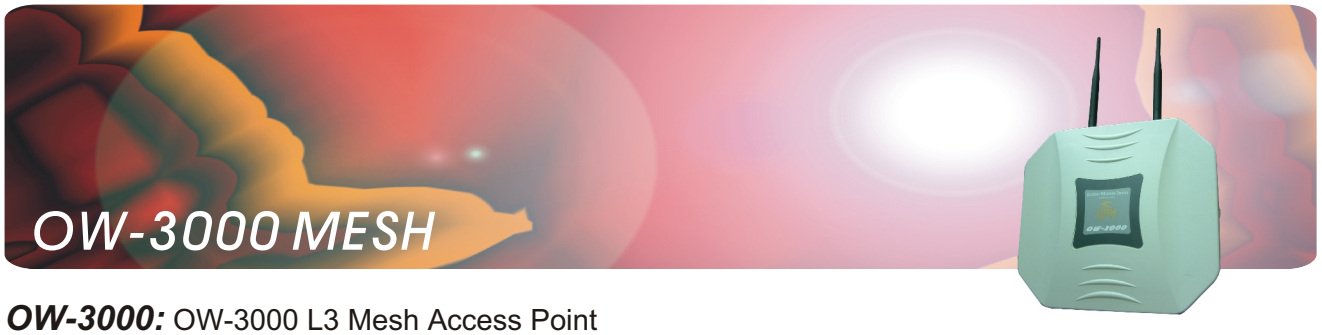


***OW-3000:*** OW-3000 L3 Mesh Access Point

For Outdoor Mesh Access Point Deployment with Full Security, QoS, Mobile IP, IAPP and Management. Compliance with IEEE802.11s pre-standard and with both SPOLSR & AODV Routing Protocol.

## Key Features

**Internet & Access Features**

- Compliance with IEEE802.11a/b/g standard with 100mW, 200mW or 400mW transmission (Option)
- DHCP Server/Client, DNS Router, SNMP, VPN, NTP and Remote Syslog
- Customizable Firewall, WEP, WPA, Zero-Configuration with Adaptive DNS
- HTTP/HTTPS Secured Login, PPPoE and Access Control List Support.

**Service & Management Features**

- Support SNMP V1,2,3 and Integrated with RubyTech Mesh AP Network Management Suite (RubyTech MAP-NMS) (Option)

**Advanced Features**

- Layer-2 Mesh compliance with IEEE 802.11s pre-standard.
- Mobile IP, IAPP, VPN Server, Service Priority OLSR Protocol
- QoS and Traffic shaping mechanism for channel traffic control for individual user, and applications, and Compliance with iPass International Roaming
- Outdoor solid housing provides protection against rigorous weather conditions
- DFS2 Compliance
- IP68 Compliance and PoE

## Overview

RubyTech 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.

RubyTech WiFi Mesh Metropolitan Area Network is designed for Enterprises as well as Residential (End-User) to have wireless broadband connectivity, with security, VLAN, management and mobility taking into consideration. Providing both Layer-3

## Specification

- **Hardware:** Intel IXP425 XScale 533MHz Processor
- **WLAN:**
  - **---Standard:** Atheros IEEE802.11b/g/a
  - **---Frequency Channels Support (Client Mode):**
    Depending on Countries Channel assignment
    IEEE 802.11b/g (2.4~2.4835GHz)
    USA and Canada 11
    Most European countries 13
    France 4
    Japan 14
    DFS2 Support
  - **---Output Power:** 17dBm ; 23dBm(Option)
  - **---Frequency Support(Backhaul):**
    Depending on Countries Channel assignment
    IEEE 802.11b/g (2.4~2.4835GHz)
    IEEE 802.11a/b/g (2.4~2.4835GHz / 5.15~5.835GHz)
  - **---Date Rate:** 6, 9, 12, 18, 24, 36, 48, 54Mbps with Dynamic fallback
    1,2,5.5,11Mbps with Dynamic fallback
  - **---Antenna:** Recommended 12~15dBi Omni or 18~23dBi Directional Antenna for both Backhaul and Client Access
- **LAN Standard:** IEEE802.3, IEEE802.3u, IEEE802.3af
- **Protocol:** IP, NAT, DHCP, NTP, PPPoE, DNS, VLAN (Wired, Wireless)
- **Security:** WPA-EAP-TLS, WPA-Personal, 802.1x (EAP-TLS), 64, 128 bit WEP, AES, Firewall & VPN (PPTP, L2TP & X.509), & MAC Access Control
- **Management:** Utility Management, RubyTech NMS(Option), Local/Centralize Webbase Configuration, SNMP V1/2/3, AP Discovery, Remote Syslog and Remote Firmware Upgrades
- **Ports:**
  - **---LAN:** 1 x 10/100 BaseT, Auto-Negotiation (PoE Enable)
- **Authentication:** HTTP/HTTPS Login with SSL Encryption, 802.1x and AAA RADIUS
- **Services:** Zero-Configuration, Proxy bypass, DNS feed through, Mobile IP, IAPP, QoS and 200kB Internal Web Space, Free Web serving for "Specific Area", Location base service.
- **LED Indicators:** Power, LAN, WAN and WLAN
- **Input Voltage:** 48V PoE
- **Temperature Range:** -20~80°C (Operating), -30~85°C (Storing),
- **Humidity:** Max. 95% Non-condensing
- **Certification:** FCC and CE

Industrial Wireless Solutions

(SPOLSR) and Layer-2 (AODV) topology design for flexible scale of deployment. Compliance with IEEE802.11s pre-mesh standard for potential upgradeability to standard mesh solution.

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. RubyTech solution is well-suited for providing broadband wireless access in areas that traditional WLAN systems are unable to cover.

The fundamental Network architecture of RubyTech MAP is given in Figure-1, and 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.

RubyTech 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. In general, RubyTech Ow3000 has a total of 5 Modes of operation, namely Gateway, Relay, Client Relay, Layer-2 Gateway and Layer-2 Relay.

## *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

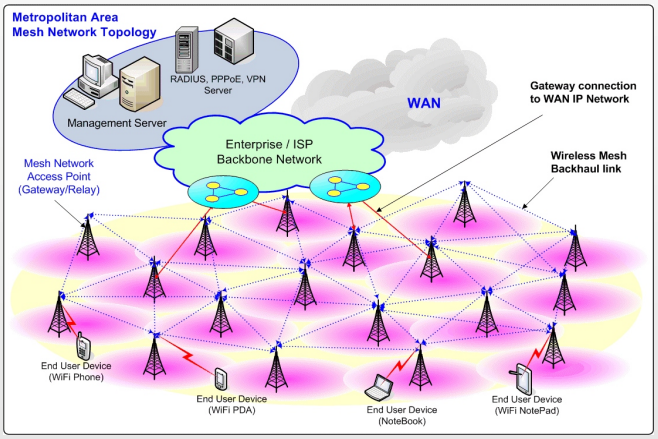


Figure -1 MAP Typical Deployment Topology

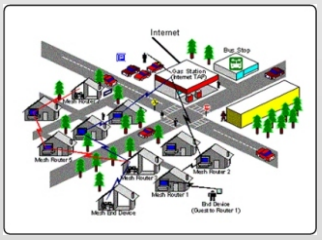

Figure-2 Example of WiFi Mesh Network Deployment Scenario and Applications

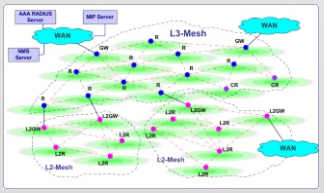


Figure -3 Example of Layer-3 & Layer-2 Topology Deployment

- **RubyTech Network Management System NMS**

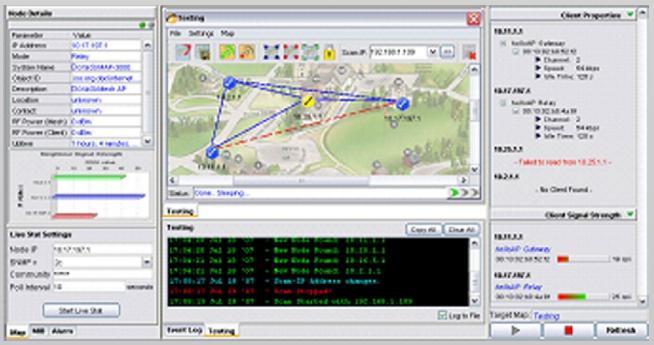

Figure -4 RubyTech MAP-NMS

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