d	80 89 e2
Tue	Indi	•	10.15.55	2000.	e7 3f b0 c4 4c 99 d2 bd	?]?L
Tue	Mar	4	16:45:59	2008:	00000010: e5 e3 6e af 4f	ff 01 b2
					03 f4 0d c0 00 00 07 9d	n.0
Tue	Mar	4	16:45:59	2008:	00000020: 16 03 01 00 4a	02 00 00
T	M		16.45.50	2000.	46 03 01 47 cd dt 2a t3	JFG*.
Tue	Mar	4	10:45:59	2008:	00000030: 19 0T 6T 52 2T	a/c_{3} UU P C
Tue	Mar	4	16:45:59	2008:	00000040: 97 1b f2 a0 ca	a9 f4 27
		-			0c 34 32 20 d9 33 c4 27	
Tue	Mar	4	16:45:59	2008:	00000050: 81 91 e4 97 d7	a6 6b 03
					58 1a 4a c8 6d 4a e7 ef	k.X.J.mJ
Tue	Mar	4	16:45:59	2008:	00000060: 9d f8 fd ad c9	95 aa b5
Тио	Mar	1	16.15.50	2008.	3e T5 1b dc 00 04 00 16	>
Tue	man	т	10.45.55	2000.	00 07 30 00 03 c2 30 82	7300.
Tue	Mar	4	16:45:59	2008:	00000080: 03 be 30 82 02	a6 a0 03
					02 01 02 02 0a 61 0f c8	0a
Tue	Mar	4	16:45:59	2008:	00000090: d9 00 00 00 00	00 02 30
T	M		16.45.50	2000.	0d 06 09 2a 86 48 86 f7	*.H
Tue	Mar	4	10:45:59	2008:	000000a0: 00 01 01 05 05 31 11 30 0f 06 03 55 04	
Tue	Mar	4	16:45:59	2008:	000000b0: 03 13 08 41 41	52 4f 4e
		•	_01.0100		4c 41 42 30 1e 17 0d 30	AARONLAB00
Tue	Mar	4	16:45:59	2008:	000000c0: 38 30 32 32 39	30 30 30
					32 35 30 5a 17 0d 30 39	80229000250Z09
Tue	Mar	4	16:45:59	2008:	000000d0: 30 32 32 38 30	30 31 32
Tuo	Mar	л	16.45.50	2000,	55 30 5a 30 12 31 10 30	022800125020.1.0
line	ridf	4	10.43.39	2000:	41 43 53 63 65 72 74 20	ου το υν Δ(Scerth
Tue	Mar	4	16:45:59	2008:	000000f0: 81 9f 30 0d 06	09 2a 86
					48 86 f7 0d 01 01 01 05	0*.H
Tue	Mar	4	16:45:59	2008:	00000100: 00 03 81 8d 00	30 81 89
 _			40 40	200-	02 81 81 00 e4 cb 25 a1	%.
fue	Mar	4	16:45:59	2008:	00000110: 96 3t df 4f ff	Ud de 8a
Тие	Mar	Δ	16.45.50	2008.	עם גם דם ככ וס אס TE 6E 00000120 אל הי סי כה די די סי לי	
l'ue	man	-1	-01.19	2000.		UC FF 10

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					6h 4e 91 17 9c 88 d3 6c	i D[FN]
Tue	Mar	4	16:45:59	2008:	00000130: 1a 44 5e 1e e7	c1 c5 ae
					c2 6f e7 ca 63 31 5f 3a	.D^oc1_:
Tue	Mar	4	16:45:59	2008:	00000140: cf a9 da 83 0e	c8 94 93
					35 2e c8 f1 21 b0 78 1c	5!.x.
Tue	Mar	4	16:45:59	2008:	00000150: a1 ca f7 e9 40	a7 d1 7a
-			10 15 50		f1 85 d6 e9 36 46 51 a7	@z6FQ.
Tue	Mar	4	16:45:59	2008:	00000160: a/ bf /0 db a/	4/ da db
тио	Mar	1	16.15.50	2008.	00000170; 3c of od 30 7f	p
Tue	mai	4	10.45.55	2008.	ab $3e$ $0e$ $8a$ $d5$ $c1$ 47 $d4$	
Tue	Mar	4	16:45:59	2008:	00000180: 65 62 09 22 f4	75 c5 5b
					b1 42 94 14 9f c7 02 03	eb.".u.[.B
Tue	Mar	4	16:45:59	2008:	00000190: 01 00 01 a3 82	01 97 30
					82 01 93 30 0e 06 03 55	U
Tue	Mar	4	16:45:59	2008:	000001a0: 1d 0f 01 01 ff	04 04 03
-			10 15 50	2000	02 04 f0 30 44 06 09 2a	OD*
Tue	Mar	4	16:45:59	2008:	000001b0: 86 48 86 f7 0d	01 09 0†
Тио	Mar	л	16.15.50	2008.	04 37 30 35 30 00 00 08	.H/050
Tue	mai	4	10.45.55	2008.	02 02 00 80 30 0e 06 08	* H 0
Tue	Mar	4	16:45:59	2008:	000001d0: 2a 86 48 86 f7	0d 03 04
					02 02 00 80 30 07 06 05	*.H0
Tue	Mar	4	16:45:59	2008:	000001e0: 2b 0e 03 02 07	30 0a 06
					08 2a 86 48 86 f7 0d 03	+0*.H
Tue	Mar	4	16:45:59	2008:	000001f0: 07 30 1d 06 03	55 1d 0e
T	M		16.45.50	2000.	04 16 04 14 b3 te c9 de	.0U
Tue	Mar	4	10:45:59	2008:	00000200: 52 60 44 68 9a	CZ 4a CZ P`D I 07
Тие	Mar	4	16.42.59	2008.	$00000210 \cdot 30 13 4f ff 06$	03 55 1d
, ac	'iui	•	10.15.55	2000.	25 04 0c 30 0a 06 08 2b	0.0
Tue	Mar	4	16:45:59	2008:	00000220: 06 01 05 05 07	03 01 30
					1f 06 03 55 1d 23 04 18	U.#
Tue	Mar	4	16:45:59	2008:	00000230: 30 16 80 14 f0	a4 3a c2
T	M		16.45.50	2000.	cd t5 d4 c8 b4 5e ee 03	0
Tue	Mar	4	10:45:59	2008:	30 5f 06 03 55 1d 1f 04	
Tue	Mar	4	16:45:59	2008:	00000250: 58 30 56 30 54	a0 52 a0
					50 86 25 68 74 74 70 3a	XOVOT.R.P.%http:
Tue	Mar	4	16:45:59	2008:	00000260: 2f 2f 77 63 73	77 69 6e
					2f 43 65 72 74 45 6e 72	//wcswin/CertEnr
Tue	Mar	4	16:46:00	2008:	00000270: 6f 6c 6c 2f 41	41 52 4f
тио	Маи	4	16.46.00	2000.	4e 4c 4l 42 2e 63 72 6c	OII/AAKUNLAB.Cri
Tue	Mai	4	10.40.00	2008.	2f 5c 5c 77 63 73 77 69	'file://\\wcswi
Tue	Mar	4	16:46:00	2008:	00000290: 6e 5c 43 65 72	74 45 6e
					72 6f 6c 6c 5c 41 41 52	n\CertEnroll\AAR
Tue	Mar	4	16:46:00	2008:	000002a0: 4f 4e 4c 41 42	2e 63 72
_					6c 30 81 84 06 08 2b 06	ONLAB.cr10+.
Tue	Mar	4	16:46:00	2008:	000002b0: 01 05 05 07 01	01 04 78
тис	Маи	4	16.46.00	2008.	30 76 30 38 06 08 2b 06	
Tue	Mar	4	10:40:00	2008:	68 74 74 70 3a 2f 2f 77	$02 \ 00 \ 2C$
Tue	Mar	4	16:46:00	2008:	000002d0: 63 73 77 69 6e	2f 43 65
					72 74 45 6e 72 6f 6c 6c	cswin/CertEnroll
Tue	Mar	4	16:46:00	2008:	000002e0: 2f 77 63 73 77	69 6e 5f
					41 41 52 4f 4e 4c 41 42	/wcswin_AARONLAB
Tue	Mar	4	16:46:00	2008:	000002t0: 2e 63 72 74 30	3a 06 08
Тие	Mar	Л	16.46.00	2008.		10110111+11101
l'ue	ΠαI	-7	10.70.00	2000.	2f 5c 5c 77 63 73 77 69	file://\\wcswi
Tue	Mar	4	16:46:00	2008:	00000310: 6e 4f ff 5c 43	65 72 74
					- 	

45 6e 72 6f 6c 6c 5c 77 nO.\CertEnroll\w 4 16:46:00 2008: 00000320: 63 73 77 69 6e 5f 41 41 Tue Mar 52 4f 4e 4c 41 42 2e 63 cswin_AARONLAB.c 4 16:46:00 2008: 00000330: 72 74 30 0d 06 09 2a 86 Tue Mar 48 86 f7 0d 01 01 05 05 rt0...*.H..... Tue Mar 4 16:46:00 2008: 00000340: 00 03 82 01 01 00 67 35 f2 80 42 b5 a8 be f7 c4g5..B..... 4 16:46:00 2008: 00000350: 9b ea 19 10 67 39 78 cb Tue Mar 38 fb 36 15 69 2a f0 80q9x.8.6.i*.. 4 16:46:00 2008: 00000360: 1e a1 7d 63 72 6a e0 7e Tue Mar d4 51 7a 1d 64 ec ee b5 ..}crj.~.Qz.d... 4 16:46:00 2008: 00000370: 2a 73 dc b0 d1 eb 0f 28 Tue Mar 1d 66 7a bc 12 ef d8 61 *s....(.fz....a 4 16:46:00 2008: 00000380: 5d 05 7b 81 0f 57 20 4d Tue Mar 49 37 4d ba 0b 5a 96 65].{..W.MI7M..Z.e Tue Mar 4 16:46:00 2008: 00000390: d6 a8 e1 bb 1f c6 0e 27 4c 4b d6 3a 00 c7 8d 83'LK.:... 4 16:46:00 2008: 000003a0: 22 a5 29 61 36 19 19 33 Tue Mar f2 41 18 f7 c6 42 23 36 ".)a6..3.A...B#6 4 16:46:00 2008: 000003b0: 92 66 4a d9 ef fa 32 d7 Tue Mar a5 Oa df 47 50 3c 72 23 .fJ...2....GP<r# 4 16:46:00 2008: 000003c0: f0 0a d5 59 eb a8 79 f2 Tue Mar e0 56 a0 97 91 48 60 31 ...Y..y..V...H`1 Tue Mar 4 16:46:00 2008: 000003d0: 56 8d 2f b2 69 45 e5 44 3a 59 13 dd 66 eb c7 58 V./.iE.D:Y..f..X Tue Mar 4 16:46:00 2008: 000003e0: 35 90 7c 79 69 ee dc 6e 19 68 b3 c3 4c ba 7d b3 5. | yi..n.h..L.}. 4 16:46:00 2008: 000003f0: 8f a0 b9 e0 cf df 67 93 Tue Mar 6f 01 d4 34 33 86 b6 95g.o..43... Tue Mar 4 16:46:00 2008: 00000400: 77 1b 19 61 34 46 82 4c 8e 6b b4 6b e2 4a c1 20 w..a4F.L.k.k.J.. 4 16:46:00 2008: 00000410: 18 1d 45 41 50 3d 30 2e Tue Mar 32 30 32 2e 32 37 65 61 ..EAP=0.202.27ea Tue Mar 4 16:46:00 2008: 00000420: 2e 32 3b 53 56 43 3d 30 2e 36 34 37 3b 50 12 3a .2;SVC=0.647;P.: 4 16:46:00 2008: 00000430: f3 3b 7f 99 45 f4 e6 a6 Tue Mar 29 c4 17 51 ce 97 df .;..E...)..Q... 4 16:46:00 2008: ****Enter processIncomingMessages: response code=11 Tue Mar 4 16:46:00 2008: ****Enter processRadiusResponse: response code=11 Tue Mar 4 16:46:00 2008: 00:19:56:b0:7e:b6 Access-Challenge received from Tue Mar RADIUS server 10.0.47.42 for mobile 00:19:56:b0: 7e:b6 receiveId = 7 4 16:46:00 2008: 00:19:56:b0:7e:b6 Processing Access-Challenge for Tue Mar mobile 00:19:56:b0:7e:b6 4 16:46:00 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Req state Tue Mar (id=178) for mobile 00:19:56:b0:7e:b6 4 16:46:00 2008: 00:19:56:b0:7e:b6 Sending EAP Request from AAA to Tue Mar mobile 00:19:56:b0:7e:b6 (EAP Id 178) 4 16:46:00 2008: 00:19:56:b0:7e:b6 Received EAPOL EAPPKT from Tue Mar mobile 00:19:56:b0:7e:b6 4 16:46:00 2008: 00:19:56:b0:7e:b6 Received EAP Response from Tue Mar mobile 00:19:56:b0:7e:b6 (EAP Id 178, EAP Type 13) Tue Mar 4 16:46:00 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Response state for mobile 00:19:56:b0:7e:b6 Tue Mar 4 16:46:00 2008: 00:19:56:b0:7e:b6 Successful transmission of Authentication Packet (id 20) to 10.0.47.42:1812, proxy state 00:19:56:b0:7e:b6-00:00 Tue Mar 4 16:46:00 2008: 00000000: 01 14 00 b7 e8 b0 94 59 96 a1 7f e5 af 22 0f 6cY....".1 4 16:46:00 2008: 00000010: 1e 33 6e ee 01 05 57 47 Tue Mar 42 1f 13 30 30 2d 31 39 .3n...WGB..00-19 4 16:46:00 2008: 00000020: 2d 35 36 2d 42 30 2d 37 Tue Mar

					45 2d 42 26 10 10 20 20	-56-R0-75-R6 00
Тие	Mar	4	16.46.00	2008.	00000030· 2d 31 39 2d 41	39 2d 34
	- Idi	•	101.0100	2000.	32 2d 45 34 2d 31 30 3a	-19-A9-42-E4-10:
Tue	Mar	4	16:46:00	2008:	00000040: 45 41 50 54 4c	53 05 06
					00 00 00 04 04 06 0a 00	EAPTLS
Tue	Mar	4	16:46:00	2008:	00000050: 2f 06 20 10 74	75 63 73
_					6f 6e 2d 77 6c 63 32 30	/tucson-wlc20
lue	Mar	4	16:46:00	2008:	00000060: 30 36 1a 0c 00	00 37 63
Тие	Mar	4	16.46.00	2008.		06.00.00
1 uc	That	•	10.10.00	2000.	05 14 3d 06 00 00 00 13	=
Tue	Mar	4	16:46:00	2008:	00000080: 4f 08 02 b2 00	06 0d 00
					18 1d 45 41 50 3d 30 2e	0EAP=0.
Tue	Mar	4	16:46:00	2008:	00000090: 32 30 32 2e 32	37 65 61
-			16 46 00	2000	2e 32 3b 53 56 43 3d 30	202.27ea.2;SVC=0
Tue	Mar	4	16:46:00	2008:	000000a0: 2e 36 34 37 3b	50 12 a2
	Mar	Δ	16.46.00	2008.	aa C7 eu 12 84 23 ub 4b	44 c6 F D
Tue	Mar	4	16:46:00	2008:	00000000: 0b 14 04 04 6b	98 3a 74
					12 1f 77 54 77 d8 a8 77	k.:twTww
Tue	Mar	4	16:46:00	2008:	00000010: 4e a8 a7 6b 4f	ff 01 b3
					03 b9 0d 00 c6 87 1d b6	Nk0
Tue	Mar	4	16:46:00	2008:	00000020: 06 5b 24 67 26	09 ee 5f
Tue	Мам	4	16.46.00	2008.	9C 64 f3 a9 c1 99 49 3e	.[\$g&d1>
rue	Mar	4	10:40:00	2008:	c4 09 4d 54 7d a4 67 91	
Tue	Mar	4	16:46:00	2008:	00000040: 4859 ec aa 68	5b Of 66
		•			c5 e9 22 a6 09 8d 36 cf	HYh[.f"6.
Tue	Mar	4	16:46:00	2008:	00000050: e3 d9 00 03 68	30 82 03
					64 30 82 02 4c a0 03 02	h0d0L
Tue	Mar	4	16:46:00	2008:	00000060: 01 02 02 10 61	26 83 24
тио	Маю	л	16.46.00	2008.	8d ba 53 9b 44 b0 39 bd	a&.\$5.D.9.
Tue	Mai	4	10.40.00	2008.	2a 86 48 86 f7 0d 01 01	00 00 09 0 H0 * H
Tue	Mar	4	16:46:00	2008:	00000080: 05 05 00 30 13	31 11 30
					Of 06 03 55 04 03 13 08	0.1.0U
Tue	Mar	4	16:46:00	2008:	00000090: 41 41 52 4f 4e	4c 41 42
_					30 1e 17 0d 30 38 30 32	AARONLAB00802
lue	Mar	4	16:46:00	2008:	000000a0: 32 38 32 33 33	34 34 38
Тие	Mar	4	16.46.00	2008.	5a 17 00 51 56 50 52 52 000000b0 · 38 32 33 34 31	20233440210022 32 35 5a
Tue	mar	т	10.40.00	2000.	30 13 31 11 30 0f 06 03	8234125Z0.1.0
Tue	Mar	4	16:46:00	2008:	000000c0: 55 04 03 13 08	41 41 52
					4f 4e 4c 41 42 30 82 01	UAARONLABO
Tue	Mar	4	16:46:00	2008:	000000d0: 22 30 0d 06 09	2a 86 48
T	M		16.46.00	2000	86 f7 0d 01 01 01 05 00	"0*.H
Tue	Mar	4	10:40:00	2008:	00000000: 03 82 01 07 00	30 82 01
Tue	Mar	4	16:46:00	2008:	000000f0: 57 75 45 19 4a	8b 99 da
		•			35 6c cb e0 b6 a0 ff 66	WuE.Jf
Tue	Mar	4	16:46:00	2008:	00000100: e2 8f c1 44 89	09 32 13
					c7 d8 70 6c 6d 74 2d e5	D2plmt
Tue	Mar	4	16:46:00	2008:	00000110: 89 b8 23 4f ff	ea Oa Oe
Tue	Mar	л	16.46.00	2000+	20 57 ID 62 36 05 90 92	#UW.bb
l'ue	mai	4	10.40.00	2000:	$f_4 cf 69 52 86 he 0h ca$	
Tue	Mar	4	16:46:00	2008:	00000130: 14 d1 88 9d 82	01 9a f7
					08 da ba cc c9 29 37 94)7.
Tue	Mar	4	16:46:00	2008:	00000140: 27 75 d4 6e ae	9e 60 06
-	N4 -	,	10.40.00	2002	84 94 9b 42 f6 c7 5e e0	'u.n`B^.
lue	Mar	4	16:46:00	2008:	00000150: 29 34 b3 06 cb	24 bl 39
					15 04 DA DE DA UO OT DD	,+

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Tue	Mar	4	16:46:00	2008:	00000160: 94 f9 32 36 d6	68 68 f2
Tue	Mar	4	16:46:00	2008:	b2 43 e6 0e a9 b6 4b 62 00000170: b8 f9 6e 47 dc	26.hhCKb 0e c5 5b
					16 a3 94 e9 96 08 e5 18	nG[
Tue	Mar	4	16:46:00	2008:	00000180: f0 38 ad a2 98 39 80 4a ae 14 e3 f8 f7	d3 7c 73
Tue	Mar	4	16:46:00	2008:	00000190: 1e 14 27 bb 6a	ce al 2a
тио	Мак	4	16.46.00	2000.	dc 18 66 59 ea b4 d9 b1	'.j*fY
Tue	Mar	4	10.40.00	2008.	df 31 08 09 17 ab e5 e9	.PV1
Tue	Mar	4	16:46:00	2008:	000001b0: 80 90 30 95 e4 bc f0 7f 13 b1 e7 cd 0b	54 90 75 0 T II
Tue	Mar	4	16:46:00	2008:	000001c0: 88 33 81 e7 74	d2 81 d9
Тиа	Mar	Δ	16:46:00	2008.	97 ab b2 57 f4 5f f6 8b	.3tW
Tue	mar	-	10.40.00	2000.	8a 28 3b 64 73 88 86 28	bt(;ds(
Tue	Mar	4	16:46:00	2008:	000001e0: 92 74 b0 92 94 74 23 f2 64 da 9a 88 47	7e ce e1 t ~ t#d C
Tue	Mar	4	16:46:00	2008:	000001f0: 02 03 01 00 01	a3 81 b3
Tue	Mars	4	16.46.00	2000.	30 81 b0 30 0b 06 03 55	U
Tue	Mar	4	10:40:00	2008:	30 Of 06 03 55 1d 13 01	·······.0····U····
Tue	Mar	4	16:46:00	2008:	00000210: 01 ff 4f ff 04	05 30 03
Tue	Mar	4	16:46:00	2008:	01 01 ff 30 1d 06 03 55 00000220: 1d 0e 04 16 04	0000 14 f0 a4
					3a c2 cd f5 d4 c8 b4 5e	
Tue	Mar	4	16:46:00	2008:	00000230: ee 03 4f 83 79 e0 19 30 5f 06 03 55 1d	b1 f2 d4
Tue	Mar	4	16:46:00	2008:	00000240: 1f 04 58 30 56	30 54 a0
Tue	Mar	4	16:46:00	2008:	52 a0 50 86 25 68 74 74 00000250: 70 3a 2f 2f 77	XOVOT.R.P.%htt 63 73 77
		•			69 6e 2f 43 65 72 74 45	p://wcswin/CertE
Tue	Mar	4	16:46:00	2008:	00000260: 6e 72 6f 6c 6c 52 4f 4e 4c 41 42 2e 63	2f 41 41 nroll/AARONLAB.c
Tue	Mar	4	16:46:00	2008:	00000270: 72 6c 86 27 66	69 6c 65
Тие	Mar	4	16:46:00	2008:	3a 2f 2f 5c 5c 77 63 73 00000280: 77 69 6e 5c 43	rl.'file://\\wcs
. uc	- Idi	•	20110100	20001	45 6e 72 6f 6c 6c 5c 41	win\CertEnroll\A
Tue	Mar	4	16:46:00	2008:	00000290: 41 52 4f 4e 4c	41 42 2e ARONI AB crl0 +
Tue	Mar	4	16:46:00	2008:	000002a0: 06 01 04 01 82	37 15 01
Тиа	Mar	Δ	16:46:00	2008.	04 03 02 01 00 30 0d 06 000002b0: 09 23 86 48 86	70 f7 0d 01
Tuc	mar	Т	10.40.00	2000.	01 05 05 00 03 82 01 01	.*.H
Tue	Mar	4	16:46:00	2008:	000002c0: 00 17 eb b2 43 05 cd 76 c0 7b 2a 16 83	da 02 66
Tue	Mar	4	16:46:00	2008:	000002d0: 95 bb 5e bf d3	db fc 23
Tue	Mar	4	16:46:00	2008:	7e 14 6e 52 f8 37 01 7c 000002e0: dd e9 bf 34 60	^#~.nR.7. 49 f1 68
-			16 46 00	2000	7e da 53 07 f6 b2 66 6d	4`I.h~.Sfm
Tue	Mar	4	16:46:00	2008:	4f db be 92 33 7e 50 06	Ta 30 03
Tue	Mar	4	16:46:00	2008:	00000300: 5e b3 b9 35 c6	83 3c 90
Tue	Mar	4	16:46:00	2008:	00000310: d0 4f c4 68 24	97 90 a1
Tue	Mar	4	16:46:00	2008:	// C9 C8 93 1† 58 ab ca 00000320: f7 18 e6 8c 36	.U.h\$wX 12 44 9d
Tue	Mar	٨	16.46.00	2000-	a6 ca 43 5f 03 07 16 99	6.DC
line	mdf	4	10.40:00	2008:	d0 81 e7 35 9e ad 69 5e	H} 5i^
Tue	Mar	4	16:46:00	2008:	00000340: 15 d7 2a 7f 51	4e 8c 59
					09 91 UL 41 90 20 01 05	.un.t1A

4 16:46:00 2008: 00000350: 95 15 bd b1 1a 97 a6 69 Tue Mar d3 9c 0b 93 00 16 e1 49I 4 16:46:00 2008: 00000360: 66 e3 98 29 79 ba 14 69 Tue Mar cf 76 27 69 7d 43 d0 f4 f..)y..i.v'i}C.. 4 16:46:00 2008: 00000370: 86 3c 6b 58 55 d4 85 be Tue Mar c5 da 71 e4 43 76 3d 0a .<kXU....q.Cv=. 4 16:46:00 2008: 00000380: d3 4f 49 97 12 75 e3 7d Tue Mar 88 92 99 5d fc 7a 69 28 .0I..u.}...].zi(4 16:46:00 2008: 00000390: f6 f0 20 70 33 b7 22 5a Tue Mar bf c5 e5 28 43 35 00 2f ...p3."Z...(C5./ 4 16:46:00 2008: 000003a0: 47 46 9a 5a 45 5c 56 d5 Tue Mar 24 3d 44 bf e9 63 f2 05 GF.ZE\V.\$=D..c.. Tue Mar 4 16:46:01 2008: 000003b0: 84 da 94 17 b7 ef c3 31 7d 04 30 87 e1 c3 31 8a1}.0...1 4 16:46:01 2008: 000003c0: 2a e1 52 16 03 01 00 0d Tue Mar 0d 00 00 05 02 01 02 00 *.R.... 4 16:46:01 2008: 000003d0: 00 0e 00 00 00 18 1d 45 Tue Mar 41 50 3d 30 2e 32 30 32EAP=0.202 Tue Mar 4 16:46:01 2008: 000003e0: 2e 32 37 65 61 2e 33 3b 53 56 43 3d 30 2e 36 34 .27ea.3;SVC=0.64 4 16:46:01 2008: 000003f0: 37 3b 50 12 05 0e 3c e0 Tue Mar e4 5f 38 21 96 26 8e 39 7; P...<.._8!.&.9 4 16:46:01 2008: 00000400: 96 a9 09 5d...] Tue Mar Tue Mar 4 16:46:01 2008: ****Enter processIncomingMessages: response code=11 4 16:46:01 2008: ****Enter processRadiusResponse: response code=11 Tue Mar Tue Mar 4 16:46:01 2008: 00:19:56:b0:7e:b6 Access-Challenge received from RADIUS server 10.0.47.42 for mobile 00:19:56:b0: 7e:b6 receiveId = 7 4 16:46:01 2008: 00:19:56:b0:7e:b6 Processing Access-Challenge for Tue Mar mobile 00:19:56:b0:7e:b6 Tue Mar 4 16:46:01 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Reg state (id=179) for mobile 00:19:56:b0:7e:b6 4 16:46:01 2008: 00:19:56:b0:7e:b6 Sending EAP Request from AAA to Tue Mar mobile 00:19:56:b0:7e:b6 (EAP Id 179) Tue Mar 4 16:46:01 2008: 00:19:56:b0:7e:b6 Received EAPOL EAPPKT from mobile 00:19:56:b0:7e:b6 4 16:46:01 2008: 00:19:56:b0:7e:b6 Received EAP Response from Tue Mar mobile 00:19:56:b0:7e:b6 (EAP Id 179, EAP Type 13) 4 16:46:01 2008: 00:19:56:b0:7e:b6 Entering Backend Auth Response Tue Mar state for mobile 00:19:56:b0:7e:b6 Tue Mar 4 16:46:01 2008: 00:19:56:b0:7e:b6 Successful transmission of Authentication Packet (id 21) to 10.0.47.42:1812, proxy state 00:19:56:b0:7e:b6-00:00 Tue Mar 4 16:46:01 2008: 00000000: 01 15 05 76 81 b7 fa 95 63 1f 50 6f 98 4d a3 6b ...v...c.Po.M.k Tue Mar 4 16:46:01 2008: 00000010: db 3c bc 1d 01 05 57 47 42 1f 13 30 30 2d 31 39 .<....WGB..00-19 4 16:46:01 2008: 00000020: 2d 35 36 2d 42 30 2d 37 Tue Mar 45 2d 42 36 1e 1a 30 30 -56-B0-7E-B6..00 4 16:46:01 2008: 00000030: 2d 31 39 2d 41 39 2d 34 Tue Mar 32 2d 45 34 2d 31 30 3a -19-A9-42-E4-10: 4 16:46:01 2008: 00000040: 45 41 50 54 4c 53 05 06 Tue Mar EAPTLS..... 00 00 00 04 04 06 0a 00 Tue Mar 4 16:46:01 2008: 00000050: 2f 06 20 10 74 75 63 73 6f 6e 2d 77 6c 63 32 30 /...tucson-wlc20 Tue Mar 4 16:46:01 2008: 00000060: 30 36 1a 0c 00 00 37 63 06....7c..... 01 06 00 00 00 06 06 06 Tue Mar 4 16:46:01 2008: 00000070: 00 00 00 02 0c 06 00 00 05 14 3d 06 00 00 00 13 = . . . Tue Mar 4 16:46:01 2008: 00000080: 4f ff 02 b3 04 bd 0d 80 00 00 04 b3 16 03 01 03 0.....

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Tue	Mar	4	16:46:01	2008:	00000090:	6d	0b	00	03	69	00	03	66	
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Tue	Mar	4	10:40:01	2008:	000000a0:	82 02	02 0a	47 13	a0 79	03 b0	02 72	00	02	Gy.r
Tue	Mar	4	16:46:01	2008:	00000b0:	00	00	00	0c	30 	0d	06	09	0 * 11
Tue	Mar	4	16:46:01	2008:	00000c0:	2a 05	86 05	48 00	86 30	13	00 31	11	30	О^.н
тис	Маи	4	16.46.01	2008.	00000040.	0f	06	03	55 ₄£	04	03	13	08	0.1.0U
Tue	Mar	4	10:40:01	2008:	00000000	41 30	41 1e	52 17	41 0d	4e 30	4C 38	41 30	42 33	AARONLAB00803
Tue	Mar	4	16:46:01	2008:	000000e0:	30 5 2	33 17	31 0d	38	33	33	30	39 20	021022007 00020
Tue	Mar	4	16:46:01	2008:	000000f0:	33	31	38	30 34	33	30 30	39	50 5a	03103209209030
	Mar	4	16:46:01	2008.	00000100.	30 55	0e	31 03	0c	30 03	0a 57	06 47	03 42	3184309Z0.1.0
Tue	mar	т	10.40.01	2000.	00000100.	30	81	9f	30	0d	06	09	2a	U\WGB00*
Tue	Mar	4	16:46:01	2008:	00000110:	86 05	48 00	86 03	f7 81	0d 8d	01 00	01 30	01 81	но
Tue	Mar	4	16:46:01	2008:	00000120:	89	02	81	81	00	a6	34	91	
						20	dd	58	df	b2	60	c0	6c	4X`.1
Tue	Mar	4	16:46:01	2008:	00000130:	d0	9d	10	86	01	a9	61	9f	
-			10 40 01	2000	00000140	cb	2b	01	22	49	d7	38	ee	a+."I.8.
Tue	Mar	4	10:46:01	2008:	00000140:	00	те	be	C9	ca ca	48	40	/3 24	LIV.c. um f
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Tue	Mar	4	16:46:01	2008:	00000160:	d8	03	4a	7d	08	9e	b4	f2	
						78	ab	36	06	ba	f7	02	ab	J}x.6
Tue	Mar	4	16:46:01	2008:	00000170:	a1	6e	26	6c	2d	d4	10	08	
_						0d	25	82	1a	d2	fc	14	4f	.n&1%0
lue	Mar	4	16:46:01	2008:	00000180:	†† 20	86	†a fg	td bo	84 d6	ec h6	de 7h	be ₂₁	
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Tue	Mar	4	10:40:01	2008:	:0010000	50	82 1 d	01	58 01	3U 01	ue ff	00	03	0 80 11
Tue	Mar	4	16:46:01	2008:	000001c0:	03	02	05	a0	30	1d	04	04	000
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Tue	Mar	4	16:46:01	2008:	000001d0:	97	b6	32	83	7f	c0	88	11	
						4d	59	d5	44	70	e9	0f	c6	2MY.Dp
Tue	Mar	4	16:46:01	2008:	000001e0:	3b	a2	85	30	1f	06	03	55	
						1d	23	04	18	30	16	80	14	;0U.#0
Tue	Mar	4	16:46:01	2008:	000001f0:	f0	a4	3a	c2	cd	f5	d4	c8	
-			16 46 01	2000		b4	5e	ee	03	4f	83	79	b1	:
Tue	Mar	4	16:46:01	2008:	00000200:	†2	d4	e0	19	30 F 0	51	06	20	
	Mar	4	16.46.01	2008.	00000210.	55 54	ти 20	11 52	04 20	50 50	50 86	25	50 68	0
Tue	man	7	10.40.01	2000.	00000210.	74	74	70	3a	2f	2f	77	63	T.R.P.%http://wc
Tue	Mar	4	16:46:01	2008:	00000220:	73	77	69	6e	2f	43	65	72	······
						74	45	6e	72	6f	6c	6c	2f	swin/CertEnroll/
Tue	Mar	4	16:46:01	2008:	00000230:	41	41	52	4f	4e	4c	41	42	
тис	Мар	1	16.46.01	2000.	00000240+	2e	63	72	6C	86 2£	27	66 5 c	69 77	AARONLAB.crl.'ti
Tue	Mai	4	10.40.01	2008.	00000240.	63	73	5a 77	21 69	21 6e	5C	43	65	le://\\wcswin\Ce
Tue	Mar	4	16:46:01	2008:	00000250:	72	74	45	6e	72	6f	6c	6c	
						5c	41	41	52	4f	4e	4c	41	rtEnroll\AARONLA
Tue	Mar	4	16:46:01	2008:	00000260:	42	2e	63	72	6c	30	81	84	
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Tue	Mar	4	16:46:01	2008:	00000290:	77	69	6e	2f	43	65	72	74	
						45	6e	72	6f	6c	6c	2f	77	win/CertEnroll/w
Tue	Mar	4	16:46:01	2008:	000002a0:	63	73	77	69	6e	5f	41	41	
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Tue	Mar	4	16:46:01	2008:	00000310:	40	fd	d3	16	38	4f	d9	5f	
						64	94	a7	c2	59	53	53	52	@80. dYSSR
Tue	Mar	4	16:46:01	2008:	00000320:	90	5d	ee	1c	e0	2a	90	af	_
						f4	e8	51	3e	87	38	9a	ce	.]*0>.8
Tue	Mar	4	16:46:01	2008:	00000330:	88	0c	4f	1f	ad	f1	ef	dd	
						96	44	6b	51	4e	9f	2c	a1	ODkQN
Tue	Mar	4	16:46:01	2008:	00000340:	8a	c5	0e	bd	d0	f9	7e	34	. ,
						fa	22	67	26	e1	26	e6	3e	~4."g&.&.>
Tue	Mar	4	16:46:01	2008:	00000350:	bd	b8	9f	64	f0	65	6f	23	5
						f0	67	40	60	0f	4b	f1	ff	d.eo#.g@`.K
Tue	Mar	4	16:46:01	2008:	00000360:	c1	9c	3c	11	81	be	b2	7a	5
						45	b6	bd	f2	26	76	2a	3a	<ze&v*:< td=""></ze&v*:<>
Tue	Mar	4	16:46:01	2008:	00000370:	52	32	65	cf	62	0b	47	65	
						b4	b5	fa	db	b4	4f	ff	07	R2e.b.Ge0
Tue	Mar	4	16:46:01	2008:	00000380:	ae	54	58	11	d8	52	8f	f8	-
						e3	e5	00	f1	c4	1d	2a	a4	.TXR*.

相關資訊

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- 思科統一無線網路中的工作組網橋配置示例
- <u>無線LAN控制器(WLC)組態最佳實踐</u>
- <u>技術支援與文件 Cisco Systems</u>

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)。