

This article will summarize the updates between HSMM-MESH v0.4.3 and Broadband Hamnet v1.0.0 for those of you already familiar with how the firmware works so that you can get started using it quickly and will know what to expect.

Now that the name has changed to Broadband Hamnet, there will be several articles on this website that still reference HSMM-MESH. These names can essentially be considered equivalent and it will take time to get everything updated.

A full firmware update is required on all nodes. The OLSR configuration has changed (the olsrd_secure plugin has been removed) and it will not communicate with previous versions of the HSMM-MESH firmware. Also, the size of the firmware files that have been changed are too large to fit into a patch file, so a full install is required. If you are updating remote nodes you will either need direct access to their LAN ports or be within WiFi range to connect with and configure the node since it comes up as an access point when new firmware is installed.

The default LAN mode of a node has been changed from NAT to 5 host direct. NAT mode is still available but you will have to explicitly choose that mode when configuring the node. Direct mode puts the devices on the LAN of a mesh node directly on to the mesh, so no port forwarding is required to access any of the services that those devices may provide. Also, there is no firewall on the node in this mode, so if you want to prevent others from accessing things they should not, they will need their own access controls. For example, the computers you use on the LAN of a node in direct mode should be running their own firewall so that unauthorized

access is not possible.

Direct mode also has one other major difference. In NAT mode the default LAN IP address of a node is 172.27.0.1. In Direct mode, there is no default LAN IP address. It is automatically configured and by necessity must be different on every node. Therefore, it is very important that the computers you connect to a node LAN accept and use the DNS information that the node DHCP server provides. In other words, if you try to open `http://localnode/` in your browser and it does not work, then your DNS settings need adjusting. It may work if you instead go to `http://localnode.local.mesh/`. If that doesn't work, then the DNS settings on your computer are broken and will need to be fixed before you can use the mesh. You can still use the IP address of a node, but with a properly working DNS configuration that will never be necessary.

The DNS domain has changed from `austin.tx.us.mesh` to `local.mesh`. This should not change anything about how you use the mesh, but it is something you should know. The same goes for the SSID having been changed from `HSMM-MESH` to `BroadbandHamnet-v1`.

Outside of these changes the mesh will work as it always has, and hopefully better. However, you are **strongly** encouraged to read the updated help page on the node, or the online [firmware instructions](#). Then read it again.

Broadband Hamnet v1.0.0 Quickstart

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Good luck and happy meshing!