Microsoft IAS Radius伺服器上的Cisco Airespace VSA配置示例

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<u> 簡介</u>

本文檔介紹如何配置Microsoft Internet身份驗證服務(IAS)伺服器以支援Cisco Airespace供應商特定 屬性(VSA)。 Cisco Airespace VSA的供應商代碼為**14179**。

<u>必要條件</u>

<u>需求</u>

嘗試此組態之前,請確保符合以下要求:

- 瞭解如何配置IAS伺服器
- •輕量型存取點(LAP)和思科無線LAN控制器(WLC)的組態資訊
- 思科統一無線安全解決方案知識

<u>採用元件</u>

本文中的資訊係根據以下軟體和硬體版本:

- 採用IAS的Microsoft Windows 2000 Server
- Cisco 4400 WLC (執行軟體版本4.0.206.0)
- Cisco 1000系列LAP

- 採用韌體2.5的802.11 a/b/g無線使用者端配接器
- Aironet案頭公用程式(ADU)版本2.5

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。

注意:本文檔旨在為讀者提供在IAS伺服器上支援思科Airespace VSA所需的配置示例。本文檔中介 紹的IAS伺服器配置已在實驗室經過測試,並且工作正常。如果配置IAS伺服器時遇到問題,請與 Microsoft聯絡以獲取幫助。Cisco TAC不支援Microsoft Windows伺服器配置。

本檔案假設WLC已設定為基本操作,且LAP已註冊到WLC。如果您是嘗試設定WLC以使用LAP執行 基本操作的新使用者,請參閱<u>向無線LAN控制器(WLC)註冊輕量AP(LAP)</u>。

<u>慣例</u>

如需文件慣例的詳細資訊,請參閱思科技術提示慣例。

<u>背景資訊</u>

在大多數無線LAN(WLAN)系統中,每個WLAN都有一個靜態策略,該策略適用於與服務組識別碼 (SSID)相關聯的所有使用者端。 此方法雖然功能強大,但也有侷限性,因為它要求客戶端與不同的 SSID關聯以繼承不同的QoS和安全策略。

但是,Cisco無線LAN解決方案支援身份網路,允許網路通告單個SSID,並且特定使用者根據其使 用者配置檔案繼承不同的QoS或安全策略。您可以使用身份網路控制的特定策略包括:

- **服務品質** 當存在於RADIUS存取接受中時,QoS層級值會覆寫WLAN設定檔中指定的QoS值。
- ACL 當RADIUS訪問接受中存在訪問控制清單(ACL)屬性時,系統會在客戶端工作站進行身 份驗證後應用ACL名稱。這會覆蓋分配給介面的所有ACL。
- VLAN 當RADIUS訪問接受中存在VLAN介面名稱或VLAN標籤時,系統將客戶端置於特定介面上。
- WLAN ID 當RADIUS Access Accept中存在WLAN-ID屬性時,系統會在客戶端工作站進行身 份驗證後應用WLAN-ID(SSID)。WLAN ID由WLC在除IPSec以外的所有驗證範例中傳送。在 Web驗證的情況下,如果WLC在來自AAA伺服器的驗證回應中收到WLAN-ID屬性,並且該屬性 與WLAN的ID不相符,則會拒絕驗證。其他型別的安全方法不執行此操作。
- DSCP值 當存在於RADIUS訪問接受中時,DSCP值將覆蓋WLAN配置檔案中指定的DSCP值。。
- •802.1p-Tag 當存在於RADIUS存取接受中時,802.1p值會覆蓋WLAN設定檔中指定的預設值

注意:VLAN功能僅支援MAC過濾、802.1X和Wi-Fi保護訪問(WPA)。 VLAN功能不支援Web驗證或 IPSec。作業系統的本地MAC過濾器資料庫已擴展為包含介面名稱。這允許本地MAC過濾器指定應 該分配給客戶端的介面。也可以使用單獨的RADIUS伺服器,但必須使用安全選單定義RADIUS伺服 器。

有關身份網路的詳細資訊,請參閱<u>配置身份網路</u>。

<u>為Airespace VSA配置IAS</u>

要為Airespace VSA配置IAS,您需要完成以下步驟:

- 1. <u>將WLC配置為IAS上的AAA客戶端</u>
- 2. <u>在IAS上配置遠端訪問策略</u>

注意:VSA是在遠端訪問策略下配置的。

<u>將WLC配置為IAS上的AAA客戶端</u>

完成以下步驟,以便在IAS上將WLC設定為AAA使用者端:

1. 按一下**Programs > Administrative Tools > Internet Authentication Service**,以便在Microsoft 2000伺服器上啟動IAS。

🐓 Internet Authentication Service	
Action ← → ∰ 💽 🛃 😫] -	۰ ا
Action Yew <	 Vector Control of the service of the s

2. 按一下右鍵Clients資料夾並選擇New Client以新增新的RADIUS客戶端。

 在「新增客戶端」視窗中,輸入客戶端的名稱,然後選擇RADIUS作為協定。然後,按一下下 一步。在本範例中,使用者端名稱是WLC-1。注意:預設情況下,協定設定為RADIUS。

Add Client		×
Name and Protocol Assign a name and protoc	col for the client.	
Type a friendly name and	protocol for the client.	
<u>Friendly name:</u>	WLC-1	
Protocol:	RADIUS	-
	< <u>B</u> ack <u>N</u> ext >	Cancel

4. 在「新增RADIUS客戶端」視窗中,輸入**客戶端IP地址、客戶端 — 供應商**和**共用金鑰**。輸入 客戶端資訊後,按一下**Finish**。此範例顯示IP位址為*172.16.1.30*、Client-Vendor設定為 *Cisco*、Shared secret設定為*cisco123*且名為*WLC-1*的使用者端

Add RADIUS Client			X
Client Information Specify information regarding the client.			
Client a <u>d</u> dress (IP or DNS):			
172.16.1.30		<u>V</u> erify	
Client-Vendor:			
Cisco		•	
Client must always send the signature attribute	oute in the request		
Shared secret:			
Con <u>f</u> irm shared secret:			
	< <u>B</u> ack Finisł	n Cancel	

透過此資訊,名為WLC-1的WLC會新增為IAS伺服器的AAA使用者端。

🐤 Internet Authentication Service				
<u>A</u> ction View ← → 💽 🔃 💼 🖽 🗐	2			
Tree	Friendly Name	Address	Protocol	Client-Vendor
Internet Authentication Service (Loca) Gients Remote Access Logging Remote Access Policies	Thendy Haire	172.16.1.30	RADIUS	Cisco
	4			

下一步是建立遠端訪問策略並配置VSA。

<u>在IAS上配置遠端訪問策略</u>

完成以下步驟,以便在IAS上配置新的遠端訪問策略:

- 1. 按一下右鍵**Remote Access Policies**,然後選擇**New Remote AccessMSss Policy**。系統將顯示Policy Name視窗。
- 2. 輸入策略名稱,然後按一下Next。

dd Remote Access Policy	
Policy Name Specify a friendly name for the policy.	
A Remote Access Policy is a set of actions which can be applied to a group of users meeting certain conditions.	
Analogous to rules you can apply to incoming mail in an e-mail application, you can specify a set of conditions that must be matched for the Remote Access Policy to apply. You can then specify actions to be taken when the conditions are met.	
Policy friendly name:	
Airespace VSA	
< Back Next > Cano	el

3. 在下一個視窗中,選擇將應用遠端訪問策略的條件。按一下Add以選擇條件。

Add Remote Access Policy	X Select Attribute ? X
Conditions Determine the conditions to match.	Select the type of attribute to add, and then click the Add button. Attribute types:
Specify the conditions to match.	Name Description Called-Station-Id Phone number dialed by user Calling-Station-Id Phone number dialed by user Calling-Station-Id Phone number from which call originated Client-Friendly-Name Friendly name for the RADIUS client. (IAS only) Client-PAddress IP address of RADIUS proxy or NAS. (IAS only) Client-Mendor Manufacturer of RADIUS proxy or NAS. (IAS only) Day-And-Time-Restric Time periods and days of week during which use Framed-Protocol The protocol to be used NAS-IP-Address IP address of the NAS originating the request (IA NAS-Port-Type Type of physical port used by the NAS originating the request (IA NAS-Port-Type Type of physical port used by the NAS originating the request (IA NAS-Port-Type Type of service user has requested Tunnel-Type Tunneing protocols to be used Windows-Groups Windows groups that user belongs to
Add Eemove Edit	
< <u>B</u> ack <u>N</u> ext> Cancel	Add Cancel

4. 從「屬性型別」選單中選擇以下屬性:**Client-IP-Address** — 輸入AAA客戶端的IP地址。在此 範例中,輸入WLC的IP位址,以便原則適用於來自WLC的封包。

Client-IP-Address			? ×	
Type a word or a wild card (for example, a	bc.*):			
172.16.1.30				
	OK	Cance	9	
				Windows Gro

ups —

選擇將應用策略的Windows組(使用者組)。以下是範例

^翼 擇將應用策略的Windows組(使用者組)。以下是範例
🏙 Groups 🔗 🔀
The following groups are supported in this are drive
I he following groups are currently in this condition.
Groups:
Name
CAT-TD-2K\Test-Clients
Add <u>H</u> emove
OK Cancel

Add Remote Access Policy	×
Conditions Determine the conditions to match.	
Specify the conditions to match.	
Client-IP-Address matches "172.16.1.30" AND Windows-Groups matches "CAT-TD-2K\Test-Clients"	
A <u>d</u> d <u>R</u> emove <u>E</u> dit	
< <u>B</u> ack <u>N</u> ext > Cano	el

此範例僅顯示兩個條件。如果有更多條件,也新增這些條件,然後按一下**下一步**。出現「 Permissions(許可權)」視窗。

5. 在「許可權」視窗中,選擇**「授予遠端訪問許可權」**。選擇此選項後,如果使用者符合指定的 條件(在步驟2中),則授予使用者訪問許可權。

Access Policy				
s nine whether to grant	or deny remote	access permissi	ion.	
an use a Remote Acc of users, or to act as	ess Policy eithe a filter and deny	er to grant certair access privileg	n access privilege: es to a group of u:	s to a sers.
er matches the specif	ied conditions:			
ant remote access pe	rmission			
ny remote access pe	rmission			
		< <u>B</u> ack	<u>N</u> ext >	Cancel
	Access Policy s mine whether to grant an use a Remote Acc of users, or to act as er matches the specif ant remote access pe eny remote access pe	Access Policy s mine whether to grant or deny remote an use a Remote Access Policy either of users, or to act as a filter and deny er matches the specified conditions: ant remote access permission eny remote access permission	Access Policy Is mine whether to grant or deny remote access permiss an use a Remote Access Policy either to grant certain of users, or to act as a filter and deny access privileg er matches the specified conditions: Tant remote access permission eny remote access permission $< \underline{Back}$	Access Policy s nine whether to grant or deny remote access permission. an use a Remote Access Policy either to grant certain access privileges of users, or to act as a filter and deny access privileges to a group of us er matches the specified conditions: ant remote access permission eny remote access permission $< \underline{Back} \underline{Next} >$

6. 按「**Next**」(下一步)。

 7. 下一步是設定使用者配置檔案。儘管您可能已經指定應該根據條件拒絕或授予使用者訪問許可 權,但是,如果此策略的條件被基於每個使用者覆蓋,則仍然可以使用配置檔案。

ser F S	Profile pecify the user profile.
۲ ۱	ou can now specify the profile for users who matched the conditions you have becified.
N pi	ote: Even though you may have specified that users should be denied access, the offile can still be used if this policy's conditions are overridden on a per-user basis.
	Edit <u>P</u> rofile
	< <u>B</u> ack Finish Cano

若要配置使用者配置檔案,請在「使用者配置檔案」視窗中按一下**「編輯配置檔案」**。出現「 Edit Dial-in Profile(編輯撥入配置檔案)」視窗。

it Dial-in Profile			1	? ×
Authentication	Encryption	<u> </u>	Advanced	-1
Dial-in Constraints) IP	<u> </u>	Multilink	_i
Disconnect if idle for:		1	i≞ min.	
Restrict <u>maximum</u> session	to:	1	min.	
Restrict access to the follo	wing days and t	imes: —		- II
	<u>E</u> dit			
Restrict Dial-in to this num	ber only:			- 11
□ <u></u> <u></u>		<u> </u>		
			_	
D Token Ring				
Wireless - IEEE 802.11				
Wireless - Other				
			▼	
				- F
	OK	Cancel	Apply	

Authentication索引標籤,然後選擇在WLAN中使用的驗證方法。此範例使用未加密驗證 (PAP、SPAP)。

dit Dial-in Profile		? ×
Dial-in Constraints	IP	Multilink
Authentication	Encryption	Advanced
Check the authentication r	methods which are allowe	d for this connection.
Extensible Authentica	ation Protocol	
Select the EAP type whit	ch is acceptable for this p	olicy.
Protected EAP (PEAP)		Configure
Microsoft Encrypted /	Authentication version <u>2</u> (MS-CHAP v2)
Microsoft Encrypted.	Authentication (MS-CHAF	ŋ 🔶
Encrypted Authentica	ation (CHAP)	
Unencrypted Authen	tication (PAP, SPAP)	
- Unauthenticated Access		
ondunenticated Access		
Allow remote PPP cli any authentication m	ents to connect without n ethod.	egotiating

Advanced頁籤。移除所有預設引數,然後按一下「Add」。

ic Dial-In Pro	file						? ×	
Dial-in (Constraints	<u> </u>	IP			Multilink	1	
Authenti	cation	1 i i	Encryption	ſ	A	dvanced	Ì	
Specify addit Access Serv Parameters:	ional connec er.	ction attrib	utes to be	returned	to the F	lemote	_	
Name		Ver	idor	- V	alue		-	
I Add	<u>H</u> err	1046	<u>E</u> dit					
			ок	Can	cel	App	oly	_
ibutes視窗中		vice-Tvp	 e.然後征	下一個		 巽擇Loai	 n值。	J在Add
	,		,	21	V			
dd an altribute to the Prof	le select the attribute .	and click Add		<u></u>	-			
dd an attributes IU <u>S</u> attributes:	ile, select the attribute	and click Add.			Enumera	ble Attribute I	Information	
add an attributes add an attributes to the Prof IIUS attributes: ame splp-Message snoe-Type nnel-Cient-Endpt nnel-Cient-Endpt nnel-Password nnel-Password nnel-Preference nnel-Preference nnel-Preference nnel-Server-Auth-ID nnel-Server-Endpt nnel-Server-Endpt nnel-Server-Endpt nnel-Server-Endpt nnel-Server-Endpt nnel-Server-Endpt	Ie, select the attribute RADIUS Standard RADIUS Standard	and click Add Description Message to be dia Type of service us Tunnel to which a Name used by the IP address of the i Transport medium Password for a par Name used by the IP address of the Tunneling protocol Used to avance to	played to user whe remains requested session is to be as tunnel initiator duri initiator end of the to to use when creative enticating to a remo- ticular tunnels are tunnel terminator of server end of the tu- for to e used completeru NAS factor	n authenticati signed ng the authen unnel ng a tunnel to be server tunnel when sion kuing the auth nnel	Enumera Attribute Service Attribute 6 Attribute Enumer Attribute	ble Attribute 1 name: -Type - number: - format: - alor - value:	Information	

接下來,您需要從RADIUS屬性清單中選擇**Vendor-Specific**屬性。

∆dd

Close

Add Attributes	<u>?×</u>	Multivalued Attribute Information	? ×
To add an attribute to the Profile, select the attribute RADIUS attributes:	and click Add	Attribute name: Vendor-Specific	
Name Vendor Reply-Message RADIUS Standard Service-Type RADIUS Standard Turnel-Resignment-ID RADIUS Standard Turnel-Clert-Auth-ID RADIUS Standard Turnel-Clert-Endpt RADIUS Standard Turnel-Research RADIUS Standard Turnel-Research RADIUS Standard Turnel-Research RADIUS Standard Turnel-Perference RADIUS Standard Turnel-Fype US: Rabults Standard User-Datin-Propetter Wicrosoft USR-AT-Cal-Input-Filter U.S. Robotics, L USR-AT-Cal-Output-Filter U.S. Robotics, L	Description Message to be displayed to user when authenticab Type of service user has requested Turnel to which a session is to be assigned Name used by the turnel infieldor during the authen IP address of the initiator end of the turnel Transport medium to use when creating a turnel to Password for authenticating to a remote server Relative preference assigned to each turnel when Group ID for a particular turneled session Name used by the turnel terminator during the authen IP address of the cerver end of the turnel turneling protocols to be used Used to support proprietay NAS features Cisco AV Pair VSA Ignore the user's dial in properties Description not available Description not available Description not available Description not available Description not available	Attribute number: 26 Attribute format: OctetString Attribute values: Vendor Value Image: Image	Move_Up Move_Down Eemove Ecit
	Add Close	OK.	Cancel

在下一個視窗中,按一下Add以選擇新的VSA。此時將出現「供應商特定屬性資訊」視窗。在 Specify network access server vendor下,選擇Enter Vendor Code。輸入Airespace VSA的供 應商代碼。Cisco Airespace VSA的供應商代碼為14179。由於此屬性符合VSA的RADIUS RFC規範,請選擇Yes。它符合。

Vendor-Specific Attribute	Information ? 🗙	
Attribute name:		
Vendor-Specific		
Specify network access serve	er vendor.	
Select from list:	RADIUS Standard	
• Enter Vendor Code:	14179	
Specify whether the attribute of vendor specific attributes.	conforms to the RADIUS RFC specification for	
	OK Cancel	按一下「Configur

Attribute」。在配置VSA(符合RFC)視窗中,輸入供應商分配的屬性編號、屬性格式和屬性 值,具體取決於您要使用的VSA。要按使用者設定WLAN-ID,請執行以下操作:**屬性名**稱 — Airespace-WLAN-Id**供應商分配的屬性編**號 — 1**屬性格式** — 整數/十進位制值- WLAN-ID**範例**

Configure VSA (RFC compliant)		? ×	
Vendor-assigned attribute number:			
1			
<u>A</u> ttribute format:			
Decimal		•	
Attri <u>b</u> ute value:			
2			
	OK	Cancel	
			安使用者設定
eS配置檔案,請執行以下操作:屬 	性名 稱 — Airespace-Qo 	S-Level 供應商分	配的屬性編 號 曲節例 2
- 2周住借式 — 聖數/ 1 進位制值- 0 Configure VSA (RFC compliant)	—	— 日 亚 , 3 —	주 부방 171 / 스
Vender-assigned attribute number:			
2			
Attribute format:			
Decima			
Attribute value:			
3			
	ОК	Cancel	

DSCP值,請執行以下操作:**屬性名**稱 — Airespace-DSCP**供應商分配的屬性編號- 3屬性格式** — 整數/十進位制**值**- DSCP值**範例 3**

Configure VSA (RFC compliant)		? ×	
Vendor-assigned attribute number:			
3			
Attribute format:			
Decimal		-	
Attri <u>b</u> ute value:			
46			
	ОК С	ancel	
			要按使用者設定

802.1p-Tag,請執行以下操作:**屬性名**稱 — Airespace-802.1p-Tag**供應商分配的屬性編**號 — 4**屬性格式** — 整數/十進位制**Value** - 802.1p-Tag**範例 4**

Configure VSA (RFC compliant)		? ×	1
Vendor-assigned attribute number:			
4			
Attribute format:			
Decimal		•	
Attri <u>b</u> ute value:			
5			
	OK	Cancel	

定介面(VLAN):**Attribute Name** - Airespace-Interface-Name**供應商分配的屬性編**號 — 5**屬性格** 式 — 字串Value — 介面名稱**範例 5**

Configure VSA (RFC compliant)
Vendor-assigned attribute number:
5
Attribute format:
String
Attri <u>b</u> ute value:
vlan10
OK Cancel

____要按使用者設定

ACL,請執行以下操作:**屬性名**稱 — Airespace-ACL-Name**供應商分配的屬性編**號 — 6**屬性** 格式 — 字串Value - ACL-Name範例 6

Configure ¥5A (RFC compliant)	? ×
Vendor-assigned attribute number:	
6	
<u>A</u> ttribute format:	
String	•
Attribute value:	
ACL1	

8. 配置VSA後,按一下OK,直到看到User profile(使用者配置檔案)視窗。

9. 然後按一下Finish以完成配置。您可以在遠端訪問策略下看到新策略。

🐤 Internet Authentication Service		_ 0	١×
Action View 🛛 🖛 🔿 💽 🔢 🚱 😭			
Tree	Name	Order	
Internet Authentication Service (Local) Clients Remote Access Logging Remote Access Policies	Airespace VSA	1	

<u> 組態範例</u>

在此範例中,WLAN設定為Web驗證。使用者由IAS RADIUS伺服器進行身份驗證,並且RADIUS伺 服器配置為按使用者分配QoS策略。

			Save Co	infiguration Ping Logou
	MONITOR WLANS CO	NTROLLER WIRELESS SECURITY MANA	GEMENT COMMANDS	HELP
	WLANs > Edit			< Back Ap
	WLAN ID	1		
s VLAN	WLAN SSID	SSID-WLC2		
	General Policies		Security Policies	
	Radio Policy	All	Lavar 2 Sacurity	None
	Admin Status	Enabled	Layer 2 socurity	MAC Filtering
	Session Timeout (secs)	0		
	Quality of Service (QoS)	Silver (best effort) 💌	Layer 3 Security	None 💌
	WMM Policy	Disabled 🛩		🕑 Web Policy *
	7920 Phone Support	🔝 Client CAC Limit 📋 AP CAC Limit		Authentication O Pass
	Broadcast SSID	Enabled	Preauthentication	none 🛩
	Aironet IE	Enabled		
	Allow AAA Override	✓ Enabled	* Web Policy cannot and L2TP.	be used in combination with
	Client Exclusion	Enabled ** 60 Timeout Value (secs)	** When client exclu zero means infinity/	asion is enabled, a timeout v will require administrative or
	DHCP Server	Override	to reset excluded di *** CKIP is not sup	ents) ported by 10xx APs
	DHCP Addr. Assignment	Required		
	Interface Name	internal 💌		
	MFP Version Required	1		
	MFP Signature Generation	Global MFP Disabled)		
	H-REAP Local Switching			
	* H-REAP Local Switching and FORTRESS authentic	not supported with IPSEC, L2TP, PPTP, CRANITE ations.		
	Radius Servers			
		Authentication Servers Accounting Servers		
	Server 1	IP:172.16.1.1. Port:1812 V none V		

您可以從該視窗看到,Web驗證已啟用,驗證伺服器為172.16.1.1,而且在WLAN上也啟用了 AAA覆寫。此WLAN的預設QoS設定設定為Silver。

在IAS RADIUS伺服器上,配置了遠端訪問策略,該策略返回RADIUS接受請求中的QoS屬性 Bronze。當您配置特定於QoS屬性的VSA時,會完成此操作。

Configure ¥SA (RFC compliant)		? ×
Vendor-assigned attribute number:		
2		
<u>A</u> ttribute format:		
Decimal		•
Attri <u>b</u> ute value:		
а		
	UK Cance	

有關如何在IAS伺服器上配置遠端訪問策略的詳細資訊,請參閱本文檔的<u>在IAS上配置遠端訪問策略</u> 部分。

一旦為此設定配置了IAS伺服器、WLC和LAP,無線客戶端就可以使用Web身份驗證進行連線。

<u>驗證</u>

使用本節內容,確認您的組態是否正常運作。

當使用者使用使用者ID和密碼連線到WLAN時,WLC會將憑證傳遞到IAS RADIUS伺服器,該伺服 器根據遠端訪問策略中配置的條件和使用者配置檔案對使用者進行身份驗證。如果使用者驗證成功 ,RADIUS伺服器會傳回也包含AAA覆寫值的RADIUS接受要求。在這種情況下,將返回使用者的 QoS策略。

您可以發出debug aaa all enable命令來檢視身份驗證期間發生的事件順序。以下是輸出範例:

```
(Cisco Controller) > debug aaa all enable
Wed Apr 18 18:14:24 2007: User admin authenticated
Wed Apr 18 18:14:24 2007: 28:1f:00:00:00:00 Returning AAA Error 'Success' (0) for
                     mobile 28:1f:00:00:00:00
Wed Apr 18 18:14:24 2007: AuthorizationResponse: 0xbadff97c
                     structureSize.....70
Wed Apr 18 18:14:24 2007:
Wed Apr 18 18:14:24 2007:
                         resultCode.....0
Wed Apr 18 18:14:24 2007:
                         protocolUsed.....0x0000008
Wed Apr 18 18:14:24 2007:
                         proxyState.....
                          28:1F:00:00:00:00-00:00
Wed Apr 18 18:14:24 2007:
                         Packet contains 2 AVPs:
                             AVP[01] Service-Type.....
Wed Apr 18 18:14:24 2007:
                             0x0000006 (6) (4 bytes)
Wed Apr 18 18:14:24 2007:
                             AVP[02] Airespace / WLAN-Identifier.....
                             0x00000000 (0) (4 bytes)
Wed Apr 18 18:14:24 2007: User admin authenticated
Wed Apr 18 18:14:24 2007: 29:1f:00:00:00:00 Returning AAA Error 'Success' (0) for
                     mobile 29:1f:00:00:00:00
Wed Apr 18 18:14:24 2007: AuthorizationResponse: 0xbadff97c
Wed Apr 18 18:14:24 2007:
                      structureSize.....70
Wed Apr 18 18:14:24 2007:
                         resultCode.....0
Wed Apr 18 18:14:24 2007:
                        protocolUsed.....0x0000008
Wed Apr 18 18:14:24 2007:
                         proxyState.....
                          29:1F:00:00:00:00-00:00
Wed Apr 18 18:14:24 2007:
                         Packet contains 2 AVPs:
Wed Apr 18 18:14:24 2007:
                             AVP[01] Service-Type.....
                             0x0000006 (6) (4 bytes)
                             AVP[02] Airespace / WLAN-Identifier.....
Wed Apr 18 18:14:24 2007:
                             0x00000000 (0) (4 bytes)
Wed Apr 18 18:15:08 2007: Unable to find requested user entry for User-VLAN10
Wed Apr 18 18:15:08 2007: AuthenticationRequest: 0xa64c8bc
Wed Apr 18 18:15:08 2007:
                        Callback.....0x8250c40
Wed Apr 18 18:15:08 2007:
                          protocolType.....0x0000001
                         proxyState.....
Wed Apr 18 18:15:08 2007:
                          00:40:96:AC:E6:57-00:00
                      Packet contains 8 AVPs (not shown)
Wed Apr 18 18:15:08 2007:
Wed Apr 18 18:15:08 2007: 00:40:96:ac:e6:57 Successful transmission of Authentication Packet
                     (id 26) to 172.16.1.1:1812, proxy state 00:40:96:ac:e6:57-96:ac
Wed Apr 18 18:15:08 2007: 00000000: 01 1a 00 68 00 00 00 00 00 00 00 00 00 00 00 00
                      ...h.........
Wed Apr 18 18:15:08 2007: 00000010: 00 00 00 00 01 0d 55 73 65 72 2d 56 4c 41 4e 31
                     .....User-VLAN1
```

Wed Apr 18 18:15:08 2007: 00000020: 30 02 12 fa 32 57 ba 2a ba 57 38 11 bc 9a 5d 59 0...2W.*.W8...]Y Wed Apr 18 18:15:08 2007: 00000030: ed ca 23 06 06 00 00 00 01 04 06 ac 10 01 1e 20 Wed Apr 18 18:15:08 2007: 00000040: 06 57 4c 43 32 1a 0c 00 00 37 63 01 06 00 00 00 .WLC2....7c.... Wed Apr 18 18:15:08 2007: 00000050: 01 1f 0a 32 30 2e 30 2e 30 2e 31 1e 0d 31 37 32 ...20.0.0.1..172 Wed Apr 18 18:15:08 2007: 00000060: 2e 31 36 2e 31 2e 33 30 .16.1.30 Wed Apr 18 18:15:08 2007: 00000000: 02 1a 00 46 3f cf 1b cc e4 ea 41 3e 28 7e cc bcF?.....A>(~... Wed Apr 18 18:15:08 2007: 00000010: 00 e1 61 ae 1a 0c 00 00 37 63 02 06 00 00 03 ..a....7c.... Wed Apr 18 18:15:08 2007: 00000020: 06 06 00 00 00 01 19 20 37 d0 03 e6 00 00 01 377.....7 Wed Apr 18 18:15:08 2007: 00000030: 00 01 ac 10 01 01 01 c7 7a 8b 35 20 31 80 00 00z.5.1... Wed Apr 18 18:15:08 2007: 00000040: 00 00 00 00 1b Wed Apr 18 18:15:08 2007: ****Enter processIncomingMessages: response code=2 Wed Apr 18 18:15:08 2007: ****Enter processRadiusResponse: response code=2 Wed Apr 18 18:15:08 2007: 00:40:96:ac:e6:57 Access-Accept received from RADIUS server 172.16.1.1 for mobile 00:40:96:ac:e6:57 receiveId = 0 Wed Apr 18 18:15:08 2007: AuthorizationResponse: 0x9802520 Wed Apr 18 18:15:08 2007: structureSize.....114 Wed Apr 18 18:15:08 2007: resultCode.....0 Wed Apr 18 18:15:08 2007: protocolUsed.....0x0000001 Wed Apr 18 18:15:08 2007: proxyState..... 00:40:96:AC:E6:57-00:00 Wed Apr 18 18:15:08 2007: Wed Apr 18 18:15:08 2007: Packet contains 3 AVPs: AVP[01] Airespace / QOS-Level..... 0x0000003 (3) (4 bytes) AVP[02] Service-Type..... Wed Apr 18 18:15:08 2007: 0x00000001 (1) (4 bytes) AVP[03] Class..... Wed Apr 18 18:15:08 2007: DATA (30 bytes) Wed Apr 18 18:15:08 2007: 00:40:96:ac:e6:57 Applying new AAA override for station 00:40:96:ac:e6:57 Wed Apr 18 18:15:08 2007: 00:40:96:ac:e6:57 Override values for station 00:40:96:ac:e6:57 source: 48, valid bits: 0x3 qosLevel: 3, dscp: 0xffffffff, dot1pTag: 0xffffffff, sessionTimeout: -1 dataAvgC: -1, rTAvgC: -1, dataBurstC: -1, rTimeBurstC: -1 vlanIfName: '', aclName: ' Wed Apr 18 18:15:12 2007: AccountingMessage Accounting Start: 0xa64c8bc Wed Apr 18 18:15:12 2007: Packet contains 13 AVPs: Wed Apr 18 18:15:12 2007: AVP[01] User-Name..... User-VLAN10 (11 bytes) Wed Apr 18 18:15:12 2007: AVP[02] Nas-Port..... 0x0000001 (1) (4 bytes) Wed Apr 18 18:15:12 2007: AVP[03] Nas-Ip-Address..... 0xac10011e (-1408237282) (4 bytes) AVP[04] NAS-Identifier..... Wed Apr 18 18:15:12 2007: 0x574c4332 (1464615730) (4 bytes) Wed Apr 18 18:15:12 2007: AVP[05] Airespace / WLAN-Identifier..... 0x00000001 (1) (4 bytes) Wed Apr 18 18:15:12 2007: AVP[06] Acct-Session-Id..... 4626602c/00:40:96:ac:e6:57/16 (29 bytes) Wed Apr 18 18:15:12 2007: AVP[07] Acct-Authentic..... 0x00000001 (1) (4 bytes) Wed Apr 18 18:15:12 2007: AVP[08] Tunnel-Type..... 0x000000d (13) (4 bytes) AVP[09] Tunnel-Medium-Type..... Wed Apr 18 18:15:12 2007: 0x0000006 (6) (4 bytes) AVP[10] Tunnel-Group-Id..... Wed Apr 18 18:15:12 2007: 0x3230 (12848) (2 bytes)

Wed	Apr	18	18:15:12	2007:	AVP[11] Acct-Status-Type
					0x0000001 (1) (4 bytes)
Wed	Apr	18	18:15:12	2007:	AVP[12] Calling-Station-Id
					20.0.1 (8 bytes)
Wed	Apr	18	18:15:12	2007:	AVP[13] Called-Station-Id
					172.16.1.30 (11 bytes)

從輸出中您可以看到,使用者已進行驗證。接著,AAA覆寫值會與RADIUS接受訊息一起傳回。在 這種情況下,使用者將獲得Bronze的QoS策略。

您也可在WLC GUI上驗證這點。以下是範例:

Initor Clients > Detail < Back	<u>. A.</u>	MONITOR WLANS CONTR	OLLER WIRELESS SECU	JRITY MANAGEMENT COMM	ANDS HELP		
Interface Client Properties AP Address Out-01-96-act:e6:57 AP Address Out-00:e65:5b:fb:d0 bioson bioson poor Apsy poor Cleards IP Address 00:01-96-act:e6:57 AP Address 00:00:e85:5b:fb:d0 bioson poor Apsy poor Cleards IP Address 00:00:190:e00:e00:e00:e00:e00:e00:e00:e00:e00:e	nitor	Clients > Detail			< Back Link Test Remo		
Sities hroller 19 MAC Address 00:40:96:ac:e6:57 AP Address 00:0b:85:5b:fb:d0 Pless pless IP Address 20.0.0.1 AP Name ap:5b:fb:d0 pless pless User Name User-VLAN10 AP Type 00:2.11a com Rogue APs pue Clents Port Number 1 WLAN SSID SSID-WLC2 com Rogue APs pue Clents Interface internal Status Associated 2.11a Rodios 2.11a Rodios VLAN ID 20 Association ID 1 CCX Version CCXv3 802.11 Authentication Open System DIUS Servers E2E Version Not Supported Reason Code 0 Mobility Role Local Status Code 0 Mobility Role Local Status Code 0 Mobility Role Local Not Implemented Policy Manager State RUN CF Pollable Not Implemented Policy Type N/A Timeout 0 Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Timeout 0 Rearrybion Cipher None WEP State WEP Disable Policy Lavel Dronze Diff Serv Code Point (DSCP) disabled	mary	Client Properties		AP Properties	AP Properties		
T3 JP Address 20.0.1 AP Name sp:5b:fb:d0 Noss User Name User-VLANIO AP Type 02.11a Diver Rogue APs Port Number 1 WLAN SSID SSID-WLC2 Diver Rogue APs Interface internal Status Associated 2.11a Rodios Interface internal Status Association ID 1 2.11a Rodios VLAN ID 20 Association ID 1 CCX Version CCXv3 802.11 Authentication Open System DIUS Servers E2E Version Not Supported Reason Code 0 Mobility Role Local CCP Pollable Not Implemented Policy Manager State RUN CF Pollable Not Implemented Policy Type N/A Short Preamble Not Implemented Policy Type N/A Timeout 0 Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A WEP Disable WEP Disable Policy Type N/A WEP State WEP Disable Policy Type Nore WEP State VEP Disable Policy Lavel Disabled Policy Lavel Stabled P	istics otroller	MAC Address	00:40:96:ac:e6:57	AP Address	00:0b:85:5b:fb:d0		
Mess pare APs pare APs pare Cleants inter Rogue APs pare Cleants User Number 1 WLAN SSID 82:11a Port Number 1 WLAN SSID SSID-WLC2 Interface internal Status Associated 1:11 by Radios VLAN ID 20 Association ID 1 CCX Version CCXv3 802:11 Authentication Open System DIUS Servers E2E Version Not Supported Reason Code 0 Mobility Role Local Status Code 0 Mobility Peer IP Address N/A CF Pollable Not Implemented Policy Manager State RUN CF Poll Request Not Implemented Policy Type N/A Scourity Policy Completed Yes Polic Channel Agility Not Implemented Policy Type N/A Timeout 0 Mobility Pier Timeout 0 Policy Type N/A Timeout 0 Mobility Pier Timeout WIM State Disabled Policy Type N/A Mone WEP Disable VEP Disable VEP Disable Policy Type No Bronze WIM State Disabled VEX State VEX State Polif Serv Code Point (DSCP) Gasbled Moseled State VEX State </td <td>ts</td> <td>IP Address</td> <td>20.0.0.1</td> <td>AP Name</td> <td>ap:5b:fb:d0</td>	ts	IP Address	20.0.0.1	AP Name	ap:5b:fb:d0		
We Royue APs We Royue APs We Clearts Port Number 1 WLAN SSID SSID-WLC2 We Clearts Interface internal Status Associated 111s Radios VLAN ID 20 Association ID 1 111s Radios VLAN ID 20 Association ID 1 111s Radios CCX Version CCXV3 802.11 Authentication Open System 22E Version Not Supported Reason Code 0 Mobility Peer IP Address N/A CF Pollable Not Implemented Policy Manager State RUN CF Pollable Not Implemented Policy Manager State RUN CF Pollable Not Implemented Security Information Yes Channel Agility Not Implemented Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Timeout 0 EAP Type N/A WEP State WEP Disable Quality of Service Properties Disabled Not Subed VER State VER State WMM State Disabled Bronze Dif Serv Code Point (DSCP) disabled	less	User Name	User-VLAN10	AP Type	802.11a		
use Cleants Interface internal Status Associated .11a Radios VLAN ID 20 Association ID 1 .11b/g Radios VLAN ID CCX V3 802.11 Authentication Open System .11b/g Radios CCX Version CCXV3 802.11 Authentication Open System .11b/g Radios CCX Version CCXV3 Reason Code 0 .11b/g Radios Not Supported Reason Code 0 .11b/g Radios Not Supported Status Code 0 .11b/g Radios N/A CF Pollable Not Implemented .11b/g Radios N/A CF Pollable Not Implemented .11b/g Radios RUN CF Pollable Not Implemented .11b/g Radios Yes Short Preamble Not Implemented .11b/g Radios Yes Channel Agility Not Implemented .11b/g Radios N/A WEP State WEP Disable .11b/g Radios N/A WEP State WEP Disable .11b/g Radios Bronze Dif Servic Code Point (DSCP) disabled .11b/g Radio Bro	wn Rogue APs	Port Number	1	WLAN SSID	SSID-WLC2		
111 Ardios VLAN ID 20 Association ID 1 111 by g Radios CCX Version CCXv3 802.11 Authentication Open System NUS Servers E2E Version Not Supported Reason Code 0 Mobility Role Local Staus Code 0 Mobility Peer IP Address N/A CF Pollable Not Implemented Policy Manager State RUN CF Poll Request Not Implemented Security Information Yes Channel Agility Not Implemented Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Timeout 0 WEP Disable EAP Type N/A WEP State WEP Disable WEP Disable Qos Level Bronze Diff Serv Code Point (DSCP) disabled USAbled USAbled	ue Clients oc Rogues	Interface	internal	Status	Associated		
Of divides of the servers CCX Version CCXV3 802.11 Authentication Open System E2E Version Not Supported Reason Code 0 Mobility Role Local Status Code 0 Mobility Peer IP Address N/A CF Pollable Not Implemented Policy Manager State RUN CF Poll Request Not Implemented Security Information Yes Short Preamble Not Implemented Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Timeout 0 EAP Type N/A WEP State WEP Disable Qos Level Bronze Disabled WIM State Disabled Of Level Bronze Diff Serv Code Point (DSCP) disabled	11a Radios	VLAN ID	20	Association ID	1		
NUS Servers E2E Version Not Supported Reason Code 0 Mobility Role Local Status Code 0 Mobility Peer IP Address N/A CF Pollable Not Implemented Policy Manager State RUN CF Poll Request Not Implemented Security Information Short Preamble Not Implemented Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Timeout 0 EAP Type N/A WEP State WEP Disable Quality of Service Properties Disabled WMM State Disabled Diff Serv Code Foint (DSCP) disabled disabled Status Code	nts	CCX Version	CCXv3	802.11 Authentication	Open System		
Mobility Role Local Status Code 0 Mobility Peer IP Address N/A CF Pollable Not Implemented Policy Manager State RUN CF Poll Request Not Implemented Security Information Short Preamble Not Implemented Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Timeout 0 Encryption Cipher None WEP State WEP Disable EAP Type N/A WEP State WEP Disable Qos Level Bronze Disabled Verse Verse Diff Serv Code Point (DSCP) disabled disabled Verse Verse	105 Servers	E2E Version	Not Supported	Reason Code	0		
Mobility Peer IP Address N/A CF Pollable Not Implemented Policy Manager State RUN CF Poll Request Not Implemented Security Information Short Preamble Not Implemented Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Channel Agility Not Implemented Policy Type N/A Timeout 0 Encryption Cipher None WEP State WEP Disable EAP Type N/A Timeout 0 Quality of Service Properties WMM State Disabled VEP State VEP Disable Off Servi Code Point (DSCP) disabled disabled VEX VEX VEX		Mobility Role	Local	Status Code	0		
Policy Manager State RUN CF Poll Request Not Implemented Security Information Short Preamble Not Implemented Security Policy Completed Yes PBCC Not Implemented Policy Type N/A Channel Agility Not Implemented Policy Type N/A Timeout 0 Encryption Cipher None WEP State WEP Disable EAP Type N/A WEP State WEP Disable Quality of Service Propertise Disabled Poinze Poinze Diff Serv Code Point (DSCP) disabled Stabled Vertice Service Propertise		Mobility Peer IP Address	N/A	CF Pollable	Not Implemented		
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Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Timeout 0 Encryption Cipher None WEP State WEP Disable EAP Type N/A Very State WEP Disable WMM State Disabled Bronze Very State Very State Diff Serv Code Point (DSCP) disabled disabled Very State		Security Information		Short Preamble	Not Implemented		
Security Policy Completed Yes Channel Agility Not Implemented Policy Type N/A Timeout 0 Encryption Cipher None WEP State WEP Disable EAP Type N/A Quality of Service Properties WMM State Disabled QoS Level Bronze Diff Serv Code Point (DSCP) disabled 802.1p Tag disabled			M	PBCC	Not Implemented		
Policy Type N/A Timeout 0 Encryption Cipher None WEP State WEP Disable EAP Type N/A Quality of Service Properties WMM State Disabled QoS Level Bronze Diff Serv Code Point (DSCP) disabled 602.1p Tag disabled		Security Policy Completed	Tes	Channel Agility	Not Implemented		
Encryption Cipher None WEP State WEP Disable EAP Type N/A Quality of Service Properties WMM State Disabled QoS Level Bronze Diff Serv Code Point (DSCP) disabled 802.1p Tag disabled		Policy Type	N/A	Timeout	0 WEP Disable		
EAP Type N/A Quality of Service Properties WMM State Disabled QoS Level Bronze Diff Serv Code Point (DSCP) disabled 802.1p Tag disabled		Encryption Cipher	None	WEP State			
Quality of Service Properties WMM State Disabled QoS Level Bronze Diff Serv Code Point (DSCP) disabled 802.1p Tag disabled		EAP Type	N/A				
WMM State Disabled QoS Level Bronze Diff Serv Code Point (DSCP) disabled 802.1p Tag disabled		Quality of Service Propert	ies				
QoS Level Bronze Diff Serv Code Point (DSCP) disabled 802.1p Tag disabled		WMM State	Disabled				
Diff Serv Code Point (DSCP) disabled 802.1p Tag disabled		QoS Level	Bronze				
802.1p Tag disabled		Diff Serv Code Point (DSCP)	disabled				
		802.1p Tag	disabled				

注意:此SSID的預設QoS配置檔案是Silver。但是,由於選擇了AAA覆蓋,並且使用者在IAS伺服器 上配置了Bronze的QoS配置檔案,因此預設的QoS配置檔案將被覆蓋。

<u>疑難排解</u>

您可以在WLC上使用**debug aaa all enable**指令對組態進行疑難排解。本檔案的<u>驗證</u>一節將提供在正 常網路中此偵錯輸出的範例。

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>。

相關資訊

• <u>思科無線LAN控制器組態設定指南4.0版</u>

- 使用WLC和Cisco Secure ACS配置示例根據SSID限制WLAN訪問
- 無線產品支援
- 技術支援與文件 Cisco Systems