

使用AP配置基本WLAN連線

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簡介

本文說明如何使用執行Cisco IOS®版15.2(2)JB自發程式碼的Cisco存取點(AP)來設定基本無線LAN(WLAN)連線。

必要條件

需求

思科建議您在嘗試此組態之前，對以下主題擁有基本知識：

- 無線射頻(RF)技術
- Cisco AP訪問

本文檔假設已安裝PC或筆記型電腦的無線客戶端卡的驅動程式。

採用元件

本檔案中的資訊是根據執行Cisco IOS軟體版本15.2(2)JB的Aironet 1040系列AP。

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

設定

本節介紹如何使用GUI配置AP。

使用GUI有兩種方法訪問AP：

- 通過GUI連線之前，請為裝置分配IP地址。
- 使用DHCP獲取IP地址。

說明

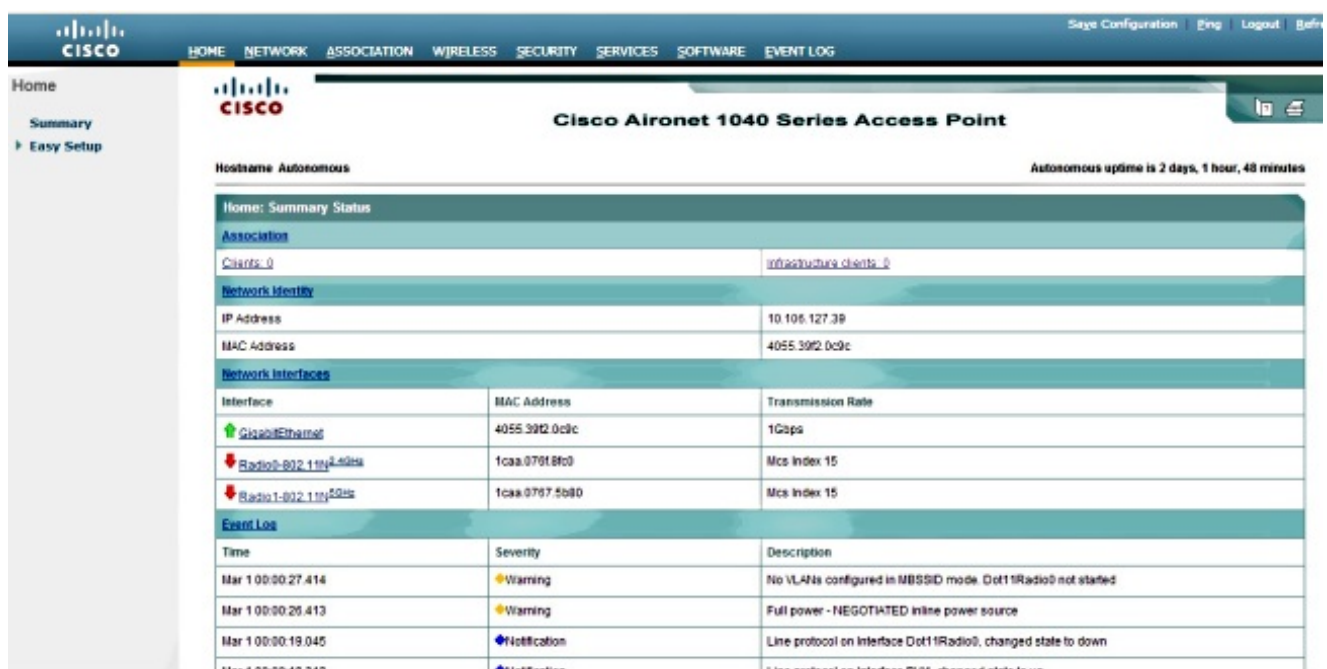
配置IP地址後，您可以通過瀏覽器訪問AP以配置AP。

請完成以下步驟：

1. 要使用GUI訪問AP並開啟Summary Status視窗，請完成以下步驟：

- 開啟Web瀏覽器，在地址行中輸入AP的IP地址。
- 輸入Username和Password。預設使用者名稱和密碼為Cisco。

此時將顯示「彙總狀態」視窗，如下所示：



The screenshot displays the Cisco Aironet 1040 Series Access Point web interface. The page title is "Cisco Aironet 1040 Series Access Point". The main content area shows the "Home: Summary Status" page, which is divided into several sections:

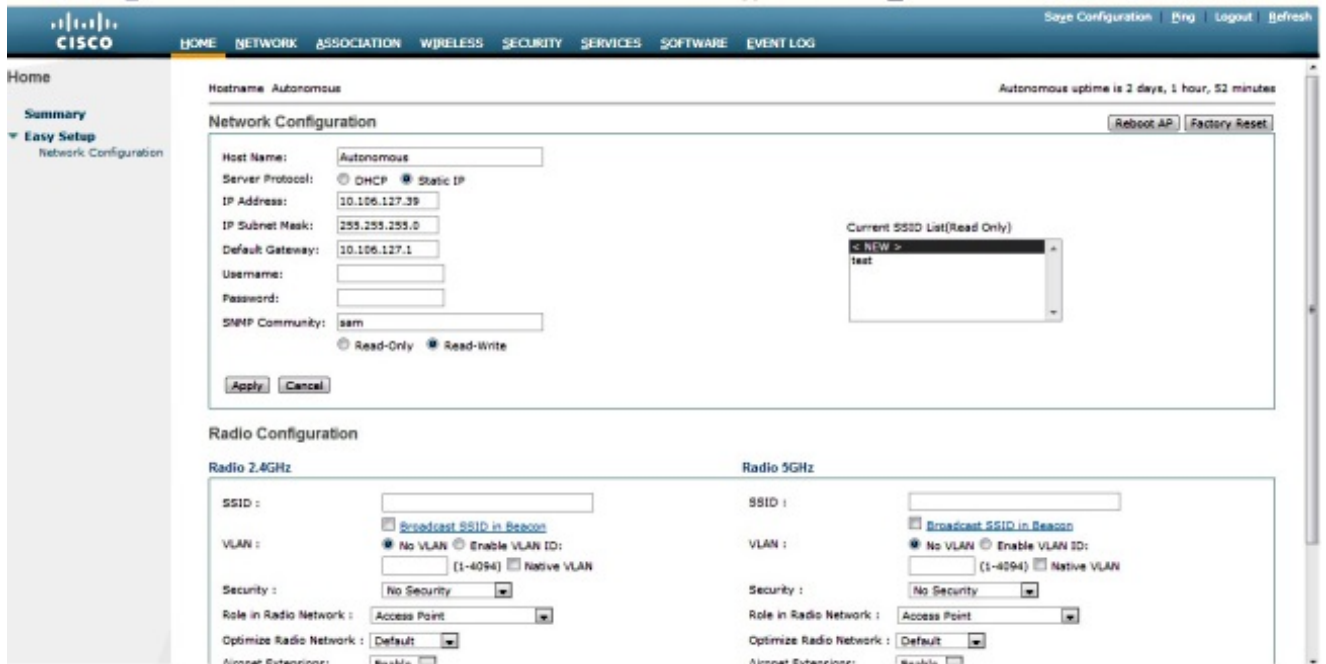
- Association:** Shows "Clients: 0" and "Infrastructure clients: 0".
- Network Identity:** Shows "IP Address: 10.106.127.39" and "MAC Address: 4055.3902.0c0c".
- Network Interfaces:** A table listing interfaces and their transmission rates.
- Event Log:** A table showing system events with time, severity, and description.

Interface	MAC Address	Transmission Rate
GigabitEthernet0	4055.3902.0c0c	1Gbps
Radio0-802.11n-4.50M	1caa.0791.8fa0	Mcs Index 15
Radio1-802.11n-50M	1caa.0797.5b00	Mcs Index 15

Time	Severity	Description
Mar 1 00:00:27.414	Warning	No VLANs configured in MBSSID mode. Dot11Radio0 not started
Mar 1 00:00:26.413	Warning	Full power - NEGOTIATED inline power source
Mar 1 00:00:19.045	Notification	Line protocol on Interface Dot11Radio0, changed state to down
Mar 1 00:00:18.247	Notification	Line protocol on Interface Dot11Radio0, changed state to up

2. 按一下左側的Easy Setup，然後按一下Network Configuration。

將顯示「Easy Setup (輕鬆設定)」視窗。您可以使用此視窗來配置建立無線連線所必需的一些基本引數。以下是該視窗的示例：

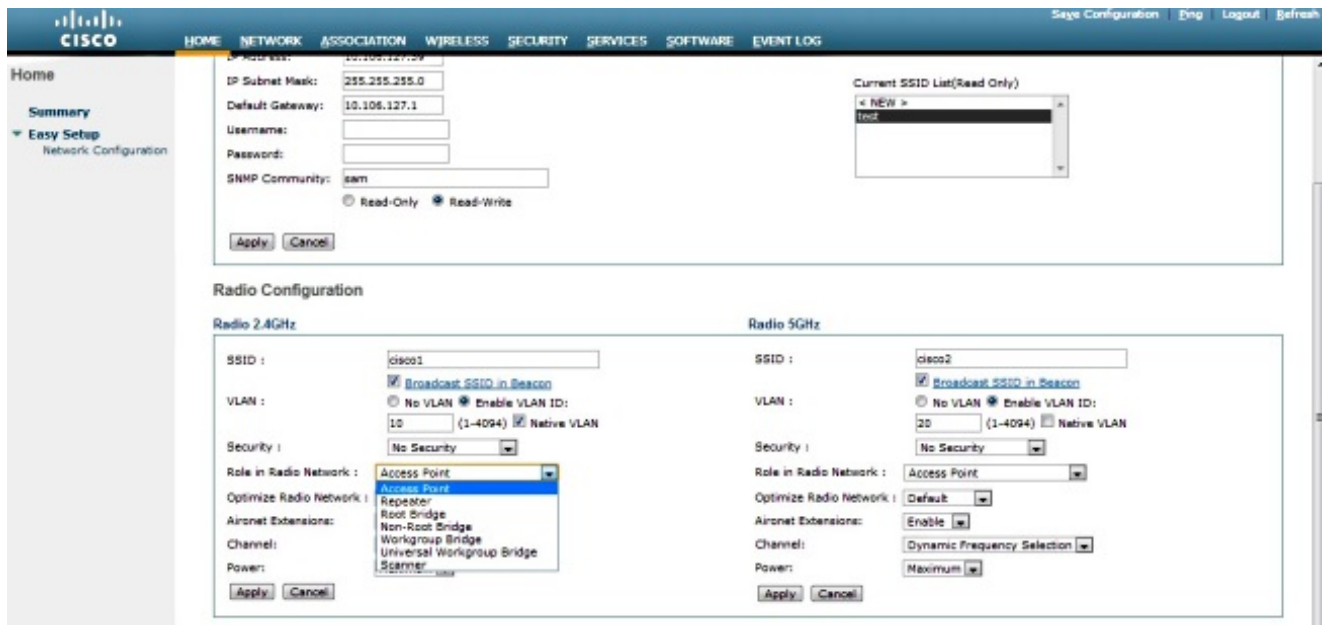


3. 在Easy Setup視窗中輸入以下配置引數：

- AP的主機名
- AP的IP地址配置 (如果IP地址是靜態的)
- 預設頻道
- 使用者名稱/密碼
- 無線電2.4GHz和無線電5GHz的服務集識別符號(SSID)
- SSID Security 配置和其他特定引數

提示：您可以在「Easy Setup (輕鬆設定)」下重新啟動AP或出廠重置其配置。

以下為範例視窗：



4. 按一下Apply以儲存對同一頁上特定部分的更改。

5. 要檢視網路介面摘要，請導航到網路>網路介面>摘要。

The screenshot shows the 'Network Interfaces: Summary' page with the following table:

Network Interfaces: Summary			
System Settings			
IP Address (Static)	10.106.127.39		
IP Subnet Mask	255.255.255.0		
Default Gateway	10.106.127.1		
MAC Address	4055.3942.0c9c		
Interface Status			
	GigabitEthernet	Radio2-802.11n 2.4Ghz	Radio5-802.11n 5Ghz
Software Status	Enabled ↑	Disabled ↓	Disabled ↓
Hardware Status	Up ↑	Down ↓	Down ↓
Interface Resets	2	2	0
Receive			
Input Rate Timespan	5 minute	5 minute	5 minute
Input Rate (bits/sec)	3000	0	0
Input Rate (packets/sec)	4	0	0
Time Since Last Input	00:00:00	never	never
Total Packets Input	973846	0	0
Total Bytes Input	53910892	0	0
Broadcast Packets	560263	0	0
Total Input Errors	0	0	0

6. 要檢視或編輯GigabitEthernet埠、Radio 2.4GHz和Radio 5GHz設定，請導航至Network Interface部分。

以下截圖：

[HOME](#)
[NETWORK](#)
[ASSOCIATION](#)
[WIRELESS](#)
[SECURITY](#)
[SERVICES](#)
[SOFTWARE](#)
[EVENT LOG](#)

[Cisco](#)
[Size Configuration](#)
[Eng](#)
[Logout](#)
[Refresh](#)

NETWORK

- NETWORK MAP**
 - Summary
 - Adjacent Nodes
- NETWORK INTERFACE**
 - Summary
 - IP Address
 - GigabitEthernet
 - Radio0-802.11n 2G-Hz
 - Radio0-802.11n 5G-Hz

GIGABITETHERNET STATUS

SETTINGS

Hostname Autonomous Autonomous uptime is 2 days, 2 hours, 6 minutes

Network Interfaces: GigabitEthernet Status

Configuration

Software Status	Enabled ↑	Hardware Status	Up ↑
Maximum Rate		Duplex	

Interface Statistics

Interface Resets	2	No Carrier	0
Lost Carrier	0		

Receive / Transmit Statistics

Receive		Transmit	
5 Min Input Rate (bits/sec)	10000	5 Min Output Rate (bits/sec)	32000
5 Min Input Rate (packets/sec)	13	5 Min Output Rate (packets/sec)	11
Time Since Last Input	00:00:00	Time Since Last Output	00:00:00
Total Packets Input	675503	Total Packets Output	23910
Total Bytes Input	54067620	Total Bytes Output	6604913
Broadcast Packets	595676		

Error Statistics

Receive		Transmit	
Total Input Errors	0	Total Output Errors	0
Overrun Errors	0	Underrun Errors	0
Ignored Packets	0	Deferred Packets	0
Framing Errors	0	Babblers	0

RADIO0-802.11N^{2.4GHZ} STATUS

DETAILED STATUS

SETTINGS

CARRIER BUSY TEST

Hostname Autonomous Autonomous uptime is 2 days, 2 hours, 7 minutes

Network Interfaces: Radio0-802.11N^{2.4GHZ} Status

Configuration

Software Status	Disabled ↓	Hardware Status	Down ↓
Operational Rates	1.0, 2.0, 5.5, 11.0, 6.0, 9.0, 12.0, 18.0, 24.0, 36.0, 48.0, 54.0, m0-2, m1-2, m2-2, m3-2, m4-2, m5-2, m6-2, m7-2, m8-2, m9-2, m10-2, m11-2, m12-2, m13-2, m14-2, m15-2 Mb/sec	Basic Rate	1.0, 2.0, 5.5, 11.0 Mb/sec
Aironet Extensions	Enabled	Carrier Set	Americas
Configured Radio Channel	0 MHz Channel 0	Transmitter Power	0 dBm (1.0 to m2304)
Active Radio Channel	0 MHz Channel 0	Channel Width	20 MHz
Role in Network	Access Point		
Antenna Gain	0 dB		

Interface Statistics

Interface Resets	2		
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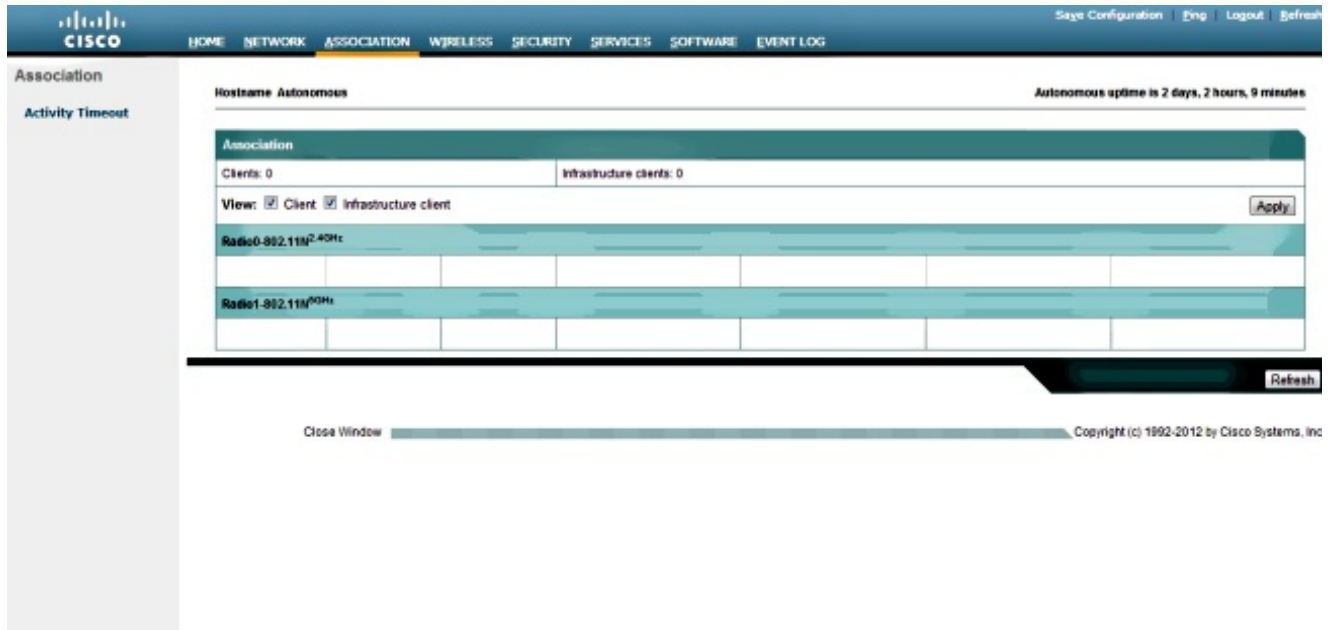
Receive / Transmit Statistics

Receive		Transmit	
5 Min Input Rate (bits/sec)	0	5 Min Output Rate (bits/sec)	0
5 Min Input Rate (packets/sec)	0	5 Min Output Rate (packets/sec)	0
Time Since Last Input	never	Time Since Last Output	never
Total Packets Input	0	Total Packets Output	0
Total Bytes Input	0	Total Bytes Output	0

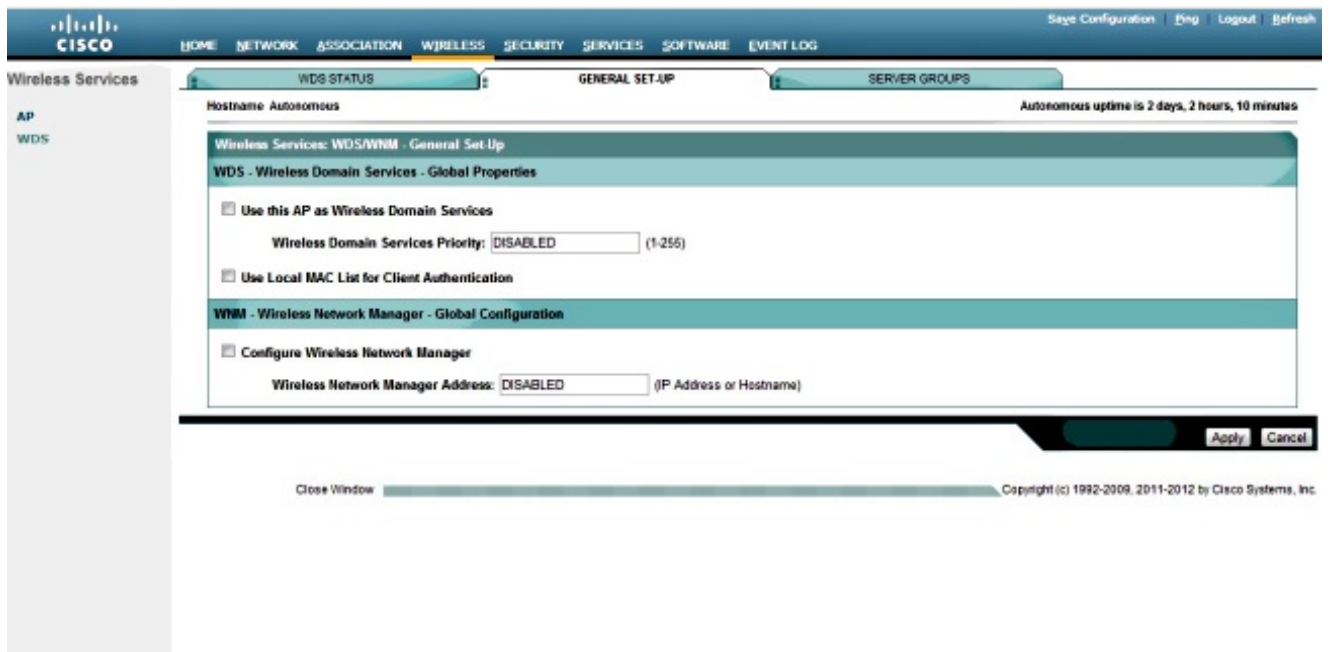
Error Statistics

Receive		Transmit	
Total Input Errors	0	Total Output Errors	0

7. 按一下Association頁籤以檢查客戶端關聯：



8. 自治AP也可用於無線域服務(WDS)。按一下Wireless頁籤以配置或檢視WDS設定：



9. 要配置以下AP引數，請按一下Security頁籤：

- Admin Access — 設定使用者名稱和密碼，並使用本地或身份驗證伺服器
- Encryption Manager — 為無線電設定加密
- SSID Manager — 配置SSID
- Server Manager — 新增RADIUS伺服器
- AP身份驗證 — 為AP使用證書

- 入侵檢測 — 配置管理幀保護
- 本地RADIUS伺服器 — 將AP配置為RADIUS伺服器
- 高級安全 — 使用MAC地址或訪問控制清單配置MAC地址身份驗證

螢幕截圖如下：

Security

Admin Access
Encryption Manager
SSID Manager
Server Manager
AP Authentication
Intrusion Detection
Local RADIUS Server
Advance Security

Hostname Autonomous Autonomous uptime is 2 days, 2 hours, 19 minutes

Security Summary

Administrators

Username	Read-Only	Read-Write
Cisco	<input checked="" type="checkbox"/>	

Service Set Identifiers (SSIDs)

SSID	VLAN	Band Select	Radio	BSSID/Guest Mode	Open	Shared	Network EAP	MFP
test		Disabled	Radio0-302 11N ^{2.4GHz}	1caa 079f Bfc0	with EAP			Disabled

Radio0: 802.11N^{2.4GHz} Encryption Settings

Encryption Mode	WEP		Cipher						Key Rotation
	MIC	PPK	TKIP	WEP40bit	WEP128bit	CKIP	CMC	AES CCM	
Cipher								<input checked="" type="checkbox"/>	

Radio1: 802.11N^{40MHz} Encryption Settings

Encryption Mode	WEP		Cipher						Key Rotation
	MIC	PPK	TKIP	WEP40bit	WEP128bit	CKIP	CMC	AES CCM	
Cipher								<input checked="" type="checkbox"/>	

Server-Based Security

Server Name/IP Address	Type	EAP	MAC	Admin	Accounting
1.1.1.1	RADIUS	<input checked="" type="checkbox"/>			

10. Services頁籤允許您配置可用於AP的服務，例如Telnet、安全外殼(SSH)或思科發現協定(CDP):

Services

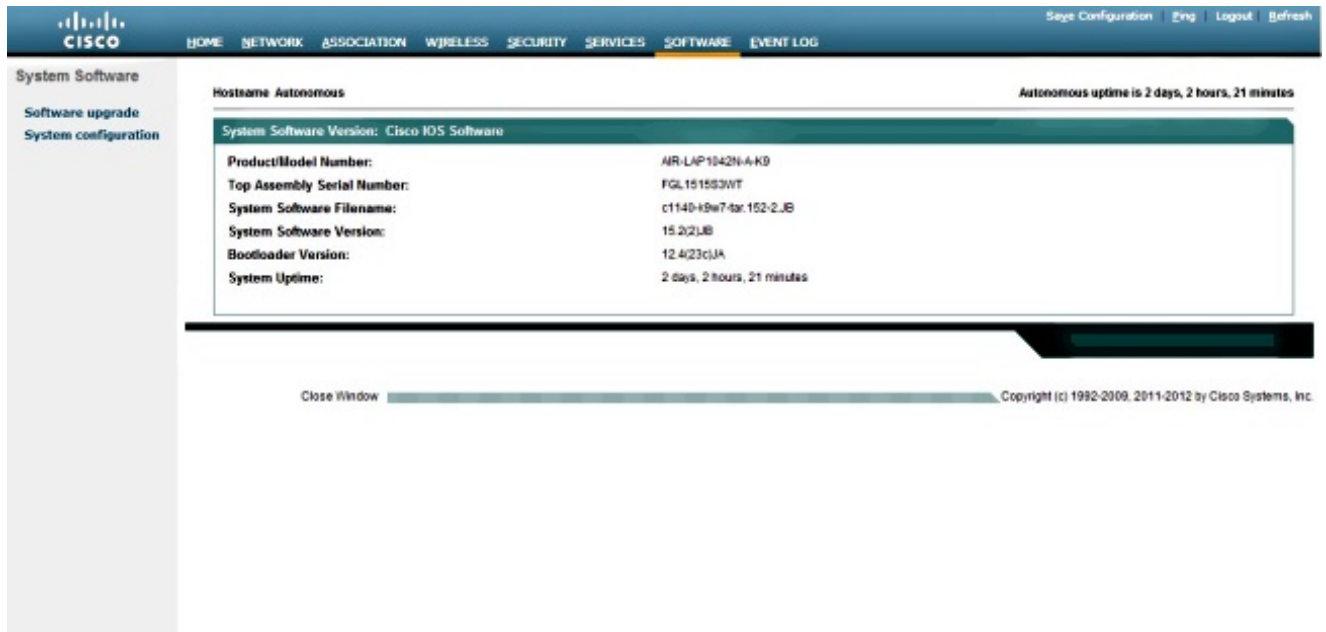
Telnet/SSH
Hot standby
CDP
DNS
Filters
HTTP
QOS
Stream
SNMP
SNTP
VLAN
ARP Caching
Band Select

Hostname Autonomous Autonomous uptime is 2 days, 2 hours, 20 minutes

Services Summary

Close Window Copyright (c) 1992-2009, 2011-2012 by Cisco Systems, Inc.

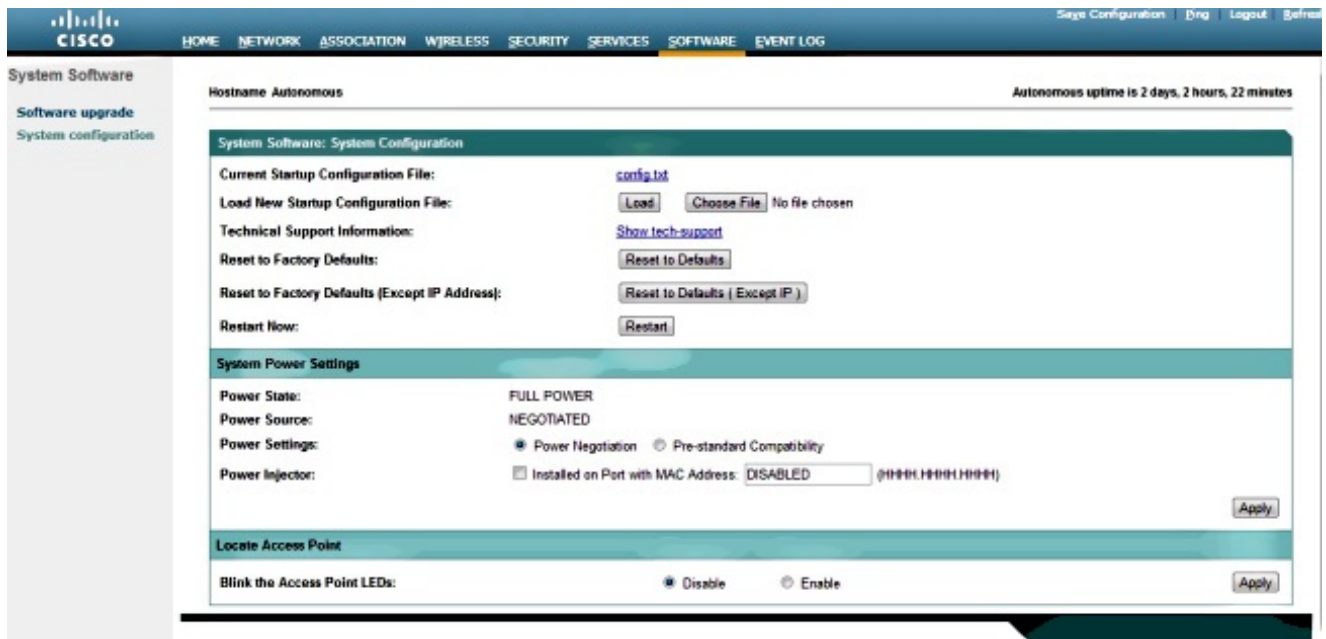
11. 要檢查AP軟體版本或升級AP，請按一下AP Software頁籤：



The screenshot shows the Cisco AP configuration interface. The top navigation bar includes 'HOME', 'NETWORK', 'ASSOCIATION', 'WIRELESS', 'SECURITY', 'SERVICES', 'SOFTWARE', and 'EVENT LOG'. The 'SOFTWARE' tab is selected. On the left, there is a sidebar with 'System Software', 'Software upgrade', and 'System configuration'. The main content area displays 'Hostname: Autonomous' and 'Autonomous uptime is 2 days, 2 hours, 21 minutes'. Below this, a table lists system software details:

System Software Version: Cisco IOS Software	
Product/Model Number:	AIR-LAP1042N-A-K9
Top Assembly Serial Number:	FGL151833WT
System Software Filename:	c1140-19w7-tar.152-2.JB
System Software Version:	15.2(2)JB
Bootloader Version:	12.4(23c)JA
System Uptime:	2 days, 2 hours, 21 minutes

At the bottom, there is a 'Close Window' button and a copyright notice: 'Copyright (c) 1992-2009, 2011-2012 by Cisco Systems, Inc.'



The screenshot shows the Cisco AP configuration interface for 'System Configuration'. The top navigation bar is the same as the previous screenshot. The sidebar shows 'System Software', 'Software upgrade', and 'System configuration'. The main content area displays 'Hostname: Autonomous' and 'Autonomous uptime is 2 days, 2 hours, 22 minutes'. Below this, there are several sections:

- System Software: System Configuration**
 - Current Startup Configuration File: [config.txt](#)
 - Load New Startup Configuration File: No file chosen
 - Technical Support Information: [Show Tech support](#)
 - Reset to Factory Defaults:
 - Reset to Factory Defaults (Except IP Address):
 - Restart Now:
- System Power Settings**
 - Power State: FULL POWER
 - Power Source: NEGOTIATED
 - Power Settings: Power Negotiation Pre-standard Compatibility
 - Power Injector: Installed on Port with MAC Address: @#####H#####
- Locate Access Point**
 - Blink the Access Point LEDs: Disable Enable

驗證

完成配置並啟用配置檔案後，客戶端介面卡將連線到AP。

以下是事件日誌示例，可在Event Log頁籤下訪問：

Save Configuration | Ping | Logout | Refresh

HOME NETWORK ASSOCIATION WIRELESS SECURITY SERVICES SOFTWARE **EVENT LOG**

Event Log

Configuration Options

Hostname: Autonomous Autonomous uptime is 2 days, 2 hours, 24 minutes

Event Log

Start Display at Index: Max Number of Events to Display: Previous Next Refresh Clear

Index	Time	Severity	Description
1	Mar 1 00:00:27.414	Warning	No VLANs configured in MBSSID mode. Dot11Radio0 not started
2	Mar 1 00:00:26.413	Warning	Full power - NEGOTIATED inline power source
3	Mar 1 00:00:19.045	Notification	Line protocol on interface Dot11Radio0, changed state to down
4	Mar 1 00:00:18.312	Notification	Line protocol on interface Bvi11, changed state to up
5	Mar 1 00:00:18.288	Notification	Line protocol on interface Dot11Radio1, changed state to down
6	Mar 1 00:00:18.038	Notification	Interface Dot11Radio0, changed state to reset
7	Mar 1 00:00:18.033	Notification	SSH 1.99 has been enabled
8	Mar 1 00:00:17.969	Notification	SNMP agent on host Autonomous is undergoing a cold start
9	Mar 1 00:00:17.969	Notification	System restarted --
10	Mar 1 00:00:17.550	Notification	Configured from memory by console
11	Mar 1 00:00:17.283	Notification	Interface Dot11Radio1, changed state to administratively down
12	Mar 1 00:00:16.995	Warning	Warning: Server radius1 is not defined.
13	Mar 1 00:00:16.661	Notification	Line protocol on interface GigabitEthernet0, changed state to up
14	Mar 1 00:00:15.635	Information	Interface GigabitEthernet0, changed state to up
15	Mar 1 00:00:13.610	Critical	RADIO crypto PPS self test passed on interface Dot11Radio1Base Ethernet MAC address: 40:55:30:F2:0C:9C

可以更改事件日誌以顯示所需的內容。使用左側導航窗格中的 Configuration Options 更改設定：

Save Configuration | Ping | Logout | Refresh

HOME NETWORK ASSOCIATION WIRELESS SECURITY SERVICES SOFTWARE **EVENT LOG**

Event Log

Configuration Options

Event Log: Configuration Options

Disposition of Events (by Severity Level):

Severity Level	Display on Event Log	Notify via SNMP / Syslog Trap	Record for SNMP / Syslog History Table	Display on Telnet / SSH Monitor
Emergency	<input checked="" type="checkbox"/> Display	<input checked="" type="checkbox"/> Notify	<input checked="" type="checkbox"/> Record	<input checked="" type="checkbox"/> Monitor
Alert	<input checked="" type="checkbox"/> Display	<input checked="" type="checkbox"/> Notify	<input checked="" type="checkbox"/> Record	<input checked="" type="checkbox"/> Monitor
Critical	<input checked="" type="checkbox"/> Display	<input checked="" type="checkbox"/> Notify	<input checked="" type="checkbox"/> Record	<input checked="" type="checkbox"/> Monitor
Error	<input checked="" type="checkbox"/> Display	<input checked="" type="checkbox"/> Notify	<input checked="" type="checkbox"/> Record	<input checked="" type="checkbox"/> Monitor
Warning	<input checked="" type="checkbox"/> Display	<input checked="" type="checkbox"/> Notify	<input checked="" type="checkbox"/> Record	<input checked="" type="checkbox"/> Monitor
Notification	<input checked="" type="checkbox"/> Display	<input checked="" type="checkbox"/> Notify	<input type="checkbox"/> Record	<input checked="" type="checkbox"/> Monitor
Information	<input checked="" type="checkbox"/> Display	<input checked="" type="checkbox"/> Notify	<input type="checkbox"/> Record	<input checked="" type="checkbox"/> Monitor
Debugging	<input checked="" type="checkbox"/> Display	<input type="checkbox"/> Notify	<input type="checkbox"/> Record	<input checked="" type="checkbox"/> Monitor

Syslog Server Host Name or IP Address:

Syslog Facility:

Time Stamp Format for Future Events: System Uptime Global Standard Time Local Time

Event Log Size: (4096-1326878) Available Bytes

History Table Size: (0-500) Messages

Apply Clear Cancel

在此螢幕上，您還可以從 AP GUI 執行 Ping、Save Configuration 和 Logout:

Save Configuration | Ping | Logout | Refresh

HOME NETWORK ASSOCIATION WIRELESS SECURITY SERVICES SOFTWARE **EVENT LOG**

Event Log

Event Log: Configuration Options

疑難排解

目前尚無適用於此組態的具體疑難排解資訊。

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）。