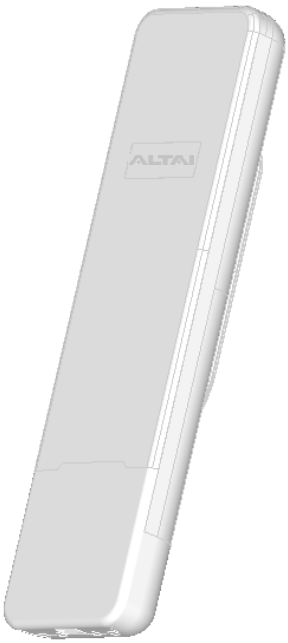


Altai C2s Dual-Band 2x2 802.11ac WiFi AP/Bridge

Model number: C2-2221-000

Quick Setup Guide

Version 1.1

Introduction

Thank you for purchasing the Altai C2s. This guide will provide instructions to install the product and set it up as AP or Station with minimal effort. For details, refer to Installation Guide and Configuration Manual which are both available at our Technical Library of http://www.altaitechnologies.com.

Package Contents

C2s Main Unit

AC Adapter

US Plug UK Plug EU Plug

DC Injector

Mounting Anchor (Qty. 2) and Screw (Qty. 2)

Cable Tie (Qty. 2)

Quick Setup Guide

Hardware Overview

LED Panel

LAN (Ethernet 0/1)

- Solid Blue/Green: LAN Connected (Blue for 1Gbps; Green for 100/10Mbps)
- Flashing Blue/Green: Data Transmitting/Receiving
- Off: LAN Disconnected

2.4G/5G Radio WiFi
(AP/STA/Repeater/Bridge Mode)

Solid Green:

- 1. AP Mode on but with no Clients Associated
- 2. STA/Repeater Mode on but not connected to AP
- 3. Bridge Mode on but not connected to Remote Peer

- Flashing Green: AP Mode with at least one Client Associated for Data Transmitting/Receiving
- Off: Radio Disabled

Power

- Solid Yellow: Power on
- Flashing Yellow: AP Booting Up
- Off: No Power

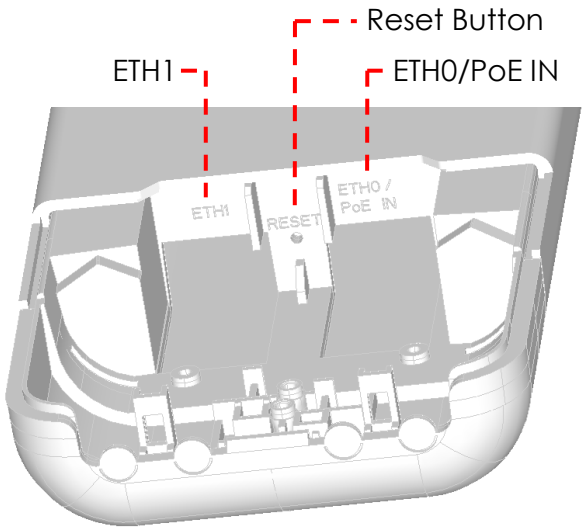
Received Signal Strength
(Station/Repeater/Bridge Mode)

	SNR (Default)	SS1	SS2	SS3	SS4
1 (Weakest)	x < 20dB	○	○	○	○
2	20dB < x < 25dB	☼	○	○	○
3	25dB < x < 30dB	●	○	○	○
4	30dB < x < 35dB	●	☼	○	○
5	35dB < x < 40dB	●	●	○	○
6	40dB < x < 45dB	●	●	☼	○
7	45dB < x < 50dB	●	●	●	○
8	50dB < x < 55dB	●	●	●	☼
9 (Strongest)	55dB < x	●	●	●	●

Ethernet Ports and Reset Button

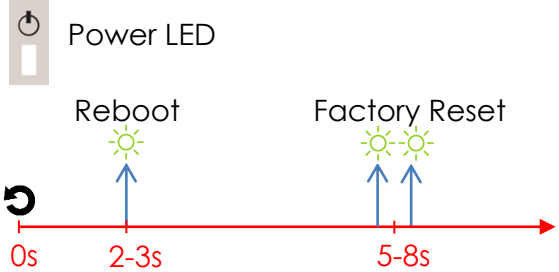
ETH0/PoE IN:
It is used to connect to power source (see the Power Options in the following section) and provides 10/100/1000 Mbps network interface for LAN connection.

ETH1:
It provides 10/100/1000 Mbps network interface for LAN connection with peripherals.



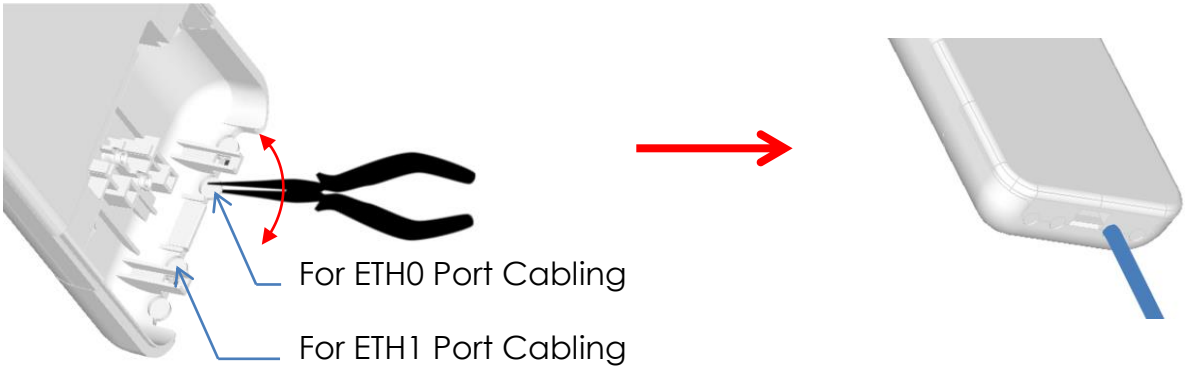
Reset Button:
It serves two functions for C2s operation:

- Reboot: Press and hold the Reset Button for ***2-3 seconds until the Power LED blink once***.
- Factory Reset: Press and hold the Reset Button for ***5-8 seconds until the Power LED blink twice consecutively***.

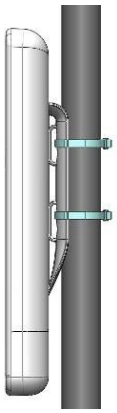


Cable Feed-Through

1. Prepare a pair of needle-nose pliers.
2. Follow the instructions on the drawing below to cut a feed-through hole for ETH0 Port cabling.
3. Cut another hole with pliers for ETH1 Port cabling if necessary.

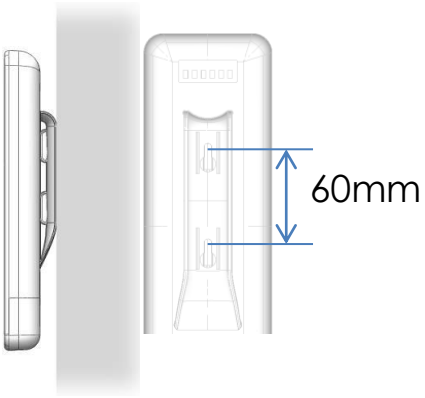


Mounting Options



Option 1: Pole Mount

1. Orient the device to point to the target coverage area (for AP mode) or to the target AP (for Station mode).
2. Loop two cable ties through the slots on the back of the device and then wrap them around the pole.
3. Tighten the cable ties to ensure the device is firmly in place.



Option 2: Wall Mount

1. Using the back mount base as reference, mark the location of the mounting holes on a flat wall surface.
2. Drill mounting holes on the marked locations. The two holes should be 60mm (2.3 inches) apart.
3. Fasten the device to the wall using the mounting anchors and screws provided.

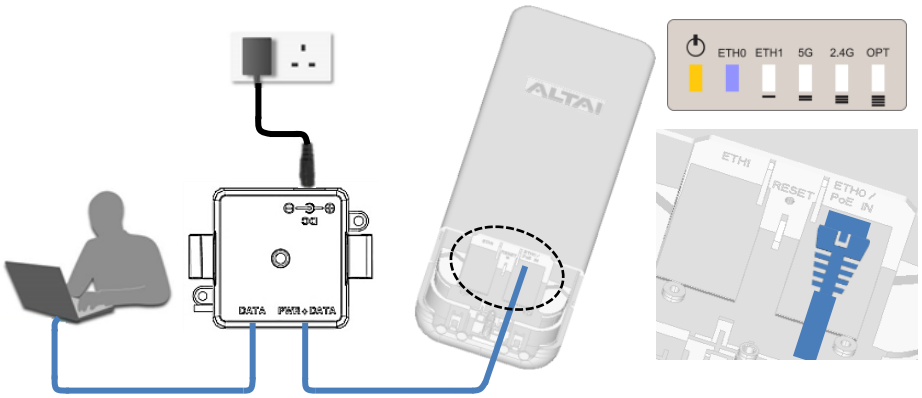
Setup Requirements and Preparation

- A computer with Web Browser: Google Chrome, Mozilla Firefox, or Microsoft Internet Explorer 8 (or above)
- Two Cat 5e/6 Ethernet cables
- An 802.3at to Passive PoE Adapter (Optional and ordered separately when using with 802.3at-compliant PoE switch or PoE injector)
- AltaiCare account (Optional) for cloud management service

Power Options and Cable Connection Instructions

Option 1: AC Adapter and DC Injector

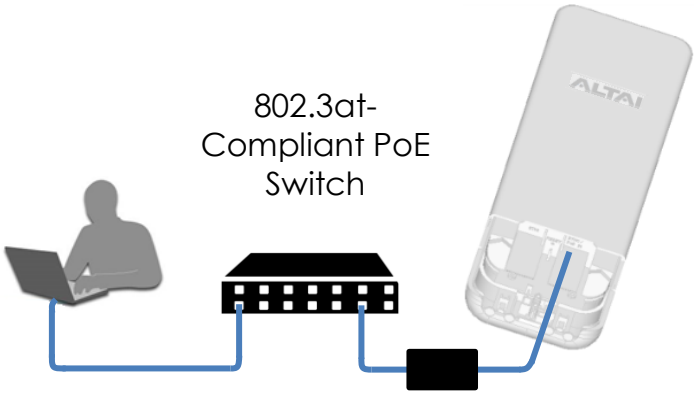
1. Connect C2s ETH0 port to a DC injector's "PWR+DATA" port with an Ethernet Cable.
2. Connect a computer to the DC injector's "DATA" port with another Ethernet Cable.



3. Connect the AC power adapter to the DC injector and plug it into a power socket.
4. Make sure the Power LED light is yellow and ETH 0 LED light is blue/green.

Option 2: 802.3at-compliant PoE switch / PoE Injector

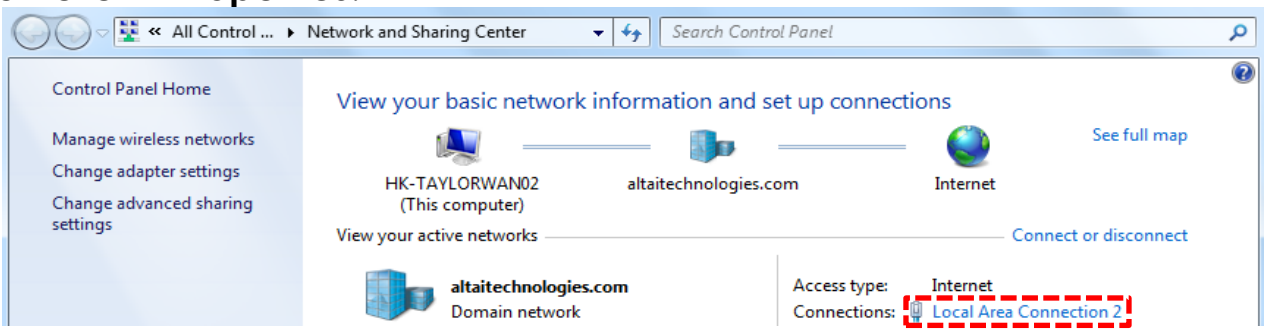
1. Connect C2s ETH0 port to an 802.3at to Passive PoE Adapter's "PWR+DATA" port with an Ethernet Cable.
2. Connect a port of an 802.3at PoE Switch to the PoE Adapter "802.3at" port with another Ethernet Cable.
3. Make sure the Power LED light is yellow and the ETH0 LED light is blue/green.
4. Connect a computer to the switch.



1. Change TCP/IP Setting on your computer

For Windows 7 users,

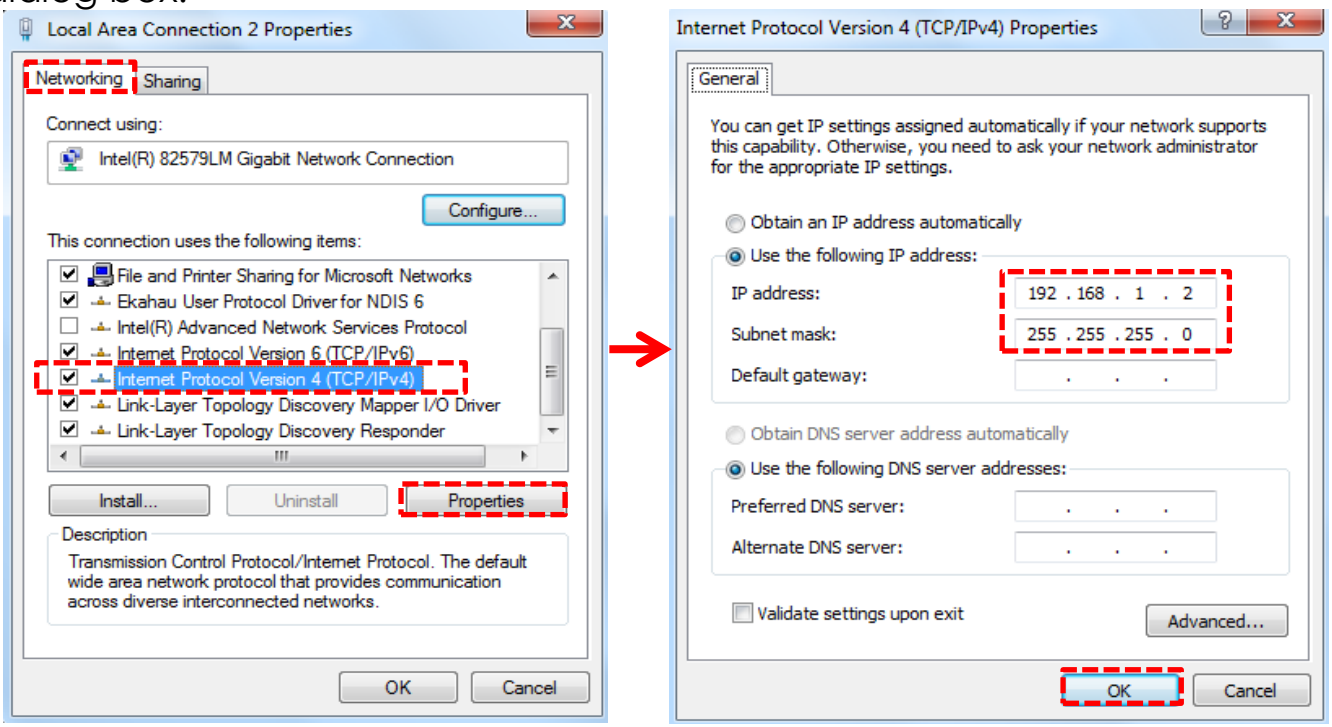
1. Go to **Control Panel**, click **Network and Sharing Center** and then choose the adapter that you want to connect to C2s unit. In this example, adapter "**Local Area Connection 2**" is in connection with C2s. Click it and then click **Properties**.



2. Under the **Networking** tab, click **Internet Protocol Version 4 (TCP/IPv4)** in the list box "**This connection uses the following items**", and then click **Properties**.

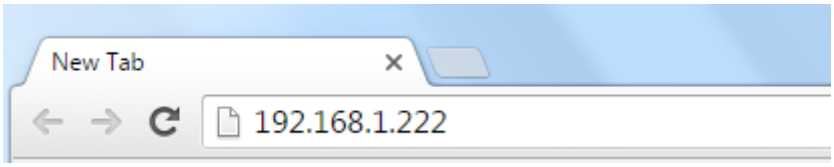
3. Type in the following IP address and Subnet mask:
   - IP address: 192.168.1.2
   - Subnet mask: 255.255.255.0

4. Click **OK** to close the **Internet Protocol Version 4 (TCP/IP) Properties** dialog box and click **OK** again to close the **Local Area Connection Properties** dialog box.



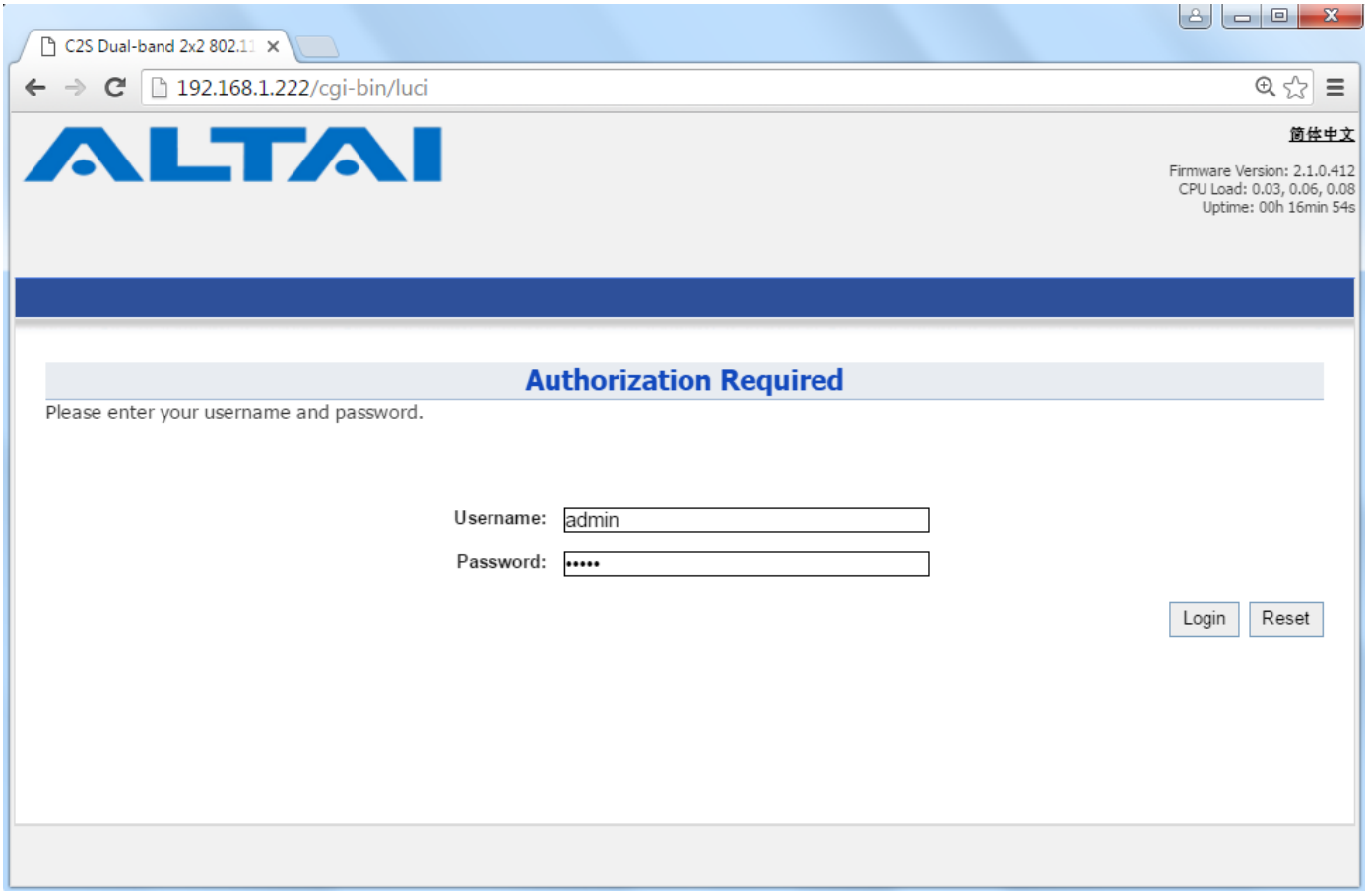
2. Access to Web Interface

1. Open a web browser. Type **192.168.1.222** in the address bar and then hit **Enter**.



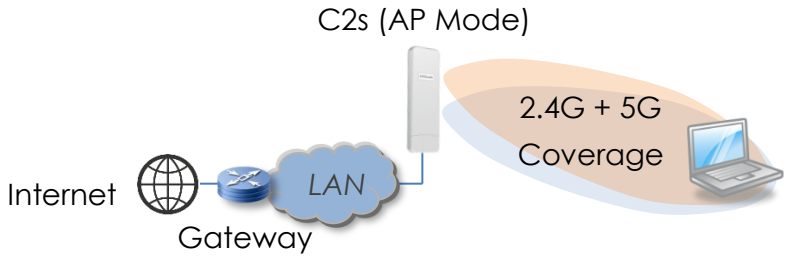
2. Login page will come up and administrators are required to enter username and password. By default, the credentials are:
   - **Username**: admin
   - **Password**: admin

3. Click Login.



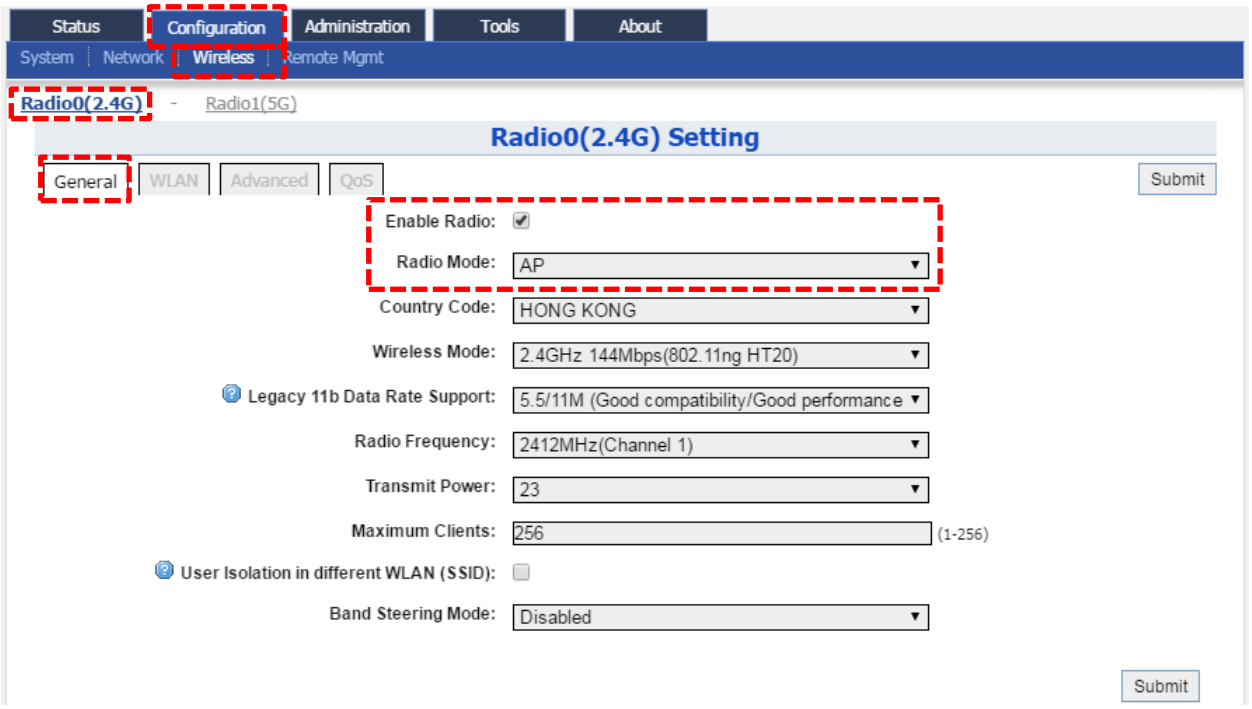
3. Configure AP Mode (2.4G/5G)

Network Scenario

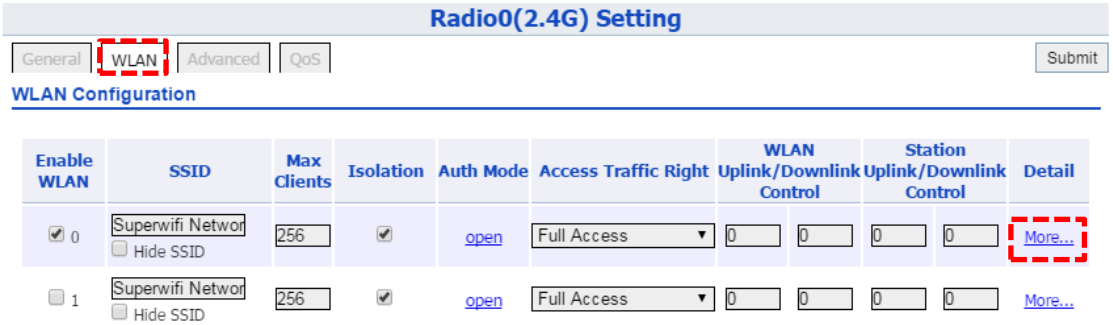


1. Go to **Configuration** > **Wireless** > **Radio0(2.4G)/Radio1(5G)** > **General**. Below screenshots show an example for 2.4G radio configuration only. Same procedures can be applied to 5G radio configuration.

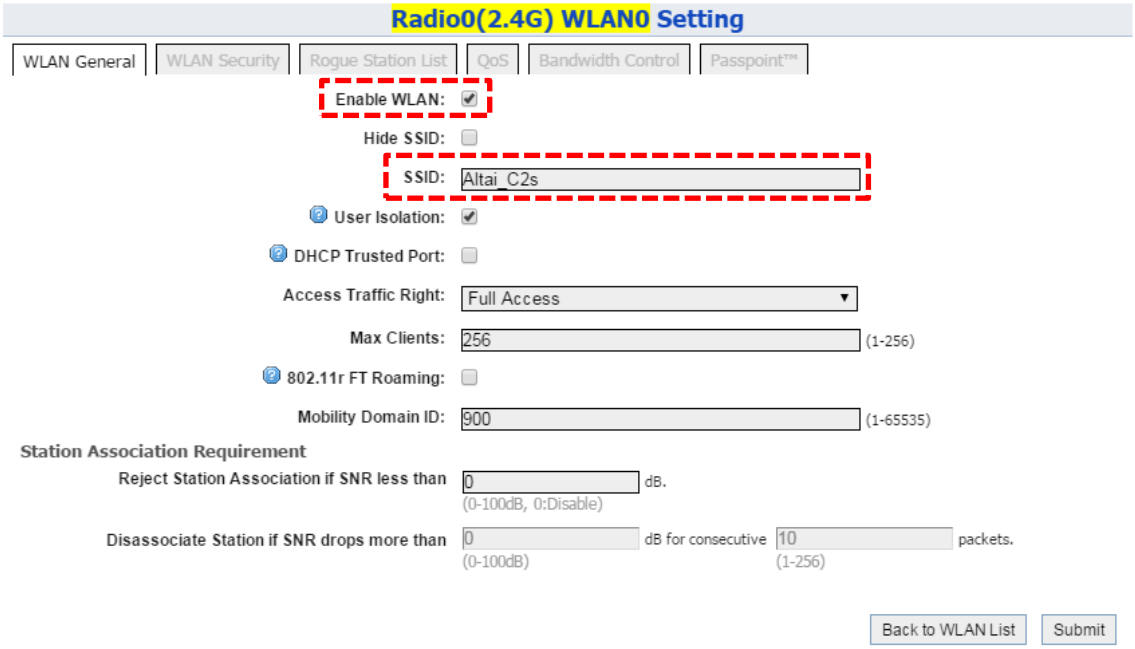
2. Make sure the box of **Enable Radio** is checked. Select **AP mode** for the field of **Radio Mode**. Then click **Submit**.



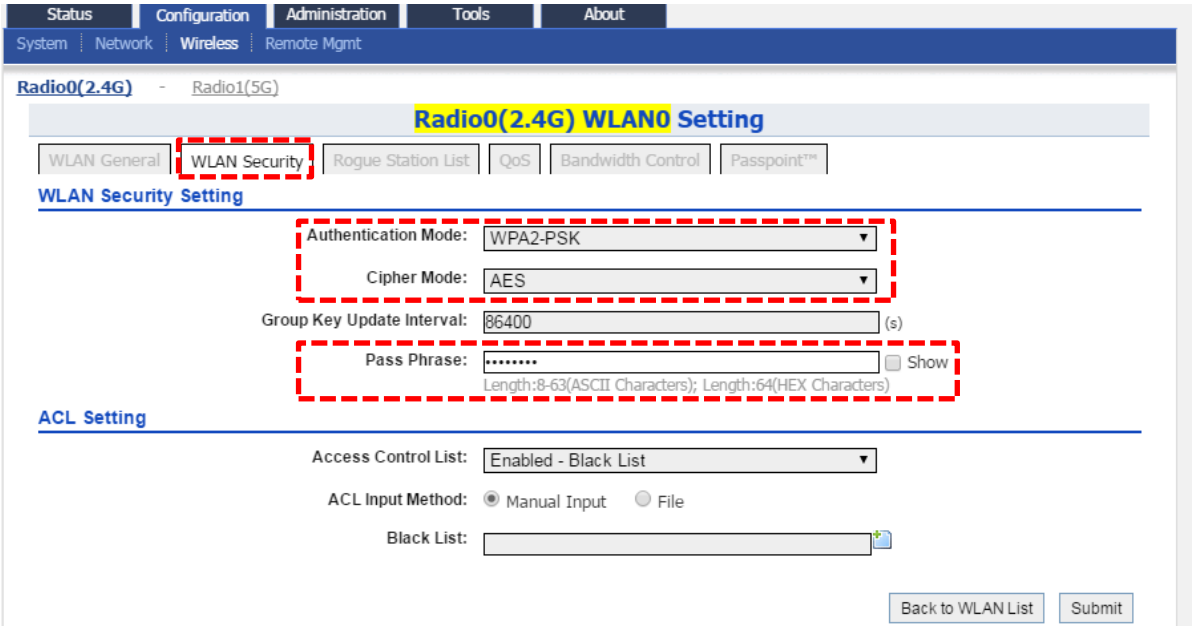
3. Click **WLAN** and click **More...** in **Detail** of WLAN 0 to go to another page for SSID and security configuration.



4. Make sure **WLAN** is enabled by checking the box. Type in **SSID** to name the wireless network you want to broadcast and then click **Submit**.

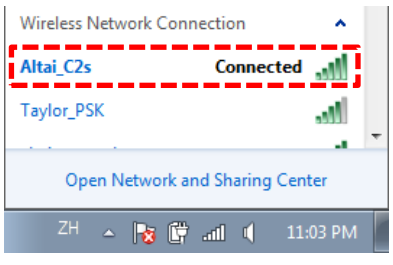


5. Click the tab **WLAN Security**. Select **WPA2-PSK** from the drop down menu of **Authentication Mode** and select **AES** for **Cipher Mode**. Type in a password within 8~64 characters or numbers in **Pass Phrase** and click **Submit**.



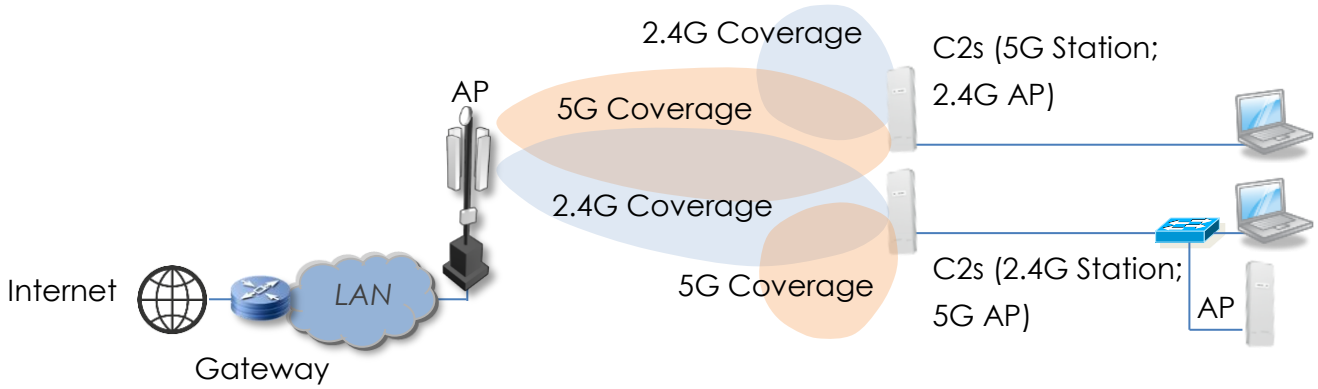
6. Click **Save & Apply** at the top right corner to have all changes take effect.

7. The SSID should now be broadcast from C2s and can be seen in the computer for wireless connection.



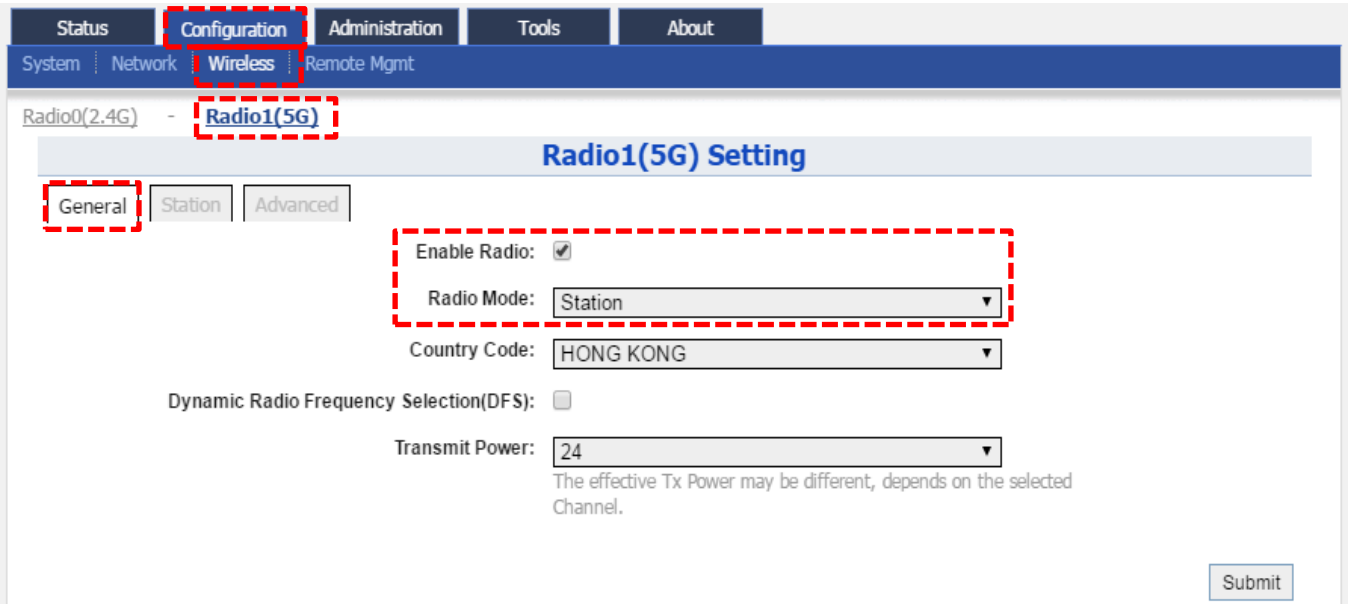
4. Configure Station Mode (2.4G/5G)

Network Scenario

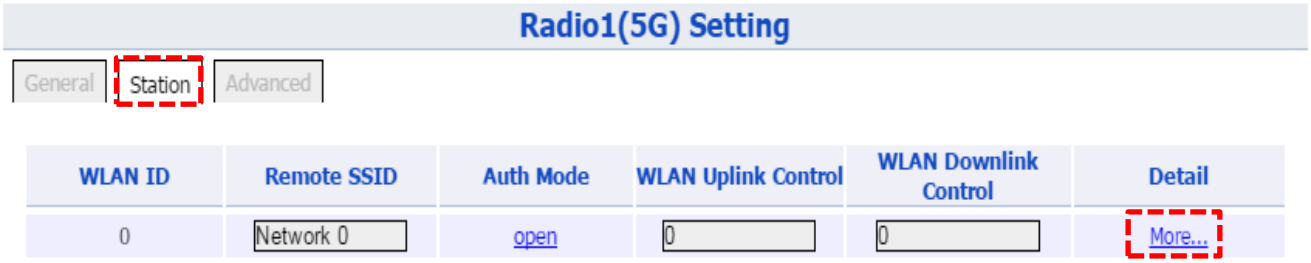


1. Go to **Configuration** > **Wireless** > **Radio0(2.4G)/Radio1(5G)** > **General**. Below screenshots show an example for 5G radio configuration only. Same procedures can be followed and applied to 2.4G radio configuration.

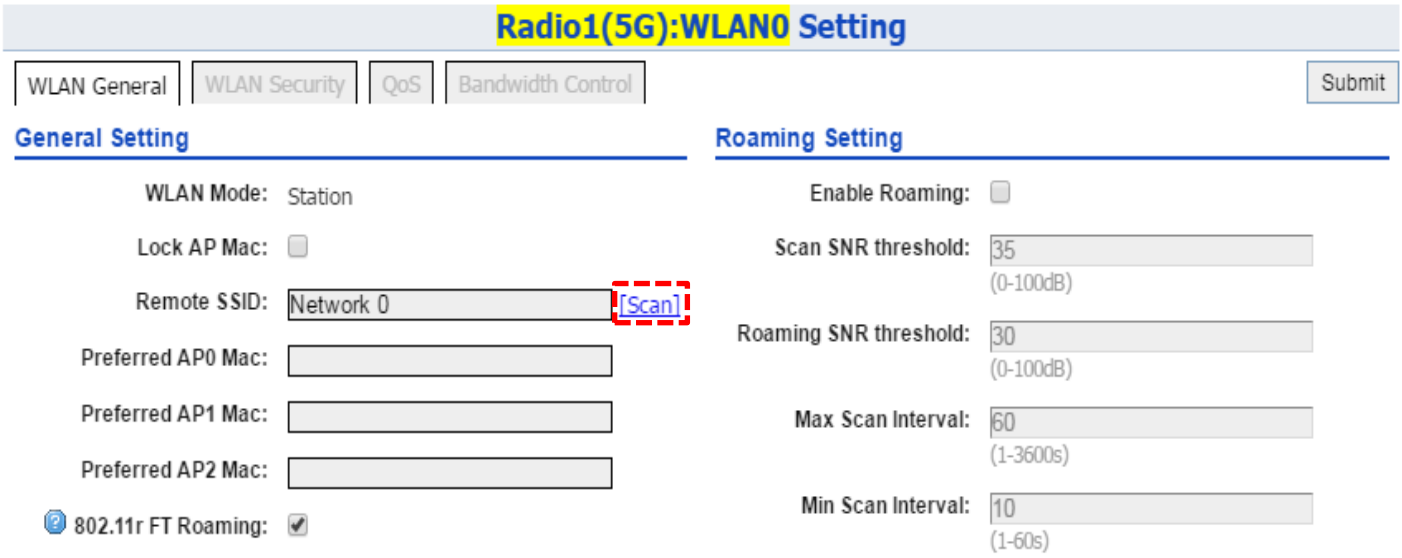
2. Make sure the box of **Enable Radio** is checked. Select **Station mode** for the field of **Radio Mode**. Then click **Submit**.



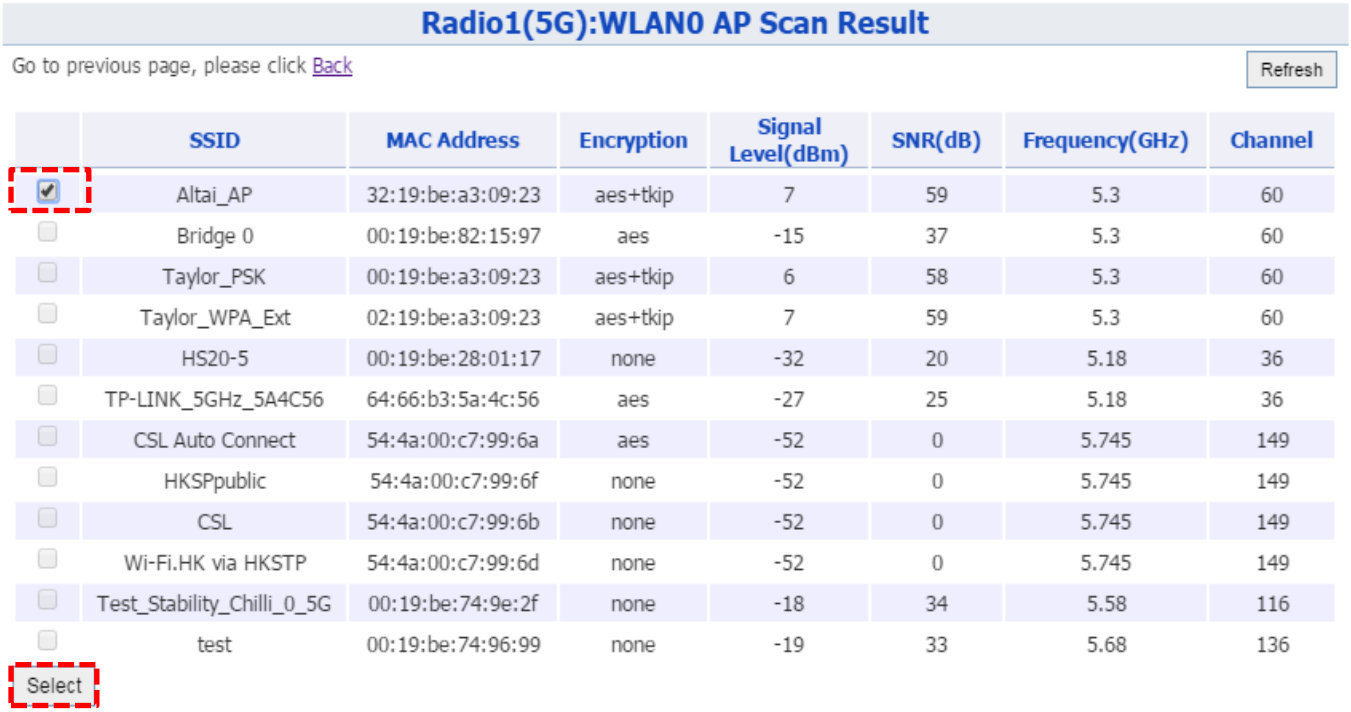
3. Click **Station** and click **More…** in **Detail** to go to another page to scan available SSID and configure security settings.



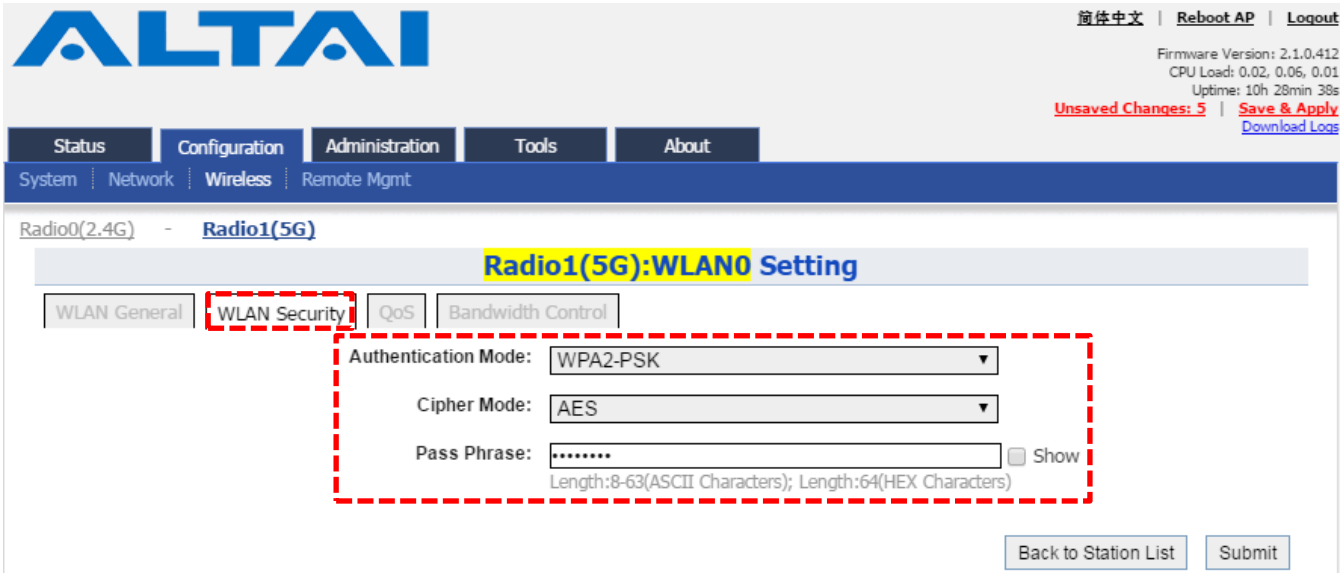
4. Click **Scan** in **Remote SSID**.



5. Check the box for the preferred SSID and click **Select** at the bottom of AP Scan Result table and go to the previous page automatically.

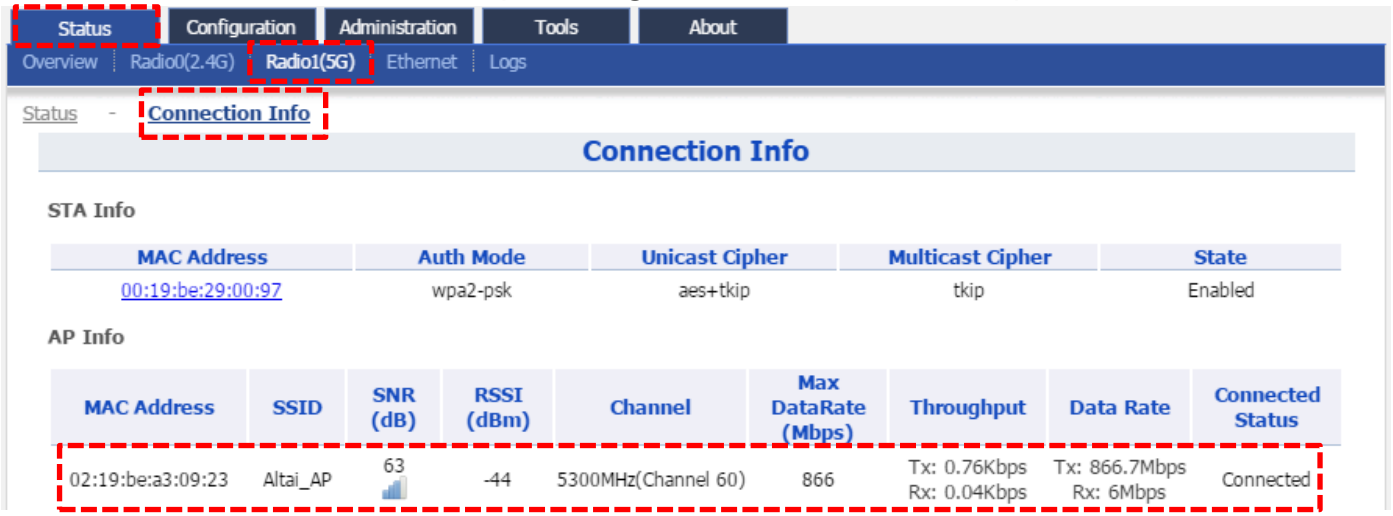


6. Click **WLAN Security**. Select **Authentication Mode** and **Cipher Mode** provided by ISP.



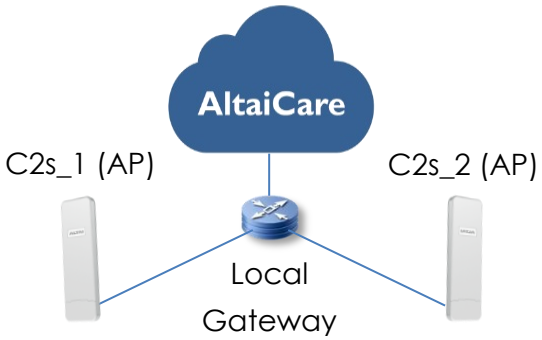
7. Click **Submit** at the lower right corner and click **Save & Apply** at the top right corner to have all changes take effect.

8. Go to **Status** > **Radio1(5G)** > **Connection Info** and check the link status. It should show "Connected" if the connection is successful; Otherwise, double check the security settings as described in Step 6.



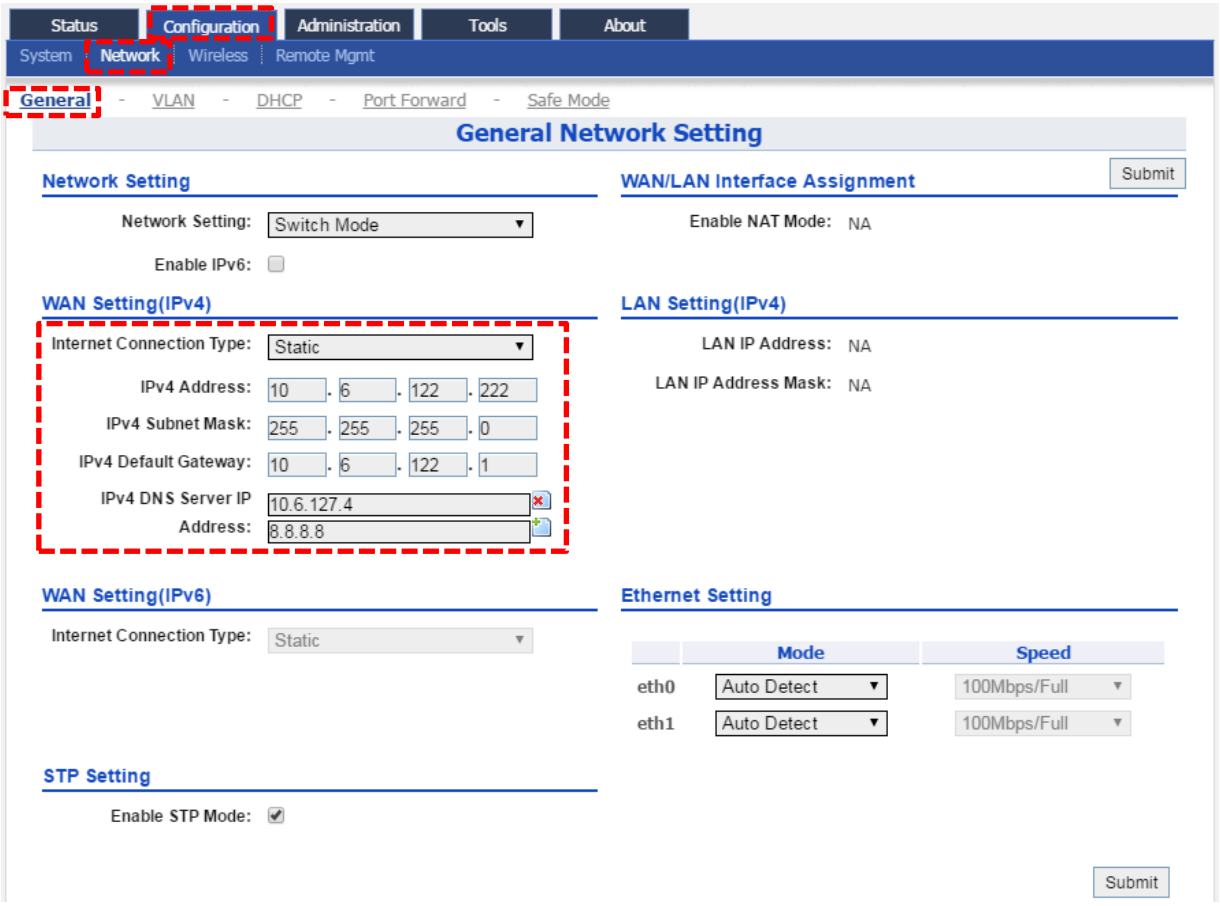
5. Connect with Cloud-based controller – AltaiCare

Network Scenario:

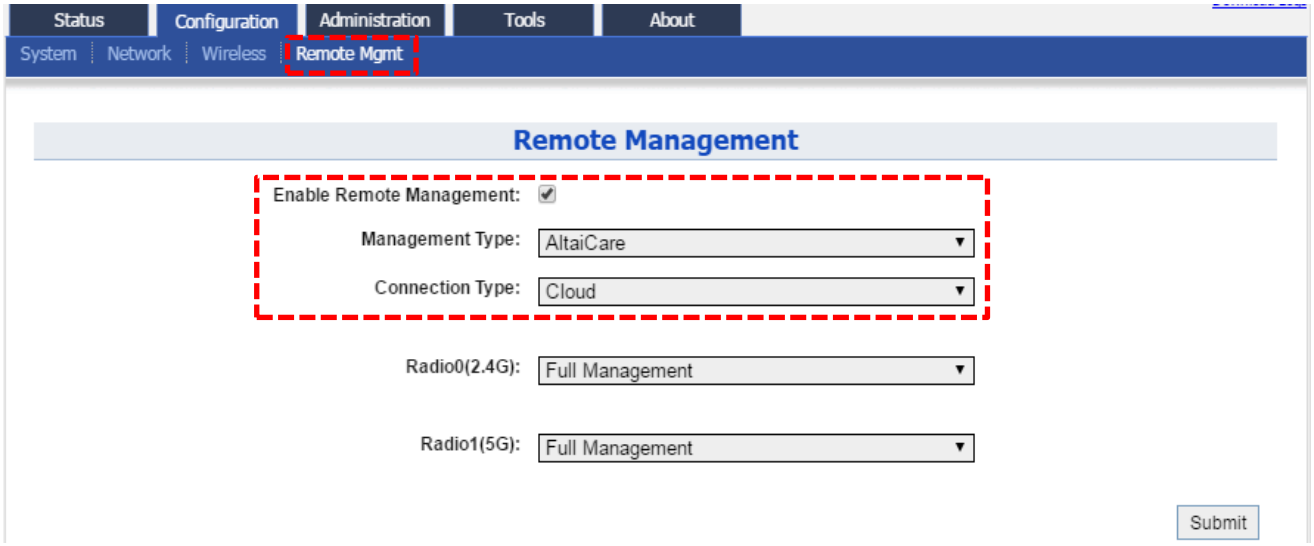


1. Users can manage their C2s and set up their hotspot service for subscribers with AltaiCare, which is a cloud-based system.

2. Go to **Configuration** > **Network** > **General**. Make sure C2s can reach Internet and communicate with AltaiCare by inputting **valid** IP settings either via DHCP or with Static IP configuration. Google Public DNS Server can be considered, e.g. 8.8.8.8 or 8.8.4.4 if you are not sure about the ISP DNS's Server IP.



3. Click **Remote Mgmt** and check the box of **Enable Remote Management**. Select AltaiCare as **Management Type** and Cloud as **Connection Type**.

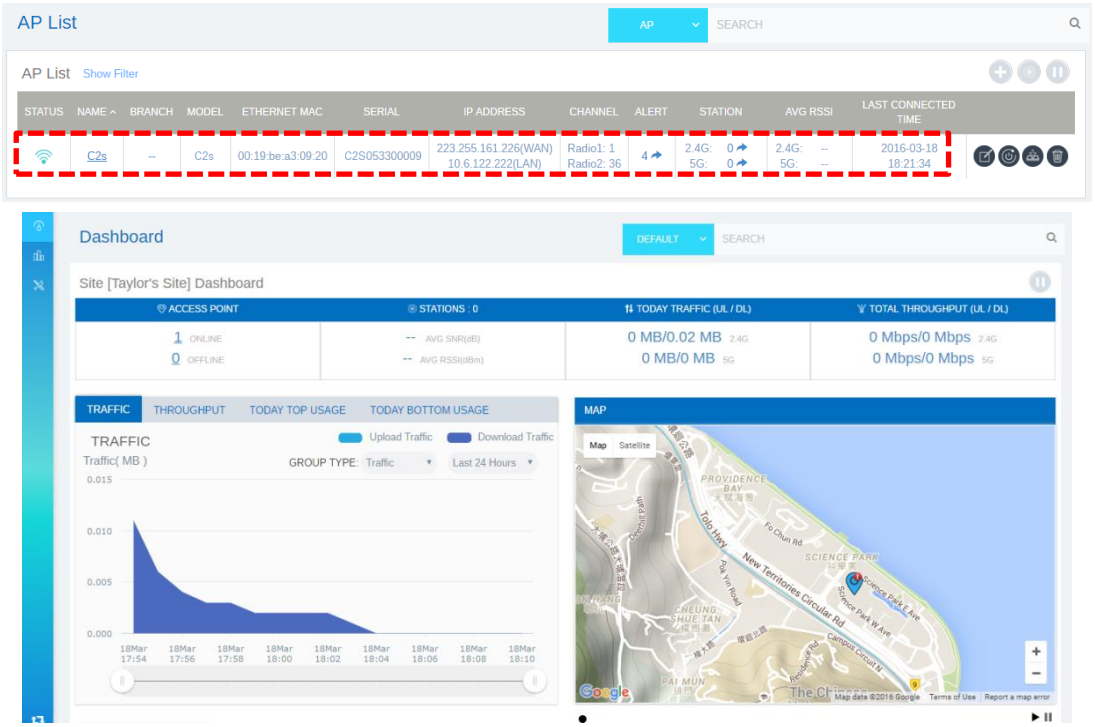


4. Select **Full Management** if the device is running in **AP Mode**. For **Station Mode**, **Bridge Mode** and **Repeater Mode**, select **Monitor Mode** instead.

5. Click **Submit** and then **Save & Apply** at the top right corner to make all the changes take effect.

6. Follow AltaiCare Quick Start Guide and register the C2s in the system for access management of AP and user service and admission control.

7. C2s will appear as online in AltaiCare AP list if the connection is successful.



Federal Communication Commission (FCC) – USA

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules; these limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of FCC Rules. Operation is subject to the following conditions. (1) This device may not cause harmful interference. (2) This device must accept any interference received, including interference that may cause undesired operation.
This device should not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC Radiation Exposure Statement: The user is advised to keep a distance of at least 45cm from the device when it is in operation.

European Conformity (CE) – EU

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

CE

Warning

C2s may require professional installation depending on the deployment scenario.

Only use the power adaptor supplied with C2s. Using a different power adaptor might damage C2s.

Install a lightning arrestor to protect the AP for lightning dissipation during rainstorms. Lightning arrestors are mounted outside the structure and must be grounded by means of a ground wire to the nearest ground rod or item that is grounded.

Disclaimer

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