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AirOS Wireless Repeater/Network Extender Configuration

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Contents: How to make a Wireless Repeater AirOS

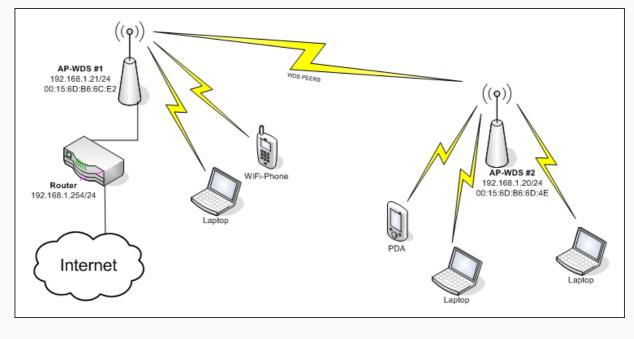
Introduction

Wireless Repeater (http://en.wikipedia.org/wiki/Repeater) or Network Extender From UBNT Forum (http://ubnt.com/forum/viewtopic.php?t=7204)

Typical scenario is to install a Network Extender device to provide wireless signal to Clients that cannot be reached from AP #1 (poor signal level). We consider this simply network topology:

- ▶ 1 Router connected to Internet and/or private LAN (IP Address: 192.168.1.254/24)
- ▶ 1 AirOS device AP #1 directly connected to Router (IP Address: 192.168.1.21/24)
- 1 AirOS device AP #2 connected via wireless to AP #1 (IP Address: 192.168.1.20/24)
- 1 or more Wireless Clients (Notebook, WiFi-Phone, other Wireless devices...)
- ▶ The Router assign IP Address to network devices by DHCP Server. Alternatively, if you prefer, you can set static IP Address to Clients.

In this schema, AP #2 is a Wireless Repeater device.



Configuring

Minimal configuration:

- all AirOS devices in AP-WDS mode
- same SSID
- same Channel
- enter mutual WDS Peers (or enable Auto WDS, not recommended)

AP #1 Setup

Login into AirOS WEB User Interface of AP #1 and set as below:

- NETWORK Tab
 - Network Mode: Bridge
 Bridge IP Address: Static
 IP Address: 192.168.1.21
 - Netmask: 255.255.255.0
 - Gateway IP: 192.168.1.254
 - Click Change button to confirm
 - Click Apply button to apply changes
 - Wait until process is complete
- LINK SETUP Tab
 - Wireless Mode: Access Point WDS
 - ▶ WDS Peers: 00:15:6D:B6:6D:4E (WLAN MAC of AP #2, you can see on MAIN Tab of AP #2)
 - SSID: mywlan (or any stringh to identify your WLAN, but the same for all WDS Peers)
 - ▶ Country Code: set according your location
 - ▶ IEEE 802.11 Mode: **B/G mixed** (assuming devices running in 2.4 GHz band)
 - Channell Spectrum Width: 20MHz
 - ▶ Channel: 1 2412 MHz (or any other free channel, but the same for all WDS Peers)
 - ▶ Output Power: 10 dBm (or check Obey Regulatory Power according your country law)
 - Data Rate, Mbps: 54, Auto
 - Click Change button to confirm
 - Click Apply button to apply changes
 - Wait until process is complete

AP #2 Setup

Login into AirOS WEB User Interface of AP #2 and set as below:

- ▶ **NETWORK** Tab
 - Network Mode: Bridge
 - ▶ Bridge IP Address: Static
 - ► IP Address: **192.168.1.20**
 - Netmask: 255.255.255.0
 - Figure 192.168.1.254
 - Click Change button to confirm
 - Click Apply button to apply changes
 - Wait until process is complete
- ▶ LINK SETUP Tab
 - ▶ Wireless Mode: Access Point WDS
 - ▶ WDS Peers: 00:15:6D:B6:6C:E2 (WLAN MAC of AP #1, you can see on MAIN Tab of AP #1)
 - F SSID: mywlan (or any stringh to identify your WLAN, but the same for all WDS Peers)
 - ► Country Code: set according your location
 - ▶ IEEE 802.11 Mode: **B/G mixed** (assuming devices running in 2.4 GHz band)
 - ▶ Channell Spectrum Width: 20MHz
 - ▶ Channel: 1 2412 MHz (or any other free channel, but the same for all WDS Peers)
 - ▶ Output Power: 10 dBm (or check Obey Regulatory Power according your country law)
 - Data Rate, Mbps: 54, Auto
 - Click Change button to confirm
 - Click Apply button to apply changes
 - ▶ Wait until process is complete