

WiFi As Wan Support on bcm963XX

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Revision History

Revision	Date	Change Description
0.1	03/09/2012	Initial release

Introduction:

The APSTA mode of WL driver is a variant of MBSSID that allows support for AP mode and STA mode operation simultaneously. By participating in one BSS as a STA and managing separate BSS as an AP, and with appropriate configuration, this feature is used to implement Travel Router(Routing mode) and Range Extender (Bridging mode) products. The main SSID which behaves like STA to associate other Upstream AP is used as layer2 interface of Wan service and the guest SSIDs are as AP associated by STAs.

Building WiFi As Wan Feature(To Be Modified)

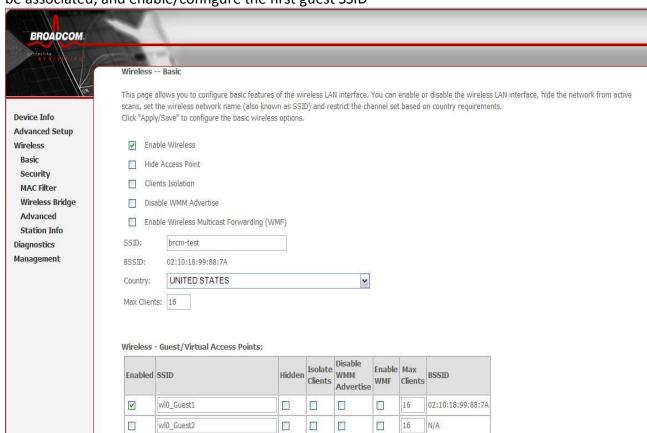
To enable WiFi As Wan Support, Enable following options under "WIAN Selection" in make menuconfig

- Wireless Alternate Build: "apsta"
- [*] WiFi as WAN

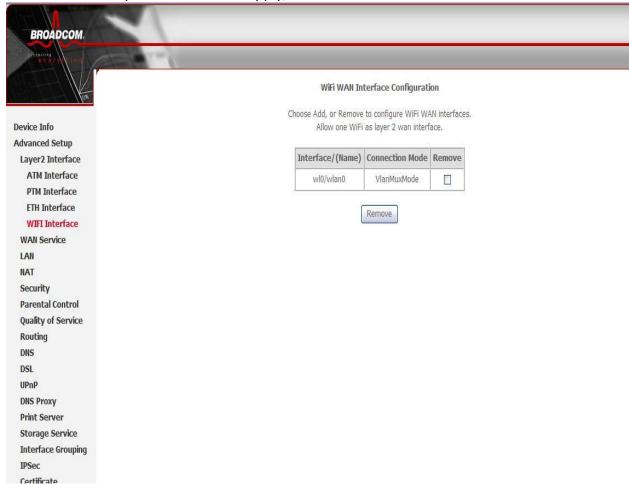
Configuring WiFi As Wan:

For now, Wifi As Wan support two mode, Routing mode and Bridging mode.

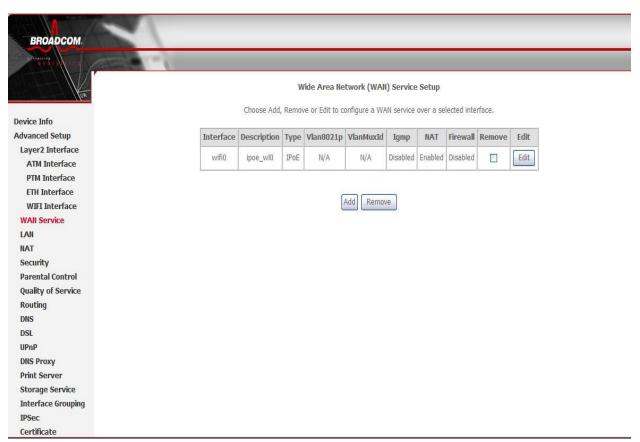
- 1. Routing Mode
- Go to Wireless ---> Basic page, enter main SSID as the SSID of what the upstream AP will be associated, and enable/configure the first guest SSID



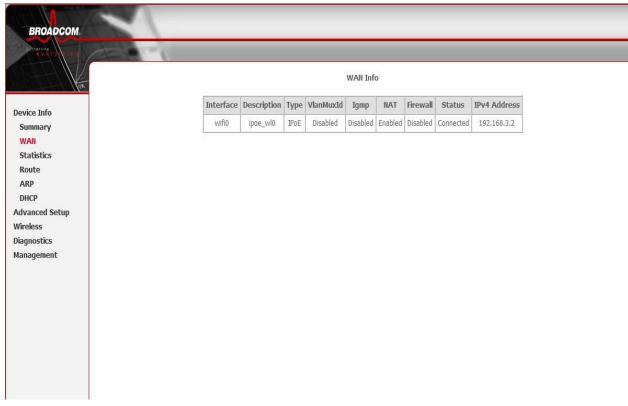
Go to Advanced Setup ---> Layer2 Interface ----> WIFI Interface page, Add the main SSID interface wl0 as layer2 interface and Apply/Save



 Go to Advanced Setup ---> WAN Service page, configure the IP Over Ethernet Wan Service based on wl0 interface



- After the wIO interface associated to the upstream AP, go to Device ---> WAN page to check if the the wan wifi interface wifiO has been activated



- Connect a wireless STA to the gust SSID and try if ping from STA to the upstream AP can be successfully

2.Bridging Mode

- Go to Wireless ---> Basic page, enter main SSID as the SSID of what the upstream AP will be associated, and enable some guest SSID
- Go to Advanced Setup ---> Layer2 Interface ----> WIFI Interface page, Add the main SSID interface wl0 as layer2 interface and Apply/Save
- Go to Advanced Setup ---> WAN Service page, configure the Bridging Service based on wl0 interface
- After the wl0 interface associated to the upstream AP, go to Device ---> WAN page to check if the the wan wifi interface wifi0 has been activated
- Connect a wireless STA to the gust SSID and try if ping from STA to the upstream AP can be successfully

3. PPPOE Mode

TODO if necessary

NOTES:

- 1) Interface grouping for wifi wan interface is to be done
- 2) Authentication WPA/WPS2-PSK support for the main ssid when behaves as STA will be added
- 3) WPS support for the main ssid when behaves as STA will be added