

UBNT Support

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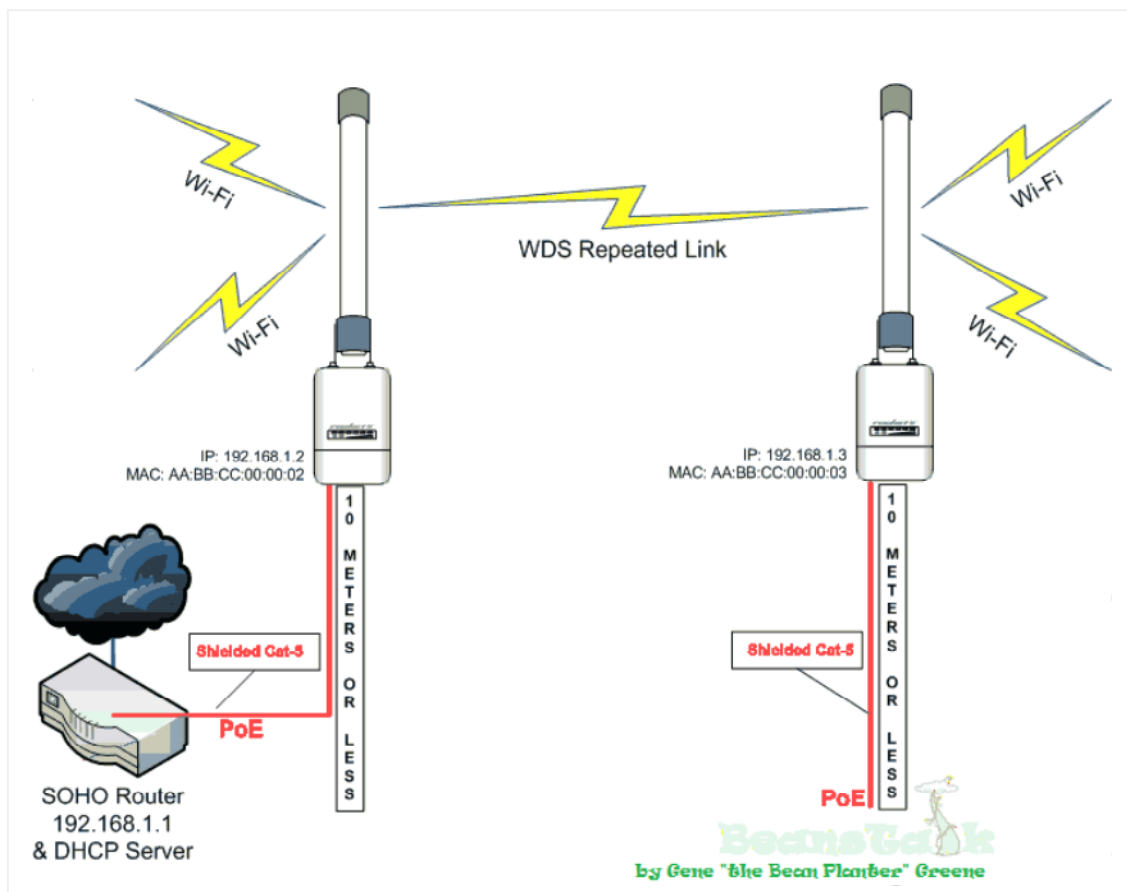
Ubiquiti Networks Support and Help Center / airMAX / Configuration Guides

airMAX - Configure a Wi-Fi access point cluster in AP WDS repeater mode

August 13, 2015 13:44

Overview

Readers will learn how to configure radios in a PtP "repeater" mode topology. This goes by many different names like WDS Repeater, Repeater Setup, Repeater Bridge, etc. Basically, two or more Access Points work together to extend a wireless network. The caveat to this repeater mode is an added degree of instability (especially as the number of Repeater APs increases) and a decrease in throughput by 50% per hop.



Two or more airMAX radios can be connected in a WDS repeater topology to extend a wireless network and allow client-hotspot access at each AP.

Steps

1. The instructions assume that your radio is set to **FACTORY DEFAULT** values. Please restore to factory defaults before proceeding. This is critical, especially if you are troubleshooting a problem.
2. With your **Windows 7** PC or **Mac** computer configured to the 192.168.1.x subnet, connect it to the radio using an Ethernet cable. The Ethernet port is auto-sensing. You are not required to use a crossover cable.
3. Using a web browser, enter 192.168.1.20 as the "URL" to gain access to the radio's management console.
4. Enter "ubnt" as the administration account and "ubnt" as the password.

Configuration Instructions (change **ONLY** the items shown, leaving others at default values):

Accessing the airMAX radio:

1. Restore your radio to **FACTORY DEFAULT** values. This is critical, especially if you are troubleshooting a problem.
2. Connect the radio to your computer using an Ethernet cable. The Ethernet port is auto-sensing. You are not required to use a crossover cable.
3. Using a web browser, enter 192.168.1.20 as the "URL" to gain access to the radio's management console.
4. Enter "ubnt" as the administration account and "ubnt" as the password.

Configure the radio labeled as IP = 192.168.1.2 above:

A. Choose the |Wireless| tab, and change only:

- Wireless Mode: AP-Repeater
- WDS Peers: AA:BB:CC:00:00:03 (Example only. Use the actual MAC address of the OTHER radio)
- Channel Width: 20 MHz
- Frequency: Choose one from the list. NOTE: "Channel 1" = 2412, "Channel 6" = 2437, "Channel 11" = 2462
- Press [Change] button

B. Choose the |Network| tab, and change only:

- IP Address: 192.168.1.2
- Press [Change] Button

C. Choose |Ubiquiti Logo| tab

- AirMax: ☐ enable (UN-check)
- Press [Change] Button, Press [Apply] Button

DONE with this radio. Repeat 1-4 with the second radio, then continue below.

""Configure the radio labeled as IP = 192.168.1.2 above:""

D. Choose the |Wireless| tab, and change only:

- Wireless Mode: AP-Repeater
- WDS Peers: AA:BB:CC:00:00:02 (Example only. Use the actual MAC address of the OTHER radio)
- Channel Width: 20MHz
- Frequency: Choose THE SAME frequency that you chose above.
- Press [Change] button

E. Choose the |Network| tab, and change only:

- IP Address: 192.168.1.3
- Press [Change] Button

F. Choose |Ubiquiti Logo| tab

- airMAX: ☐ enable (UN-check)
- Press [Change] Button, Press [Apply] Button

DONE

""If using a Cable/DSL Modem:""

G. Reboot or power cycle the Cable/DSL modem off and on before using this link.

""DONE""

Notes

1 - Secure your installation - modify the default administration account

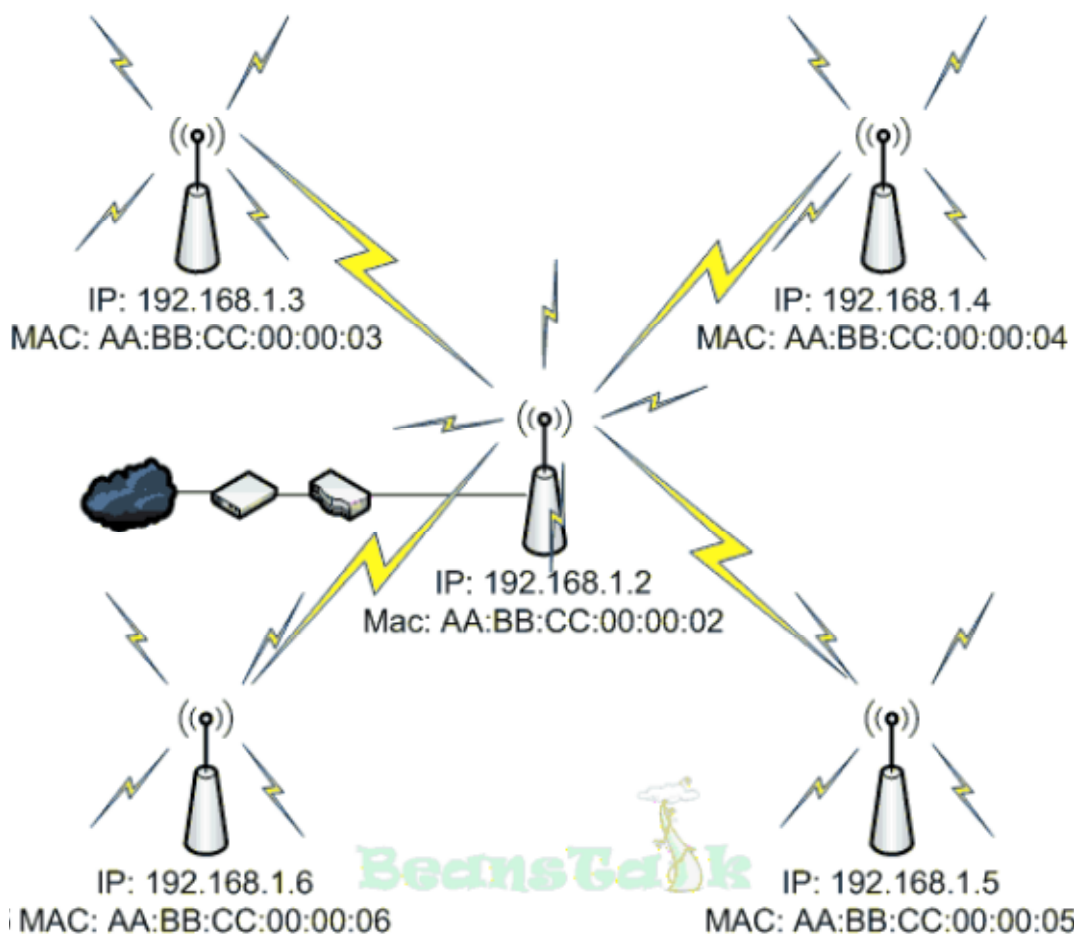
- Select |System| tab > System Accounts
- Administrative Username [change it from 'ubnt']
- Hover over icon to the right, "Change Password" and change it
- Press [Change] button, press [Apply] button

2 - Secure your Wi-Fi from unauthorized use (unless you intend to run an open AP / Hot Spot)

- Select |Wireless| Tab > Wireless Security
- Security > WEP (this is the ONLY encryption available in this mode)
- Preshared Key: [enter something long, but memorable to you]
- Press [Change] button. Press [Apply] button.

Variations

The figure below shows five connected access points with one central AP performing the repeating function.



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