Firmware Change Log

Written by David Rivenburg, AD5OO - Last Updated Sunday, 04 August 2013 16:07

firmware wish list

<u>network functionality</u>

- move the mesh from ipv4 to ipv6
- duplicate address/name detection
- indicate signal strength on a per-node basis
- signal strength logging
- detect when a WAN connection goes away and discard its default route
- and bring it back when the WAN connection is restored

- figure out how DNS will work in separate regions or subnets
- internet linking of nodes
- use an IP-IP tunnel or vpn to connect out of range meshes

- firewall the outbound WAN traffic
- to prevent access to inappropriate (for Part 97) internet content

- figure out a way to firewall undesired stations (non-hams/bad hams)

<u>olsr</u>

- find a way to make service advertisements expire more quickly

- the olsr-topology-view program needs adjustments to make its graphs more useful
- make night-mode work for the olsrd_httpinfo webpages

Firmware Change Log

Written by David Rivenburg, AD5OO - Last Updated Sunday, 04 August 2013 16:07

setup page

- add country code for proper wifi channel selection
- add a timezone setting

mesh status page

- indicate which nodes are internet gateways
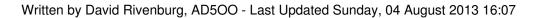- filter to display only nodes with services

administration

- provide a way to set the system time when internet NTP servers are not available
- figure out a way to generate a firmware image from a node which can be used to make more nodes
- provide it through a tftp server to eliminate the need for a local computer

- track down and fix firmware upload corruption with the google chrome browser

general

- upgrade to OpenWrt Backfire 10
- this will add support for the WRT160NL and Ubiquity hardware, as well as several other platforms
- it will probably fix the "channel 2" problem that some are having

- add APRS functionality
- implement with UDP broadcast packets
- inter-node messaging, both immediate and "data-mule" mode
- aprsd for passing traffic to aprs servers

- position reporting
- weather/other telemetry

1.0.0 released 2013/08/03 (svn revision 271)

A full firmware update is required. It is incompatible with earlier firmware versions and the changes are too large to be installed as a patch.

- changed the name to Broadband Hamnet
- changed the SSID to BroadbandHamnet-v1
- changed the name of DMZ mode to Direct mode
- changed the default LAN mode to 5 host Direct
- allow the advertising of services that the node itself provides

- updated olsrd to version 0.6.4.1

- disabled the olsrd_secure plugin
- opened port 8080 on the WAN for administrative access
- removed the ad5oo ssh key
- eliminated the use of nvram
- changed the DNS domain to local.mesh

0.4.3 released 2012/06/09 (svn revision 244)

- fixed bugs with port forwarding from the wan
- replaced the list of ping hosts for the olsr dynamic default gateway

0.4.2 released 2011/08/21 (svn revision 225)

- fixed the bug which prevented port forwarding a range of ports
- added a waterfall display to the signal strength page
- improved hostname resolution on multi-interface devices
- status page now displays the number of olsrd restarts and how long it has been since the last restart
- olsrd watchdog detects more error conditions
- fixed the "text page of death" on the mesh status page when olsr is not running
- swapped the columns on the mesh status page

- make the txtinfo pugin available to the LAN
- fixed a previous neighbor display bug

0.4.1 released 2011/01/07

- fixed the average signal strength reading
- fixed an olsr bug which caused it to crash
- fixed a DMZ mode configuration bug when the WAN was disabled
- improved the firewall handling when a DMZ server is used in NAT mode
- improved the calculation of the Previous Neighbors age
- do not display local network details to remote nodes

0.4.0 released 2010/10/27

- fixed a bug that disables the DNS server when DHCP is disabled
- updated to olsr 0.6.0
- firmware upgrade required, configuration not compatible with 0.3.3 or older firmware

- static WAN parameters now possible
- access point SSID can now be hidden
- nodes operating in different modes can be daisy-chained (WAN to LAN) w/o needing reconfiguration
- the hostname "localap" can be used to get to the web interface of a mesh access point
- added DMZ mode added to eliminate NAT
- added tooltips to the web interface

- added the ability to install firmware patches
- added a mesh status page
- added service advertising
- added a help page
- default gateway can be on the LAN when the WAN is disabled

0.3.3 released 2010/04/28

- fixed unconfigured node detection
- added the ability to bridge two meshes on separate RF networks
- added the ability to set the dhcp address range
- added more vendors to the wifi scan database
- added a sysinfo web page to collect data for development and debugging
- staggered the fcc id beacons so all nodes don't beacon at once
- the default dynamic gateway (internet sharing) is disabled by default
- the internal web server was moved to port 8080
- the internal ssh server was moved to port 2222
- the olsr pages now display ip address, hostname, and tactical name if available
- fixed a problem with incorrect hostnames being displayed

- olsrd will restart if it stops for any reason
- this is a workaround for an olsr 0.4.10 bug which causes it to die

- port forwarding enhancements
- rules can be disabled without deleting them
- tcp and udp traffic can be separately routed
- port ranges can be specified
- a dmz server can be specified

0.3.2 released 2010/02/01

- fixed telnet access in safe mode
- fixed ntpclient by switching to us.pool.ntp.org
- fixed the node status link on the olsr pages
- the olsr pages now show hostnames instead of ip addresses
- added the ability to upgrade firmware from the internet
- added the ability to set the tx power level
- added the ability to select tx and rx antennas
- added the ability to set the wifi packet timeout by node distance
- added the default gateway to the status page
- added authorized ssh key management
- added a Mesh Access Point mode
- switch from OpenDNS to Google Public DNS

0.3.1 released 2009/10/10

- fixed a bug in the ntpclient setup
- fixed a bug when port forwarding both interfaces
- fixed a bug in password special character handling
- fixed a bug on the firmware update reboot page
- fixed a bug that prevented ssh logins before a password was set
- fixed a bug in the dhcp configuration
- accounted for a change in opendns nxdomain replies
- moved most of the web interface control buttons to the top of the page
- added the olsr dot draw plugin
- changed the wireless SSID from ARES-MESH to HSMM-MESH
- the lan dhcp server can now be disabled in the web interface
- added instructions to the status page when the node is not configured
- package management now has access to the online openwrt packages

0.3.0 released 2008/12/09

- upgraded to OpenWrt kamikaze 7.09
- unsuccessful trials with olsr 0.5.X, staying with 0.4.10 for now
- added ipv6 capability in preparation for potential ipv6 conversion
- added an ifstat script to plainly show which interfaces have ip addresses
- added more vendor entries to wscan
- fixed a channel number bug in wscan
- added a version file /etc/mesh-release
- added recvudp
- removed false positive associations from the connect script
- node status and configuration web pages
- different network topology to make more efficient use of address space and allow for automatic node addressing
- ip address based on mac address
- mac = a:b:c:d:e:f
- ip = 10.d.e.f
- eliminates the need for pre-defined node allocations
- conflicts must be resolved manually
- this precludes routing between separate meshes
- ipv6 would fix this, but that's a longer term project

- lan-side networks are not advertised
- all lan-side access from the mesh is done through port forwarding
- a firewall now separates the lan from the wan and wifi interfaces

- dns based node identification
- implemented through olsr nameservice plugin
- node names are callsign-id (ad5oo-mobile1)
- an additional tactical name is allowed
- all nodes are dns servers
- all nodes are known as "localnode" on their lan interface

- basic ntp client functionality

0.2.0 released 2007/08/25

- upgraded to OpenWrt kamikaze 7.07
- ad5oo build 31

- added configuration profiles
- ap
- client
- router
- mesh

- added fcc id beacons to mesh mode
- added a site survey tool (wscan)
- added a client association tool (connect)
- added an nvram reset tool (nvclear)
- added software packages
- microperl
- microcom
- ntp
- xinetd
- tcpdump
- netcat

0.1.0 released 2006/08/24

- initial release
- OpenWrt whiterussian rc5
- olsr 0.4.10