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Uploading firmware to Ubiquiti

Warning AirOS 5.6 and newer

(September 2015)

Do not flash a Ubiquiti device that is running, or has been running, airOS version 5.6 or higher with AREDN firmware. We have become aware of a change that may be incompatible with current firmware images. We are looking into the concerns raised and will post more details as they are determined.

Initial Loading

airOS

The Easiest way to get convert an existing airOS Ubiquiti device to AREDN is to flash the device from its Web Interface.

If you have not made any changes to the device than it will be located at 192.168.1.20. and DHCP will not be enabled. If you have made changes please use your configuration for the steps below.

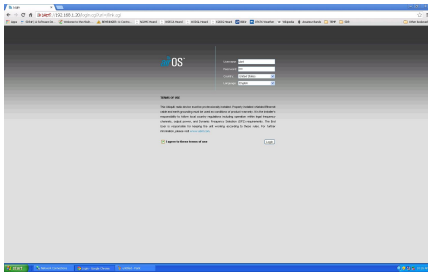| |
|---|
| Download the "Factory" image for your firmware from the downloads page. Remember where you saved this file for later on |
| Plug your computer directly into the Ubiquiti Power Injector LAN port and the Ubiquiti device into the Power port. |

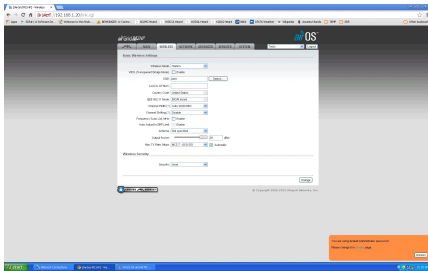|	Go to the Network Connections, select the wired LAN connection you have connected to
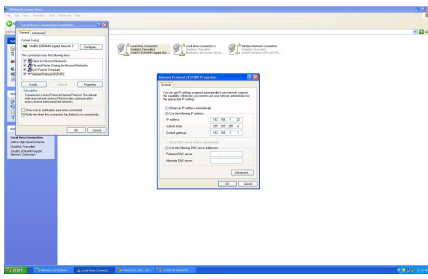
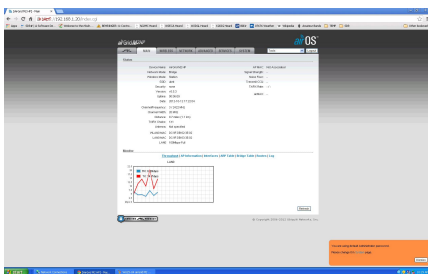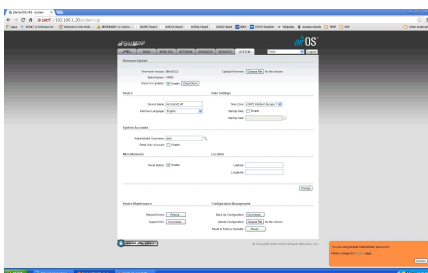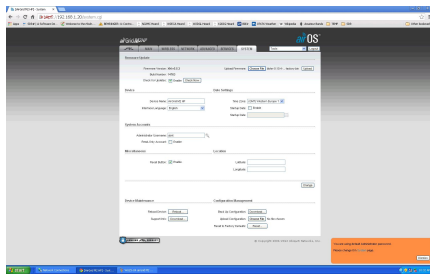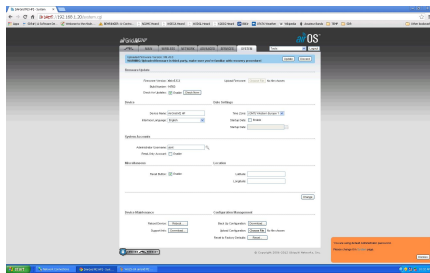|	
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20J.JPG)	the power injector using with a **Right Click** and select **Properties**. Then select the **Internet Protocol (TCP/IP)** and click the **Properties** button. Another dialog box opens. Configure your computer to use an IP address of **192.168.1.22** with a subnet mask of **255.255.255.0**
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20A.JPG)	This is the initial airOS screen. Login to the airGrid M2 for the first time at http://192.168.1.20 (http://192.168.1.20) per standard Ubiquiti instructions. (default username: ubnt password: ubnt)
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20B.JPG)	After logging in the next airOS screen is the **Wireless** tab. Ignore the message at the lower right in the orange box about changing the Administrator password.
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20C.JPG)	The **Main** tab page is selected and displayed. Note that the node's date and time are not set correctly yet. Nothing to do here except noting the parameters.
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20D.JPG)	Select and display the **System** tab page. Here is where we will install the AREDN firmware.
	Near the top of the page in the **Firmware**
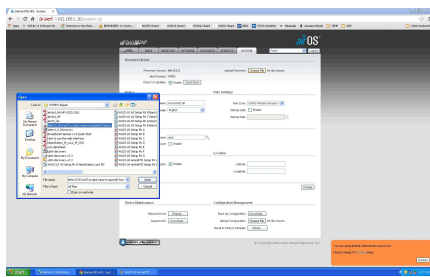
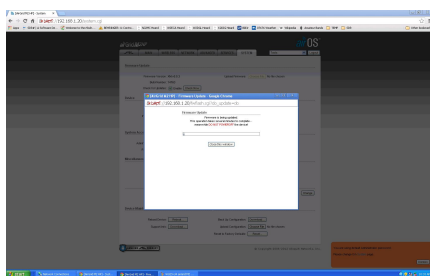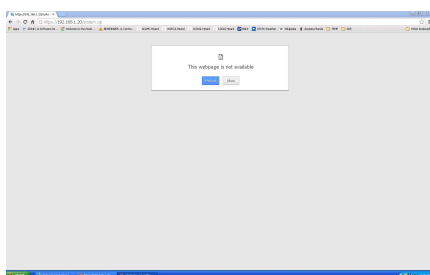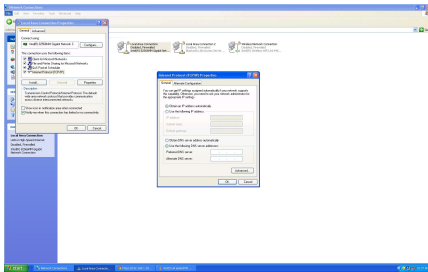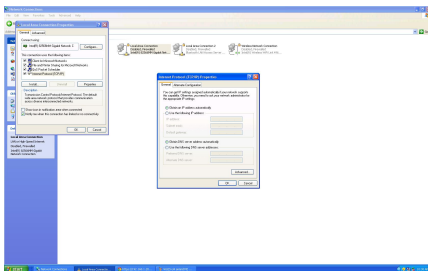|	
 (/chrome/site/devicesetup/WU2S- U4%20airGrid%20M2%20Setup%20Pic%20E.JPG)	**Update** section select the **Choose File** button next to Upload Firmware. A dialog box opens allowing you to navigate to the directory where you have the AREDN firmware. Here the proper file is selected and you click the **Open** button.
 (/chrome/site/devicesetup/WU2S- U4%20airGrid%20M2%20Setup%20Pic%20F.JPG)	After selecting and opening the right firmware file, an abbreviated form of the file name is displayed in the **Firmware Update** section. The next action is to click the **Upload** button next to the firmware file name.
 (/chrome/site/devicesetup/WU2S- U4%20airGrid%20M2%20Setup%20Pic%20G.JPG)	A warning is displayed that selected firmware is a third-party binary. Click the **Update** button next to the warning message.
 (/chrome/site/devicesetup/WU2S- U4%20airGrid%20M2%20Setup%20Pic%20H.JPG)	The firmware is updating. Put down the keyboard and back away slowly. Do not touch anything or power off the computer or node.
 (/chrome/site/devicesetup/WU2S- U4%20airGrid%20M2%20Setup%20Pic%20I.JPG)	The node has rebooted after the firmware update. The automatic attempt to display the web page fails because the node is not at the 192.168.1.20 address any more.
	Go to the Network Connections, select the wired LAN connection you have been using
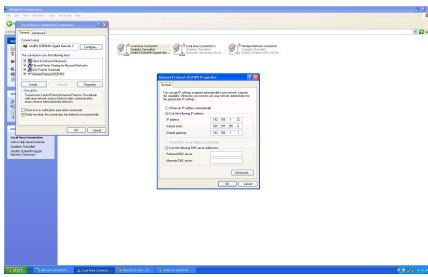
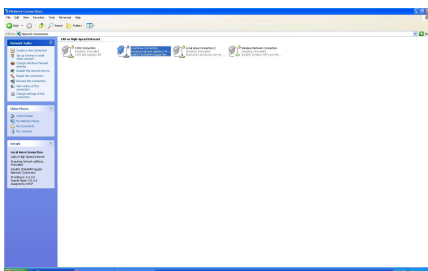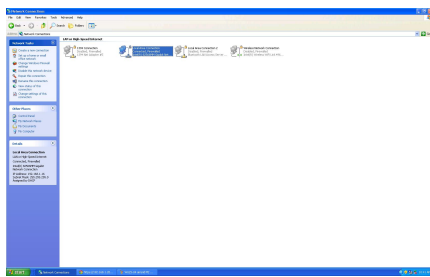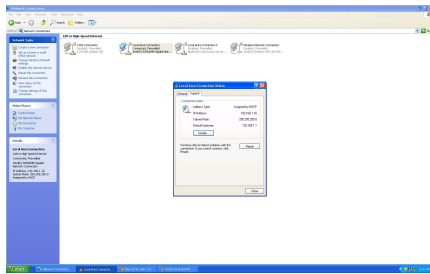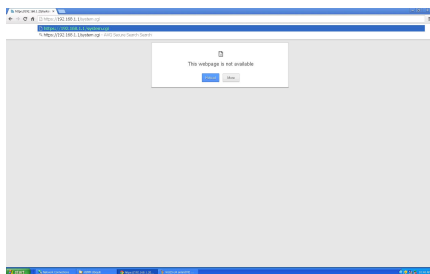|	
 (/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20J.JPG)	with a **Right Click** so you can get to the **Properties**. Then select the **Internet Protocol (TCP/IP)** and click the **Properties** button. Another dialog box opens to show that we were using a static address on the 192.168.1.0 network to talk to the node's airOS for the initial setup.
 (/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20K.JPG)	The AREDN node is providing IP addresses via its DHCP server, so we need to select the radio button for **Obtain an IP address automatically.**
 (/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20L.JPG)	We should also select the radio button for **Obtain DNS server address automatically**. Click **OK twice** and return to the **Network Connections screen**.
 (/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20N.JPG)	Your LAN connection begins acquiring an IP address from the DHCP server on the new AREDN node.

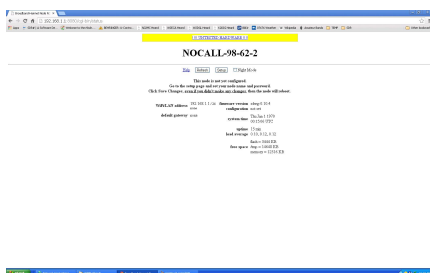|	
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20O.JPG)	Your computer successfully obtained an IP address and the status is now **Connected**.
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20P.JPG)	**Right Click** on the LAN connection and select **Status**. Then select the **Support tab**. The computer has an IP address and the gateway – the AREDN node – in this case is 192.168.1.1 **This is ONLY TEMPORARY.**
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20Q.JPG)	We return to the browser to continue the AREDN setup. Go to the AREDN gateway or node at http://localnode:8080 (http://localnode:8080)
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20R.JPG)	Success! The AREDN is installed and its web server displays the initial information. We need to complete the initial setup with our call sign and password. Please follow the NodeSetup (/products/AREDN/wiki/HowTo/NodeSetup) guide to setup your node

Congratulations! You now have a AREDN node.

TFTP

Download the "Factory" image for your firmware from the downloads page. Remember where you saved this file for later on.
You will need a TFTP client. Windows XP has one installed that you can use from the command prompt. Windows 7 and Windows 8 you need to install it from Windows Components first. A simple GUI version is available from: http://www.dd-wrt.com/dd-wrtv2/downloads/others/tornado/Windows-TFTP/tftp2.exe (http://www.dd-wrt.com/dd-

wrtv2/downloads/others/tornado/Windows-TFTP/tftp2.exe). Linux users: the procedure varies by distro.

Plug your computer directly into the Ubiqutiti power injector "lan" port.
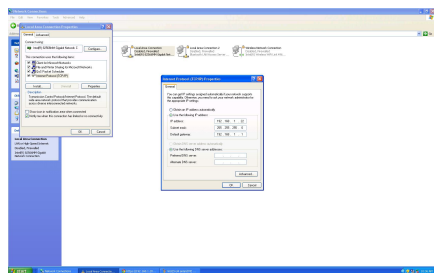
(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20J.JPG)

Go to the Network Connections, select the wired LAN connection you have connected to the power injector using with a **Right Click** and select **Properties**. Then select the **Internet Protocol (TCP/IP)** and click the **Properties** button. Another dialog box opens. Configure your computer to use an IP address of **192.168.1.22** with a subnet mask of **255.255.255.0**

Press and hold the RESET button on your Ubiquiti device as you plug the Network cable into the device or into the Power Injector (Hint: think of this as holding the reset button while plugin in the power cord)

After approximately 5 seconds (and up to 30 seconds on some devices) the lights on the Ubiquiti device will change. Wait for the RED Link1 to illuminate. Release the Reset Button

The lights will continue alternating in pairs Link1(Red)+Link3(Green) and Link2(Amber)+Link4(Green). At this point you are in what is known as "Recovery Mode"

Use your TFTP client to upload the file you downloaded earlier to 192.168.1.20 The file needs to go to the root of the device. This means from the command line you may need to be in the directory of the binary file instead of using a full path to the image.
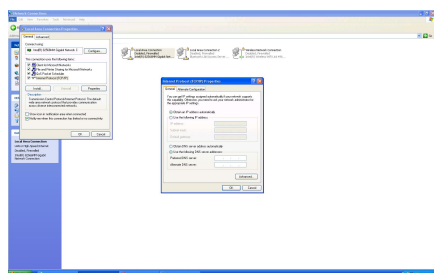
Once the file is successfully sent the lights on the device will stop blinking and the LINK1(RED) light will remain solid. DO NOT REMOVE POWER from the device.

It will take a bit of time for the file to be written to to the flash. Wait until all the lights shut off. The system will begin booting when the LINK4(Green) led starts blinking, the power led remains solid. The Traffic light will blink if it sees any traffic.
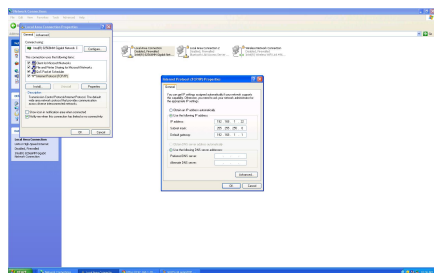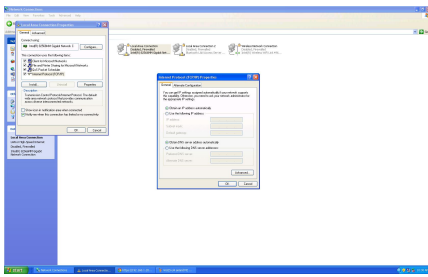

(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20J.JPG)

Go to the Network Connections, select the wired LAN connection you have been using with a **Right Click** so you can get to the **Properties**. Then select the **Internet Protocol (TCP/IP)** and click the **Properties** button. Another dialog box opens to show that we were using a static address on the 192.168.1.0 network to talk to the node's airOS for the initial setup.
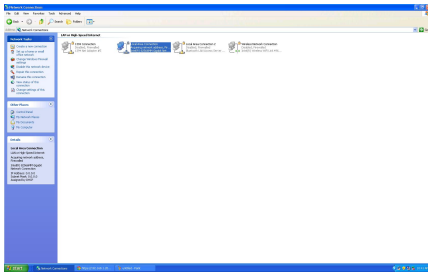

(/chrome/site/devicesetup/WU2S-U4%20airGrid%20M2%20Setup%20Pic%20K.JPG)

The AREDN node is providing IP addresses via its DHCP server, so we need to select the radio button for **Obtain an IP address automatically.**
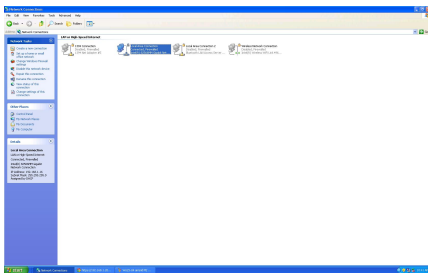
(/chrome/site/devicesetup/WU2S-
U4%20airGrid%20M2%20Setup%20Pic%20L.JPG)

We should also select the radio button for
Obtain DNS server address automatically.
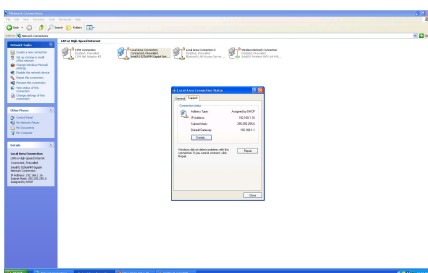Click **OK twice** and return to the **Network
Connections screen**.

(/chrome/site/devicesetup/WU2S-
U4%20airGrid%20M2%20Setup%20Pic%20N.JPG)

Your LAN connection begins acquiring an IP
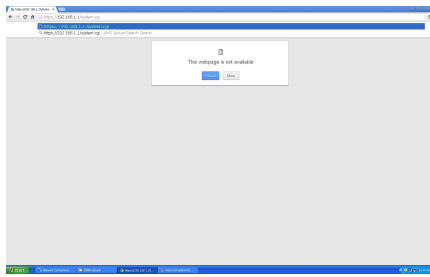address from the DHCP server on the new
AREDN node.

(/chrome/site/devicesetup/WU2S-
U4%20airGrid%20M2%20Setup%20Pic%20O.JPG)

Your computer successfully obtained an IP
address and the status is now **Connected**.

(/chrome/site/devicesetup/WU2S-
U4%20airGrid%20M2%20Setup%20Pic%20P.JPG)

Right Click on the LAN connection and
select **Status**. Then select the **Support tab**.
The computer has an IP address and the
gateway – the AREDN node – in this case is
192.168.1.1 **This is ONLY TEMPORARY.**

(/chrome/site/devicesetup/WU2S-
U4%20airGrid%20M2%20Setup%20Pic%20Q.JPG)

Open a web browser and go to the AREDN
gateway or node at   http://localnode:8080
(http://localnode:8080)
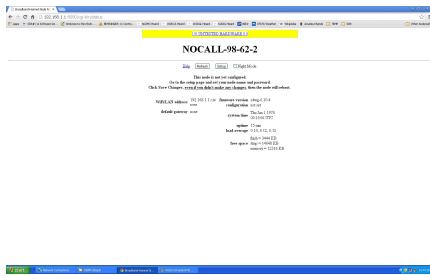
(/chrome/site/devicesetup/WU2S-
U4%20airGrid%20M2%20Setup%20Pic%20R.JPG)

Success! The AREDN is installed and its web
server displays the initial information. We
need to complete the initial setup with our call
sign and password. Please follow the
NodeSetup
(/products/AREDN/wiki/HowTo/NodeSetup)
guide to setup your node

Congratulations! You now have a AREDN node.

Credits

Photos and text throughout the document: WU2S.

Download in other formats:

Plain Text (/products/AREDN/wiki/HowTo/FlashUbiquiti?format=txt)