

# Wireless Mesh Networks



WIRE FREE NETWORKS

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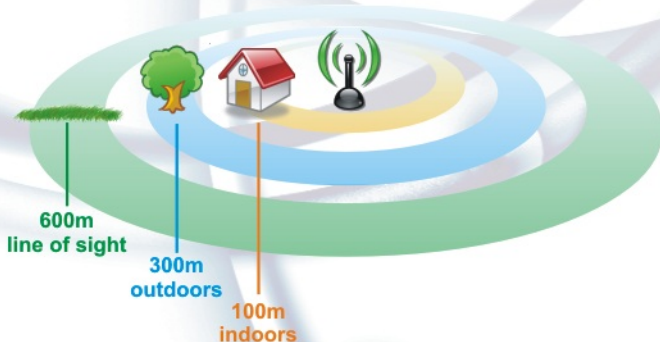
**Hot-Spot** introduces the ultimate wireless hot-zone solution for economical turn key wireless deployments.

Hot-Spots plug-n-play dual-radio delivers 802.11b and 802.11g for high density user access and high-speed backhaul. With a high speed mode that delivers 135% increased transfer mode compared to standard 11g. The access points and mesh repeaters are plug-n-play and support up to 64 users per node. Using industry-standard security algorithms for secured backhaul and client connectivity, multiple VLANs, end-to-end Quality of Service, remotely configured and a graphical GUI-based menu system.



### Estimated range

The range of each node is affected by its environmental conditions. To counter act these effects there are two solutions either blanket the area with more low cost nodes or use directional antennas when trying to connect distant nodes. Generally it is more cost effective to use additional nodes than to add the cost of directional antennas.



Example distances one can expect from the standard antenna



### Hot-Spot's mesh networks.

Traditional methods of repeating wireless used Wireless Distribution System (WDS), but WDS utilises 50% of the bandwidth for network negotiation and is inefficient and non self healing.

Wireless mesh is a new network architecture that uses innovative and "intelligent" wireless nodes. In a wireless mesh network, nodes negotiate the optimal path and self heal.



**This makes wireless mesh the preferred network architecture for unmatched reliability and low cost wireless solutions.**

### Mobile Wireless Mesh

A wireless network can be setup in a matter of minutes feeding off either one or multiple internet sources like 3G or Satellite links.

### Solar Powered Wireless

The nodes can be powered with a 7AH battery lasting a whole day of usage or add on a solar panel for extended usage. For example a 40AH battery with a 20Watt Solar Panel could run a node year round without any power whatsoever!



### Flexible RADIUS security options:

- Private or Shared VLAN
- VLAN with MAC authentication
- Throttle upload and download speeds
- Enhanced layer 2 security
- Captive Portal
- Monitored service 24x7 - SMS and Email notifications