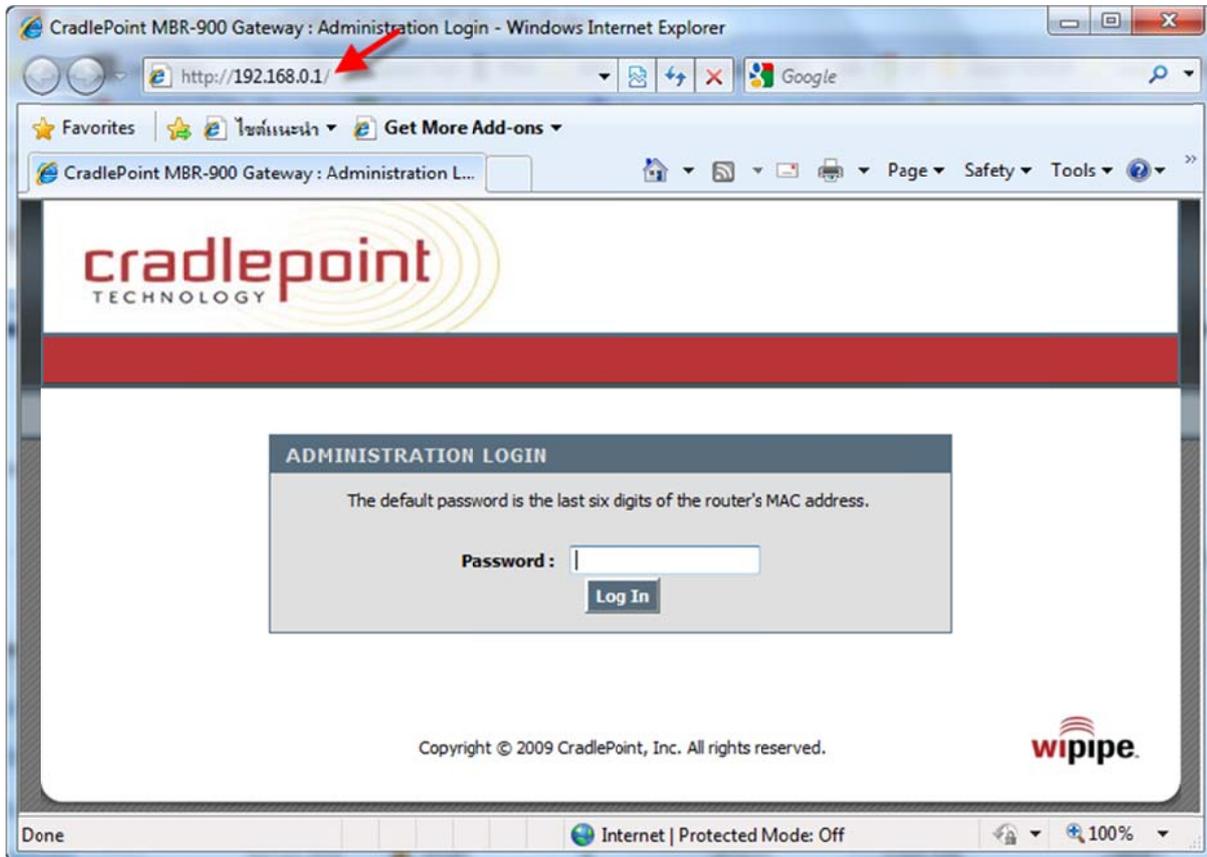


1. เปิด Cradlepoint MBR900 ต่อสาย LAN เข้าคอมพิวเตอร์
2. เปิด Internet Explorer พิมพ์ <http://192.168.0.1>



3. พิมพ์รหัสผ่าน (รหัสเริ่มต้นคือ เลข/ตัวอักษร 6 หลักท้ายของ MAC address เช่น c450f2) แล้วคลิก Log in



4. ตั้งค่าเบื้องต้นด้วย Wizard
 - a. คลิก BASIC > WIZARD > Launch Setup Wizard

The screenshot shows the Cradlepoint Technology web interface. At the top, there is a navigation bar with tabs: BASIC, ADVANCED, MODEM, TOOLS, STATUS, and HELP. The 'BASIC' tab is selected. On the left side, there is a sidebar menu with options: WIZARD, DHCP, NETWORK, WAN, and WIRELESS (WI-FI). The 'WIZARD' option is highlighted. The main content area displays the 'SETUP WIZARD' screen. It contains the following text: "The following Web-based Setup Wizard is designed to assist you in connecting your new router to the Internet. This Setup Wizard will guide you through step-by-step instructions on how to get your Internet connection up and running. Click the button below to begin." Below this text is a dropdown menu for "Select System Language" set to "English". A "Launch Setup Wizard" button is prominently displayed with a red arrow pointing to it. A note at the bottom of the wizard screen reads: "Note: Before launching this wizard, please make sure you have followed all steps outlined in the Quick Installation Guide included in the package." At the bottom of the page, there is a copyright notice: "Copyright © 2009 CradlePoint, Inc. All rights reserved." and the "wipipe" logo.

- b. คลิก Next

The screenshot shows the Cradlepoint Technology web interface, similar to the previous one. The navigation bar and sidebar are the same. The main content area displays the "WELCOME TO THE SETUP WIZARD" screen. It contains the following text: "This wizard will guide you through a step-by-step process to configure your router and connect to the Internet." Below this text is a bulleted list of steps: "Step 1: Set your Password and Time Zone", "Step 2: Configure Wireless (Wi-Fi) Security", and "Step 3: Summary and Save Settings". At the bottom of the wizard screen, there are two buttons: "Next" and "Cancel". A red arrow points to the "Next" button. At the bottom of the page, there is a copyright notice: "Copyright © 2009 CradlePoint, Inc. All rights reserved." and the "wipipe" logo.

c. เลือก Time Zone แล้วคลิก Next

cradlepoint
TECHNOLOGY

BASIC ADVANCED MODEM TOOLS STATUS HELP

Basic

WIZARD

DHCP

NETWORK

WAN

WIRELESS (WI-FI)

STEP 1: SET YOUR PASSWORD AND TIME ZONE

To secure your router, please set and verify the administration password below. You can change the user's password in the Tools Admin section of the Setup pages later.

Password:

Verify Password:

Select the appropriate time zone for your location. This information is required to configure the time-based options for the router.

Time: 3 มิถุนายน 2553 14:29:56

Time Zone:

Prev **Next** Cancel

d. คลิก Require User Login(ใส่รหัสผ่านทุกครั้งที่ใช้งาน) ออก แล้วคลิก Next

cradlepoint
TECHNOLOGY

BASIC ADVANCED MODEM TOOLS STATUS HELP

Basic

WIZARD

DHCP

NETWORK

WAN

WIRELESS (WI-FI)

STEP 2: CONFIGURE WIRELESS (WI-FI) SECURITY

Your wireless network needs a name so it can be easily recognized by wireless clients. For security purposes, it is highly recommended to change the pre-configured network name.

Wireless (Wi-Fi) Network Name (SSID):

In order to protect your network from hackers and unauthorized users, it is highly recommended you choose one of the following wireless network security settings.

There are several levels of wireless security. The level you choose depends on the security features your wireless adapters support. If you select one of the security modes and are unable to connect to the router afterwards, you can use the reset button to reset the router to its factory default state and try a different security mode instead.

Require User Login Check this if you want users to be required to login before they use the internet.

BEST Select this option if your wireless adapters support WPA2-only mode. This will connect to many new devices and is the most secure, but may not connect to devices with older firmware or some handheld devices such as a PSP.

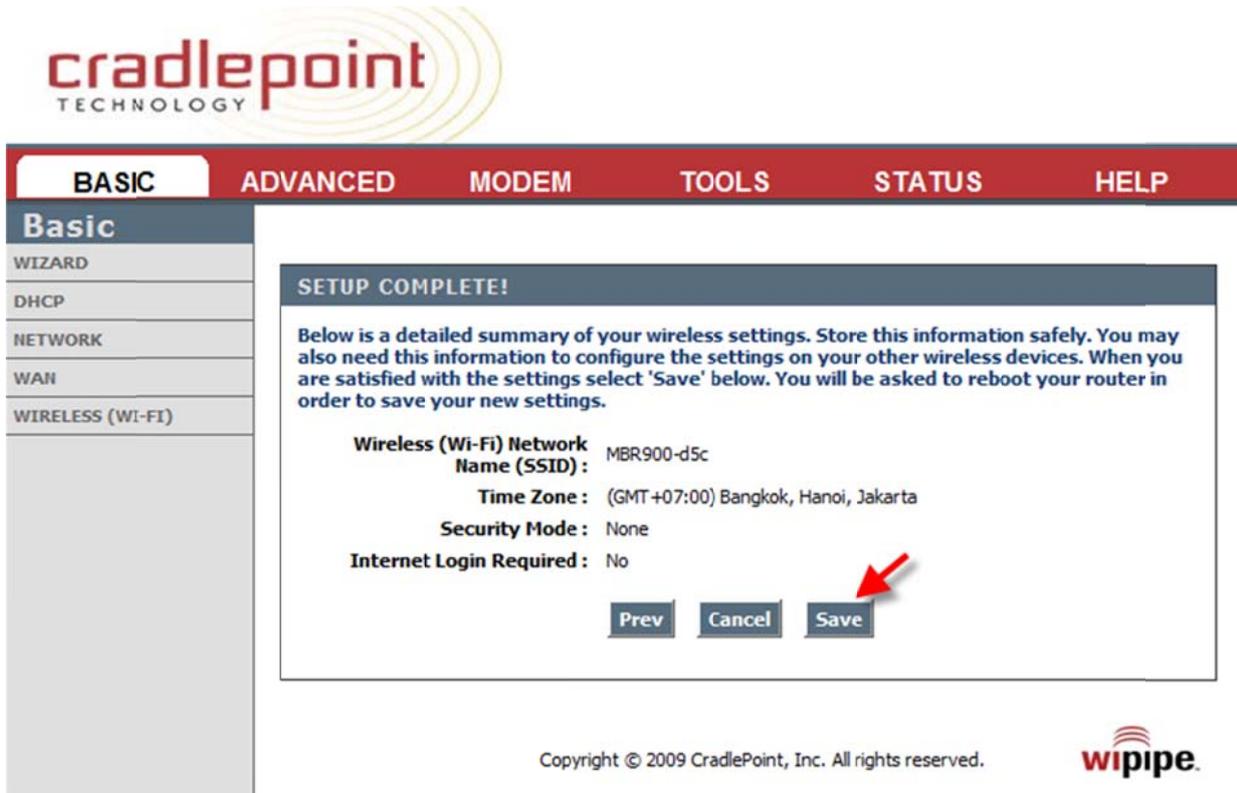
BETTER Select this option if your wireless adapters support WPA or WPA2. This is the most compatible with modern devices and PCs.

GOOD Select this option if your wireless adapters support WEP. This should only be used if a legacy device that only supports WEP will be connected to the router.

NONE Select this option if you do not want to activate any security features

Prev **Next** Cancel

e. คลิก Save



cradlepoint
TECHNOLOGY

BASIC **ADVANCED** **MODEM** **TOOLS** **STATUS** **HELP**

Basic

WIZARD

DHCP

NETWORK

WAN

WIRELESS (WI-FI)

SETUP COMPLETE!

Below is a detailed summary of your wireless settings. Store this information safely. You may also need this information to configure the settings on your other wireless devices. When you are satisfied with the settings select 'Save' below. You will be asked to reboot your router in order to save your new settings.

Wireless (Wi-Fi) Network Name (SSID) : MBR900-d5c

Time Zone : (GMT+07:00) Bangkok, Hanoi, Jakarta

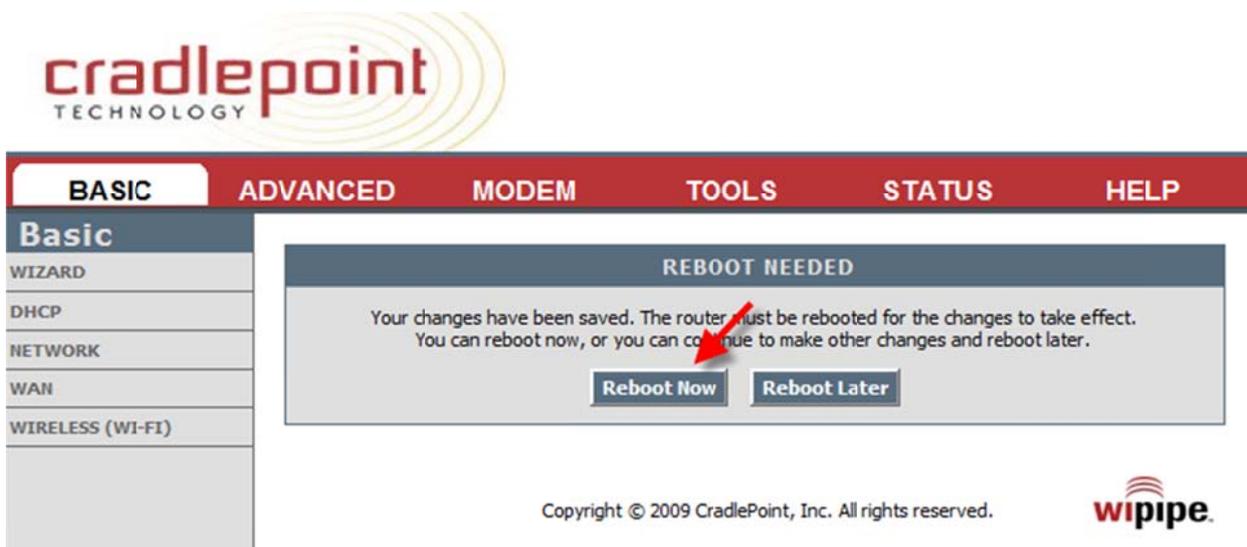
Security Mode : None

Internet Login Required : No

Prev Cancel Save

Copyright © 2009 CradlePoint, Inc. All rights reserved. **wipe.**

f. คลิก Reboot Now แล้วรอสักครู่



cradlepoint
TECHNOLOGY

BASIC **ADVANCED** **MODEM** **TOOLS** **STATUS** **HELP**

Basic

WIZARD

DHCP

NETWORK

WAN

WIRELESS (WI-FI)

REBOOT NEEDED

Your changes have been saved. The router must be rebooted for the changes to take effect. You can reboot now, or you can continue to make other changes and reboot later.

Reboot Now Reboot Later

Copyright © 2009 CradlePoint, Inc. All rights reserved. **wipe.**

5. การตั้งค่าการเชื่อมต่ออินเทอร์เน็ต

- a. ตั้งค่า WAN โดยคลิก BASIC > WAN เฉพาะ TRUE (Username/Password = true) กับ C:AT-CDMA (Username = evdo@catevdo.com, Password = evdocat) เสร็จแล้ว Save Settings

The screenshot displays the Cradlepoint MBR900 web interface for configuring WAN settings. The interface is organized into several sections:

- Navigation Menu:** Includes tabs for BASIC, ADVANCED, MODEM, TOOLS, STATUS, and HELP. A sidebar on the left lists menu items: Basic, WIZARD, DHCP, NETWORK, WAN, and WIRELESS (WI-FI).
- WAN Section:**
 - Header: WAN
 - Text: "Use this section to configure your Wired and Cellular Modem WAN Connection type. There are several wired WAN connection types to choose from: Static IP, DHCP, PPPoE, PPTP, and LZTP. If you are unsure of your connection method, please contact your Internet Service Provider."
 - Note: "If using the PPPoE option, you will need to remove or disable any PPPoE client software on your computers."
 - Buttons: "Save Settings" and "Don't Save Settings"
- CELLULAR MODEM PPP AUTHENTICATION (OPTIONAL):**
 - Text: "Enter the information provided by your Cellular Service Provider."
 - Note: "Fill in the following information ONLY if directed to by your Cellular Service Provider."
 - Fields (highlighted with a red box):
 - Modem Interface: USB1 - HSPA Modem (dropdown)
 - Username: [text input]
 - Password: [text input]
 - Verify Password: [text input]
 - Authentication Protocol: Auto (dropdown)
- WIRED WAN CONNECTION TYPE:**
 - Text: "Choose the mode to be used by the router to connect to the Internet."
 - Text: "Your Internet Connection could not be detected, please select your Internet Service Provider (ISP) from the list below. If your ISP is not listed; select the 'Not Listed or Don't Know' option to manually configure your connection."
 - Internet Service Provider: Not Listed or Don't Know (dropdown)
 - Text: "If your Internet Service Provider was not listed or you don't know who it is, please select the Internet connection type below:"
 - Internet Connection: Dynamic IP (DHCP) (dropdown)
- DYNAMIC IP (DHCP) INTERNET CONNECTION TYPE :**
 - Text: "Use this Internet connection type if your Internet Service Provider (ISP) didn't provide you with IP Address information and/or a username and password."
 - Host Name: [text input]
 - Use Unicasting: (compatibility for some DHCP Servers)
 - MTU: 1500 (bytes) MTU default = 1500
 - MAC Address: 00:00:00:00:00:00
 - Button: "Clone Your PC's MAC Address"
- DNS SETTINGS:**
 - Text: "DNS settings are automatically configured when your connection is established with the ISP. ISP DNS server setting can be overridden by entering in the DNS IP address below. However, Advanced: Web Filter will override all settings made here, as well as the ones provided during connection."
 - DNS Address:
 - Get Automatically from ISP/Cellular Provider
 - Use the following DNS Servers
 - Primary DNS Server: 0.0.0.0
 - Secondary DNS Server: 0.0.0.0

b. ตั้งค่า Modem โดยคลิก MODEM > SETTINGS

i. Reconnect Mode = Always On

ii. APN (AIS/TRUE/TOT/i-mobile/IEC = internet, DTAC = www.dtac.co.th, CAT ไม่มี)

cradlepoint
TECHNOLOGY

BASIC **ADVANCED** **MODEM** **TOOLS** **STATUS** **HELP**

Modem

INFO

GPS

SETTINGS

UPDATE

MODEM SETTINGS

Use this section to apply advanced modem settings

Save Settings **Don't Save Settings**

GLOBAL MODE SETTINGS

Reconnect Mode: Always on On demand Manual

Maximum Idle Time: (minutes, 5-120)

GLOBAL CONNECTION SETTINGS

Aggressive Modem Reset:

Verify Connection:

MODEM 4G AUTO-RECONNECT POLICY FOR DUAL 3G/4G MODEMS

If a 4G connection is dropped, or can't be established, the router will use 3G mode instead. The settings below tell the MBR-900 when it should automatically the 4G connection. If a 4G connection cannot be made, the 3G connection will be reestablished or resumed.

Note: Some dual mode modems do not allow simultaneous 3G and 4G connections. For these types of modems, service to the internet will be interrupted for several seconds while trying to upgrade the connection to 4G.

Retry 4G Automatically: More Often (based on data rate)
 Less Often (based on data rate)
 More Often (based on timer)
 Less Often (based on timer)
 Custom
 Never

MODEM SPECIFIC SETTINGS

Modem Interface: USB1 - HSPA Modem

AT Dial Script:

Modem Password:

Verify Modem Password:

Make SIM PIN Permanent:

SIM PIN:

NOTE: You will need to re-plug your modem for the PIN or APN settings to take effect.

Access Point Name (APN):

Band Select: Autoband*

6. การตั้งค่า Wireless คลิกที่ BASIC > WIRELESS(WI-FI)
 - a. ตั้งชื่อ Wireless (Wireless Network Name)
 - b. ตั้ง ระดับความปลอดภัย (Security Mode), รหัสผ่าน(Pre-Shared Key)



BASIC	ADVANCED	MODEM	TOOLS	STATUS	HELP
Basic WIZARD DHCP NETWORK WAN WIRELESS (WI-FI)	<div style="border: 1px solid gray; padding: 5px;"> <h3>WIRELESS (WI-FI)</h3> <p>Use this section to configure the wireless (Wi-Fi) settings for your router. Please note that changes made on this section may need to be duplicated on your Wireless Client.</p> <p> <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/> </p> </div> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <h3>ADD WIRELESS DEVICE WITH WPS (WI-FI PROTECTED SETUP) WIZARD</h3> <p>This wizard is designed to assist you in connecting your wireless device to your wireless router. It will guide you through step-by-step instructions on how to get your wireless device connected. Click the button below to begin.</p> <p style="text-align: center;"><input type="button" value="Add Wireless Device with WPS"/></p> </div> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <h3>WIRELESS (WI-FI) NETWORK SETTINGS</h3> <p> Enable Wireless Radio : <input checked="" type="checkbox"/> </p> <p> Wireless Network Name : MBR900-d5c (Also called the SSID) </p> <p> 802.11 Mode : Mixed 802.11n, 802.11g and 802.11b </p> <p> Enable Auto Channel Scan : <input checked="" type="checkbox"/> </p> <p> Wireless Channel : 2.437 GHz - CH 6 </p> <p> Transmission Rate : Best (automatic) (Mbit/s) </p> <p> Channel Width : 20 MHz </p> <p> Visibility Status : <input checked="" type="radio"/> Visible <input type="radio"/> Invisible </p> </div> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <h3>WIRELESS (WI-FI) SECURITY MODE</h3> <p>To protect your privacy you can configure wireless security features. This device supports three wireless security modes, including WEP, WPA-Personal, and WPA-Enterprise. WEP is the original wireless encryption standard. WPA provides a higher level of security. WPA-Personal does not require an authentication server. The WPA-Enterprise option requires an external RADIUS server.</p> <p> Security Mode : WPA-Personal </p> </div> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <h3>WPA</h3> <p>WPA requires stations to use high grade encryption and authentication. For legacy compatibility, use WPA or WPA2 mode. This mode uses WPA for legacy clients while maintaining higher security with stations that are WPA2 capable. The strongest cipher that the client supports will be used. For best security, use WPA2 Only mode. In this mode, legacy stations are not allowed access with WPA security. The AES cipher will be used across the wireless network to ensure best security.</p> <p> WPA Mode : Auto (WPA or WPA2) </p> <p> Cipher Type : TKIP and AES </p> <p> Group Key Update Interval : 3600 (seconds) </p> </div> <div style="border: 1px solid gray; padding: 5px; margin-top: 10px;"> <h3>PRE-SHARED KEY</h3> <p>Enter an 8- to 63-character alphanumeric pass-phrase. For good security it should be of ample length and should not be a commonly known phrase.</p> <p> Pre-Shared Key : 12345678 </p> </div>				

7. การตรวจสอบสถานะการใช้งาน

- a. WAN ระดับสัญญาณ(Signal Strength), เวลาการเชื่อมต่อ(Connection Up Time) และอื่นๆ
- b. CURRENT DHCP RESERVATIONS (เครื่องคอมพิวเตอร์ที่กำลังใช้งาน)



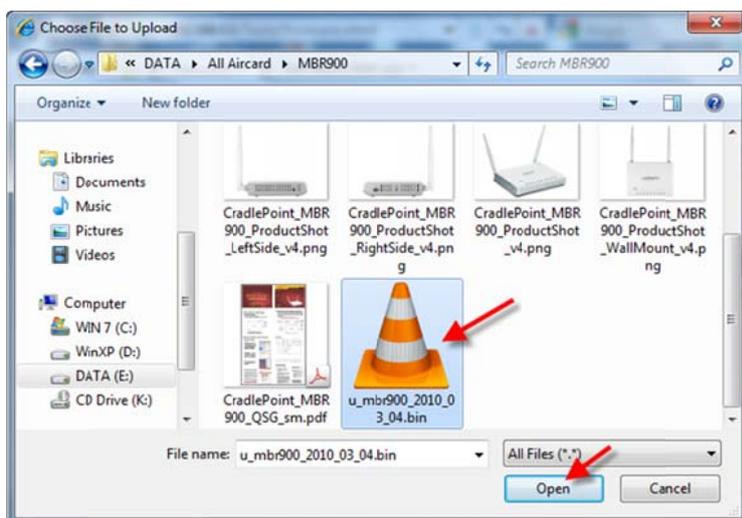
BASIC	ADVANCED	MODEM	TOOLS	STATUS	HELP
Status					
DEVICES INFO					
ACTIVE SESSIONS					
LOGS					
ROUTING					
STATISTICS					
WIRELESS (WI-FI)					
WISH SESSIONS					
DEVICE INFORMATION					
All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.					
GENERAL					
Time : Thu Jun 3 2010 14:38:21					
Firmware Version : 1.6.9, 2010/03/04					
WAN					
Port : USB1					
Signal Strength :					
Connection Type : PPP					
Traffic Shaping : Active					
Network Status : Established					
Connection Up Time : 0 Days, 0 Hour 07 Min 03 Sec					
<input type="button" value="Connect"/> <input type="button" value="Disconnect"/>					
Authentication & Security : CHAP					
IP Address : 115.67.186.141					
Subnet Mask : 255.255.255.255					
Primary DNS Server : 124.40.237.228					
Secondary DNS Server : 124.40.237.236					
LAN					
MAC Address : 00:30:44:08:CD:5C					
IP Address : 192.168.0.1					
Subnet Mask : 255.255.255.0					
DHCP Server : Enabled					
WIRELESS (WI-FI) LAN					
Wireless Radio : Enabled					
WISH : Active					
MAC Address : 00:30:44:08:CD:5C					
Network Name (SSID) : MBR900-d5c					
Channel : 3					
Security Mode : Disabled					
Wi-Fi Protected Setup : Enabled/Not Configured					
CURRENT DHCP RESERVATIONS					
IP Address	Name (if any)	MAC			
192.168.0.198	home-9ea0ffa7de	00:19:e0:18:7e:c8			
192.168.0.199	TIT-PC	00:1e:37:d9:4e:93			

8. การ Upgrade Firmware (โปรดทำโดยผู้ชำนาญเท่านั้น)
- ดาวน์โหลด Firmware ล่าสุดได้ที่ <http://www.totalaircard.com/pages/Cradlepoint-downloads.html>
 - คลิกที่ TOOLS > FIRMWARE (ถ้าเครื่องต่ออินเทอร์เน็ตอยู่โปรแกรมจะบอกว่ามี version ใหม่กว่าให้ Upgrade)

The screenshot shows the Cradlepoint MBR900 web interface. The navigation menu includes BASIC, ADVANCED, MODEM, TOOLS, STATUS, and HELP. The TOOLS menu is expanded, showing options like ADMIN, DYNAMIC DNS, EMAIL SETTINGS, FIRMWARE, MANAGED SERVICES, SCHEDULES, SNMP, SYSLOG, SYSTEM, SYSTEM CHECK, TIME, and USER LOGIN. The FIRMWARE section is active, displaying the following information:

- FIRMWARE**: Use the Firmware section to install the latest firmware to improve functionality and performance. To check for the latest firmware, click the [Check Online Now...] button. If you would like to be notified when new firmware is released, place a checkmark in the box next to Email Notification of Newer Firmware Version. Buttons: Save Settings, Don't Save Settings.
- FIRMWARE INFORMATION**: Current Firmware Version: 1.6.2, Current Firmware Date: 2009/08/17. A message states: "Newer firmware version is available." with a button "Upgrade Router with version 1.6.9" highlighted by a red arrow. Below it, a link "Click here" is provided to download firmware manually, and a button "Check Online Now for Latest Firmware Version" is also present.
- MANUALLY UPGRADE FIRMWARE**: A note states: "Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration from the Tools -> System screen." Below this is an "Upload Firmware:" section with a text input field, a "Browse..." button highlighted by a red arrow, and an "Upload" button.

- คลิก Browse เพื่อเลือกไฟล์ที่ดาวน์โหลดมา



d. คลิก Upload

MANUALLY UPGRADE FIRMWARE

Note: Some firmware upgrades reset the configuration options to the factory defaults. Before performing an upgrade, be sure to save the current configuration from the Tools → System screen.

Upload Firmware : E:\DATA\Aircard\MBR900\m_mbr

e. รอประมาณ 1 นาที เมื่อ Upgrade เสร็จเครื่องจะ Reboot อัตโนมัติ

UPLOAD SUCCEEDED

The router will now be reprogrammed using the uploaded firmware file. Please wait 63 seconds for this process to complete, after which you may access these web pages again. Pressing reload or back on your browser may cause this operation to fail.