Creating a Transparent Wireless Bridge With Ubiquiti AirOS

This guide will walk you through the steps of sharing (bridging) an internet connection in one building, and extending that same internet to another building. The same setup can be used to connect local area networks (LAN’s) in two different buildings. Since this configuration is “transparent”, it is a bridged connection and requires no routing.

Things that can be accomplished using this guide:

• Sharing a neighbors internet connection from across the street (must have their permission and must be legal from there provider).
• Bridging your internet/local area network with another building.
• Making a standard layer 2 transparent bridge for joining two LAN networks.

Items you will need:

• Two UBNT devices such as NanoStation, PowerStation, PicoStation etc.
• Ethernet Cables for each device.
• Location to mount the units (either on a pole outside or using the UBNT Window Mounts).
• Line of Site between each mounting location.
• A PC or Laptop to do the configuration of the units.

Step 1: Connecting the UBNT device to your computer

A) Plug the provided power adapter into the wall, then connect the other side to the PoE splitter.

B) Connect an Ethernet cable to the UBNT Device, then the other side to the PoE port on the PoE splitter.

C) Next, connect a second Ethernet cable into the PoE splitters LAN port, then into the back of your computer.

Step 2: Configure your Windows computer to talk UBNT device

A) Right click on your Network icon in the bottom right hand corner of the desktop (System Tray).

B) Select the Network and Sharing option.
C) Select the Manage Network Connections link

D) Right click on Local Area Connection and select the Properties link
E) Double click on the Internet Protocol version 4 option

F) Type in the information as seen to the right, then hit ok, and ok once more to return you to your desktop. Your system is now properly configured to talk with the UBNT device.
Step 3: Log Into the Ubiquiti Device

A) Launch your Web Browser. We have seen problems with any browser besides Internet Explorer so that is recommended.

B) Type this address into the address bar: 192.168.1.20

C) A pop up window will appear and you will enter ubnt for both the username and password field.

Note: After every configuration change, you will need to click the Change button and then the Apply button.
Step 4: Configure the Access Point (AP) End

Click the Wireless tab and set as follows (Wireless Security section is optional):

1. Change Mode
2. Set to WPA2
3. Set a key, 10 digits
B) Click the Network tab and set as follows:
Step 5: Configure the Station End

A) Click the Wireless tab and set as follows (Wireless Security section is optional):

1. Change mode
2. Set to WPA2
3. Set a key, 10 digits
B) Click the Network tab and set as follows:

Once the devices have been configured and confirmed that they are working, you may wish to change the IP addresses to coincide with your network addressing scheme.