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## **Revision**

Quick Start Guide for PLANET MESH WLAN Mobile IP Server

Model: MAP-2105

Rev: 1.1 (June, 2006)

Part No. EMQ-MAP2105

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## 1. Preference

The MAP-2105 is a Mobile IP server for PLANET Wireless Mesh Network. It is also called as MLRD, Mobile Location Register Daemon. This Quick Start Guide illustrates basic information to start up the MAP-2105, please refer to the following for the first time start up. More information can be found in the CD-ROM, it is strongly recommended to check both documents to help you better understanding the device.

## 2. Package Contents

The following items should be included:

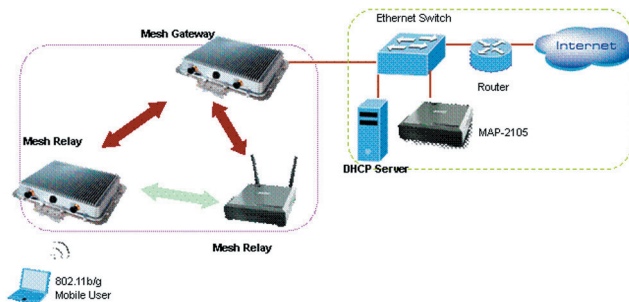
- MAP-2105 x 1
- Power Adapter x 1
- Quick Start Guide x 1
- Management Utility and User's manual CD x 1

If any of the above items are damaged or missing, please contact your dealer immediately.

## 3. Network Planning

### 3.1 Installation topology

The basic MESH Network topology can be planned as following.



The MAP-2105 should connect to the network that provide DHCP services (the first time installation) In this guide, we will base on XRT-401D (Internet Broadband Router) as the example for DHCP server, switch and router, this installation can vary on the network planning.

The MAP-2105 should be installed in the same subnet to the Mesh Gateway for optimal performance.



Hint:

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The MAP-2105 is optimized for 500-user registration; however, the overall network performance may vary on the real environment and application in many aspects, such as the bandwidth to the Internet, the services / sessions that the clients implement.

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## 3.2 Installation consideration

### 3.2.1 Software consideration

The MAP-2105 provides the two management interfaces:

- Secured Web access
- Management utility

For the first time management, please follow the below section to access the MAP-2105 through web browser.

The management utility helps to manage the MAP-2105 via SNMP. This utility can be installed in a Windows PC that located in the same LAN as MAP-2105. For more information about Management utility, please also refer to the management utility guide.

## 4. Hardware Installation Procedures

1. Using Category 3 or higher UTP or STP cable, connect the WAN port of MAP-2105 to a 10Mbps or 10/100Mbps Ethernet hub or switch, and connect the management station to a hub or switch on the same LAN.
2. Connect the power adapter to the receptor on MAP-2105 and plug the other end to a wall outlet or power strip.



Note:

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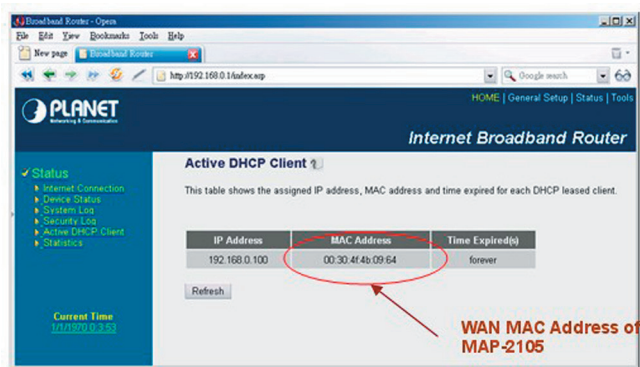
ONLY use the power adapter supplied with the MAP-2105. Otherwise, the product may be damaged.

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## 5. Startup the MAP-2105

To get the first management of the MAP-2105, please follow the following steps.

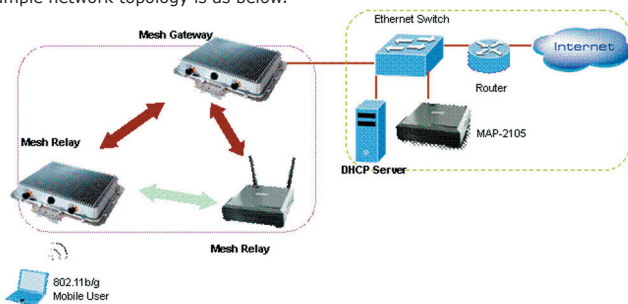
1. Connect the MAP-2105's WAN port to the network where can provide the DHCP services. For example, connect to the LAN port of XRT-401D.
2. Power on a PC that also connects to the LAN port of the XRT-401D with DHCP or fixed IP address.
3. Open the Internet browser and go to the DHCP status page of XRT-401D to check the WAN IP address of the MAP-2105.



4. Check the MAC address from the Web page and also the MAC address label of the MAP-2105. For example, 09-64 as the figure above.
5. Key in the IP address you found for MAP-2105 with "https://". For example: **https://192.168.0.100.**
6. The pop-up screen will ask for user name and password. By default, please key in "admin" for both name and password. Then bring up the screen.
7. Now, the MAP-2105 is ready for services

## 6. Basic Network Setup

The sample network topology is as below.



### Step 1: Gateway Configuration:

[Configuration -> Local Service -> VPN Server]

Enable VPN Server = checked

Add New User by pressing Add button

Username: test (it is defined by user)

Password: test (it is defined by user)

Assign IP: 10.16.1.7 (this address must be in the same IP segment as Gateway's Backhaul radio IP)

Comment: Testing (it is defined by user)

Status: Enable

### VPN Server

Enable VPN Server

---

### VPN User List

User Name	Password	Assigned IP	Comment	Status
test	test	10.16.1.7	Testing	Enable

[Configuration -> Local Service -> Mobile IP]

Enable Transparent Mobile IP Service: checked

Mobile IP Community Name: PLANET (it must be identical for all nodes in the same mesh network)

Mobile Location Register Address: 10.16.1.7 (the IP address assigned in VPN Server screen)

### Mobile IP

Enable Transparent Mobile IP Service

Note: Enable Mobile IP Will Disable the DHCP server

### Mobile IP Daemon

Mobile IP Community Name

Mobile Location Register Address

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## Step 2: Reboot the Gateway

### Step 3: Relay Configuration:

[Configuration -> Local Service -> Mobile IP]

Enable Transparent Mobile IP Service: checked

Mobile IP Community Name: PLANET (it must be identical for all nodes in the same mesh network)

Mobile Location Register Address: 10.16.1.7 (the IP address assigned in Gateway VPN Server screen)

## Step 4: Reboot the Relay

### Step 5: MAP-2105 Configuration:

[Configuration -> Local Service -> VPN Client]

Enable PPTP Client: checked

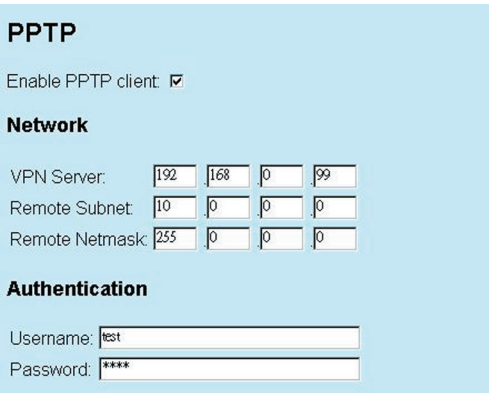
VPN Server: 192.168.0.99 (the Gateway WAN IP address)

Remote Subnet: 10.0.0.0 (the subnet of Gateway's Backhaul radio IP)

Remote Netmask: 255.0.0.0 (the net mask of Gateway's Backhaul radio IP)

Username: test (it is identical as defined in Gateway VPN Server screen)

Password: test (it is identical as defined in Gateway VPN Server screen)



**PPTP**

Enable PPTP client:

**Network**

VPN Server:

Remote Subnet:

Remote Netmask:

**Authentication**

Username:

Password:

## Step 6: Reboot the MAP-2105

## Step 7: Check MAP-2105 status

## MLR status

### MLR Status:

#### CN Info

	IP	Name	Allocation
1	10.16.1.1	PLANET	172.16.1.4 to 172.16.1.248
2	10.16.3.1	PLANET	172.16.3.4 to 172.16.3.248

#### Client Info

	MAC	IP	Network	Gateway	Current CN	Parent CN	Name	Age	Using	Origin
1	0:30:4F:8b:ea:b	172.16.3.5	172.16.3.4/255.255.255.252	172.16.3.6	10.16.1.1	10.16.3.1	n/a	69	n/a	dyn

### CN Info

Two correspondent nodes connected with relevant info.

### Client Info

Info of the mobile station recorded in the MAP-2105.

## Step 8: Check Mobile IP status in Gateway or Relay

Use HTTPS to access the web interface of Gateway or Relay.

[Info -> Status -> Mobile IP]

The information of current connected Mobile IP client is displayed.

### Mobile IP

#### Mobile IP Status:UP

	MAC	IP	Network	Gateway	Current CN	Parent CN	Name	Using	Origin	Age
1	00:12:F0:0A:09:D3	172.9.100.5	172.9.100.4/255.255.255.252	172.9.100.6	10.16.73.1	10.9.100.1	SteveV6V	lrmip_tun0	remote	122

## 7. Further Configuration

For advanced settings of MAP-2105, please refer to the user's manual in the CD. The CD will including:

- User Guide for Web Management
- Management Utility
- User Guide for Management Utility

If you have any difficulty on resolving the problem while installing or using the device, please feel free to contact your local dealer or PLANET Technical Support.





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