BSAP 1600 Bridging Quick Start Guide Version 2.0

This document has been created to provide a reference for configuring a point-point bridge using the BSAP 1600.   This example will show a hard wired 1600 at a core location acting as the Root bridge and a wireless bridging child (remote) configured on the 802.11A band.

Initial Access:

The BSAP is configured by default to use DHCP. I used the MAC address in the Fixed IP section of the managed interface in the BSC to assign an address to access the box. The 1600 also defaults to 192.168.1.1/24 if you would like to configure a direct connection from PC.   Also console access is available via the following settings:

• Set the data rate to 9600 bps.
• Set the data format to 8 data bits, 1 stop bit, and no parity.
• Set flow control to none. • Set the emulation mode to VT100.
• When using HyperTerminal, select Terminal keys, not Windows keys.

Default login is **admin** with no password

Make sure the current version of firmware is 4.3.3.6b03. The current version can be found under the System/Administration menu. The latest version may be obtained from Bluesocket at http://support.bluesocket.com

The first thing that must be done is set the radios to the US country code using the CLI or Telnet. After login type "**country US**". At this point you can continue with CLI to configure or use the GUI as I will be explaining here.   Please note that you may see a message when trying to enable the SSID that the "Country does not support the A radio". Once the antenna is selected, this will go away.

Upon initial access to the GUI (http://x.x.x.x) the first thing should be to make sure the current version of firmware is at 4.3.3.6b03 or above. The current version can be found under the System/Administration menu. The latest version may be obtained from Bluesocket at http://support.bluesocket.comassign a name to the radio under System/identification

The next step would be to set your IP address if you wish to statically assign under System/TCPIP Settings.

Next step is the bridging configuration. First, configure the radio that will be designated the root bridge.   This radio is the one connected to the core network at the central location. This is under System/WDS Settings
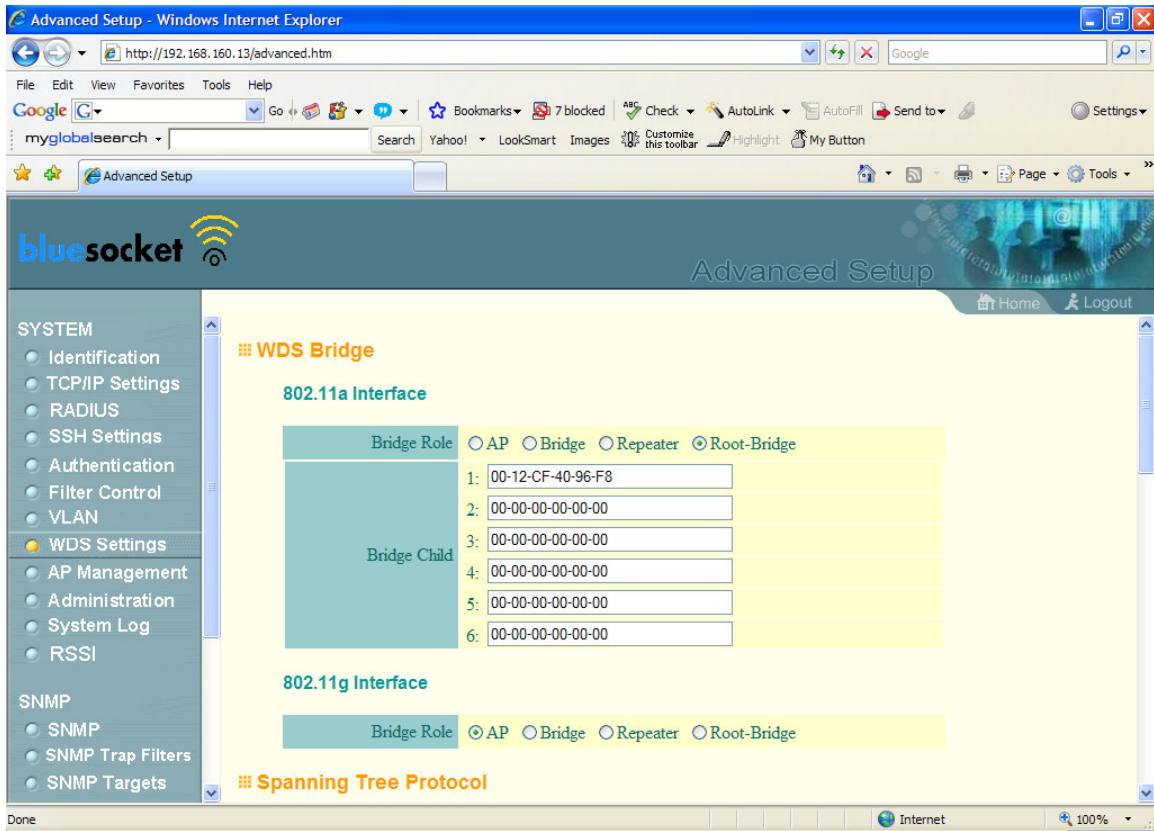
This radio is set to the root bridge and must have each child's (remote) wireless MAC in the Bridge Child fields.

Spanning tree protocol may be configured if using as a backup link to WAN circuits, however if using as the primary link, spanning tree should be disabled which it is by default.   No other configuration is required on this screen.

Next configure how the LEDs will function using the System/RSSI. Scroll down to the bottom of the screen and select how you want them to function. This is useful when using directional antennas to optimize your alignment between radios. The Bridge RSSI does not work with the Omni antennas.
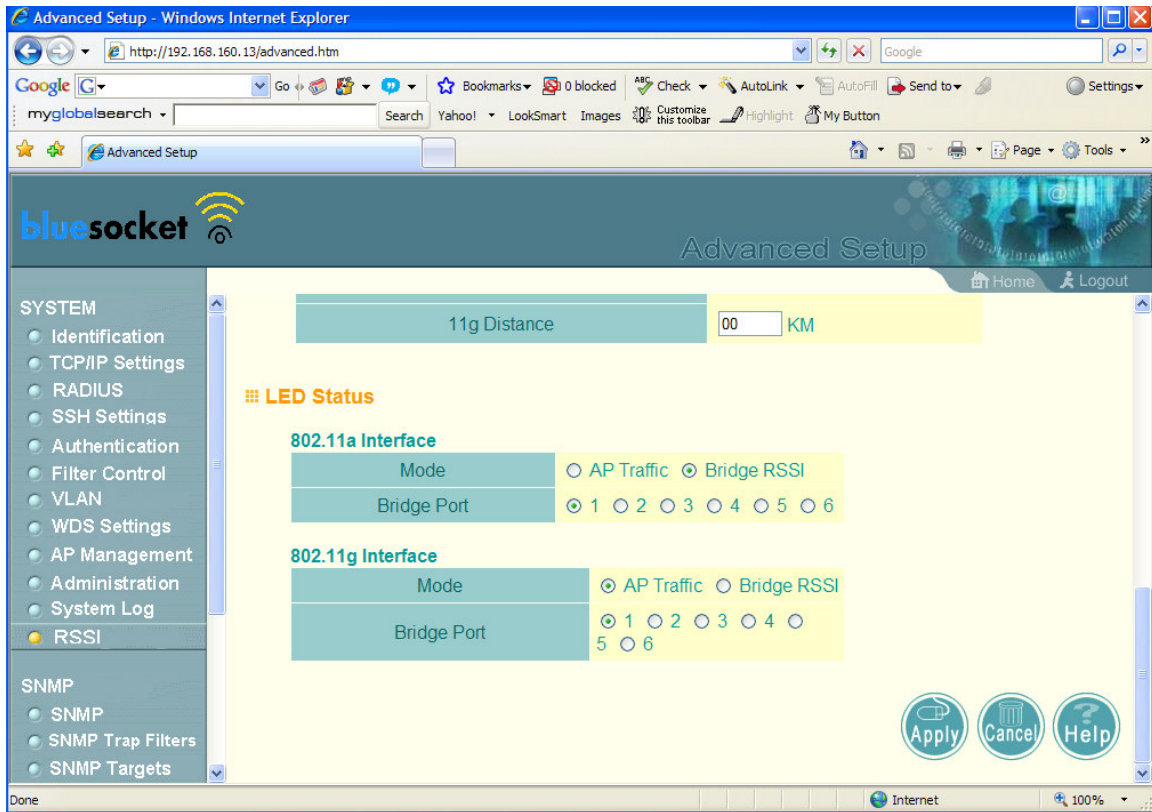
Now we are ready to configure the A radio for SSID and antenna type. Select Slot 0 Radio A radio settings and scroll down approximately half way to see the radio channel and the antenna ID settings. The BSAP1600 will support auto channel assignment and the remote has the ablity to find which channel the root bridge is on, but statically configuring this allows for faster boot times and faster link connection times.   First set the channel and disable auto channel select. Next select the antenna type you are using on the A radio.
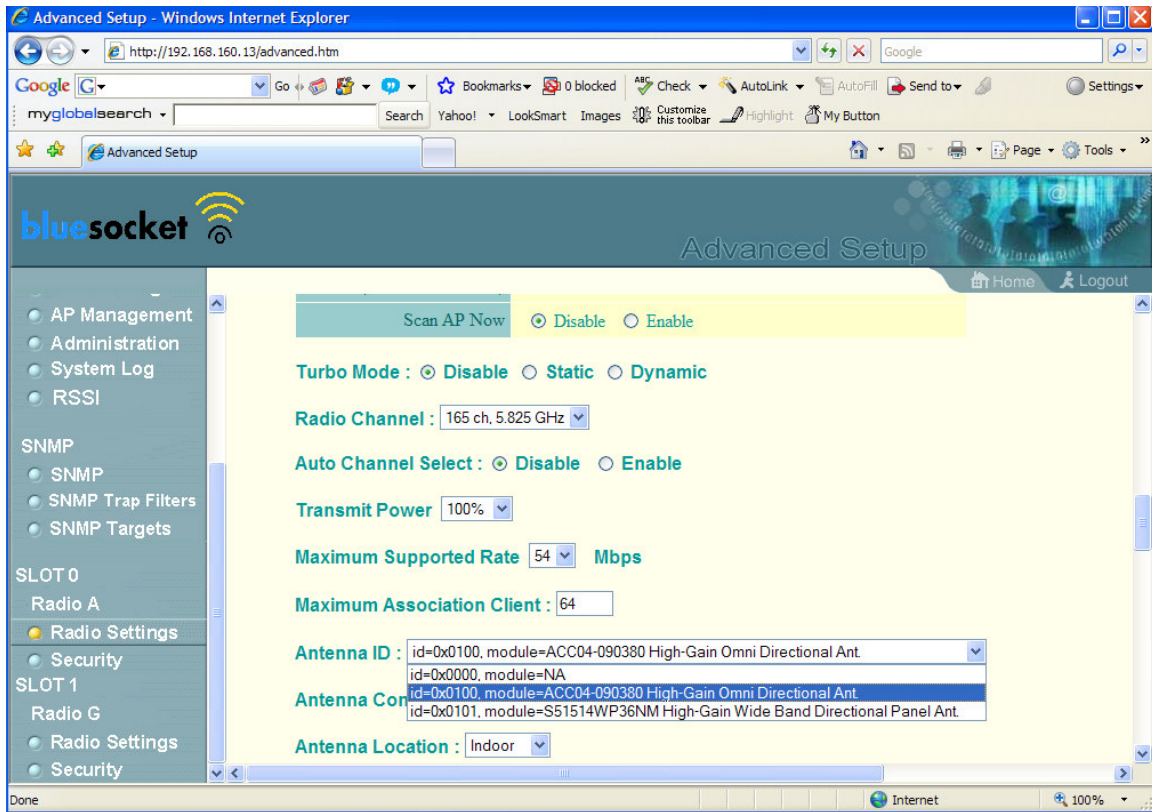
The last step on the root bridge is setting the SSID on the A radio. An SSID must be assigned to complete a link between the radios, so encryption and making the SSID blind (can be configured using the More link in Security/VAPx) should be configured as it is possible to associate to the bridge SSID.   Now go the Slot 0/Radio A/Security tab to set the SSID and enable. Note: VAP 0 must be used for all bridge links. VAP 1-3 may be used for access SSIDs.
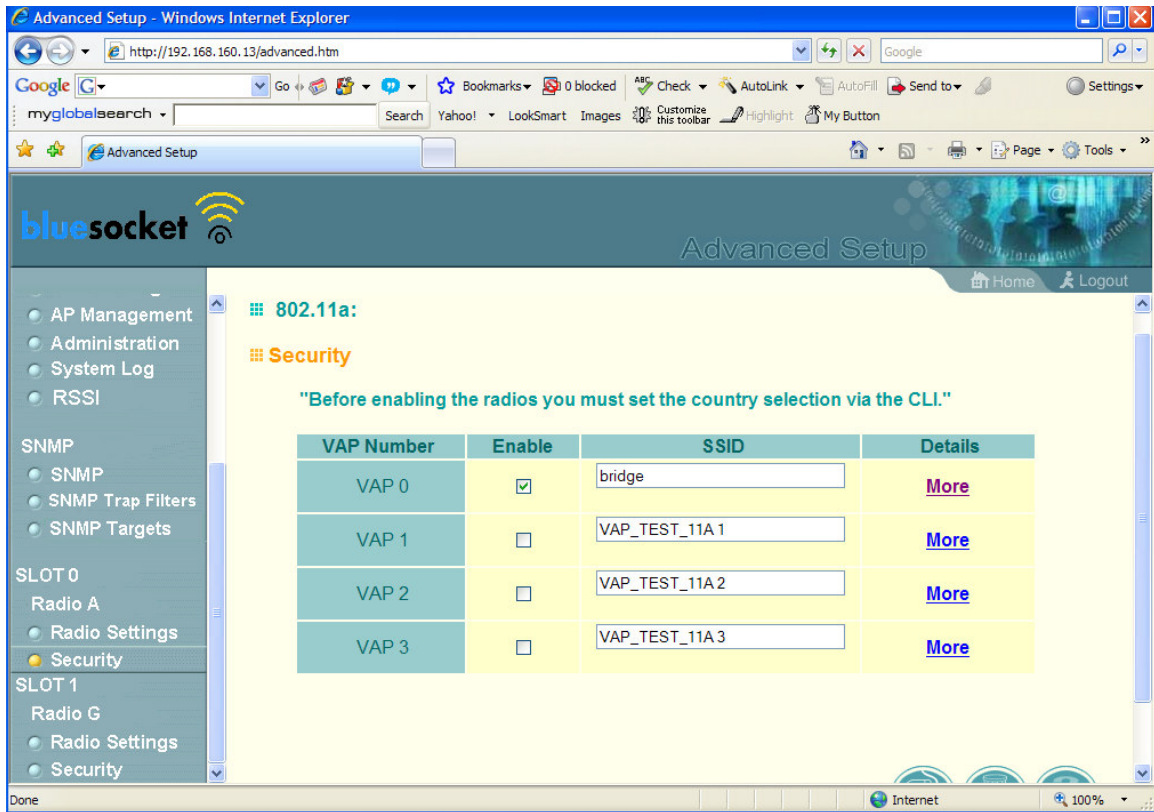
Now we configure the child (remote) radio.   All the settings above will be the same with the exception of the WDS Settings.   The child must be configured as a bridge and must have the **wireless** MAC of the root bridge as the Bridge parent. Must be set to slave and disable the Channel auto sync as we made it a static assignment above.
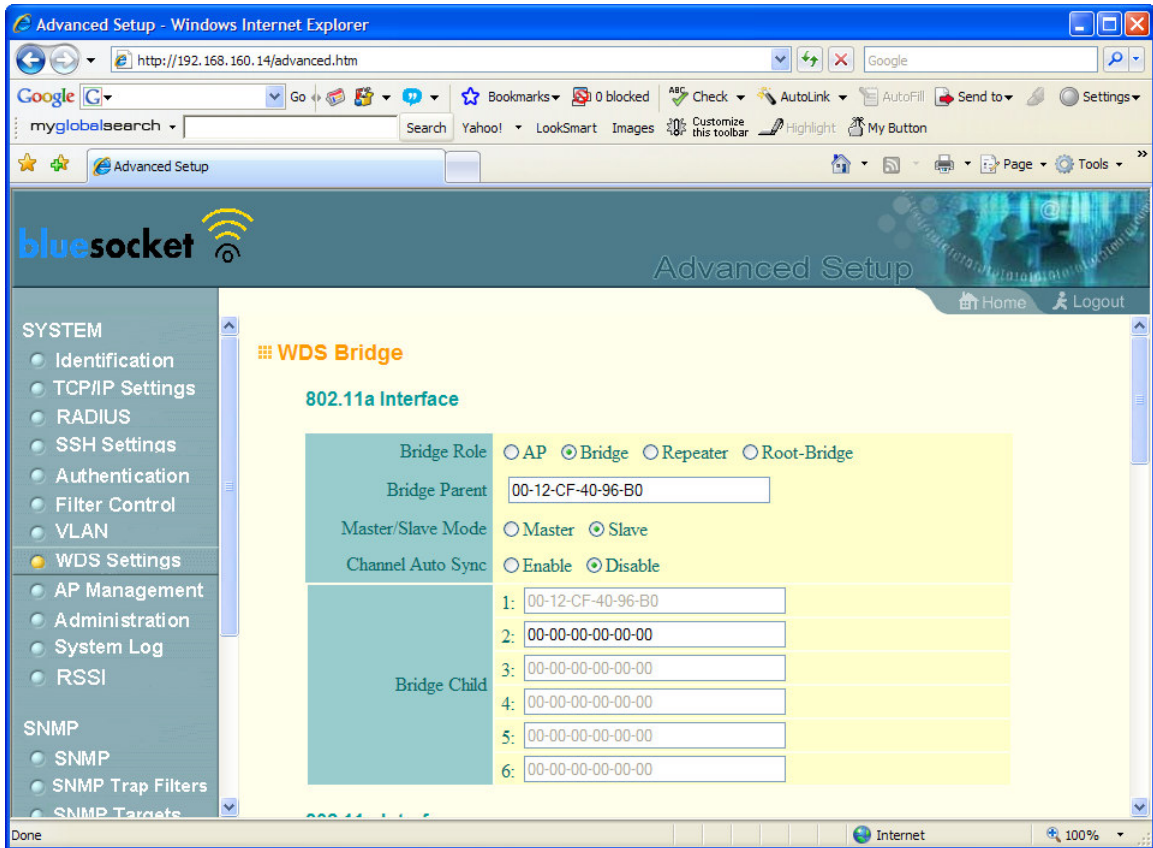
At this point reboot all radios and the bridge should come up. The BG radio may be configured on the child to test wireless access, or a hard wired device may be connected to the power injector to test connectivity.