



## OW-3000: Layer 2 WiFi Mesh Metropolitan Area Network

For Outdoor Layer 2 (L2) Mesh Access Point Deployment with IEEE802.11s AODV, Full Security, and Management Capabilities

### Key Features

#### Internet & Access Features

- Compliance with IEEE802.11b/g/a standard with 100mW, 200mW or 400mW transmission (Option)
- DHCP Client, SNMP, NTP and Remote Syslog
- WEP, WPA, WPA2

#### Service & Management Features

- Support SNMP V1,2,3 and Integrated with MAP Mesh AP, Network Management Suite (MAP-NMS) (Option)
- HTTPS Secured Management, Access Control List Support.

#### Advanced Features

- WME support
- Outdoor solid housing provides protection against rigorous weather conditions
- IP68 Compliance and PoE

### Overview

OW3000 L2 WiFi Mesh Metropolitan Area Network solution extends the capability of WiFi Local Area Network technologies (IEEE802.11) from providing just local area network connectivity to a wider reach for "wide-area" coverage without messy wiring and wired backbone connection.

OW3000 L2 WiFi Mesh Metropolitan Area Network is designed with compliance with IEEE802.11s AODV protocol, for Enterprises as well as Residential (End-User) to have wireless broadband connectivity, with security, VLAN, management and mobility taking into consideration. WiFi Wireless Mesh Network solution addresses the market requirements for networks that are highly scalable and self configurable, offering end users secure, seamless roaming beyond traditional WLAN boundaries and provides easy deployment in areas that do not (or cannot) support a wired backhaul.

### Specification

- **Hardware:** Intel IXP42X Processor
- **WLAN Standard:** Atheros IEEE802.11b/g, IEEE 802.11a/b/g
- **Frequency Channels Support:**
  - Depending on Countries Channel assignment
  - IEEE 802.11b/g (2.4~2.4835GHz)
  - IEEE 802.11a/b/g (2.4~2.4835GHz / 5.15~5.85GHz)
  - USA and Canada 11
  - Most European countries 13
  - France 4
  - Japan 14
- **Output Power:** 17dBm ; 23dBm (Option)
- **Frequency Support (Backhaul)**
  - Depending on Countries Channel assignment
  - IEEE 802.11b/g (2.4~2.4835GHz)
  - IEEE 802.11 a/b/g
- **Date Rate:**
  - 6, 9, 12, 18, 24, 36, 48, 54Mbps with Dynamic fallback
  - 1,2,5,5,11Mbps with Dynamic fallback
- **Antenna:** 5dBi Omni (standard) or Directional Antenna(Optional)
- **LAN Standard:** IEEE802.3, IEEE802.3u, IEEE802.3af
- **Protocol:** IP, DHCP, NTP, VLAN (Wired, Wireless)
- **Security:**
  - WPA-EAP-TLS, WPA-Personal, 802.1x (EAP-TLS), 64,
  - 128 bit WEP, AES, & MAC Access Control
  - WPA2-personal
  - WPA2-Enterprise
- **Management:**
  - Utility Management, MAP-NMS (Option)
  - SNMP V1/2/3, AP Discovery,
  - Remote Syslog and Remote Firmware Upgrades
- **Ports:**
  - LAN 1 x 10/100 BaseT, Auto-Negotiation
- **Authentication:** 802.1x and AAA RADIUS
- **Services:** NTP, Syslog

OW3000 solution is well-suited for providing broadband wireless access in areas that traditional WLAN systems are unable to cover. The fundamental Network architecture of OW3000 is built upon Dual-Radio Access Point Platform, where one of the Radios serve as the backbone network infrastructure for Internet routing protocol, and the 2nd Radio form the end-user up/down stream wireless link.

OW3000 solution includes point-to-point and point-to-multipoint architecture with either normal (100mW) and/or extended (200mW or 400mW) RF output transmission with external Antenna. With integration of routers, security features & adaptive backhaul routing algorithm & mobile IP for providing both Internet Access and WiFi VoIP applications.

**Application**

RubyTech Outdoor Mesh Metropolitan Area Network can be deployed for

- Intern Building Connection WiFi Network
- University Campus Network
- Hospital Network
- Security Monitoring Network
- WiFi City & WiFi Township
- Localized Intra Network restricted zone
- Wireless Local Loop for VoIP and Data Communication

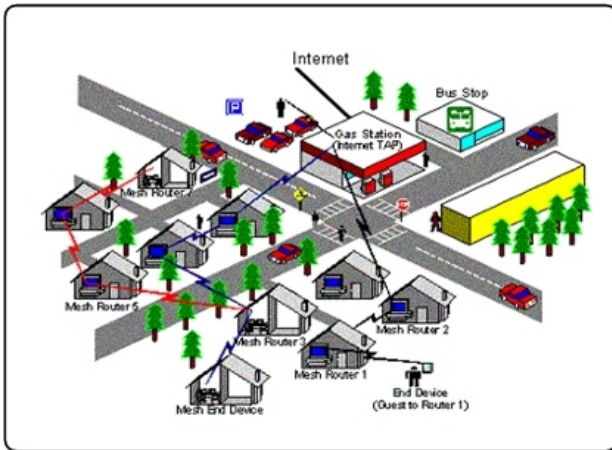


Figure-1  
Example of WiFi Mesh  
Network Deployment  
Scenario and  
Applications

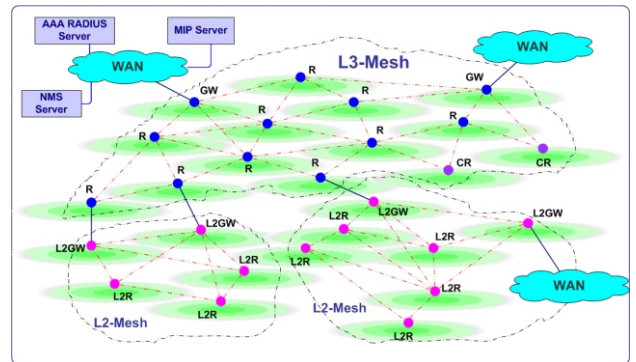


Figure -2  
Example of Layer-3 &  
Layer-2 Topology  
Deployment

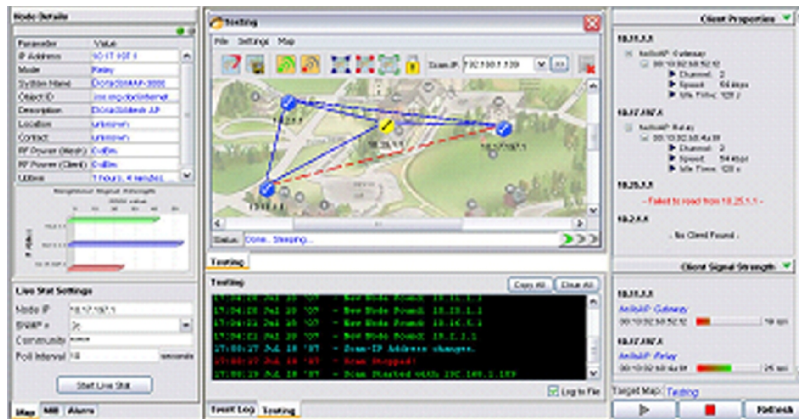


Figure -3 RubyTech MAP-NMS

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