Laptop wireless adapters and Internet access

Written by David Rivenburg, AD5OO
Tuesday, 23 February 2010 17:14 -

Most of us will probably be using laptops with our mesh nodes, and most laptops are going to have a wireless adapter. In addition, when we are experimenting with our mesh nodes we are likely to be home and the temptation is to connect with your home access point for internet access. This is a mistake. Why? When your wireless is connected to your home access point and your ethernet is connected to a mesh node, your laptop is being given contradictory information about how it should handle its networking. Maybe it is smart enough to make everything work, but the chances are very good that it isn't. If not, you will not see the behavior you expect from either the mesh or your home network.

Instead, if you want to play mesh and at the same time have internet access, there are three ways to achieve this:

1. connect your laptop to the LAN port of the node, and the WAN port of the node to your home network
2. use two nodes with mesh access point mode
- connect the WAN port of node 1 to your home network
- set the mode of node 2 to Mesh Access Point
- connect the LAN ports of both nodes together
- connect your laptop by wireless to node 2

- use two nodes in dynamic default gateway mode
- connect your laptop the the LAN port of node 1
- connect the WAN port of node 2 to your home network

If you are using method 1 or 3 and want to ensure a disruption free mesh experience, disable your laptop wireless adapter to prevent it from connecting on its own. You are now counting on the mesh node to give you wireless network access.

If you use method 3, be sure that you restrict your internet access to that which is acceptable under Part 97 rules. All your internet traffic is now being sent over a Part 97 radio link. Alternatively, you can operate under Part 15 rules by using the stock antennas, removing any radio amplifiers, and removing your callsign from the node names. Using your callsign in association with radio transmissions of any sort implies that you are doing so under Part 97 rules. If you are not following Part 97 rules, you must not use your callsign.