

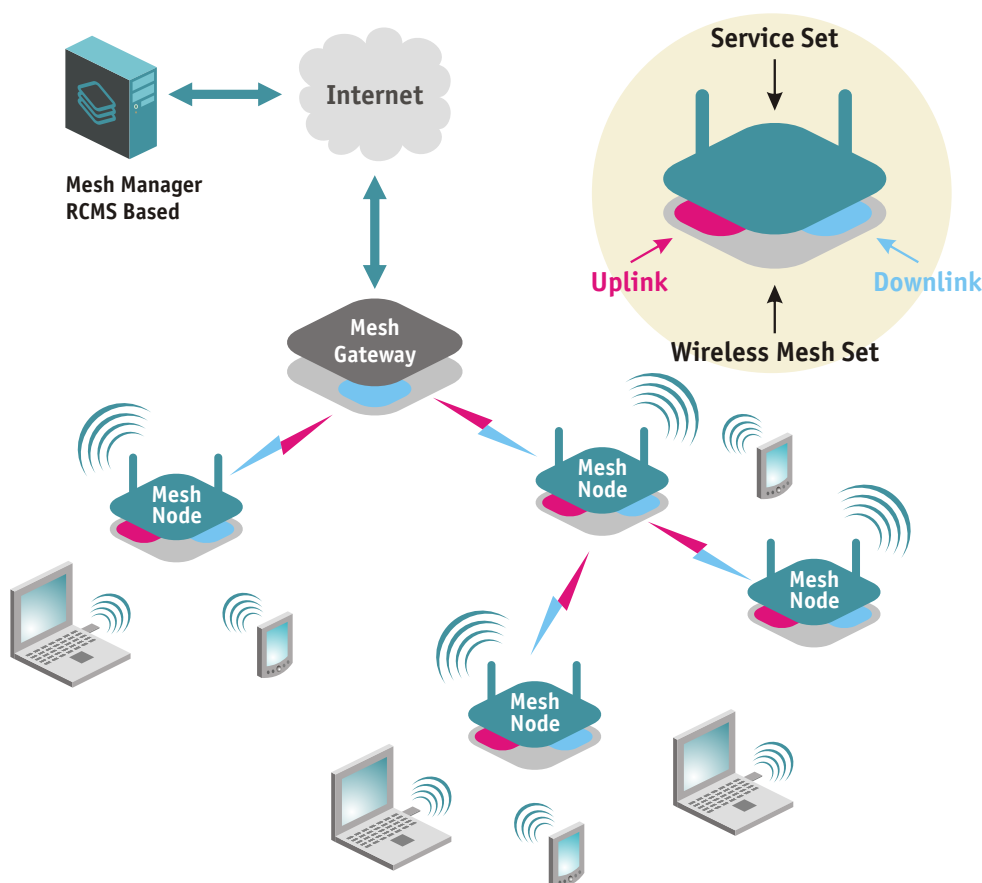
WILI MESH

Highlights

- OSI layer 2 wireless mesh, auto discovery and dynamic configuration of new network nodes
- Provides infrastructure for multiple branded wireless services with diverse security policies
- 802.11e wireless QoS support for services and intra mesh data transfers
- Intra mesh traffic can be secured by industry standard WPA2 (AES) protocol
- Supports from economical single radio to multiple 802.11 radio modules for low latency, high bandwidth applications
- Wide range of supported hardware platforms including price effective wireless SoC's
- Platform independent graphical mesh management software
- Free fully functional WILI MESH software demo is available from WILIBOX WEB site www.wilibox.com

Wireless mesh network is decentralized, resilient and self organizing network structure. Extra network capacity and coverage can be added by installing more mesh nodes.

WILI MESH is secure, QoS capable, OSI layer 2 wireless mesh networking software platform which targets enterprise, campus, WISP networks covering significant areas with 802.11 wireless access.



Mesh Node provides data transport, monitoring and AP functionality for connecting regular 802.11 wireless clients to the network. Mesh node connected to wired backbone will function as **Mesh Gateway**. Beside Mesh Node functionality Mesh Gateway can act as bridge, router, firewall and access controller.

Mesh Node software consists of two components: **Mesh Set** and **Service Set**. Mesh Set selects optimal path to the gateway and provides mesh backhaul connectivity. Service Set is dedicated to service provisioning for 802.11 clients (notebook computers, PDA, Wi-Fi phone sets, etc.). It covers the functionality of comprehensive high grade 802.11 access point including MBSSID (Virtual APs) with individual security settings.

WILI MESH

Mesh Set and Service Set can coexist on the single radio interface for cost effectiveness. Multiple radio interfaces could be used for better overall wireless mesh network performance and implementation of specific wireless mesh network topologies. Three dedicated radio interfaces used for Wireless Mesh Node Uplink, Downlink and Service Set will form optimal hardware configuration.

WILI MESH is controlled by WILIBOX mesh protocol which is based on extensions to IEEE 802.11 protocol for signaling, mesh path selection and topology change detection. WILI MESH software will comply to IEEE 802.11s wireless mesh protocol once it is approved.

WILIBOX mesh transport layer based on OSI layer 2 bridging is transparent for all IP and non IP protocols and brings no overhead to wireless data stream. Intra-mesh traffic is secured by 802.11i (WPA2) supporting pre-shared and dynamic key with 802.1x authentication. 802.1Q and 802.1P tags are preserved in intra-mesh transport. IEEE 802.11e standard assures QoS between Mesh Nodes.

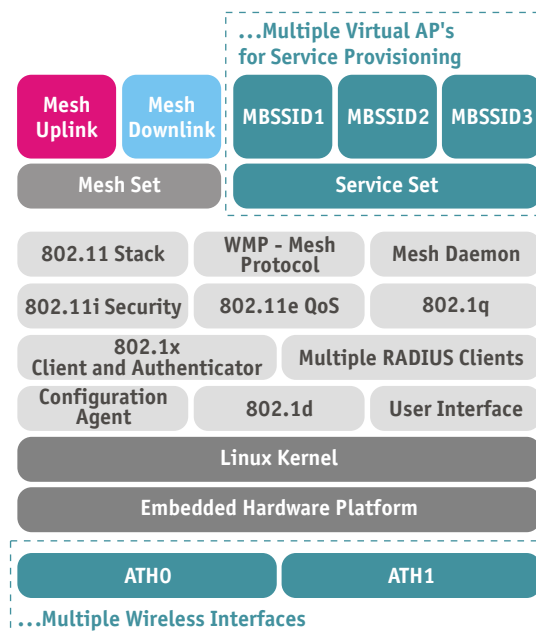
WILI MESH is capable to function on numerous embedded hardware platforms: x86, IXP42x, ARM9, MIPS, price effective SoC solutions from Atheros AR2313, AR2316, AR5213. WILI MESH supports industry leading Atheros 802.11 AR5004, AR5006 chipsets on wireless interface side.

WILI MESH will be customized according to OEM customer requirements and can be ported on any hardware based on supported CPU and wireless interfaces.

RCMS and MESH MONITOR

WILIBOX Remote Configuration Management System (RCMS) is a centralized monitoring and management solution for wireless network equipment. RCMS has a powerful and efficient engine that securely gathers, interprets and records information from registered network devices, and makes that information available to network administrators through a convenient, secure Web interface.

Integral part of WILI MESH software suite is MESH MONITOR which provides graphical representation of network topology and status. MESH MONITOR is integrated into RCMS but also can be used as standalone application.



System Requirements

Minimal hardware requirements:

- 16 MB RAM, 4 MB FLASH, one wireless interface

Recommended hardware requirements:

- 32 MB RAM, 8 MB FLASH, three wireless interfaces

Supported CPU platforms:

- Intel IA32, Intel XScale, MIPS, ARM-9

Supported 802.11 radio modules:

- Based on Atheros chipsets: AR5004, AR5006, AR2313, AR2316, AR5213
- From different vendors: Ubiquity Networks, SENA0, Z-COM, WISTRON and other

Supported platforms (contact us for details)

- ADI Engineering Pronghorn, WRAP2C, Soekris NET48xx, VIA miniITX, Gateworks Avila, Wistron RDAT81, Wistron CA8-4, LanReady AP-1000, COMPEX WP54AG

