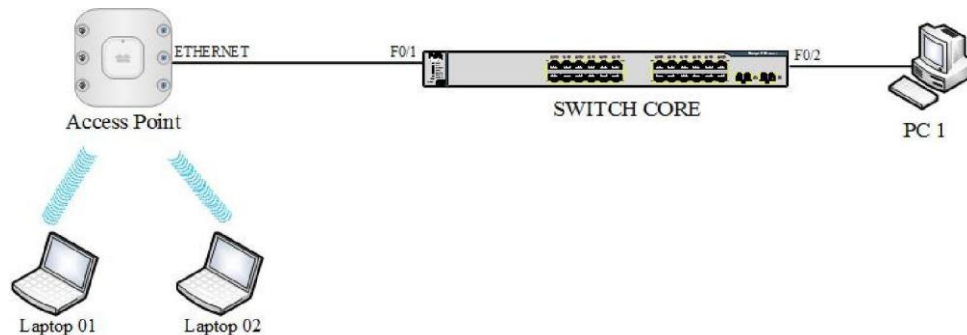


LAB : CẤU HÌNH CISCO AP3502

I. Sơ đồ



II. Mô tả

Bài lab gồm một PC, một Switch và một Access Point được kết nối như hình trên

Trên bài lab này, học viên sẽ thực hiện cấu hình trên AP

Đặt IP theo sơ đồ sau:

Tên thiết bị	Địa chỉ IP
AP	192.168.1.1/24
PC	192.168.1.2/24
Interface Vlan 1	192.168.1.10/24

III. Yêu cầu

1. Giới thiệu về Access Point 3502
2. Kết nối WebPage của AP3502
3. Thiết lập SSID trên AP3502

IV. Cấu hình

Yêu cầu 1. Giới thiệu về Access Point 3502.

Trên Cisco Switch kết nối AP3502

```
Switch Core# show cdp entry ap
```

```
-----
```

```
Device ID: ap Entry address(es): IP
```

```
address: 192.168.1.1
```

```
Platform: cisco AIR-SAP3502E-A-K9,
```

```
Source: Route Bridge ICMP
```

(link-local)

Capabilities: Trans-Bridge

Xóa cấu hình và khởi động AP3502 với cấu hình trắng.

```
ap# erase startup-config
```

Erasing the nvram filesystem will remove all configuration files!
Continue? [confirm] <enter>

[OK]

Erase of nvram: complete

Yêu cầu 2. Kết nối WebPage của AP3502.

Tiến hành kết nối HTTP tới IP của AP3502 là 192.168.1.1 với tài khoản Cisco/Cisco.

Đây là giao diện của AP3502



Home: Summary Status

Association	
Clients: 0	Infrastructure clients: 0

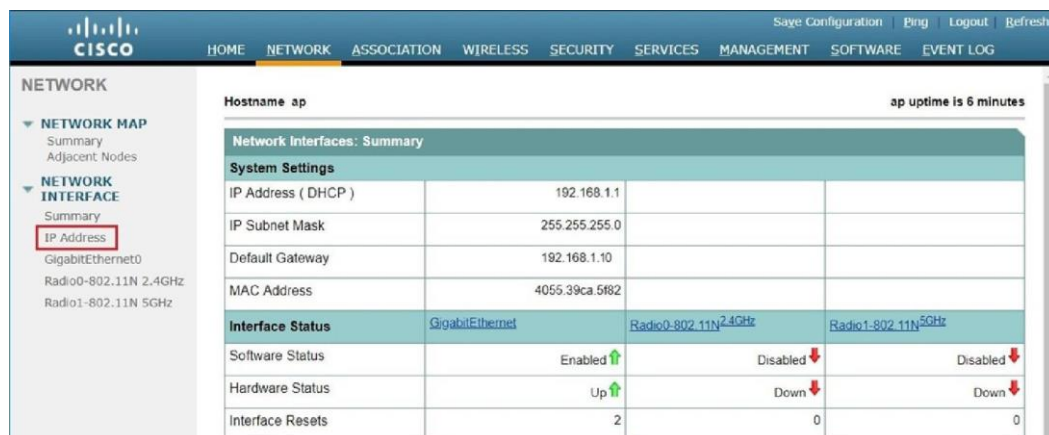
Network Identity	
IP Address	192.168.1.1
IPv6 Address	FE80:4255:39FF:FECA:5F82
MAC Address	4055:39ca:5f82

Network Interfaces		
Interface	MAC Address	Transmission Rate
GigabitEthernet	4055:39ca:5f82	100Mbps
Radio0-802.11N 2.4GHz	1caa:07c8:1d20	Mcs Index 15
Radio1-802.11N 5GHz	1caa:07d8:76b0	Mcs Index 15

Event Log		
Time	Severity	Description
Mar 1 00:52:59.850	Warning	Full power - NEGOTIATED inline power source
Mar 1 00:52:59.850	Notification	Restarting Radio interface Dot11Radio1 due to interface reset

Kiểm tra và đặt IP cho AP3502.

Vào Network → Network Interface → IP Address



Network Interfaces: Summary

System Settings			
IP Address (DHCP)	192.168.1.1		
IP Subnet Mask	255.255.255.0		
Default Gateway	192.168.1.10		
MAC Address	4055:39ca:5f82		

Interface Status			
	GigabitEthernet	Radio0-802.11N 2.4GHz	Radio1-802.11N 5GHz
Software Status	Enabled ↑	Disabled ↓	Disabled ↓
Hardware Status	Up ↑	Down ↓	Down ↓
Interface Resets	2	0	0

Đặt IP cho thiết bị

Hostname ap ap uptime is 7 minutes

Network Interfaces: IP Address

Configuration Server Protocol: ☒ DHCP ☐ Static IP
☐ Disable DHCP Address Binding

IP Address:
 IP Subnet Mask:
 Default Gateway IP Address:
☐ Override DHCP Default Gateway

Network Interfaces: IPv6 Address

IPv6 ☒ Enable ☐ Disable

Configuration Server Protocol: ☒ DHCP ☒ Autoconfig ☐ Static IP

IPv6 Link-Local Address: (X.X.X.X:X)
 IPv6 prefix Address: (X.X.X.X.X:/<0-128>)
☐ Anycast ☐ EUI-64

 IPv6 Address List:
 IPv6 Reachable-time: (0-3600000)

Kiểm tra lại IP: Home → Easy Setup → Network Configuration

CISCO Save Configuration Ping Logout Refresh

HOME NETWORK ASSOCIATION WIRELESS SECURITY SERVICES MANAGEMENT SOFTWARE EVENT LOG

Home

Summary
 Easy Setup
 Network Configuration
 Network Assistant

Hostname ap ap uptime is 8 m

Network Configuration Reboot AP Factory I

Host Name:
 Server Protocol: ☒ DHCP ☐ Static IP
 IP Address:
 IP Subnet Mask:
 Default Gateway:
 IPv6 Protocol: ☒ DHCP ☒ Autoconfig ☐ Static IP
 IPv6 Address: (X:X:X:X:/<0-128>)
 Create a user
 Username:
 Password:
 Change global authentication password
 default enable secret:
 confirm enable secret:
 SNMP Community:
☒ Read-Only ☐ Read-Write

Current SSID List(Read Only)

Hoặc cũng có thể telnet tới AP3502 và thực hiện lệnh để kiểm tra IP của AP3502.

Telnet đến AP3502

User Access Verification

Username: Cisco
Password: Cisco

Kiểm tra IP

ap> show ip interface brief

Interface	IP-Address	OK?	Method	Status	Protocol
BVI1	192.168.1.1	YES	NVRAM	up	up
Dot11Radio0	unassigned	YES	NVRAM	up	up
GigabitEthernet0	unassigned	YES	NVRAM	up	up

Đặt IP cho thiết bị

ap> enable

Password: Cisco

ap# configure terminal

Enter configuration commands, one per line. End with CNTL/Z.

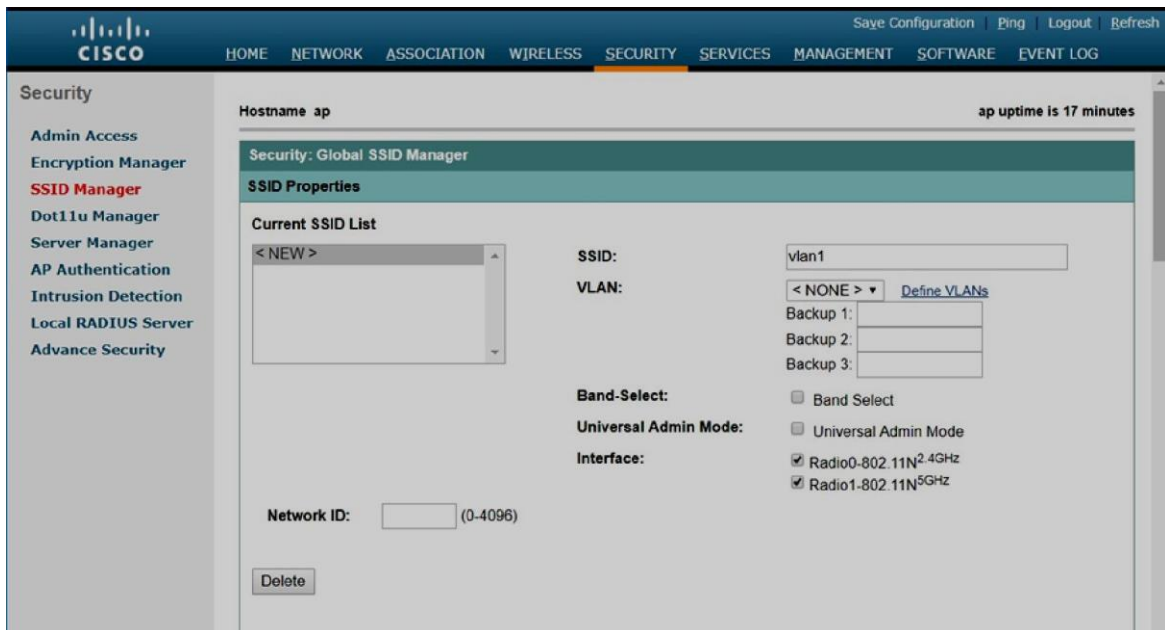
ap(config)# interface bvi 1

Lưu cấu hình

ap# write memory

Yêu cầu 3. Thiết lập SSID trên AP3502.

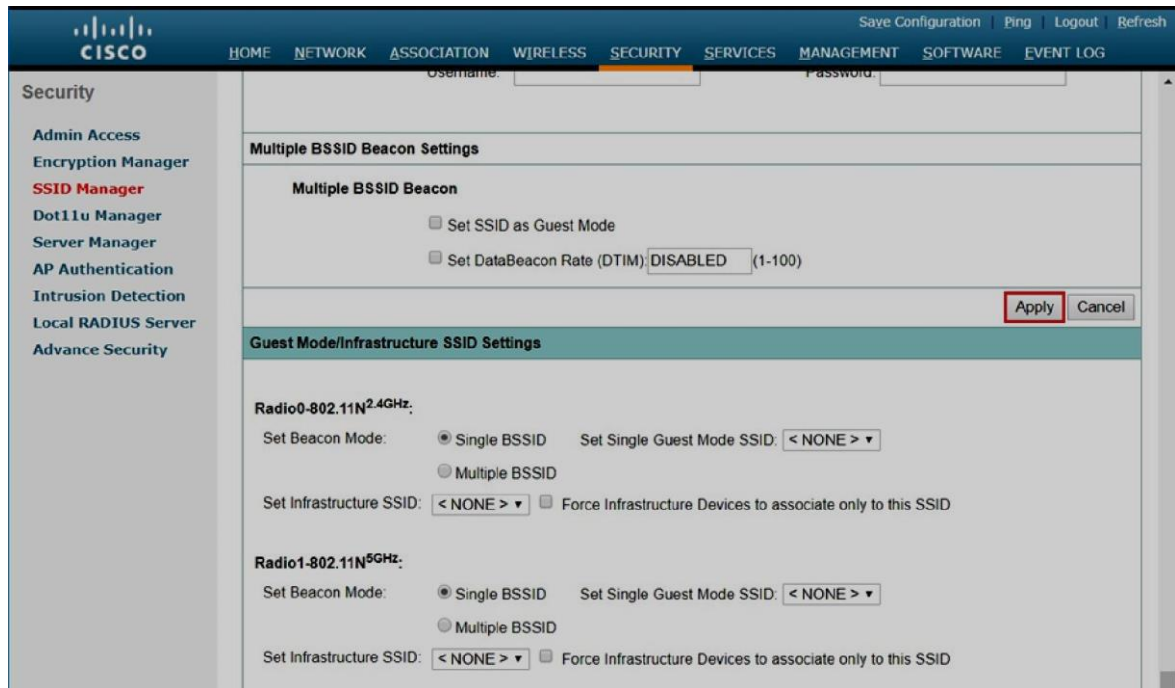
Vào Security → SSID Manager



The screenshot displays the Cisco AP3502 Security: Global SSID Manager web interface. The top navigation bar includes links for HOME, NETWORK, ASSOCIATION, WIRELESS, SECURITY (selected), SERVICES, MANAGEMENT, SOFTWARE, and EVENT LOG. The left sidebar lists various security features: Admin Access, Encryption Manager, SSID Manager (highlighted), Dot11u Manager, Server Manager, AP Authentication, Intrusion Detection, Local RADIUS Server, and Advance Security. The main content area shows the 'Current SSID List' with a 'NEW' button. The 'SSID Properties' section includes fields for SSID (vlan1), VLAN (< NONE >), Band-Select (Band Select), Universal Admin Mode (Universal Admin Mode), and Interface (Radio0-802.11N2.4GHz, Radio1-802.11N5GHz). A 'Network ID' field is also present.

SSID: Đặt tên SSID

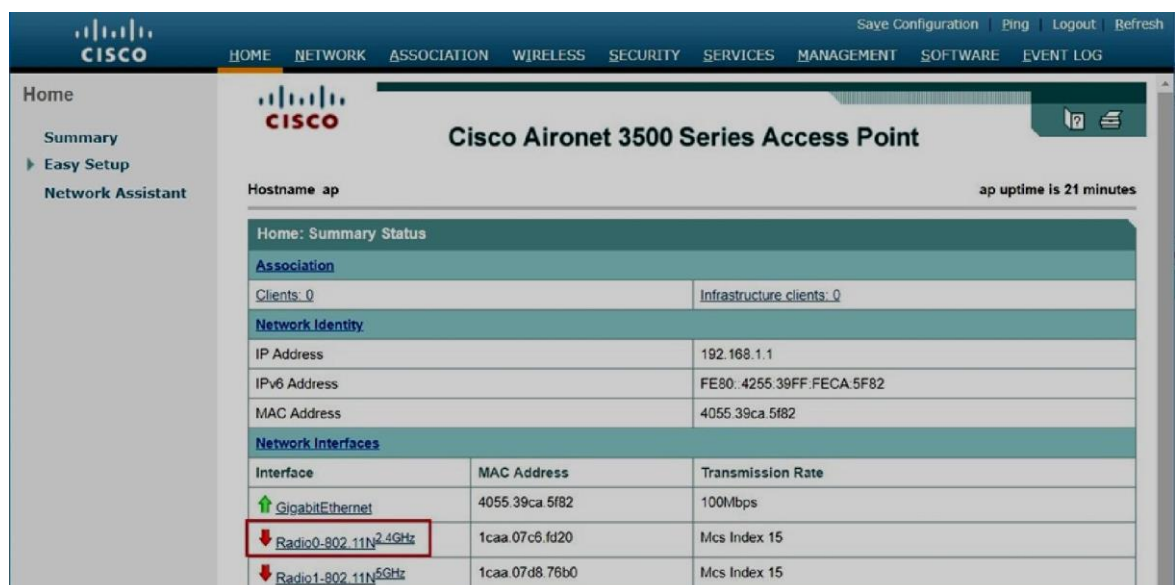
Interface: Chọn băng tần phát sóng



The screenshot shows the Cisco Aironet 3500 Series Access Point configuration page. The left sidebar contains a menu with options like Admin Access, Encryption Manager, SSID Manager (highlighted), Dot11u Manager, Server Manager, AP Authentication, Intrusion Detection, Local RADIUS Server, and Advance Security. The main content area is titled 'Security' and shows 'Multiple BSSID Beacon Settings'. Under 'Multiple BSSID Beacon', there are checkboxes for 'Set SSID as Guest Mode' and 'Set Data Beacon Rate (DTIM)' (set to DISABLED). Below this is a red 'Apply' button. The 'Guest Mode/Infrastructure SSID Settings' section shows two radio configurations: 'Radio0-802.11N 2.4GHz' and 'Radio1-802.11N 5GHz'. Each radio has a 'Set Beacon Mode' (Single BSSID or Multiple BSSID) and a 'Set Single Guest Mode SSID' dropdown (set to < NONE >). There is also a 'Set Infrastructure SSID' dropdown (set to < NONE >) and a checkbox for 'Force Infrastructure Devices to associate only to this SSID'.

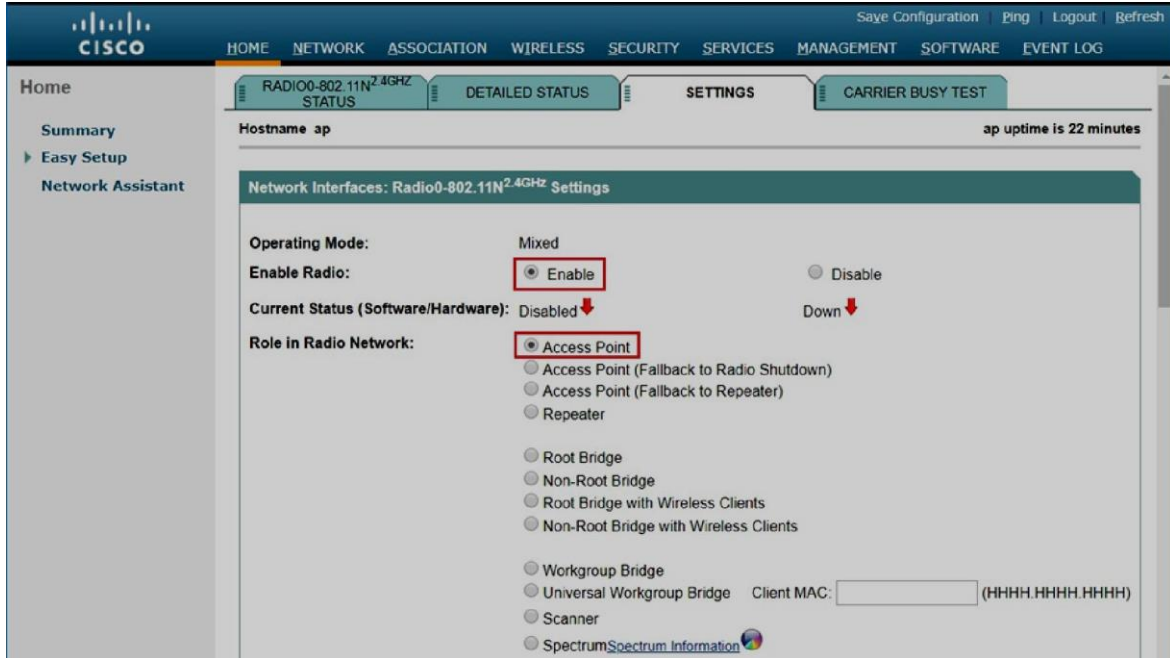
Kéo xuống chọn Apply

Kích hoạt băng tần 2,4 GHz



The screenshot shows the Cisco Aironet 3500 Series Access Point configuration page. The left sidebar contains a menu with options like Summary, Easy Setup, and Network Assistant. The main content area is titled 'Cisco Aironet 3500 Series Access Point' and shows the 'Home: Summary Status' section. This section includes a table for 'Network Interfaces' with columns for Interface, MAC Address, and Transmission Rate. The table shows three interfaces: 'GigabitEthernet' (100Mbps), 'Radio0-802.11N 2.4GHz' (100Mbps), and 'Radio1-802.11N 5GHz' (100Mbps). The 'Radio0-802.11N 2.4GHz' interface is highlighted with a red box. The 'Radio1-802.11N 5GHz' interface is also highlighted with a red box.

Bật tính năng Radio



Home | Summary | Easy Setup | Network Assistant

Hostname: ap | ap uptime is 22 minutes

Network Interfaces: Radio0-802.11N2.4GHz Settings

Operating Mode: Mixed

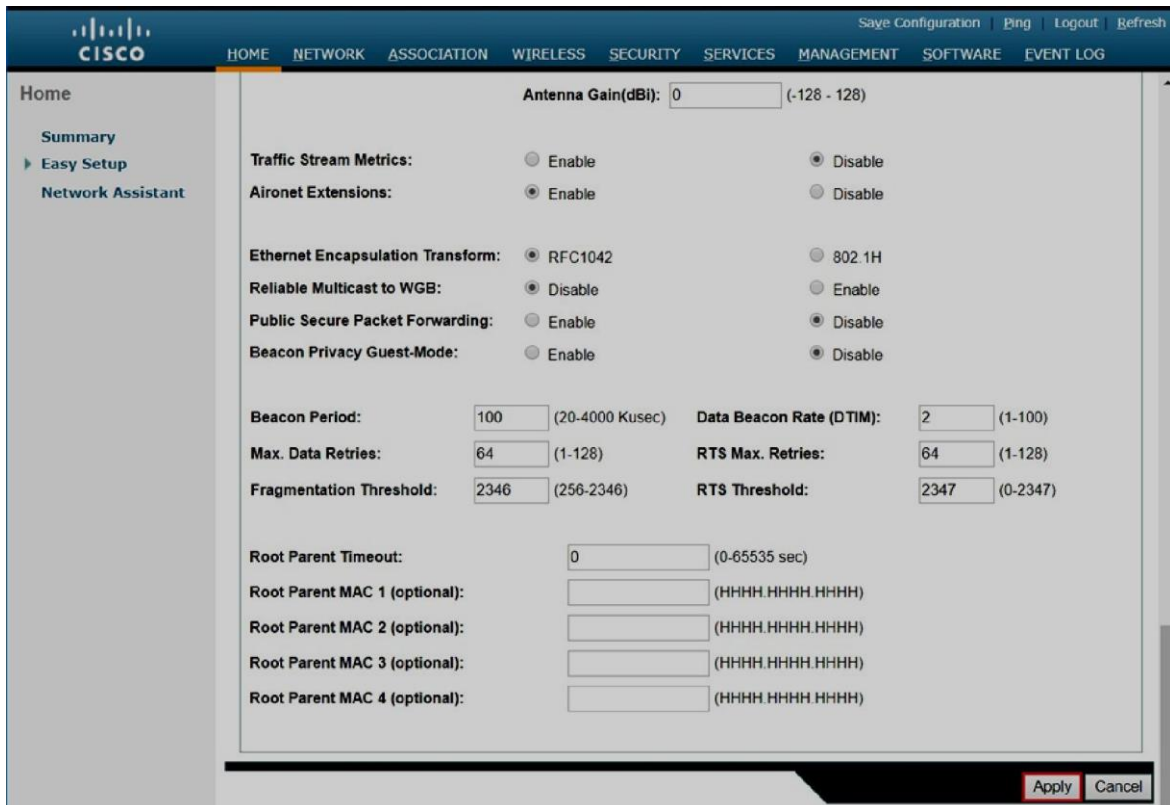
Enable Radio: ☒ Enable ☐ Disable

Current Status (Software/Hardware): Disabled ↓ Down ↓

Role in Radio Network: ☒ Access Point ☐ Access Point (Fallback to Radio Shutdown) ☐ Access Point (Fallback to Repeater) ☐ Repeater ☐ Root Bridge ☐ Non-Root Bridge ☐ Root Bridge with Wireless Clients ☐ Non-Root Bridge with Wireless Clients ☐ Workgroup Bridge ☐ Universal Workgroup Bridge ☐ Scanner ☐ Spectrum ☐ Spectrum Information

Client MAC: (HHHH.HHHH.HHHH)

Kéo xuống chọn Apply



Antenna Gain(dBi): 0 (-128 - 128)

Traffic Stream Metrics: ☐ Enable ☒ Disable

Aironet Extensions: ☒ Enable ☐ Disable

Ethernet Encapsulation Transform: ☒ RFC1042 ☐ 802.1H

Reliable Multicast to WGB: ☒ Disable ☐ Enable

Public Secure Packet Forwarding: ☐ Enable ☒ Disable

Beacon Privacy Guest-Mode: ☐ Enable ☒ Disable

Beacon Period: 100 (20-4000 Kusec) Data Beacon Rate (DTIM): 2 (1-100)

Max. Data Retries: 64 (1-128) RTS Max. Retries: 64 (1-128)

Fragmentation Threshold: 2346 (256-2346) RTS Threshold: 2347 (0-2347)

Root Parent Timeout: 0 (0-65535 sec)

Root Parent MAC 1 (optional): (HHHH.HHHH.HHHH)

Root Parent MAC 2 (optional): (HHHH.HHHH.HHHH)

Root Parent MAC 3 (optional): (HHHH.HHHH.HHHH)

Root Parent MAC 4 (optional): (HHHH.HHHH.HHHH)

Apply Cancel

Lúc này, các máy tính đã có thể kết nối tới SSID



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IV. Kiểm tra

Các máy tính đã có thể kết nối tới SSID

