



WebRamp M3t *Reference Manual*

for Windows and Macintosh

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Mail: Customer Support, Ramp Networks, 3180 De La Cruz Boulevard, Suite 200,
Santa Clara, CA 95054-2434

Fax: 1(408)988-6363, attention Customer Support

Email: *support@rampnet.com*

Phone: 1(408)988-5353, option 2

To request support, please include your WebRamp M3t serial number, your name, company name, street address and phone number.

Safety Precautions

- Read and follow all warning and instructions included with this product.
- Do not block the ventilation slots on the WebRamp. Do not subject the WebRamp, even if it is not plugged in, to an environment that exceeds temperature and humidity specifications.
- Do not place cords or cables where they may be walked on or tripped over.
- Be sure to comply with any applicable local safety standards or regulations.
- General purpose cables are provided with this product. Any cables or other requirements mandated by local authority are your responsibility.
- Cables that are attached to devices in different locations that have different power sources and grounding may have hazardous voltage potentials. Consult a qualified electrical consultant before installing the product to see if this phenomenon exists and, if necessary, take corrective action.
- Never touch annunciated telephone wires or terminals unless the line has been disconnected.
- Avoid using telephone equipment or installing the product during an electrical storm.
- Never install telephone jacks, lines, network cables, this product, or power connections in wet locations.

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



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Declare under our sole responsibility that the product:

WebRamp M3t

to which this declaration relates complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: 1) this device may not cause harmful interference and 2) this device must accept any interference received, including interference that may cause undesired operation.

A handwritten signature in black ink, appearing to read "Gary H. Tauss".

Gary H. Tauss
Vice President and General Manager
Ramp Networks, Inc.
April 29, 1997

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About this Manual

This Reference Manual is an online resource for detailed information on the WebRamp M3t. We've designed this document to be used in a different fashion than normal, printed manuals. Rather than including cross references with page numbers, we've included "links" to automatically display the page containing additional information. Simply click on the colored "links" to automatically access the information. To return to the originating page, right-click your mouse button and select **Go Back**.

This Reference Manual assumes you are familiar with the basic elements of a computer and are interested in detailed or advanced information on the WebRamp M3t.

Finding Information

The following table summarizes the topics in this manual.

For information about...	Read...
Overview of the WebRamp M3t, Internet accounts, system requirements, setting up the WebRamp M3t, descriptions of the LEDs and connectors and frequently asked questions	Chapter 1, Introduction
Adding modems to the WebRamp M3t	Chapter 2, Adding Modems
Setting up the WebRamp M3t for dial-in access, installing Dial-Up Networking for Windows 95, configuring dial-in access, email and Internet access for dial-in users, and setting up file sharing for Windows 95	Chapter 3, Remote Dial-in Access
Advanced Configuration links, divided by functionality, configuring Internet access and administrative password	Chapter 4, Advanced Configuration
Configuring and modify modem and ISP settings, initialization strings for analog and ISDN modems, modem troubleshooting, login scripting and modem multiplexing	Chapter 5, Modem and ISP Settings
Enabling and modifying DHCP addressing, and DNS, IP address and Routing configuration	Chapter 6, LAN Settings

For information about...(Continued)	Read... (Continued)
Setting up local servers, using special applications and configuring an Internet visible computer	Chapter 7, Application Settings
WebRamp M3t status, problem solving, test modems, upgrade firmware, drop calls and reset the WebRamp	Chapter 8, Diagnostics
Configuring a Windows 95 and Windows NT network using TCP/IP, using DHCP addressing for the network, pre-existing IP networks and pre-existing DHCP networks	Chapter 9, Windows Networking
Setting up a Macintosh networking using Open Transport, configuring TCP/IP using DHCP, configuring TCP/IP manually, configuring TCP/IP for an existing network and using MacTCP with manual IP addressing	Chapter 10, Macintosh Networking
Setting up a terminal connection, setting up outgoing calls, setting up dial-in users, adding dial-in users, and configuration commands (command names shown in table format, divided by functionality with links to the specific command)	Chapter 11, Configuration Commands
WebRamp Finder, WINIPCFG, Telnet and using Windows 95 TCP/IP utilities	Chapter 12, Utilities

For information about...(Continued)**Read... (Continued)**

Troubleshooting for modems, Windows 95 and TCP/IP, checking TCP/IP device drivers, checking TCP/IP configuration problems, DHCP configuration reset warnings, checking DHCP configuration information, dial-in troubleshooting, dial-up configuration problems, and gateway problems

[Chapter 13, Troubleshooting](#)

Serial firmware upgrades for Windows 95, recovering the WebRamp M3t's IP address, expanding your WebRamp M3t network, and accessing fax and email services

[Chapter 14, Appendix](#)

Additional Information

For additional information on the WebRamp M3t, read the *WebRamp M3t Quick Start*, available online (on the WebRamp M3t CD) in PDF format. The following lists additional resources for information:

- **Microsoft Corporation**

Website: *www.microsoft.com*

TCP/IP information: Networking with TCP/IP

- **Apple Computer**

Website: *www.apple.com*

TCP/IP information: Open Transport User's Guide

Customer Support

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To request support, please include your WebRamp M3t serial number, your name, company name, street address and phone number.

Conventions

The following table explains the conventions used throughout our documentation.

Typeface	Description	Example
<i>AaBbCc123</i>	Manual titles, new words or terms, or special emphasis	<i>WebRamp M3t Quick Start</i>
AaBbCc123	Buttons, checkboxes or items that are available for selection from screens, menus or dialog boxes	Click OK to restart
AaBbCc123	Cross-referenced text. Simply click on the text and the cross-referenced information automatically displays. To return to the originating page, right-click the mouse button and select Go Back.	See Finding Information

Abbreviations and Acronyms

The following table defines standard abbreviations and acronyms used throughout this Reference Manual.

Acronym	Description
COM	Communications port
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name System
DUN	Dial-up Networking
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol
IP	Internet Protocol
ISDN	Integrated Services Digital Network
ISP	Internet Service Provider
LAN	Local Area Network
PPP	Point-to-Point Protocol
RAM	Random Access Memory
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
WAN	Wide Area Network

Introduction

Welcome

This Reference Manual describes how to set up your own Local Area Network (LAN) using the WebRamp M3t. We've included detailed instructions on setting up your LAN, configuring your network, setting up and configuring your WebRamp M3t and finally, using all the WebRamp M3t features to access and maintain your network.

We've included procedures for the Windows® 95 operating system and the Apple® Macintosh® operating system using system software version 7.5.3 or later. For other operating systems, please refer to your computer's documentation for networking and other information.

Telecommuting Overview

What exactly is telecommuting? Telecommuting is the use of remote access technologies to maintain a useful office away from the traditional workplace. This office is usually in an employee's home, but can also be in a hotel room, at a client's site or in a telecommunications center that is shared by employees of the same company (or different companies). Telecommuters include executives, managers, mobile workers, traveling professionals and other information workers who access their corporate network remotely, either part-time or full-time, during regular business hours, after hours or on weekends.

Telecommuting Benefits

Companies that have tried telecommuting are discovering that the benefits are often far greater than they had expected. These benefits include:

- **Increased productivity.** Large telecommuting pilot programs and trials show that employees working at home—where they can work at any hour of the day or night—actually increase their productivity by 10 to 30 percent.
- **Improved quality of life.** Telecommuting can reduce the stress of commuting, eliminate the interruptions and frustrations of the workplace and give workers more time with their families.
- **Decreased absenteeism.** Telecommuters with colds or minor aches and pains are less likely to miss a day's work than their counterparts who must commute to the office. Telecommuters can also fit doctor or dentist visits or other personal appointments into their regular telecommuting schedule without taking sick leave.

What is a PPP Internet Account?

A PPP (Point-to-Point protocol) account is a dial-up account used to connect to the Internet. What this means in simple terms is a dial-up account actually calls another computer to gain Internet access. Although there are several types of Internet accounts available, when you decide on an Internet Service Provider (ISP), tell them you need a *single-user PPP dial-up account*.

Getting an Internet Account

Call an ISP to sign up for an Internet account and ask for a *single-user PPP dial-up account*. PPP is a communications protocol for transmitting information over standard telephone lines. You need a PPP account so you can connect to the ISP's PPP server.

To use a dial-up PPP account, if you're using Windows 95 you must have Dial-Up Networking installed (see [Remote Dial-in Access](#)).

When you call an ISP, make sure you get the following information:

- User name
- Password
- Access phone number
- Your host name and domain name (optional)
- Domain Name System (DNS) server addresses

The ISP may also provide the following information:

- IP address and subnet mask (if required)
- Authentication procedure (if they require a login script to log on)

System Requirements

Windows 95 Requirements

- 80486 or greater processor
- Windows 95, Windows 3.1, Windows for Workgroups 3.1x or Windows NT 4.0
- 16 MB of RAM (32 MB recommended)
- CD-ROM drive (*optional*—required to read the WebRamp M3t CD)
- TCP/IP network protocol for each PC
- 10Base-T Ethernet network card for each PC

Macintosh Requirements

- Any Macintosh with a 68030 or greater (PowerPC™ recommended)
- Apple System Software version 7.5.3 or later recommended
- At least 16 MB of RAM (32 MB recommended)
- CD-ROM drive (*optional*—required to read the WebRamp M3t CD)
- Open Transport 1.1.2 (or higher) or MacTCP 2.0.6
- 10Base-T Ethernet network card or built-in Ethernet network adapter for each Macintosh

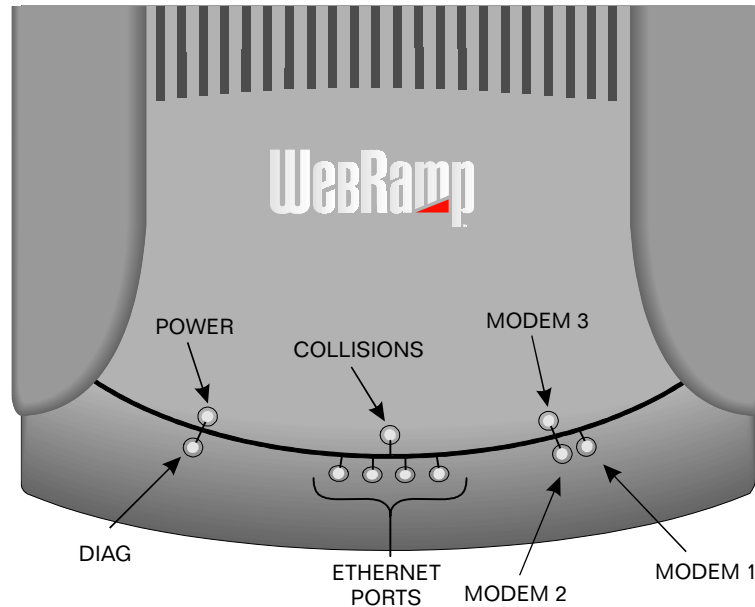
Setting Up the WebRamp M3t

The WebRamp M3t can be located in any convenient location, such as on a table or mounted on a wall (keyslots have been provided on the bottom for wall-mounting).

Refer to the following list before deciding on a location for the WebRamp M3t:

- Location is free of wiring obstacles
- Location has adequate space for network cables
- Location is close to a power outlet and a telephone outlet

WebRamp M3t LEDs



The following lists the LEDs that indicate the operational condition of the WebRamp M3t.

Power

Steady green LED indicates there is power to the unit.

Diag

Steady green LED indicates that all internal diagnostic tests have been completed at power-up and the hardware is functioning properly. This LED should turn on and remain on within 10 seconds after power is applied. In case of hardware failure, this LED flashes amber with a coded message.

Ethernet Ports

Steady green LED indicates proper connection to a computer or hub and flashing amber LED indicates a computer is sending to that port.

Collisions

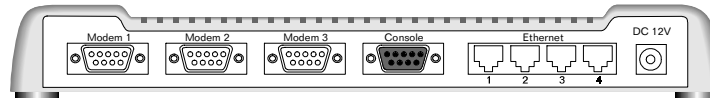
Flashing amber LED indicates an Ethernet data packet collision. Collisions indicate the amount of traffic on the network is very heavy. A computer with a bad Ethernet network card may also cause collisions.

Modem 1, Modem 2, Modem 3

Solid green LED indicates the modem has a live connection, solid amber LED indicates the modem initialization failed on the last attempt and flashing amber LED indicates data is being sent/received.

Note – If all 3 modem port LEDs are flashing amber in a clockwise sequence (like a circle), Internet access has been disabled (see [Internet Access Control](#)).

WebRamp M3t Connectors



The following lists the connectors located at the back of the WebRamp M3t.

3 Modem Ports

Used to connect modems to the WebRamp M3t (DB-9 male connector).

Console Port

Used for serial firmware upgrades (DB-9 female connector) and command line configuration. See [Serial Firmware Upgrade for Windows 95](#) for additional information.

4 Ethernet Ports

Used for 10Base-T Ethernet network connections (RJ-45 connector).

MDI Switch

The MDI switch is located on the bottom of the WebRamp M3t. This switch is turned ON when Ethernet Port 1 is used as an input port from another hub (see [Expanding your WebRamp M3t Network](#)). The default position is OFF.

To expand your network or connect to an existing hub, move the MDI switch to the ON position, connect one end of a regular 10Base-T Ethernet cable to **Ethernet Port 1** and the other end to any available port on the second hub.

Power

Uses a 12V power plug (for North America and Canada only). The center pin is positive and the outer ring is negative polarity.

WebRamp M3t Frequently Asked Questions

General Questions

What is the WebRamp M3t and how does it compare with the WebRamp M3?

Both products provide an easy and affordable way for a small office to get Internet access. The WebRamp M3t also allows remote users to dial into the office LAN and access E-mail, the Internet and share files. It is the first and only all-in-one solution for providing affordable remote access and Internet access for small businesses.

Will the WebRamp M3t work without the DHCP?

Yes, DHCP can be disabled in the WebRamp M3t wizard, and the computers that will be using it for access should manually configure Internet parameters such as: IP address, Gateway address, and the DNS server addresses (typically provided by ISP).

Will the WebRamp M3t work with a proxy server?

Yes, the LAN computers would send Internet traffic to the Proxy server, which in turn would use the WebRamp M3t to send and receive traffic from the Internet. The WebRamp M3t would be the proxy server's gateway.

Telecommuting Questions

The WebRamp M3t only allows me to enter up to 3 dial-in users, does this mean that only 3 of my employees can use the dial-in feature?

No, the same username and password can be used by different employees to gain access to the LAN. Once connected to the LAN, they will need to use password information if shared files are properly password protected. More users will be supported in an upcoming release of the software.

Will the WebRamp M3t allow access to files on an IPX/SPX only Novell file server.

No, the WebRamp M3t only allows access to IP based servers (including Microsoft Networking servers).

Will the WebRamp M3t allow access to files on an AppleTalk only file server.

No, the WebRamp M3t only allows access to IP based servers.

Can the WebRamp M3t's modem ports be flexibly configured for support of dial-in and dial-out?

Yes, all three of the modem ports can be setup too allow outgoing calls only, incoming calls only or both outgoing and incoming calls.

If a port is configured for both incoming and outgoing, how will it used?

On a "first come - first serve" basis. Therefore if there is an incoming call on an idle port, then that port will be occupied until that call completes.

If a port is configured for "Allow Outgoing calls only" but is currently idle, what happens when if someone dials in?

The incoming call will be dropped as soon as it arrives.

What is involved in setting up a dial-in client?

See [Setting Up your WebRamp M3t for Dial-In Access](#).

How does a dial-in client appear to the rest of the LAN?

The dial-in client will be assigned an address that is part of the local LAN IP addresses and will appear to be on that same LAN.

What services will be available to the dial-in client?

The dial-in client can access any IP-based service. In particular, email Intranet Web servers on the local network and Internet services on the Internet (assuming that the LAN has Internet access).

Can a remote client dial into the WebRamp M3t using a protocol other than TCP/IP, IPX/SPX or AppleTalk for instance?

No

If the WebRamp M3t is setup for Incoming on one port and Outgoing (to the Internet) on another port, can an incoming client access the Internet via the WebRamp M3t?

Yes, the dial-in client can dial-in on say modem port 2 and go out to the Internet on Modem port 1. If modem port 1 is not currently connected to the Internet, the dial-in client on port 2 can cause the modem 1 to dial out be opening a Web browser and trying to access an Internet site. Therefore, once connected, the dial-in client is really like a LAN client.

Can the WebRamp M3t be used as a pure dial-in server with all the dial-in clients accessing the Internet via another router co-located on the same LAN?

Yes, the WebRamp M3t's default gateway would need to be changed to the local LAN router instead of the ISP and all the modem ports should be set as "Allow Incoming calls only" or "Allow Both Outgoing and Incoming calls".

Will the WebRamp M3t ever dial-out to a dial-in client?

No

How will Windows 95/NT dial-up clients be able to access the network computers to share files?

The dial-in client can connect using dial-up networking and use:

- ◆ Network Neighborhood
- ◆ PC Anywhere or Timbuktu to control the LAN computer
- ◆ FTP files from the LAN computer - assuming it has an FTP server

How will Macintosh dial-up clients be able to access the network computers to share files?

The dial-in client can connect using OT/PPP or OT/ARA 3.0 and use:

- ◆ Timbuktu to control the LAN computer
- ◆ FTP files from the LAN computer - assuming it has an FTP server

Can a user who knows the IP address of a modem attached to the WebRamp M3t dial-in over the Internet?

No, a dial-up PPP connection is required.

ISDN Modem Questions

Which ISDN modems do you support?

Any ISDN modem that supports PPP should work. We support the leading ISDN modems including 3COM IQ and Motorola BitSURFER Pro. ISDN modems not included in the menu require the user to enter the initialization string from the manual.

Do you need to reconfigure the ISDN modem to use it with the WebRamp M3t?

No, if it is already configured, the WebRamp M3t simply requires the model and speed parameters.

Can you use three ISDN modems - one on each port?

Yes

If the WebRamp M3t's serial ports are limited to 115kbps, can the ISDN modem support Multilink PPP?

Yes, but only up to the above constraint.

Special Application and Local Server Questions

When do I use Local Servers?

When you are hosting a local server (such as Web or Email) that needs to be accessed from the Internet.

When do I use Special Applications?

Typically only when directed by the WebRamp M3t support site. This is an advanced feature and should be used only if you have in-depth knowledge of how an application uses TCP/IP ports to connect to its server.

When do I use Visible Computer?

If the Internet application you are using does not seem to work, and you do not have enough knowledge of the application to create a Special Application entry. This feature can also be useful in receiving incoming Internet Phone calls or incoming Video Conferencing calls.

I have a Web Server running on a Visible computer but outside users are unable to access it?

Verify that in the Visible Computer that "Divert Web requests to WebRamp M3t" is unchecked. If there is a Local Server entry for a Web Server, it will take precedence and should be deleted from the Local Server table. Verify that outside users are using the correct IP Address in trying to contact your Web Server (they should use the IP address associated with the modem that corresponds to the Visible Computer - this address is displayed in the Status page as the Local IP address).

I have a Local Server entry for a Web server running on a LAN computer but outside users are unable to access it?

Verify that the Local Server feature is enabled. Verify that the entry in the Local Server table has the correct LAN IP address of the computer hosting the Web server. Verify that outside users are using the correct IP address in trying to contact your Web server (they should use the IP address associated with Modem 1 - this address is displayed in the Status page as the Local IP address).

Why can't I run a Special Application on more than one computer at the same time?

Only one computer at a time can use a particular special application. If a second computer tries to use the application, its connection request will be disconnected. This can be overcome by setting up multiple visible computers and disabling this particular special application.

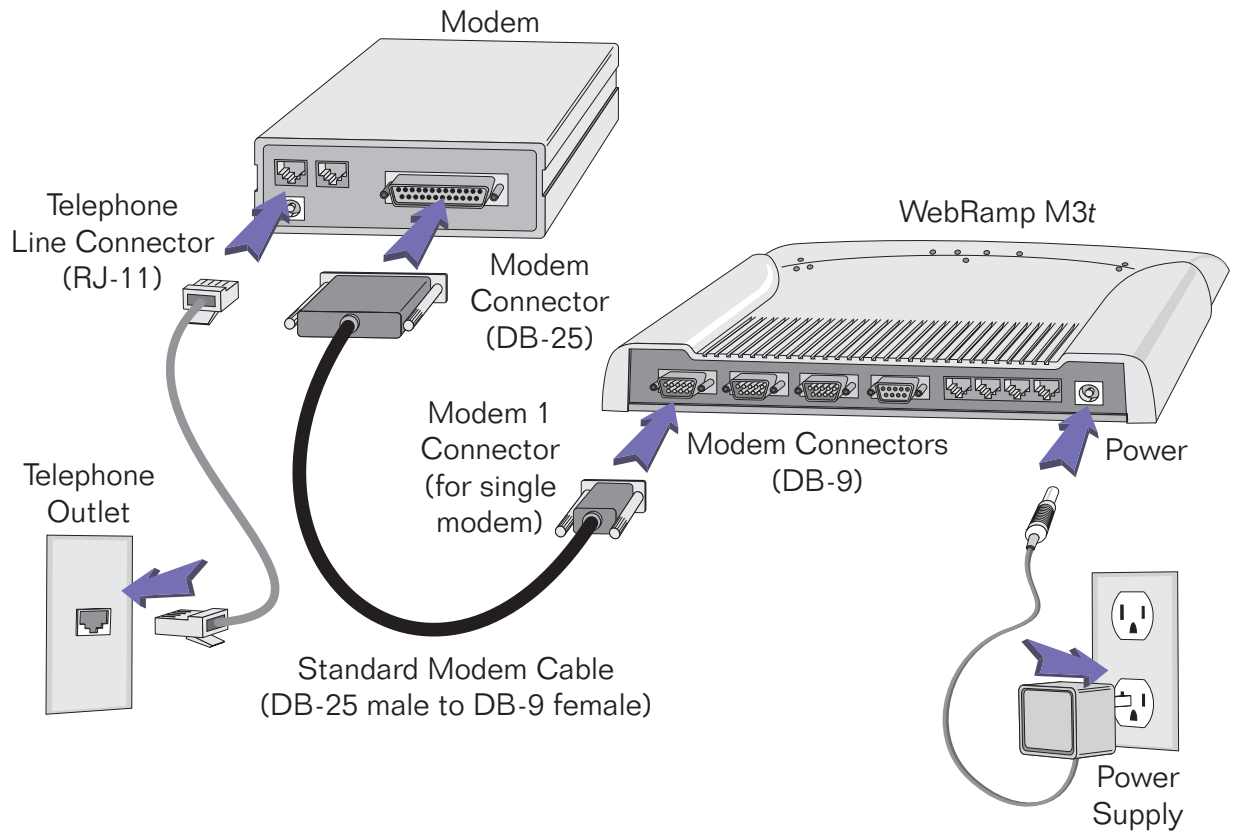
Adding Modems

Overview

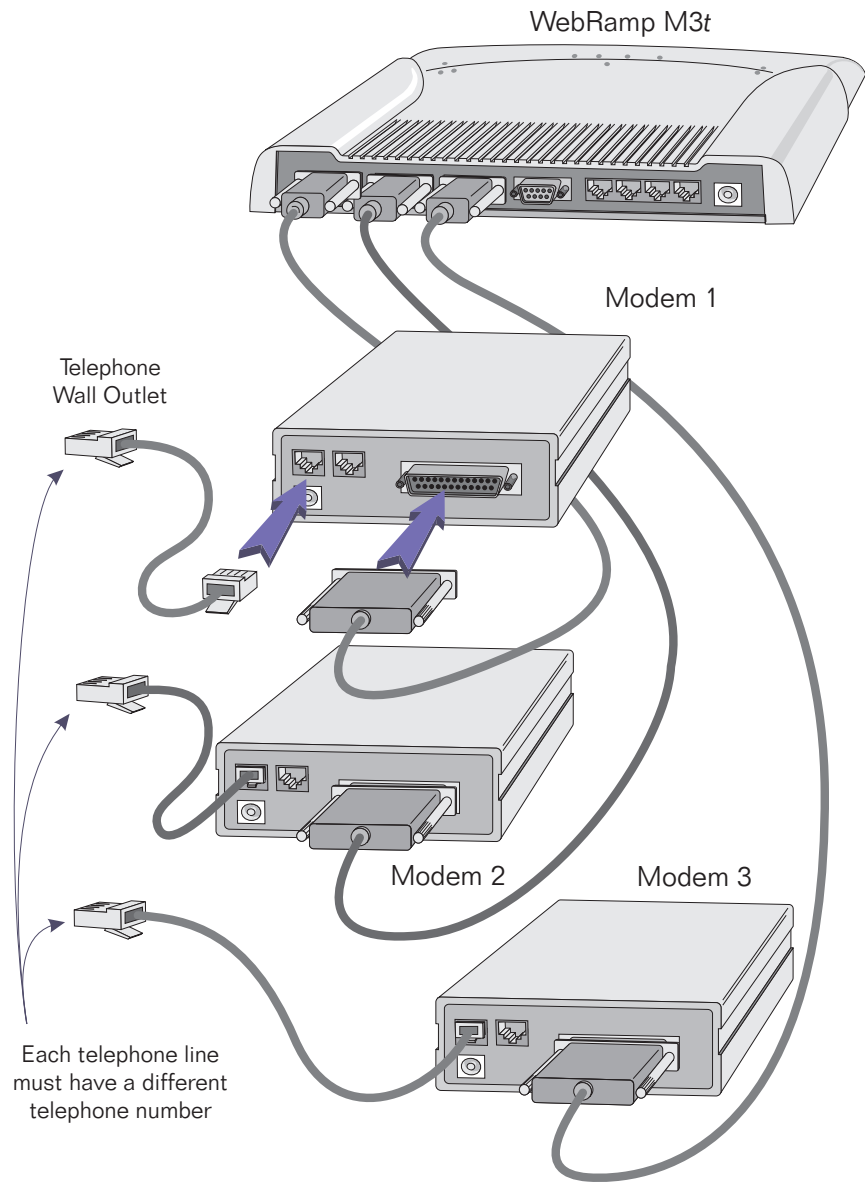
To add additional modems (up to a total of three modems) repeat the steps for setting up the first modem.

Connecting Modems and Ethernet

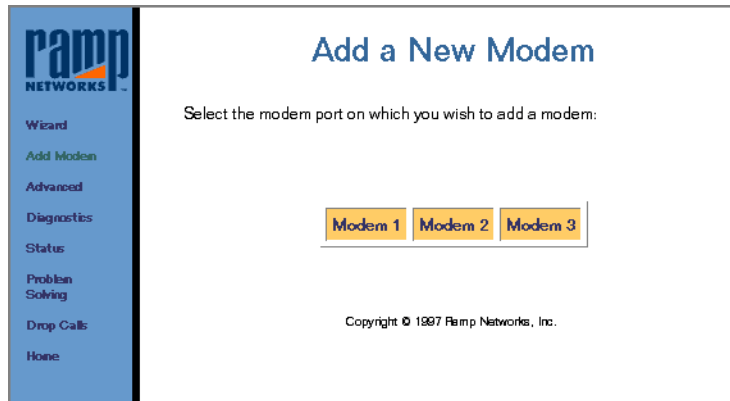
The illustrations on the following pages show how to connect your modems to the WebRamp M3t. We recommend connecting and configuring a single modem first, and then adding additional modems as needed. To add additional modems, repeat the steps for setting up the first modem.



The illustration on the following page shows you how to add additional modems.

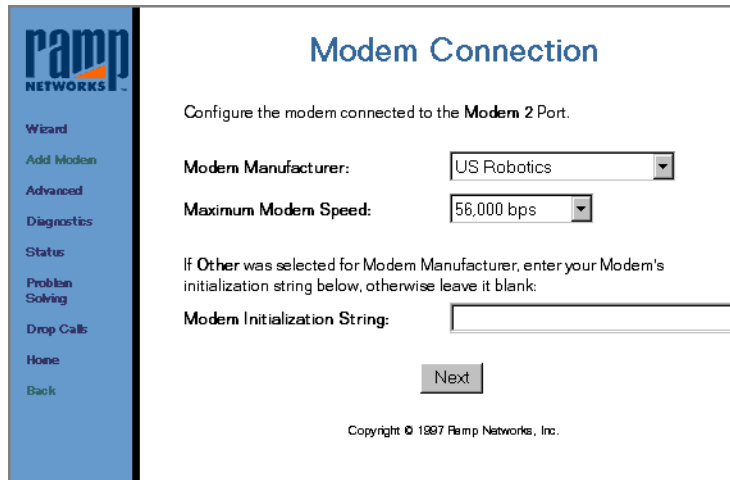


Adding a New Modem



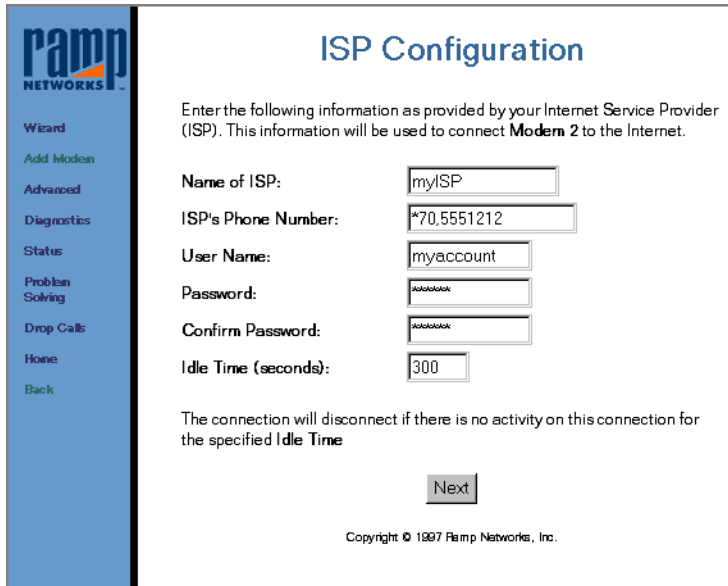
Click **Add Modem** to connect additional modems to your WebRamp M3t. You can add additional modems at any time.

This screen can also be used if you change the ISP settings and modem type connected to Modem 1, Modem 2 or Modem 3 ports. Select the modem port to add a modem to.



Using the pull-down menus, select the modem manufacturer and maximum modem speed and click **Next**. If your modem is not listed, select *Other* and enter the modem initialization string from your modem manufacturer's user guide.

To use an ISDN modem, see [ISDN Modem Settings](#) for additional information.

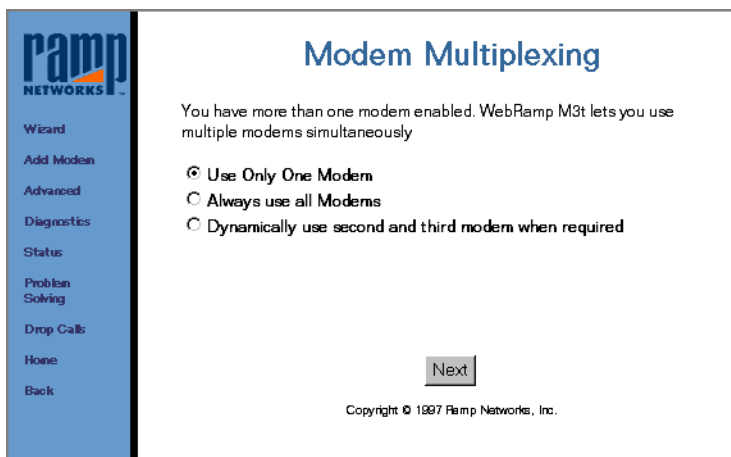


The screenshot shows a web-based configuration wizard titled "ISP Configuration" from Ramp Networks. On the left is a blue sidebar with navigation links: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and Back. The main content area has the title "ISP Configuration" and a sub-header "Enter the following information as provided by your Internet Service Provider (ISP). This information will be used to connect **Modem 2** to the Internet." Below this are five input fields: "Name of ISP:" with the value "myISP"; "ISP's Phone Number:" with the value "*70,5551212"; "User Name:" with the value "myaccount"; "Password:" with masked characters "*****"; and "Confirm Password:" with masked characters "*****". The "Idle Time (seconds):" field has the value "300". A "Next" button is located below the fields. At the bottom, a note states: "The connection will disconnect if there is no activity on this connection for the specified **Idle Time**". The footer contains the copyright notice "Copyright © 1997 Ramp Networks, Inc."

Complete the following fields:

- ◆ Name of the ISP (*optional*)
- ◆ Phone number of the ISP
- ◆ User name provided by the ISP
- ◆ User password provided by the ISP

Idle Time is the number of seconds before the modem disconnects if there is no activity. We recommend using the default in this field.



Select one of the following options:

- ◆ Select *Use Only One Modem* if you are using Modem 1 port only
- ◆ Select *Always use all Modems* if you want the WebRamp M3t to automatically dial all modems simultaneously
- ◆ Select *Dynamically use second and third modems when required* if you want to use the second and third modems dynamically, as more people are accessing the Internet. This setting allows you to use the Internet without dialing a second or third modem, unless it is needed.

When your additional modem has been successfully configured, click **Finish** to return to the WebRamp M3t Configuration page.

Remote Dial-in Access

Overview

Remote dial-in access simply means the ability to dial into your company network when you're away from the office. The WebRamp M3t provides dial-in access for computers using standard PPP (Point-to-Point Protocol) dial-up software.

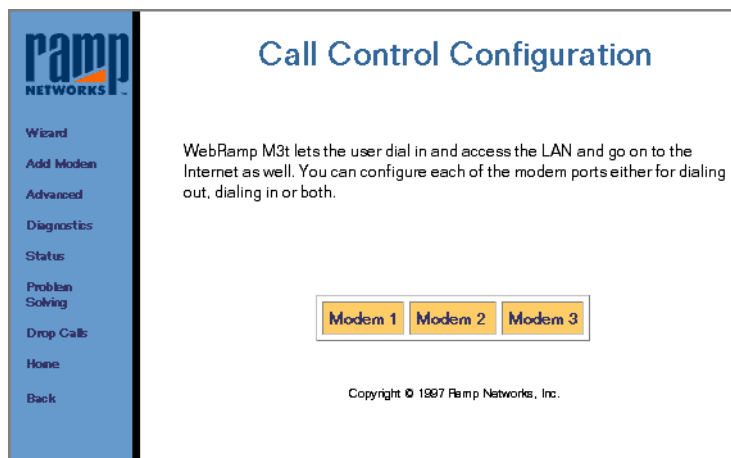
When a computer dials into the WebRamp M3t, it is assigned a network IP address and essentially becomes part of the local network. Dial-up computers then have access to network servers, as well as email and the Internet.

To use remote dial-in access, you must first setup your WebRamp M3t for dial-in access. The first section explains how to setup your WebRamp M3t for dial-in access.

Setting Up your WebRamp M3t for Dial-In Access

Follow these steps to setup a dial-in computer:

- 1 Access the WebRamp M3t Configuration page (192.168.1.1 in your web browser) and then click **Wizard** to configure your WebRamp M3t.
- 2 Once your WebRamp M3t is configured, click **Advanced** (from the WebRamp M3t homepage) and then verify the modem you would like to use for dial-in has been enabled.
- 3 Click **Call Control** (from Advanced) and then select the corresponding modem port for dial-in access.



Note – Modem 1, Modem 2, Modem 3 or all modem ports can be configured for dial-in access.

- 4 Select **Allow Incoming and Outgoing calls**, set the IP address to **Automatically choose from DHCP Table** (DHCP must be presently enabled), and then click **Apply**.

If DHCP is *not* enabled, select **Specify an IP address** and enter an unused IP address from your range of LAN IP addresses.

- ◆ Select “Allow Incoming calls only” if this modem port will be used for dial-in access only.
- ◆ Select “Allow Outgoing calls only” if this modem port will be used for outgoing calls only.
- ◆ Select “Allow Incoming and Outgoing calls” to provide the most flexible use of the modem ports.

- 5 Click **DNS Configuration** (from Advanced), select “Choose from DHCP Table” (if DHCP is not enabled, select “Specify the Addresses” and enter the ISP-provided DNS addresses) and then click **Apply**.

pamp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Dial-In DNS Addresses

The WebRamp M3t will provide the dial-in client with DNS information whenever the client dials in and connects. Select, **Choose from DHCP Table** to automatically give the dial-in client the DNS information configured in DHCP. Otherwise, select **Specify the Addresses** and enter the DNS addresses below.

Choose from DHCP Table
 Specify the Addresses

DNS Server IP Addresses:

Primary DNS:

Secondary DNS:

Apply

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- 6 Click **Users** (from Advanced), enter the user name and password for each dial-in user and then click **Apply**.

The screenshot shows the 'Dial-In Users' configuration window. On the left is a blue sidebar with the 'ramp NETWORKS' logo and a menu with options: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and Back. The main area is titled 'Dial-In Users' and contains the instruction 'Enter the authentication information for the dial-in users.' Below this are two radio buttons for authentication: 'PAP' (unselected) and 'CHAP' (selected). There are three user configuration sections. The first section is for a user named 'joe', with fields for 'User Name' (joe), 'Password' (masked with asterisks), and 'Confirm Password' (masked with asterisks). The second section is for a user named 'amy', with fields for 'User Name' (amy), 'Password' (masked with asterisks), and 'Confirm Password' (masked with asterisks). The third section is for a user named 'guest', with fields for 'User Name' (guest), 'Password' (masked with asterisks), and 'Confirm Password' (masked with asterisks). At the bottom of the form is a yellow 'Apply' button. Below the button is the copyright notice: 'Copyright © 1997 Ramp Networks, Inc.'

If you have more than 3 users that require dial-in access, we suggest creating a “*guest*” username and password that can be used by multiple users.

Note – A dial-in user can dial into any one of the WebRamp M3t modems that are configured for dial-in access.

You will now be able to dial into the WebRamp M3t using Dial-Up Networking or Open Transport/PPP (or any standard PPP software). Within the dial-up software, enter the phone number associated with the modem you are dialing into and one of the user name and password pairs (you just configured in Dial-In Users).

Where Do I Go from Here?

Now that you've setup your WebRamp M3t for dial-in access, you now need to setup your computers. See [Email and Internet Access for Dial-In Users](#) for information on accessing email.

Windows 95 Users

- To install Dial-Up Networking see [Installing Dial-Up Networking for Windows 95](#)
- To setup a dial-in connection see [Adding a New Dial-Up Connection](#)
- To setup configure dial-up access see [Configuring Dial-In Access](#)
- To learn about file sharing see [Windows 95 File Sharing](#)
- For LANs not using a Windows NT Server see [Setting Up a Windows 95 LAN Computer for File Sharing](#)
- For LANs using a Windows NT Server see [Setting Up a Windows NT Server LAN Computer for File Sharing](#)

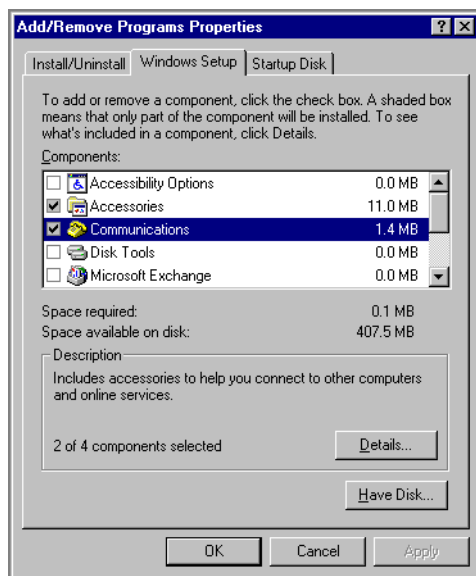
Macintosh Users

- Refer to your Open Transport/PPP documentation for instructions on installing and setting up dial-in PPP access
- Refer to your AppleShare documentation for instructions on sharing files.

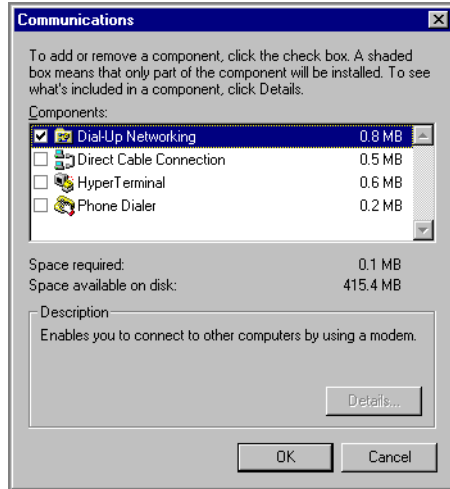
Installing Dial-Up Networking for Windows 95

You may already have Dial-Up Networking installed on your computer. Double-click **My Computer** on your desktop and you should see a Dial-Up Networking folder. If you do *not* have Dial-Up Networking installed, follow the steps below.

- 1 Open the **Add/Remove Programs** control panel (*Start | Settings | Control Panel*) and then click on the Windows Setup tab.



- 2 Select **Communications** and then click **Details**.



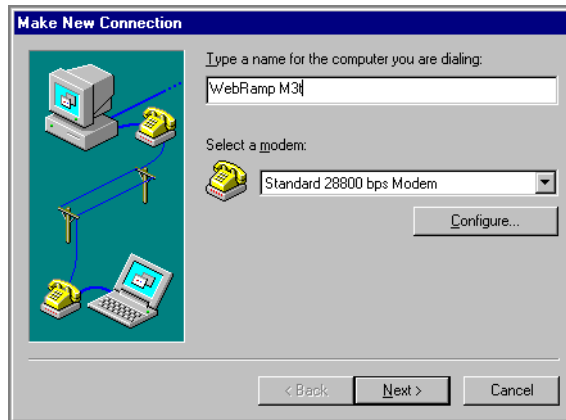
- 3 Select **Dial-Up Networking** and then click **OK**. Follow the instructions on the screen (if any).

Note – When you install Dial-Up Networking, make sure you **do not** “de-select” any software you already have installed. These programs will be automatically removed (deleted) if not selected.

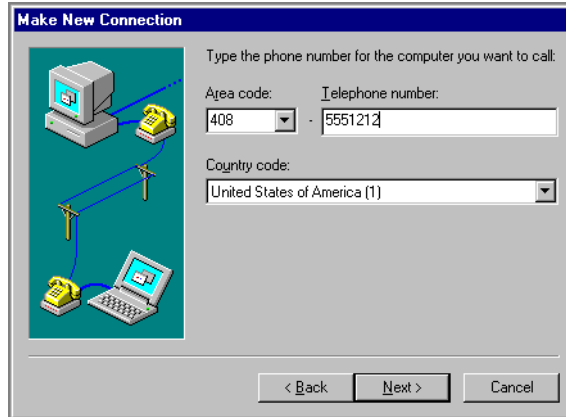
Adding a New Dial-Up Connection

Follow these steps to add a new dial-up connection:

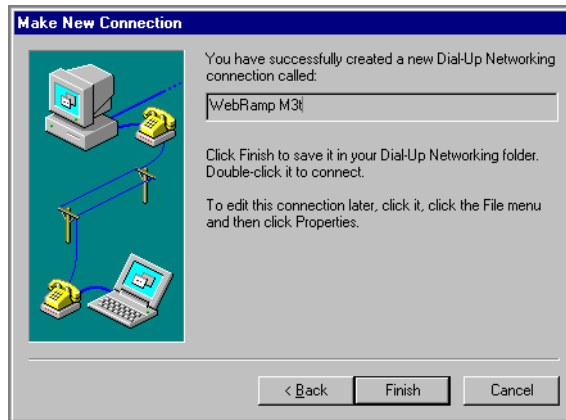
- 1 Double-click the **My Computer** icon and then double-click **Dial-Up Networking**.
- 2 Double-click **Make New Connection**, enter a name for the connection and then click **Next**.



- 3 Enter the phone number of the dial-in modem connected to the WebRamp M3t and then click **Next**.



- 4 Click **Next** to use the new connection.

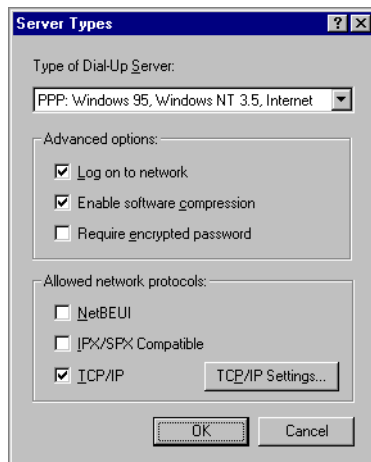


- 5 Click **Finish** to complete the new dial-up connection.

Configuring Dial-In Access

Follow these steps to specify a server type and protocol setting for a dial-in client:

- 1 Select **Start | Programs | Accessories | Dial-Up Networking**.
- 2 In the Dial-Up Networking folder, right-click the icon for the dial-up connection to configure and then click **Properties**.
- 3 Click **Server Type** to specify the dial-up server information. For an Internet connection or to dial into the WebRamp M3t network, the network protocols allowed must include TCP/IP.
- 4 Select **PPP, Windows 95, Windows NT 3.5, Internet** for the dial-up server type and then click **OK**.



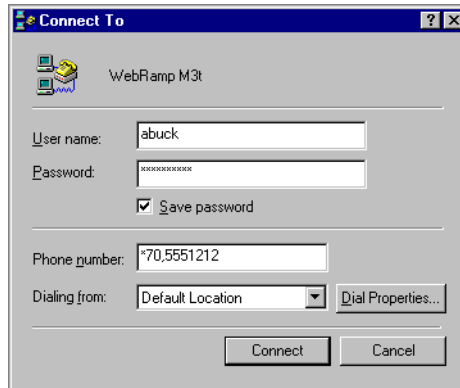
Leave the advanced options checked (the default) unless you specifically know that either of these options should not be checked.

You are now ready to start using the new connection to dial into the WebRamp M3t. Follow these steps to make a new connection:

- 1 Double-click **My Computer** (from your desktop), double-click **Dial-Up Networking** and then double-click on the WebRamp M3t icon.



- 2 Enter your username and password and click **Connect**.



The computer automatically dials the modem and connects to the WebRamp M3t. If you have any problems connecting, see [Dial-Up Configuration Problems](#) in [Troubleshooting](#).

PPP Configuration Issues

When dialing into the WebRamp M3t, you might experience long delays. The following shows how to solve this. To avoid long logon delays when dialing in to a WebRamp M3t, in the Server Type dialog box, clear the **NetBEUI** and the **IPX/SPX-compatible** options under *Allowed Network Protocols*.

The WebRamp M3t runs only under TCP/IP protocol. If the NetBEUI and IPX/SPX-compatible protocols are bound to the Dial-Up Adapter, then removing these two protocols from the connection also saves a few more seconds, because the system will not try to bind these protocols to the Dial-Up Adapter.

If a computer is using TCP/IP for dial-up connections but no DHCP server is present on the LAN, and if TCP/IP is bound to both a LAN adapter and a Dial-Up Adapter using PPP, the computer may pause for a couple of seconds every once in a while.

- To avoid this in most dial-up configurations, unbind TCP/IP in the network adapter's properties until the DHCP server is available again, but keep the TCP/IP binding for the Dial-Up Adapter, which the PPP dial-up connection uses.
- If the dial-up connection also requires a simultaneous LAN connection, you can turn off DHCP in the TCP/IP properties and manually configure the IP address for the LAN adapter.

Email and Internet Access for Dial-In Users

Email for Dial-in Users

Setup the email application on the dial-in computer as if it were a LAN computer.

Internet Access for Dial-in Users

Verify that dial-in users have their DNS server addresses setup. For Windows 95 users, the dial-in user should automatically get this information from the WebRamp M3t when the dial-up connection is established. For other operating systems, the DNS information may need to be entered manually.

If Internet access on the LAN is provided by the WebRamp M3t, make sure that there is at least one modem dedicated for dial-out on the WebRamp M3t so that after a client dials in, they can dial-out using another modem attached to the WebRamp M3t. This dial-out process should occur transparently to the dial-in user.

Using an Additional Router for Internet Access

Follow these steps if Internet access for the LAN is provided by a router on the LAN other than the WebRamp M3t:

- 1 Access the WebRamp M3t Configuration page, click **Advanced** and then click **Routing**.
- 2 Click **Edit Default Route**, click **Local Network**, enter the IP address of the router you are currently using (other than the WebRamp M3t) and then click **Apply**.

Information for the dial-in client that are destined for the Internet will now go directly to the correct router.

Windows 95 File Sharing

The WebRamp M3t allows dial-in clients to share files with computers on the LAN. File sharing is done exclusively using TCP/IP (IPX/SPX and AppleTalk are not supported). Novell or Windows NT servers located on the LAN using only IPX/SPX will not be accessible. Only servers and computers running TCP/IP will be accessible.

To share files, you must first setup the computer acting as the server and then setup the computer that will dial-up the server computer. The computer dialing-up the server is known as the *dial-up client*.

The Windows 95 File and Printer Sharing services allow users to share information with other Windows-based and MS-DOS-based network computers. Shared resources can include files, printers, CD-ROM drives and fax/modems.

Install File and Printer Sharing services on each computer that contains resources that are to be shared among other users on the network. This service can be installed by using custom setup scripts, or by using the Network option in Control Panel. Resource sharing capabilities can be enabled or disabled locally using Control Panel.

After File and Printer Sharing services are installed, each user can configure which directories, files and peripheral devices (such as printers or CD-ROM drives) will be shared on the network. With share-level security, the kind of access other users have to shared resources can be restricted to read-only, or can be password-protected.

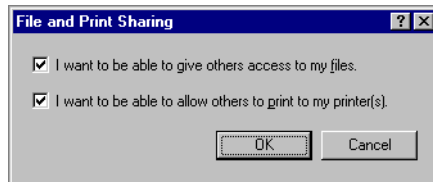
The following table shows the file and printer sharing services.

Requirements	Limitations
Can only be installed on computers that use a 32-bit, protected mode network client	Access to shared resources can only be restricted with share-level security unless a Windows NT computer is installed on the network
File and Printer Sharing service must be installed on the client computer if an administrator wants to use Net Watcher to view or administer the file system remotely	

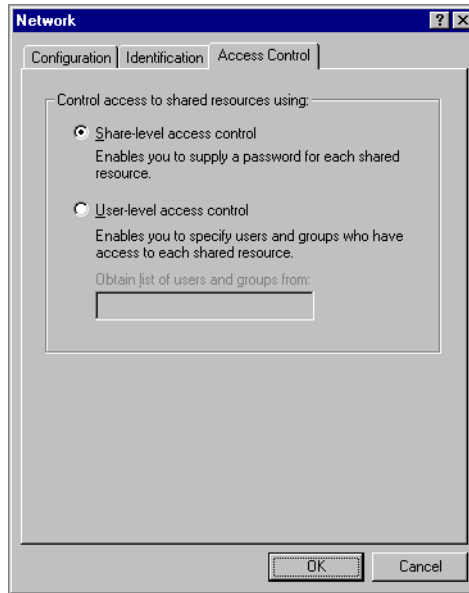
Setting Up a Windows 95 LAN Computer for File Sharing

This section explains how to setup a Windows 95 LAN computer to share files for dial-in access. Follow these steps to setup the LAN computer:

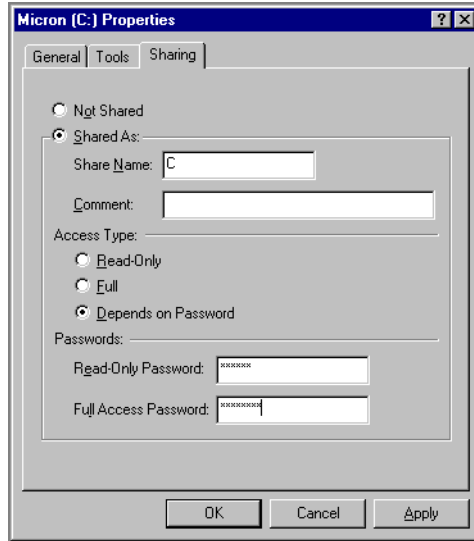
- 1 From a Windows 95 computer located on the LAN, open the *Network* control panel and verify TCP/IP is installed and configured. See [Configuring TCP/IP for Dynamic Addressing](#) for information on configuration.
- 2 Click **File and Print Sharing**, select **I want to be able to give other access to my files** and then click **OK**.



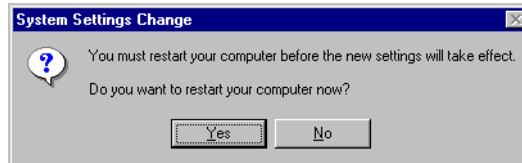
- 3 Select the *Access Control* tab, select **Share-level access control** and click **OK**.



- 4 From Windows Explorer, select a directory to share, select *Properties* from the *File* menu and then click the *Sharing* tab. Enter the sharing information and click **OK**.



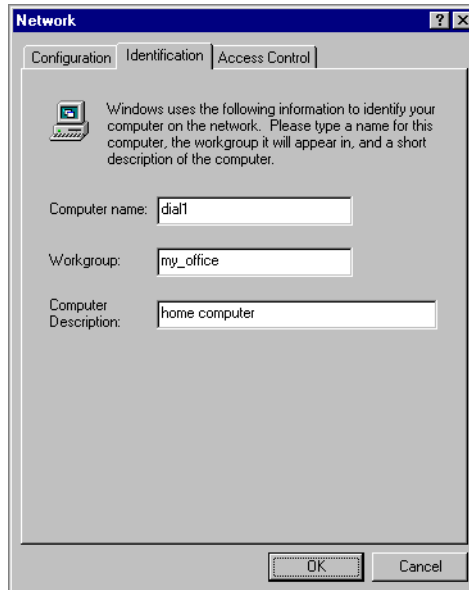
- 5 Click **Yes** and restart Windows 95 to update the file sharing settings.



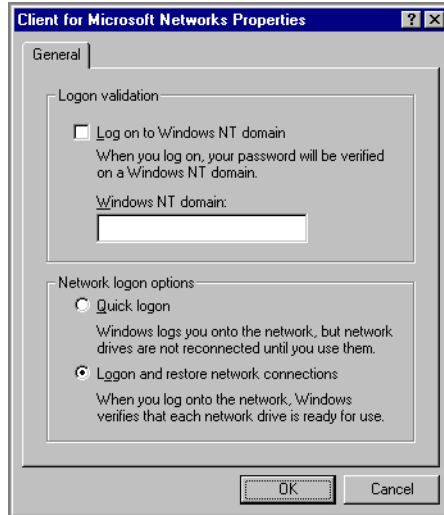
Setting Up the Dial-In Computer

This section explains how to setup the dial-in computer to dial into the WebRamp M3t to access shared files. Follow these steps to setup the dial-in computer:

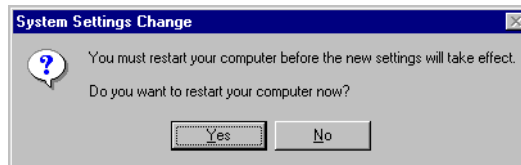
- 1 From the dial-in computer open the *Network* control panel, click the *Identification* tab, enter the same Workgroup name you used for the LAN computer.



- 2 Select the Configuration tab, double-click **Microsoft Client**, select **Logon on and restore network connections** and then click **OK**.



- 3 Click **Yes** and restart Windows 95 to update the file sharing settings.

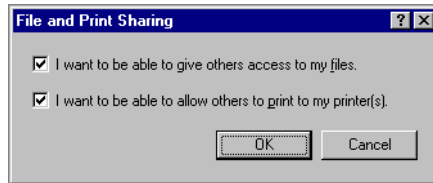


- 4 Double-click **My Computer** (on the desktop), double-click **Dial-Up Networking**, and then double-click on the WebRamp M3t connection icon to dial and connect to the WebRamp M3t located on the LAN.
- 5 Double-click **Network Neighborhood** and select the remote computer to access. If the remote computer is password-protected, enter the *password* and click **OK**.

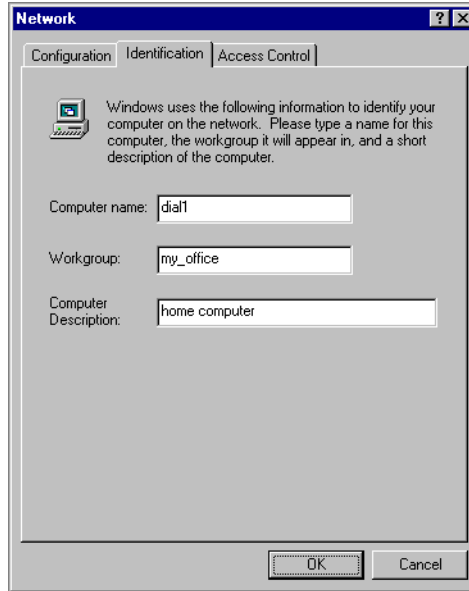
Setting Up a Windows NT Server LAN Computer for File Sharing

This section explains how to setup a Windows NT server LAN computer to share files for dial-in access. Follow these steps to setup the Windows NT server LAN computer:

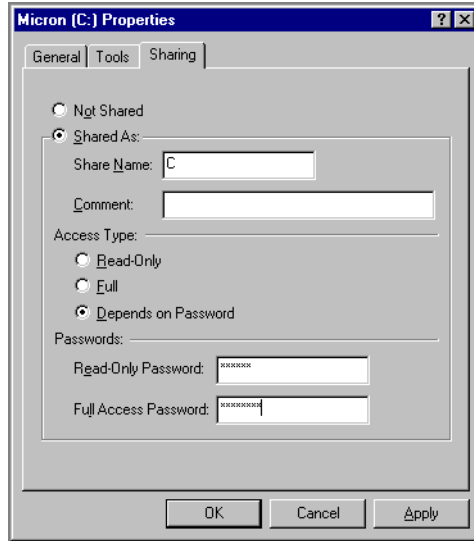
- 1 From a Windows 95 computer, open the *Network* control panel and verify TCP/IP is installed and configured. See [Configuring TCP/IP for Dynamic Addressing](#) for information on configuration.
- 2 Click **File and Print Sharing**, select **I want to be able to give other access to my files** and then click **OK**.



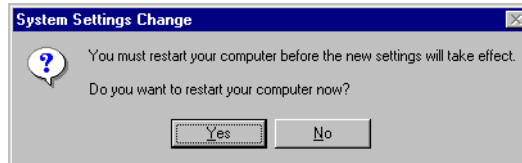
- 3 Click the *Identification* tab, enter a Workgroup name for your LAN and click **OK**.



- 4 From Windows Explorer, select a directory to share, select *Properties* from the *File* menu, select the *Sharing* tab, enter the sharing information and click **OK**.



- 5 Click **Yes** and restart Windows 95 to update the file sharing settings.

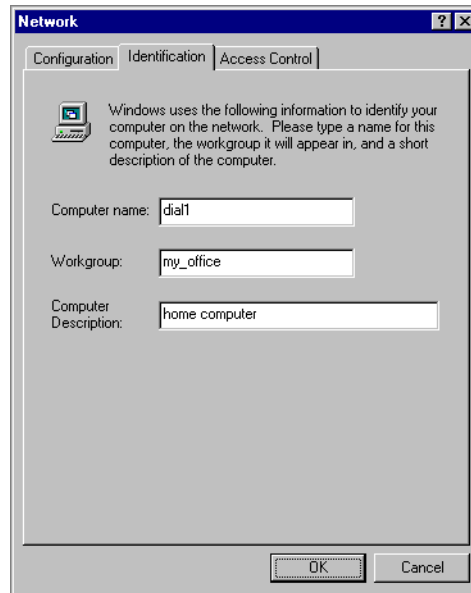


- 6 From the Windows NT server located on the LAN, open the *Network* control panel and verify TCP/IP is installed and configured. See [Configuring TCP/IP for Windows NT](#) for information on configuration.
- 7 Create an entry for the user to remotely dial into the WebRamp M3t. If there is an existing entry for dial-in access, **do not** create a new entry.

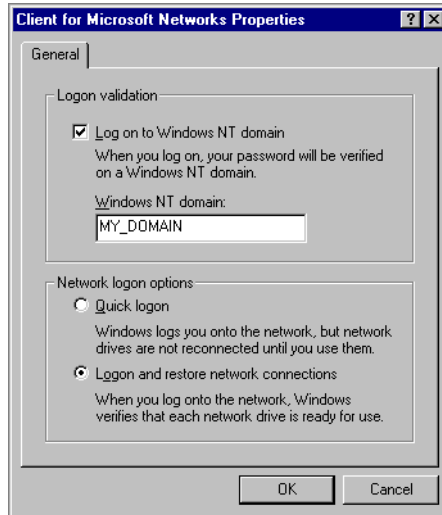
Setting Up the Dial-In Computer

This section explains how to setup the dial-in computer to dial into the WebRamp M3t to access shared files. Follow these steps to setup the dial-in computer:

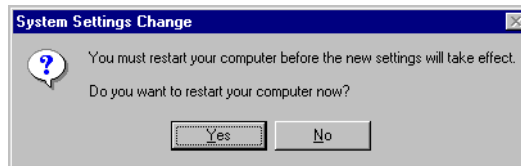
- 1 From the dial-in computer, open the *Network* control panel, click the *Identification* tab, enter the same Workgroup name you used for the Windows NT server LAN computer and click **OK**.



- 2 Select the Configuration tab, double-click **Microsoft Client**, select **Logon on to Windows NT domain**, enter the domain name, select **Logon and restore network connections** and then click **OK**.



- 3 Click **Yes** and restart Windows 95 to update the file sharing settings.



- 4 Double-click **My Computer** (on the desktop), double-click **Dial-Up Networking**, and then double-click on the WebRamp M3t connection icon to dial and connect to the WebRamp M3t located on the Windows NT server LAN.

- 5** Logon to the dial-in computer with the username matching the username configured on the Windows NT server (see [Step 3 of Setting Up a Windows NT Server LAN Computer for File Sharing](#)).
- 6** Once connected to the WebRamp M3t, double-click **Network Neighborhood** and select the remote computer to access. If the remote computer is password-protected, enter the password and click **OK**.

For more information please refer to Microsoft's documentation on file and print sharing. In particular, the Service Pack documentation for Windows 95 and Windows NT covers this extensively.

Advanced Configuration

Overview

This chapter contains information on the Advanced features of the WebRamp M3t.

The screenshot displays the 'Advanced Configuration' page of the Ramp Networks WebRamp M3t. On the left is a blue sidebar with a navigation menu containing: Wizard, Add Modem, **Advanced**, Diagnostics, Status, Problem Solving, Drop Calls, and Home. The main content area is titled 'Advanced Configuration' and is organized into three sections:

- Modem and Internet Service Provider (ISP) Settings:** This section features a table with three columns for Modem 1, Modem 2, and Modem 3. Each column contains three buttons: 'Modem', 'ISP', and 'Disabled'. Below the table is a large yellow button labeled 'Modem Multiplexing'.
- LAN Settings:** This section contains two rows of configuration buttons. The first row includes 'DHCP', 'IP Address Configuration', and 'Routing'. The second row includes 'Internet Access Control', 'Applications', and 'Admin Password'.
- Dial-In Settings:** This section contains a single row of configuration buttons: 'Call Control', 'DNS Configuration', and 'Users'.

At the bottom center of the page, the copyright notice reads: Copyright © 1997 Ramp Networks, Inc.

Modem and ISP Settings

To...	Click...
Modify modem settings	Modifying Modem Settings
Modify ISP settings	Changing ISP Settings
Modify modem multiplexing	Modem Multiplexing
Configure your ISDN modem to work with the WebRamp M3t	ISDN Modem Settings
Write a login script to connect to access the Internet	Writing a Login Script

LAN Settings

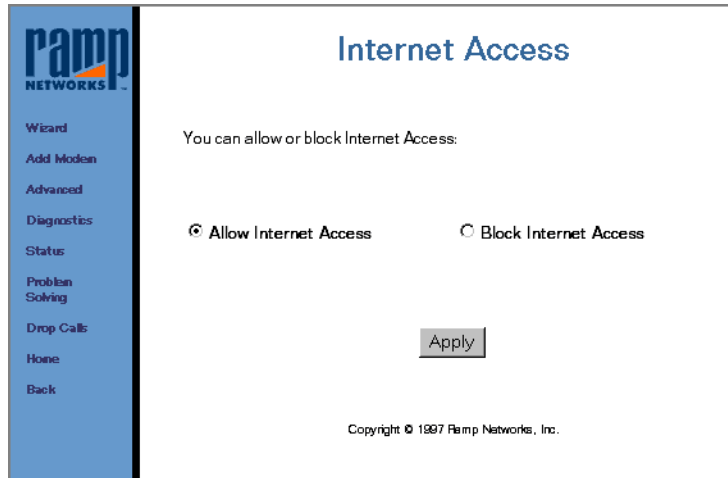
To...	Click...
Turn on/off dynamic addressing	Enable/Disable DHCP
Modify your current IP address range	Define New IP Address Range
View your current range of IP addresses	Show Current DHCP Address Table
Exclude an IP address for computers	Exclude an IP Address
Include an IP address previously reserved	Include an IP Address
Reserve an IP address for computers not supporting DHCP	Reserve an IP Address
Free an IP address previously reserved	Free an IP Address
Setup DNS IP addresses for your LAN	DNS Parameters

To...(Continued)	Click... (Continued)
Setup the IP address to use as the gateway for your LAN	Gateway IP Address
Setup the WebRamp M3t's IP address	Local IP
Setup the ISP's IP address	ISP IP Address
Modify the current routing information	Edit Default Route
Add a route	Add Route
Delete a route	Delete Route
Enable/disable Internet access for your LAN	Internet Access Control
Configure local servers on your LAN	Local Servers
Configure special applications such as games or Internet applications that require port mapping	Special Applications
Configure Internet visible computers on your LAN	Visible Computers
Change the WebRamp M3t's administrative password	Admin Password

Dial-In Settings

To...	Click...
Configure computers for remote dial-in access	Setting Up your WebRamp M3t for Dial-In Access Installing Dial-Up Networking for Windows 95 Adding a New Dial-Up Connection Configuring Dial-In Access
Configure file sharing	Setting Up a Windows 95 LAN Computer for File Sharing Setting Up a Windows NT Server LAN Computer for File Sharing

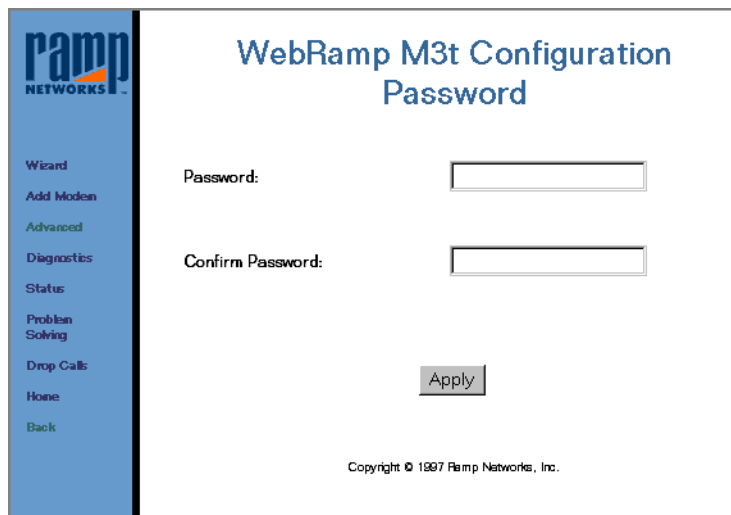
Internet Access Control



Internet Access is used to block or allow Internet access at any time. For example, you may want to block access at night, on weekends or when you go on vacation. If you make any changes, click **Apply**.

Once Internet Access is blocked, the LEDs for Modem 1, Modem 2 and Modem 3 will continuously flash amber in sequence.

Admin Password



WebRamp M3t Configuration
Password

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Password:

Confirm Password:

Apply

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The WebRamp M3t configuration password is also known as the administrative password used to configure the WebRamp M3t. The default name is **wradmin** and the default password is **trancell**.



Note – If you change the default values on this screen, the next time you try to connect with the WebRamp M3t Configuration page, you'll be prompted for the new password.

You can change this password at any time to protect the WebRamp M3t's configuration. If you do change this password, make sure you store the password in a safe place and click **Apply**.

Modem and ISP Settings

Overview

This chapter describes the modem, ISP and modem multiplexing settings for the WebRamp M3t. Also included in this chapter are the following topics:

- ISDN Modem Settings
- ISDN Modem Initialization Strings
- Writing a Login Script

Note – Any changes to either modem or ISP settings will cause any active calls to be momentarily disconnected while the settings are updated.

Modifying Modem Settings

Modem 2

Configure the Modem that is attached to the **Modem 2** port

Enable Modem 2

Modem Manufacturer: US Robotics

Maximum Modem Speed: 56,000bps

If **Other** was selected for **Modem Manufacturer**, enter your Modem's initialization string below (see modem manual), otherwise leave it blank:

Modem Initialization String:

Apply

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You have already configured Modem 1 using the Wizard. This page allows you to change the settings at any time.

Modem Settings is used to modify the modem parameters. Select the **Enable Modem 2** checkbox to configure this modem. Using the pull-down menus, select the modem manufacturer and maximum modem speed. If your modem is not listed, select *Other* and enter the modem initialization string from your modem users guide. When all fields are complete, click **Apply**.

Modem Manufacturer Settings

- Motorola 56K Modem: set **Standard** as the modem manufacturer and **56,000** as the maximum modem speed
- Cardinal 56K Modems: set **US Robotics** as the modem manufacturer and **56,000** as the maximum modem speed
- GVC Modems: set **Maxtech** as the modem manufacturer and select the appropriate maximum modem speed

Modem Settings

This section contains tips and modem information for your WebRamp M3t.

Motorola 56K Modems

In the Modem setup page, select **Standard** as the modem manufacturer and select **56,000** as the maximum modem speed.

Cardinal Modems

In the Modem setup page, select **Standard** as the modem manufacturer and select the appropriate maximum modem speed.

GVC Modems

In the Modem setup page, select **Maxtech** for the modem manufacturer and select the appropriate maximum modem speed.

Dialing Problems

If the modem doesn't seem to dial, refer to [Problem Solving](#) to diagnose the cause of the problem.

Modem Errors

The modem did not initialize properly if the Problem Solving web page indicated a *modem error*. Follow these steps to try to resolve this problem:

- 1 Select *Standard* as the modem manufacturer and try to connect.
- 2 Select *Other* if the modem error persists and enter this initialization string:
ATX1W2&D2
- 3 Click **Apply** and try to connect.
- 4 Select *Other* again if the modem error persists but don't give an initialization string.

Refer to the modem manufacturer's user guide if the problem still persists for the correct initialization string.

See [Analog Modems Tested with the WebRamp M3t](#) for additional information.

Analog Modems Tested with the WebRamp M3t

- Boca 33.6 Speakerphone
- Boca 56K Modem
- Cardinal Connecta
- Hayes Accura 28.8
- Maxtech NetPro 33.6
- Microcom DeskPorte 28.8P
- Motorola 28.8
- MultiTech 33.6
- US Robotics 56K
- US Robotics 14.4 Faxmodem
- US Robotics Courier V.Everthing
- Unlisted Modems—If you have a GVC modem, select Maxtech as the modem manufacturer

ISDN Modems Tested with the WebRamp M3t

3Com

Impact IQ

Adtran

Express XRT

Motorola

BitSURFR ProEZ

Zyxel

Omni TA128U

Other Modems

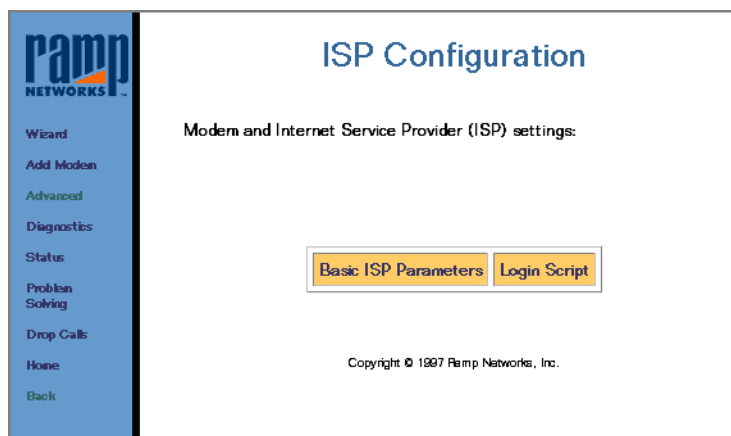
- 1 Set the Modem Manufacturer to "Standard" and try to connect.
- 2 If "Modem Error" appears in the Problem Solving Log, select "Other" and enter the following characters in the initialization string field:
ATX1W2&D2
- 3 Press Apply and then try to connect again.
- 4 If the "Modem Error" persists, select "Other" but do not provide an initialization string.
- 5 If the "Modem Error" still persists, refer to the modem user's guide for the correct initialization string.

Modem Troubleshooting

- If your modem doesn't seem to dial, see [Problem Solving](#) or [Test Modems](#) to diagnose the cause. If Problem Solving indicates a modem error, the modem probably didn't initialize properly. Try the following options:
 - ◆ Select **Standard** as the Modem Manufacturer and try to connect again
 - ◆ If the modem error continues, select **Other** as Modem Manufacturer and enter the following initialization string: **ATX1W2&D2** and try to connect again
 - ◆ If the modem error still continue, select **Other** but do not provide an initialization string
 - ◆ If the modem error still continues, see the users guide that came with your modem for the correct initialization string

The WebRamp M3t will initiate a connection with the fastest modem first. If the modem fails to connect, after 5 attempts the next fastest modem will be used.

Changing ISP Settings



Although you have already configured your ISP information using the WebRamp M3t Wizard, you can change the settings at any time.

- ◆ Click **Basic ISP Parameters** to view your ISP information
- ◆ Click **Login Script** if your ISP requires you to use a script to login

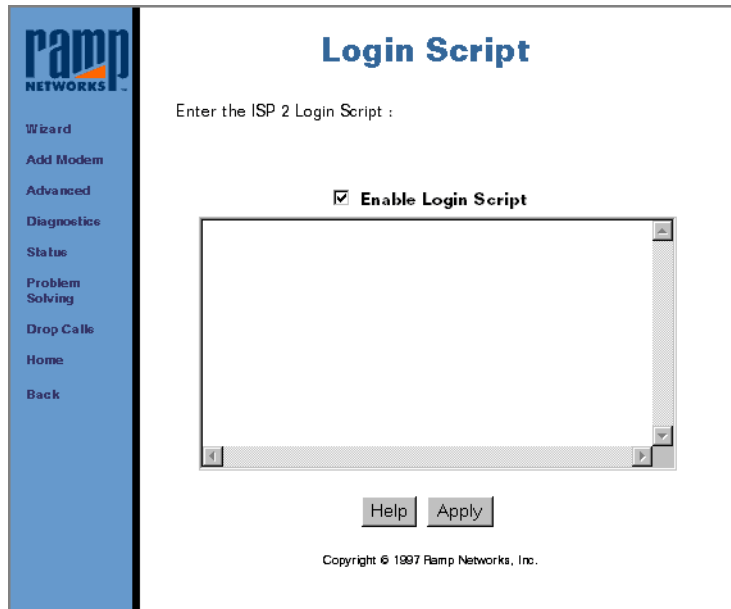
Basic ISP Parameters

ISP Configuration is used to enable connections to an ISP. It contains the necessary network information to enable the WebRamp M3t to connect to the Internet using an ISP.

Follow these steps to complete the ISP parameters:

- 1 Enter the name of your ISP (Internet Service Provider) or leave this optional field blank.
- 2 Enter the ISP's phone number provided by your ISP. Enter any special coded needed to disable calling features before the phone number. For example, *70, 1-415-555-1212, disables Call Waiting and then dials the phone number.
- 3 Enter the user name provided to you by your ISP.
- 4 Enter the password (provided by the ISP) of your user account. Actual text will not appear in either Password or Confirm Password fields.
- 5 Enter the length of time the WebRamp M3t stays connected to the ISP after there is no activity for the Idle Time (seconds). The default time is 120 seconds. You may change the seconds to any number between 0 and 65535 seconds. If you enter a 0, the connection will never timeout (disconnect after a set period of time).
- 6 When all fields are complete, click **Apply**.

Login Scripting



Some ISPs require login scripts to enable Internet access. Check with your ISP for requirements. When the script is enabled, the login is executed after connecting to the ISP and then the [Basic ISP Parameters](#) information is used.

If you need help writing a login script, see [Writing a Login Script](#) or click **Help**.

Modem Multiplexing

Modem Multiplexing

WebRamp M3 lets you use multiple modems simultaneously

Use Only One Modem
 Always use all Modems
 Dynamically use Second and Third Modem when required

Second Modem: Add Time: 10 seconds
Add Threshold: 90

Third Modem: Add Time: 10 seconds
Add Threshold: 90

Apply

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Modem Multiplexing is used to bond (or combine) two or more modem speeds together. You have the following choices for modem multiplexing:

- ◆ Select **Use Only One Modem** to use a single modem to connect to the Internet. If more than 1 modem is enabled, the fastest modem will be used.
- ◆ Select **Always use all Modems** to automatically dial all enabled modems simultaneously.

- ◆ Select **Dynamically use second and third modems when required** to use the second and third modems dynamically, as more people are accessing the Internet. This setting allows you to use the Internet without dialing a second or third modem, unless it is needed.

Dynamically allows the second and third modems to be used only when the first modem has been running at full speed for a pre-determined length of time. The second and third modems pull-down menus contain thresholds that can be changed at any time. We recommend using the default values. When all fields are complete, click **Apply**.

Times and Thresholds

The default setting for Add Time is 10 seconds and the default Add Threshold is 90 percent. Using the defaults as an example, the second modem will be dialed when the first modem is running at 90% of its capacity for 10 seconds.

After the second modem has connected, the third modem will be added when the combined use of modem 1 and modem 2 reaches 90% of their combined capacity for 10 seconds.

Modems are dialed based on the modem speed at configuration time. For example, if modem 2 was configured at 56000 and modem 1 was configured at 28800, modem 2 will be dialed before modem 1. This is called *ordering* and is used to determine the second and third (or next) modem to be used.

ISDN Modem Settings

The WebRamp M3t now offers support for external ISDN modems (also known as ISDN terminal adapters). External ISDN modems are similar to standard analog modems except they require local ISDN information configured before they are used. The WebRamp M3t can support up to 3 external ISDN modems. Because ISDN modems may support 2 ISDN “B” channels, the WebRamp M3t can optimally support 6 ISDN channels.

Note – The WebRamp M3t modem ports have a limitation of 115k bps. If your ISDN modem’s capability exceeds 115k bps, you will not be able to send data any faster than 115k bps through the modem port.

Follow these steps to setup and use an ISDN modem with the WebRamp M3t:

- 1 Connect the ISDN modem to the serial port of your computer.
- 2 Locate the configuration software that came with the ISDN modem and follow the instructions on the screen.

The ISDN modem configuration software will setup local ISDN directory numbers and SPID information, as well as Multilink PPP. If these items are not setup with your configuration software, see your ISDN modem users guide for instructions.

- 3 Verify the ISDN modem is configured correctly by accessing the Internet with a web browser.

If you have any problems connecting to the Internet, go back to your ISDN modem users guide for additional information.

Note – You must use the ISDN modem configuration software (that came with your modem) to setup your ISDN modem before you can connect it to the WebRamp M3t. The ISDN modem will not work with the WebRamp M3t unless it is configured.

- 4 Connect the ISDN modem to a modem port on the WebRamp M3t.
- 5 From the WebRamp M3t Configuration page, click **Advanced** and select the corresponding modem port the ISDN modem is connected to.
- 6 Select the **Enable Modem** checkbox and then select the following options:
 - ◆ Modem Manufacturer: **Other**
 - ◆ Maximum Modem Speed: **ISDN Modem**
 - ◆ Modem Initialization String: **ISDN Modem Initialization Strings**

Modem 2

Configure the Modem that is attached to the **Modem 2** port

Enable Modem 2

Modem Manufacturer: Other (provide Init String) ▼

Maximum Modem Speed: ISDN Modem ▼

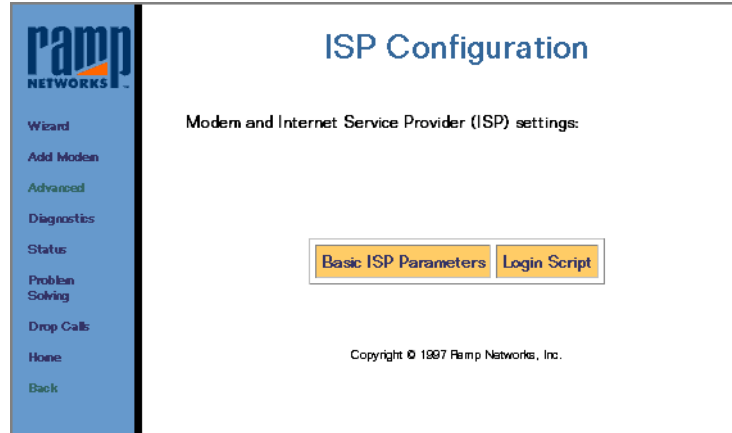
If **Other** was selected for **Modem Manufacturer**, enter your Modem's initialization string below (see modem manual), otherwise leave it blank:

Modem Initialization String:

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- 7 Click **Apply** to return to the Advanced screen.

- 8 Select **ISP** for the corresponding modem port the ISDN modem is connected to and then click **Basic ISP Parameters**.



9 Enter the ISDN Internet account information and then click **Apply**.

Your ISDN modem is now configured to work with the WebRamp M3t. To test your ISDN modem, connect to the Internet using the WebRamp M3t.

ISDN Modem Initialization Strings

The following lists the ISDN modems tested with the WebRamp M3t and includes initialization strings used to configure your ISDN modem.

3COM Impact IQ

No initialization strings required.

Adtran XRT

AT&F2

Motorola BitSURFER Pro

No initialization string required, but the modem must be upgraded to the latest firmware ("L" or greater).

Motorola BitSURFER Pro EZ

Typically no initialization string required, but the following is a list of specific settings that can be used to achieve different link speeds.

56K single-link PPP: AT&F%A4=1

64K single-link PPP: AT&F

112k multi-link PPP: AT&F@B0=2%A4=1

128k multi-link PPP: AT&F@B0=2

Zyxel Omni TA 128

ATB40AT& J3

If your ISDN modem is not listed above, see the users guide that came with your ISDN modem. If the ISDN modem users guide does not contain any information about an initialization string, try connecting to the WebRamp M3t without an initialization string (don't type anything in the Modem Initialization String field).

Writing a Login Script

The WebRamp M3t now includes a script capability so the user can connect to an ISP that requires that a login script be executed before initiating a PPP (Point to Point Protocol) session.

The following sections explain:

- Setup of Scripting
- Verifying the Script
- Commands
- Examples

Scripting Setup

A script can be created for each of the WebRamp M3t ISPs. The script can be created via the Wizard, Add Modem or the Advanced page (only the ISP 1 script can be created via the Wizard).

Follow these steps to add scripting to ISP 1:

- 1 Go into the Wizard and setup the Modem 1 and ISP 1 information (number to dial, name, password).
- 2 When prompted on the ISP Success page, click on the Enable Login Script link.
- 3 On the Login Script page, check the Enable Login Script check box.
- 4 Enter the script in the provided edit box and then press Next to continue with the setup.

Follow these steps to add scripting to ISP 2 or ISP 3:

- 1 Go into Add Modem and select Modem 2 or Modem 3.
- 2 Setup the Modem and ISP information (number to dial, name, password).
- 3 When prompted on the ISP Success page, click on the Enable Login Script link.
- 4 On the Login Script page, check the Enable Login Script check box
- 5 Enter the script in the provided edit box and then press Next to continue with the setup.

Verifying the Script

A script can be verified from the WebRamp M3t is command line interface using the **enabletrace** command. The **enabletrace** command will show the execution of the script and the strings which are being sent and received when a connection is being attempted.

To verify the script, do the following:

- 1 Connect to WebRamp M3t via Telnet:

Telnet 192.168.1.1 (default WebRamp M3t IP address)

Enter Login Name: wradmin

Password: trancell (this is the default password)

- 2 Run the **enabletrace** command to enable script tracing:

enabletrace "-s on" (this only has to be done once - it need not be repeated on successive tests)

- 3 Initiate a data connection from a LAN computer that causes the WebRamp M3t to dial and observe the trace on the Telnet screen:

If the connection seems to be getting stuck at a particular point in the script, then modify the script on the WebRamp M3t and try the test again.

Scripting Commands

The following table explains the scripting commands.

Command	Description
transmit string (raw text)	<p>Sends the characters specified by string to the remote computer. "string" is a series of characters enclosed in double-quotes</p> <p>"Caret" (< >) translations and escape sequences are recognized in the string and converted into equivalent characters unless the "raw" parameter is included with the command. If the raw parameter is specified the string is sent without any caret translations.</p>
caret translation and escape sequences	<p>Special characters between '@' and '_' in the character sequence is translated into a value between 0 and 31. For example, ^M is converted to a carriage return.</p> <p>If character is a value between a and z, the character sequence translated into a value between 1 and 26.</p> <p>If char is any other value, the character sequence is not specially treated.</p>

Command	Description (<i>Continued</i>)
other valid characters	<cr> Carriage return <lf> Linefeed \" Double-quote \^ Single caret \\ Backslash
waitfor string	Waits until the WebRamp M3t receives the specified string from the remote computer.
pause	Pauses for 1 second before executing the next command in the script.
set port databits 5 6 7 8	Changes the number of bits per character that are transmitted and received during the session. The number of bits can be between 5 and 8.
set port parity none odd even mark space	Changes the parity scheme for the port during the session.
set port stopbits 1 2	Changes the stopbits for the port during the session.
comments	If the first character in a line is ';' then line is treated as a comment and not processed.

Notes: 1) Only one command is allowed per line
2) All commands are in lowercase and are case-sensitive

Examples

Basic Example

An example script to send user name and password information to the remote computer (*myname* and *mypasswd* should be replaced with actual values).

```
waitfor "login:"  
transmit "myname<CR>"  
waitfor "password:"  
pause  
transmit "mypasswd<CR>"
```

CompuServe Example

(my_compuserve_id and my_password should be replaced with actual values)

```
set port databits 7
set port parity even
pause
transmit "<CR>"
transmit "<CR>"
transmit "<CR>"
waitfor "Host Name:"
transmit "CIS<CR>"
waitfor "ID:"
transmit "my_compuserve_id"
transmit "/go:pppconnect<CR>"
waitfor "password:"
transmit "my_password"
transmit "<CR>"
waitfor "please..."
set port databits 8
set port parity none
```


LAN Settings

Overview

This chapter describes the Local Area Network settings of the WebRamp M3t. From the Advanced Configuration page, you can perform the following functions:

- ◆ DHCP
- ◆ IP Address Configuration
- ◆ Routing

DHCP

DHCP Setup

Current DHCP settings:

DHCP is :	Disabled
Starting IP Address:	205.158.93.1
Number of addresses:	254
Domain Name :	mycompany.com
DNS 1 :	220.54.60.9
DNS 2 :	220.54.60.8
DNS 3 :	0.0.0.0
Default Gateway :	205.158.93.176

Enable/Disable DHCP

Define New Range Show Current Range

DNS Parameters Gateway IP Address

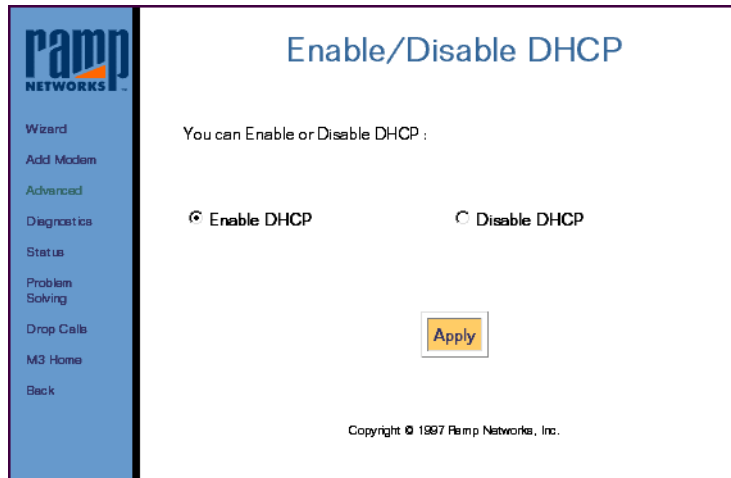
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You have already configured your DHCP information using the Wizard. This page allows you to change the DHCP settings at any time.

DHCP Setup is used to change your DHCP settings, to limit the number of computers on your network, to change any DNS parameters or to change the Gateway IP address (the IP address of the WebRamp M3t).

When all fields are complete, click **Apply**.

Enable/Disable DHCP



You have already enabled DHCP using the Wizard. This page allows you to change the settings at any time.

Enable/Disable DHCP is used to turn DHCP addressing on and off. This page allows you to change the settings at any time. To disable DHCP, select the **Disable DHCP** checkbox and click **Apply**.

If you disable DHCP you will need to manually set the IP addresses, DNS addresses, domain name and gateway information on your computers (see [Non-DHCP Computers](#)).

Define New IP Address Range

ramp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
M3 Home
Back

IP Address Range

Define a New IP Address Range for DHCP:

Start IP Address:

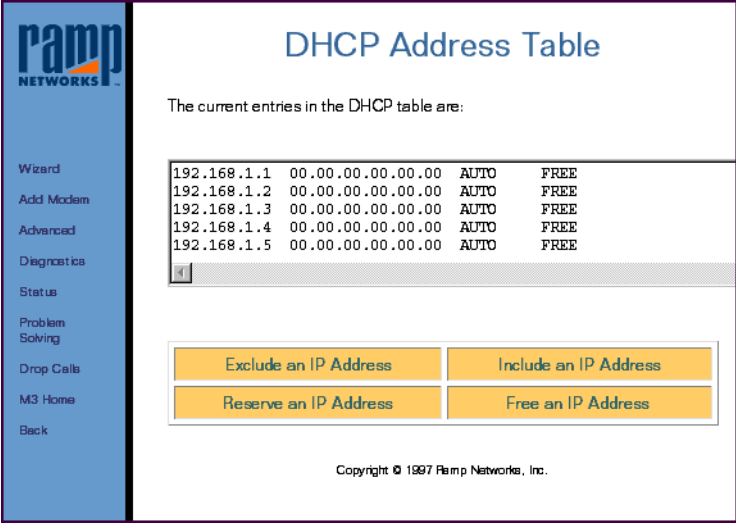
Number of addresses:

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Define New Range is used to specify how many individual users can receive IP addresses from the WebRamp M3t. We recommend you use the default values on this screen.

If you decide on making any changes, click **Apply** or click **Default Range** to use the default values.

Show Current DHCP Address Table



ramp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
M3 Home
Back

DHCP Address Table

The current entries in the DHCP table are:

192.168.1.1	00.00.00.00.00.00	AUTO	FREE
192.168.1.2	00.00.00.00.00.00	AUTO	FREE
192.168.1.3	00.00.00.00.00.00	AUTO	FREE
192.168.1.4	00.00.00.00.00.00	AUTO	FREE
192.168.1.5	00.00.00.00.00.00	AUTO	FREE

Exclude an IP Address Include an IP Address
Reserve an IP Address Free an IP Address

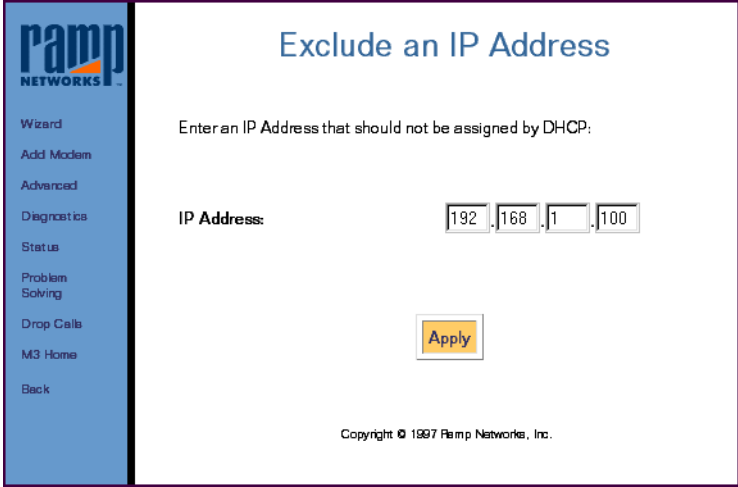
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Show Current Range is used to display the DHCP address table, including IP and MAC addresses for each computer with DHCP enabled.

- ◆ AUTO means the IP address is automatically assigned by DHCP
- ◆ FREE means the IP address is not currently assigned
- ◆ USED means the IP address has been previously assigned

You may reserve IP addresses on your network for servers where the IP addresses need to be fixed and known by other computers on the network. This will not affect the computers ability to access the Internet.

Exclude an IP Address



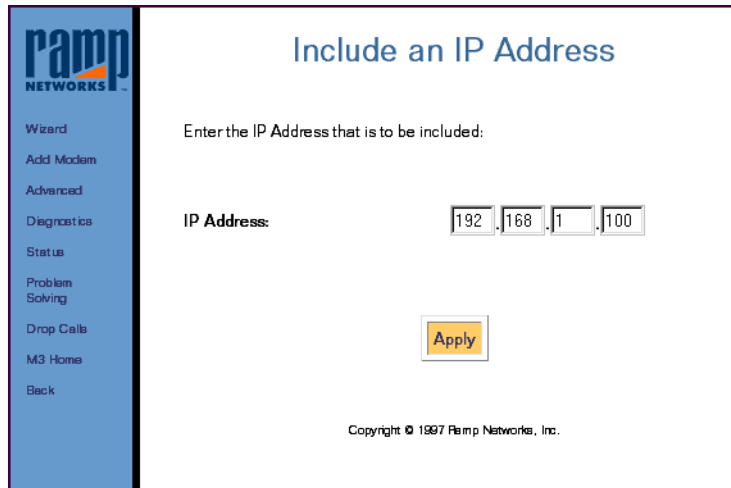
The screenshot shows a software window titled "Exclude an IP Address". On the left is a blue sidebar with the "ramp NETWORKS" logo and a menu of options: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, M3 Home, and Back. The main area contains the text "Enter an IP Address that should not be assigned by DHCP:". Below this is the label "IP Address:" followed by four input boxes containing the values "192", "168", "1", and "100", separated by dots. A yellow "Apply" button is centered below the input fields. At the bottom of the window, it says "Copyright © 1997 Ramp Networks, Inc."

Exclude an IP Address is used to exclude or omit an IP address that may conflict with an existing address. If you enter an IP address, click **Apply**.

This screen is commonly used to set aside IP addresses for computer that do not support DHCP.

Note – Before a used IP address can be excluded, it must be freed (see [Free an IP Address](#)).

Include an IP Address



The screenshot shows a software window titled "Include an IP Address". On the left is a blue sidebar with the "ramp NETWORKS" logo and a list of menu items: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, M3 Home, and Back. The main area has the title "Include an IP Address" and the instruction "Enter the IP Address that is to be included:". Below this, the label "IP Address:" is followed by four input fields containing the values "192", "168", "1", and "100", separated by dots. A yellow "Apply" button is centered below the input fields. At the bottom, the copyright notice "Copyright © 1997 Ramp Networks, Inc." is displayed.

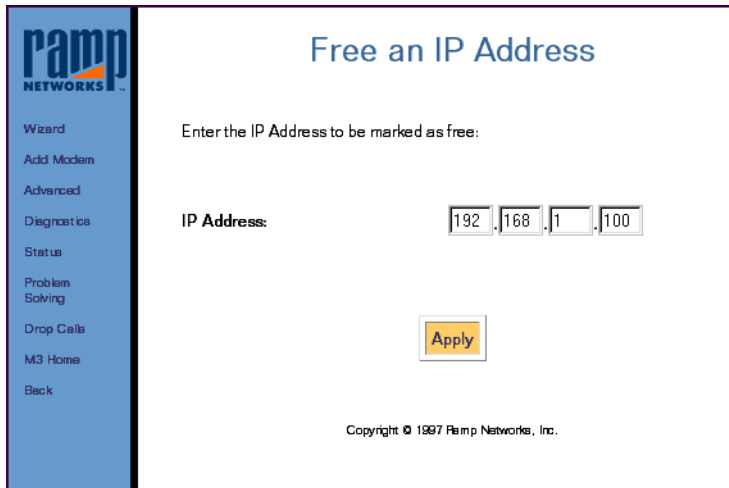
Include an IP Address is used if the address was previously excluded from the valid range, and can now be used. If you enter an IP address, click **Apply**.

Reserve an IP Address

Reserve an IP Address is used to set aside IP addresses for devices such as servers, mail hosts or Intranet servers that must have a fixed address for access purposes. For example, you can reserve an IP address to be used by remote users to check email. If you enter an IP address and MAC address, click **Apply**.

When a particular server requests an IP address, the WebRamp M3t automatically assigns a reserved IP address.

Free an IP Address



Free an IP Address is used to free a previously assigned IP address from your network (for example, the computer may have been removed from your network). If you enter an IP address, click **Apply**.

DNS Parameters

DNS Configuration is used to modify DNS configuration parameters at any time. For example, if you changed your ISP or your ISP changes their domain name or domain name servers. If you enter any information in this page, click **Apply**.

DNS configuration information is provided to requesting DHCP clients.

Gateway IP Address

ramp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
M3 Home
Back

Gateway IP Address

The Gateway IP address should be set to the WebRamp's LAN IP address. Change this address only if the WebRamp's address has changed (by default 192.168.1.1).

Enter the Gateway IP address for your local network:

Gateway IP Address:

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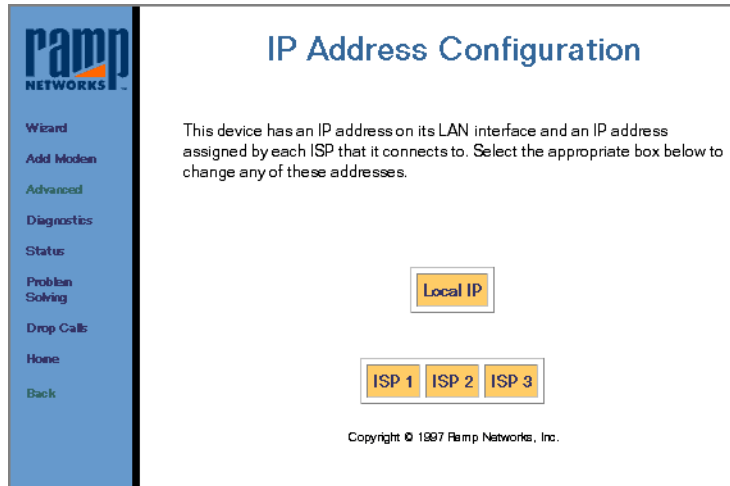
Gateway IP Address is typically the address of the WebRamp M3t. Only change the gateway IP address if you have a pre-existing network and need to use the different addressing scheme.

Make sure the gateway IP address is an unused address on your network. This is the address the DHCP server provides to the computers on your network for Internet access. If you make any changes, click **Apply**.

See [Pre-Existing IP Networks](#) for information on pre-existing networks.

Note – If the WebRamp M3t is being used only for dial-in capabilities and is connected to another router on the LAN that provides Internet access, enter the router's LAN address.

IP Address Configuration



The screenshot shows a web interface for IP Address Configuration. On the left is a blue sidebar with the Ramp Networks logo and a menu of options: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and Back. The main content area has the title "IP Address Configuration" and a paragraph of text: "This device has an IP address on its LAN interface and an IP address assigned by each ISP that it connects to. Select the appropriate box below to change any of these addresses." Below the text are three yellow buttons: "Local IP", "ISP 1", "ISP 2", and "ISP 3". At the bottom, there is a copyright notice: "Copyright © 1997 Ramp Networks, Inc."

The WebRamp M3t has an IP address on its LAN interface and an IP address assigned by each ISP that it connects to. Select the appropriate box below to change any of these addresses.

Local IP

WebRamp LAN IP Address

Changing the WebRamp's IP address may cause computers on your network to lose Internet access.

Enter the New WebRamp IP Address:

IP Address:

Subnet Mask :

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WebRamp LAN IP Address is used to set the IP address on the WebRamp M3t. The WebRamp M3t's LAN IP address is also used for a pre-existing networks that must use a specific IP addressing scheme.

The IP address of a WebRamp M3t is always the WebRamp M3t's LAN address. In the case where an incorrect IP address has been entered you may need to recover the WebRamp M3t's IP address (see [Recovering the WebRamp M3t's IP Address](#)).

This page is used in conjunction with the gateway IP address. If you change the WebRamp M3t's LAN IP address, change the gateway IP address of each computer to use the DHCP gateway setting, which automates the process. The last step is to reboot all computers on your network.

Note – If you change this IP address without restarting the computers, the computers on your network will send their Internet traffic to the wrong address and the traffic will not go through.

ISP IP Address

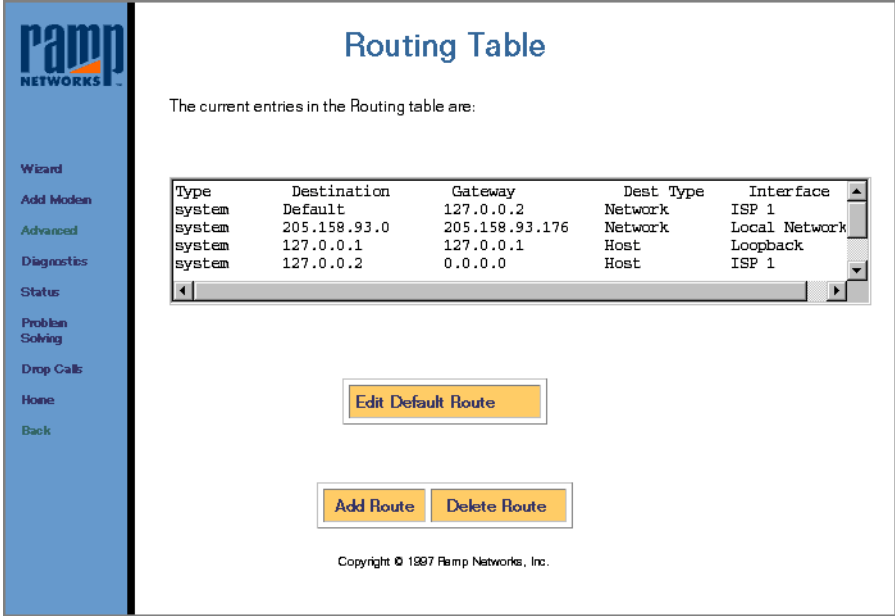
The screenshot shows a web-based configuration interface for Ramp Networks. On the left is a blue sidebar with navigation links: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and back. The main content area is titled "ISP IP Address" and contains the following text: "Select the IP Address assignment method (static or dynamic) used by your ISP 2. Enter the IP Address and Subnet Mask only if **Static** is selected:". Below this text are two radio button options: "Dynamic" (which is selected) and "Static". Under the "Dynamic" option, there are two rows of input fields. The first row is labeled "IP Address:" and contains four empty boxes separated by dots. The second row is labeled "Subnet Mask:" and also contains four empty boxes separated by dots. Below the input fields is a button labeled "Apply". At the bottom of the page, there is a copyright notice: "Copyright © 1997 Ramp Networks, Inc."

ISP IP Address is used to setup the IP address assigned by the ISP.

- ◆ Click **Dynamic** if your ISP supports dynamic addressing.
- ◆ Click **Static** if your ISP supports fixed IP addressing and enter the ISP assigned IP address and Subnet Mask.

Click **Apply** once you've made your selection.

Routing



The current entries in the Routing table are:

Type	Destination	Gateway	Dest Type	Interface
system	Default	127.0.0.2	Network	ISP 1
system	205.158.93.0	205.158.93.176	Network	Local Network
system	127.0.0.1	127.0.0.1	Host	Loopback
system	127.0.0.2	0.0.0.0	Host	ISP 1

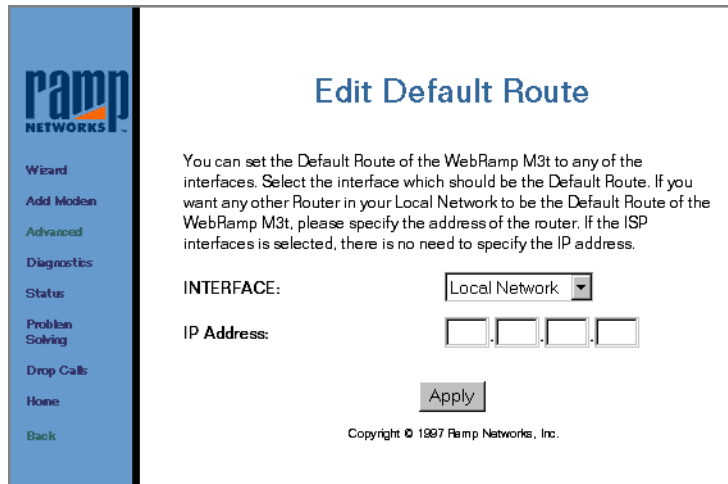
Buttons: Edit Default Route, Add Route, Delete Route

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Routing Table shows the current routing configuration for your WebRamp M3t.

Warning – Changes to the Routing Table are typically not needed and should be done with caution. For normal usage, the Routing Table should never need modification.

Edit Default Route



ramp
NETWORKS™

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Edit Default Route

You can set the Default Route of the WebRamp M3t to any of the interfaces. Select the interface which should be the Default Route. If you want any other Router in your Local Network to be the Default Route of the WebRamp M3t, please specify the address of the router. If the ISP interfaces is selected, there is no need to specify the IP address.

INTERFACE:

IP Address:

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Edit Default Route is used to change the WebRamp M3t's default gateway. For example, local network or ISP. By default, the Default Route for the WebRamp M3t is the ISP.

Warning – Only change this setting if you do not intend to use the WebRamp M3t for Internet access. Change the Default Route if the WebRamp M3t will be used as a pure dial-in server for single users dialing into the local network.

Add Route

ramp
NETWORKS™

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
M3 Home
Back

Add Route

You can add routes to other Networks or Hosts on any of the interfaces. The routes added can be permanent in which case the routes will remain across reboots. Select the type of route to be added and the interface corresponding to the route.

Route Type:
 Permanent
 Static

Destination:
 Network
 Host

IP Address:

Gateway[Interface]

INTERFACE:

IP Address:

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Add Route is used to add a routes to networks and computers that are behind other routers on the local network. Typically, this feature should not be used.

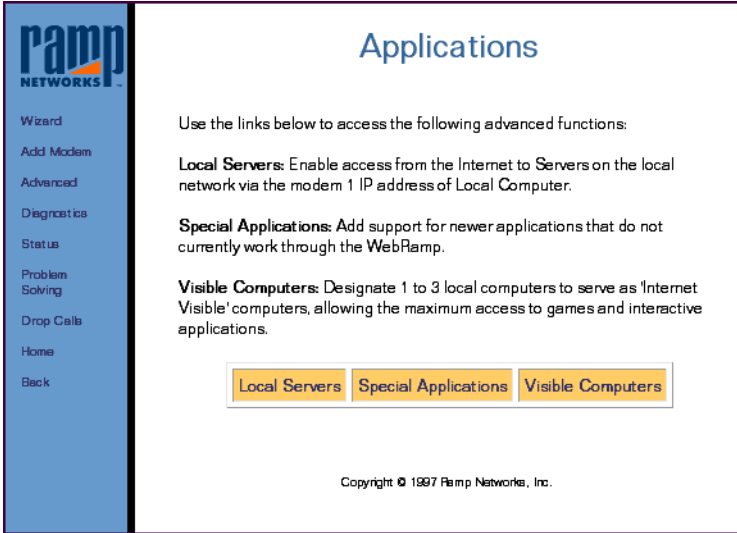
Delete Route

Delete Route is used to delete a route.

Application Settings

Overview

This chapter describes the Applications settings of the WebRamp M3t.



The screenshot shows the 'Applications' settings page in the WebRamp M3t interface. On the left is a blue navigation sidebar with the 'ramp NETWORKS' logo at the top and a list of menu items: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and Back. The main content area has a title 'Applications' and a sub-header 'Use the links below to access the following advanced functions:'. Below this are three sections: 'Local Servers' (enabling Internet access to local servers), 'Special Applications' (adding support for newer applications), and 'Visible Computers' (designating local computers for Internet access). At the bottom of the main area are three buttons: 'Local Servers', 'Special Applications', and 'Visible Computers'. A copyright notice 'Copyright © 1997 Ramp Networks, Inc.' is at the very bottom.

Applications is used to setup modem ports to be used for applications such as connecting to servers and playing online games.

Local Servers

The WebRamp M3t now offers support for hosting servers on the LAN that can be accessed from the Internet. Although the addresses on the WebRamp M3t LAN are not directly accessible by an external Internet computer, the WebRamp M3t allows for selective access by mapping incoming requests for a particular service to a particular LAN server. The incoming requests would be sent to the WebRamp M3t's external IP address. The WebRamp M3t can then based on the service requested (Web, Email, etc.) re-direct them to the appropriate server on the LAN.

There can only be one server of a particular type on the LAN that can be accessed from the Internet. Therefore, there can only be one Web Server on the LAN that can be accessed by a remote Internet computer.

Internet computers trying to access your local server(s) must use the IP address of modem 1.

Local Server Preparation

Follow these steps to prepare to setup a local server:

- 1 Obtain a single *static* (fixed) IP account from your ISP. This IP address will be the address by which all your local servers will be accessed.



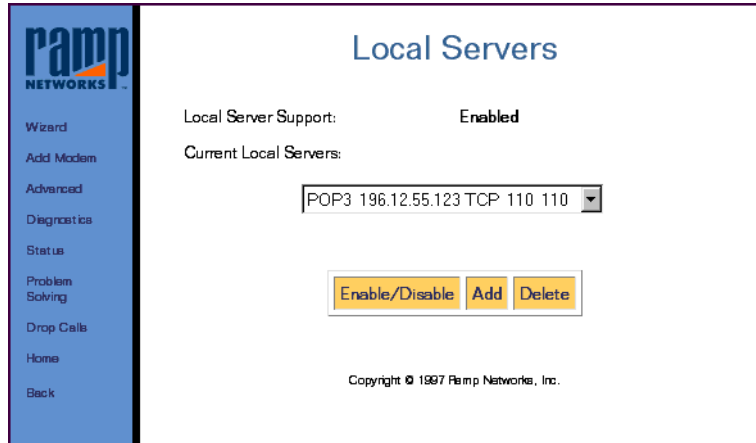
Note – Local Servers will also work if you have a dynamic IP account, with the limitation being that the address used to access your servers can change every time the WebRamp M3t connects to the Internet. As a general rule, it is better to get a static IP account.

- 2 Configure the Modem 1 port with this ISP account information (dial-up number, name and password, etc.). It is important that Modem 1 is configured with this account because local servers can only be accessed using the IP address assigned to Modem 1.
- 3 Follow the instructions in this section to create a local server entry in the WebRamp M3t.
- 4 Access the Local Server by having the remote client use the ISP assigned static address as the address of the server to connect to. Therefore, to the remote client it appears that the WebRamp M3t is the server.

Setting Up a Local Server

Follow these steps to setup a local server:

- 1 Click **Advanced** and then click **Local Server**.



- 2 Click **Add** and enter the *LAN IP address of the local server*, select a *server* and then click **Apply**.

The following table lists the available servers from the pull-down menu.

Web (HTTP)	FTP	Mail (SMTP)	POP3
Telnet	News (NNTP)	DNS-TCP	DNS-UCP
Finger	Talk	Who	Other

Local Server Examples

The following example shows a local mail server located at 192.168.1.5. If you are using a modem port as a mail server, inform the ISP which modem port you are using and the IP address of modem port.

pamp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Add Local Server

IP Address of Local Computer: ...

Server:

Enter the information below only if **OTHER** was selected for **Server**.

Protocol:

External Port (1 to 65534):

Internal Port (1 to 65534):

Server Type:

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The following example shows a web server located at 192.168.1.6. External computers can access your web server at *<Modem 1 Local IP address of WebRamp M3t>*.

ramp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Add Local Server

IP Address of Local Computer:

Server:

Enter the information below only if **OTHER** was selected for Server.

Protocol:

External Port (1 to 65534):

Internal Port (1 to 65534):

Server Type:

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The following example shows setting up an unlisted server at 192.168.1.7, that uses TCP and listens on port 99.

ramp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Add Local Server

IP Address of Local Computer:

Server:

Enter the information below only if **OTHER** was selected for **Server**.

Protocol:

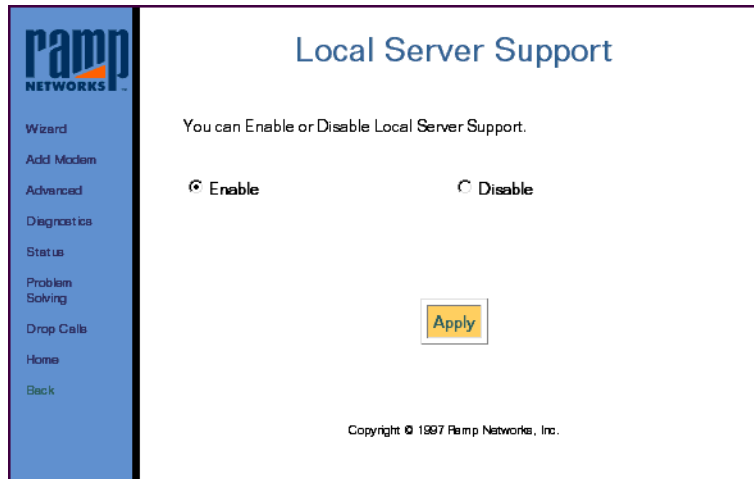
External Port (1 to 65534):

Internal Port (1 to 65534):

Server Type:

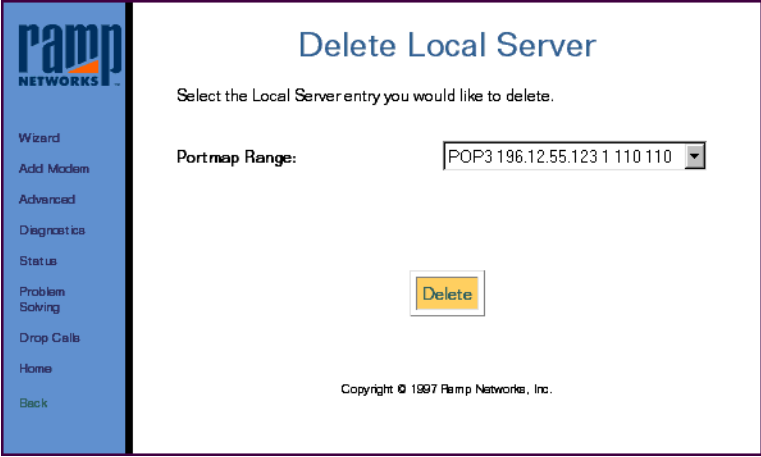
Copyright © 1997 Ramp Networks, Inc.

Enable/Disable a Local Server



To enable or disable all local servers, select Enable or Disable and then click **Apply**.

Delete a Local Server



The screenshot shows a web-based interface for deleting a local server. On the left is a blue sidebar with the Ramp Networks logo and a navigation menu. The main content area is white and titled 'Delete Local Server'. It contains a text prompt, a dropdown menu for 'Portmap Range', a 'Delete' button, and a copyright notice.

ramp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Delete Local Server

Select the Local Server entry you would like to delete.

Portmap Range: POP3 196.12.55.123 1 110 110 ▼

Delete

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To delete a local server, select the entry to be deleted and click **Delete**.

Special Applications

In the past, some Internet applications did not work with the WebRamp M3t because they did not work on a single port to port connection. Many of these applications will open one control connection to the remote and then expect the remote to open multiple data connections back to the client. This is especially true of some of the new streaming applications and games (for example Diablo).

Special Applications provides a Programming Interface by which the user can add support for applications that behave in this way (one control connection out and multiple data connections in). If an application is not working and the user knows the characteristics of that application, then using this feature he can add support for it. This is done by specifying the application's outgoing control connection characteristics and the incoming data connection characteristics.

As new applications appear, look to the WebRamp M3t's support web site for information on configuring them. Entries for Diablo and CUSeeMe are already included.



Warning – Special Application support is for supporting “client” applications on the WebRamp M3t LAN, not for supporting servers (for server support, see [Local Servers](#)).

If you do not have the information required to setup a Special Application, then you can use the Visible Computer feature - which restricts the capability to a particular computer but opens all incoming and outgoing ports.

At the time of this writing, only one computer at a time can use a particular Special Application. If a second computer tries to use the application, its connection request will be disconnected.

This is an advanced feature and should be used only if you have in-depth knowledge of how an application uses TCP/IP ports to connect to its server.

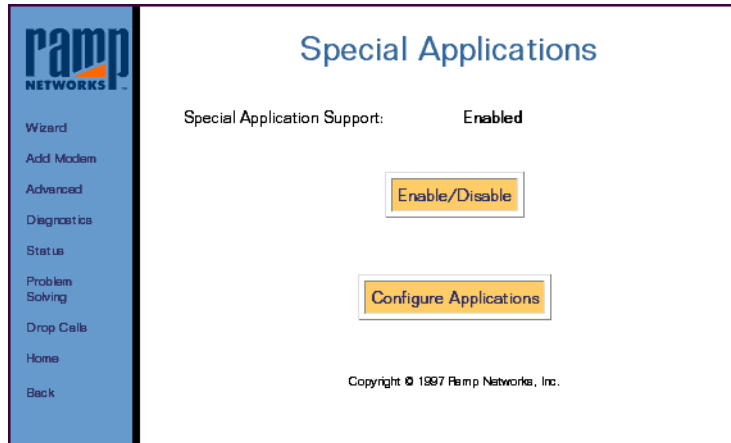
Using Special Applications

The following example provides an idea of how to use the Special Applications feature of the WebRamp M3t.

ACME Company has an application with the following requirements:

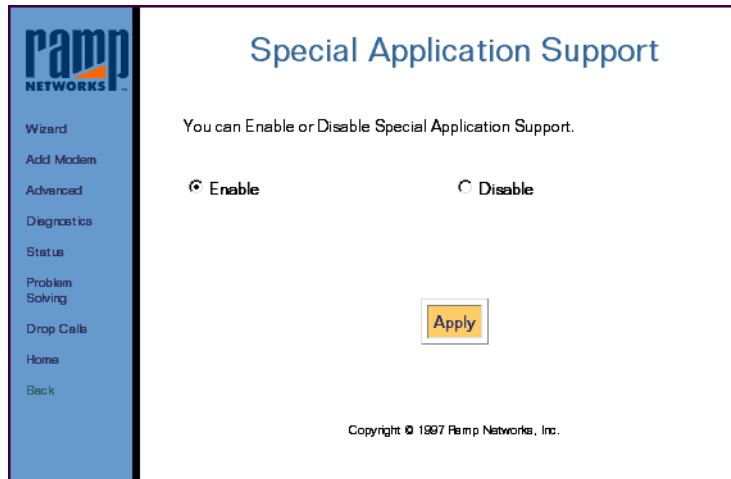
- Client connects to remote at remote port 99 using TCP
- Remote connects data stream 1 back to client at client port 1090 using UDP
- Remote connects data stream 2 back to client at client port 1091 using UDP

Special Applications Screen



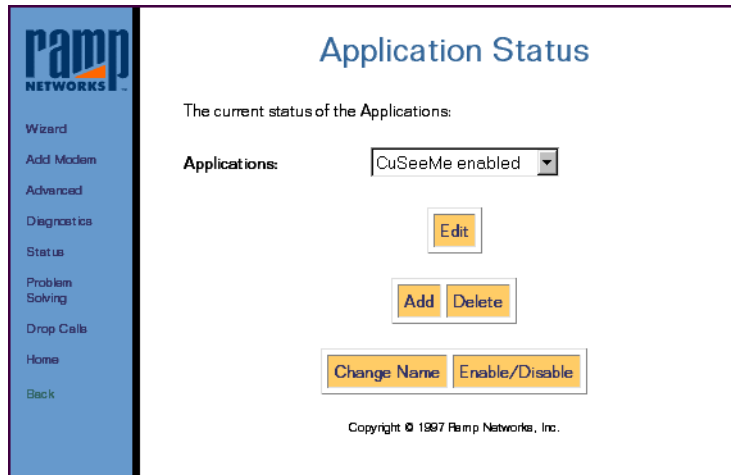
- Select **Enable/Disable** to turn on or turn off special applications handling
- Select **Configure Applications** to edit the current list of special applications

Enable/Disable All Special Applications



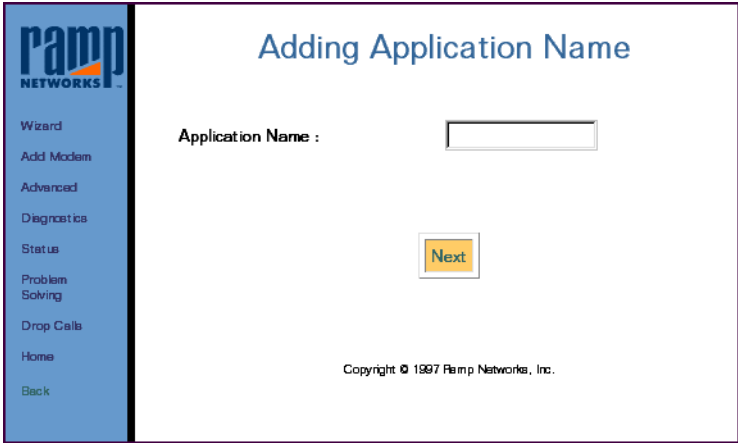
Select either **Enable** or **Disable** and then click **Apply**.

Special Application Status



- Select **Edit** to modify existing application settings
- Select **Add** to add a new application
- Select **Delete** to delete an application
- Select **Change Name** to change the name of an application
- Select **Enable/Disable** to enable or disable an application

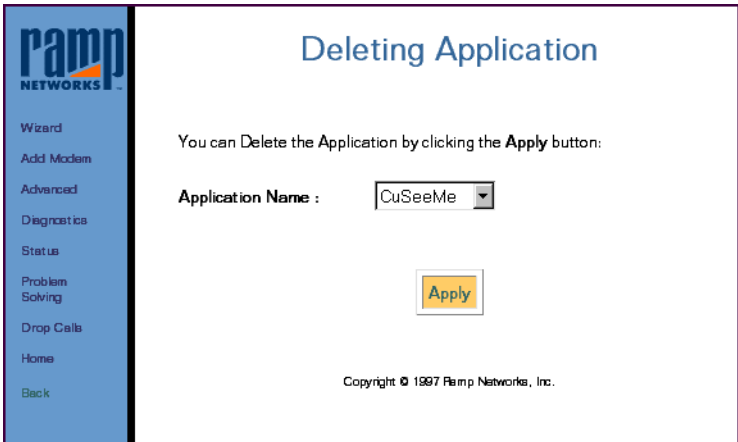
Add a Special Application



The screenshot shows the 'Adding Application Name' step of a wizard. On the left is a blue sidebar with the Ramp Networks logo and a list of menu items: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and Back. The main content area has the title 'Adding Application Name' and a label 'Application Name :' followed by an empty text input field. Below the input field is a yellow 'Next' button. At the bottom center, there is a copyright notice: 'Copyright © 1997 Ramp Networks, Inc.'

Enter the new application name and click **Next**.

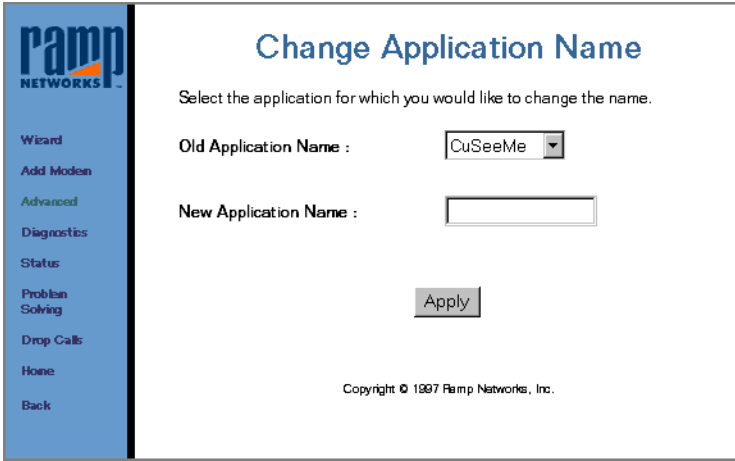
Delete a Special Application



The screenshot shows the 'Deleting Application' step of a wizard. On the left is a blue sidebar with the Ramp Networks logo and a list of menu items: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and Back. The main content area has the title 'Deleting Application' and the text 'You can Delete the Application by clicking the **Apply** button:'. Below this is a label 'Application Name :' followed by a dropdown menu showing 'CuSeeMe'. Below the dropdown menu is a yellow 'Apply' button. At the bottom center, there is a copyright notice: 'Copyright © 1997 Ramp Networks, Inc.'

Select the application name to delete and click **Apply**.

Change a Special Application Name



The screenshot shows a web interface for Ramp Networks. On the left is a blue sidebar with the Ramp Networks logo and a menu of options: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and Back. The main content area is titled 'Change Application Name' and contains the following text and form elements:

Select the application for which you would like to change the name.

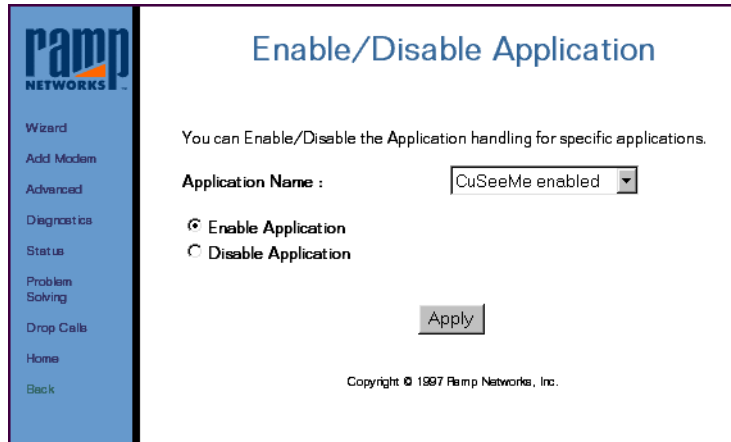
Old Application Name :

New Application Name :

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Select the application name to change, enter the new application name and then click **Apply**.

Enable/Disable a Special Application



The screenshot shows a web interface for Ramp Networks. On the left is a blue sidebar with a navigation menu containing the following items: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving, Drop Calls, Home, and Back. The main content area has a title 'Enable/Disable Application' and a sub-header 'You can Enable/Disable the Application handling for specific applications.' Below this, there is a label 'Application Name :' followed by a dropdown menu showing 'CuSeeMe enabled'. Underneath are two radio button options: 'Enable Application' (which is selected) and 'Disable Application'. At the bottom center of the main area is an 'Apply' button. A copyright notice 'Copyright © 1997 Ramp Networks, Inc.' is located at the very bottom of the page.

Select the application name, select either **Enable Application** or **Disable Application** and then click **Apply**.

Visible Computers

Use the Visible Computers feature to make a LAN computer appear to be Visible to the Internet. There can be one Visible computer per modem that is connected to the Internet. If the WebRamp M3t has 2 modems setup for Internet access, then there can be 2 Visible Internet computers. The Visible computer is accessed from the Internet via the IP address associated with the modem that corresponds to the Visible Computer - this address is displayed in the WebRamp M3t Status page as the Local WAN IP address.

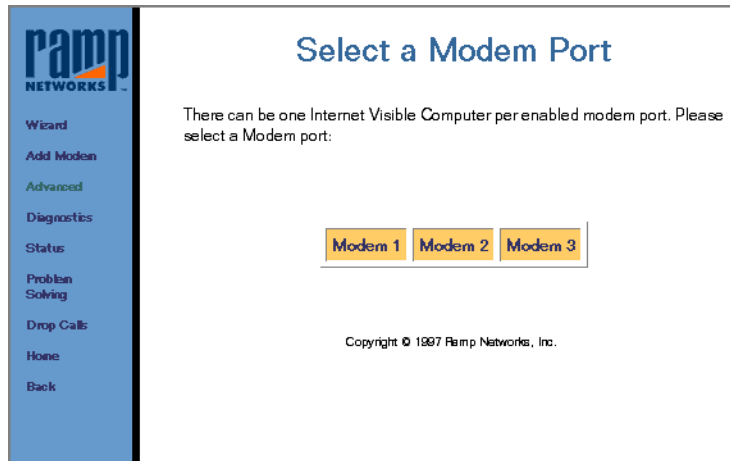
This feature can be useful in receiving incoming Internet Phone calls or incoming Video Conferencing calls. Also, this feature allows the maximum access to Internet games and interactive applications (such as chat).



Note – The Visible computer feature does pose a security risk to your network, because now that computer is essentially an Internet node. Therefore avoid running any servers on that computer. The WebRamp M3t's inherent IP address firewall will not apply to this computer. this risk is the same as if you were to use PPP software to directly connect the computer to the Internet via an attached modem.

As a general policy use Visible Computer only if the Internet application you are using does not seem to work, and you do not have enough knowledge of the application to create a Special Application entry.

Selecting a Modem Port for a Visible Computer



To setup a Visible Computer, select the corresponding modem port.

Setting Up an Internet Visible Computer

ramp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Internet Visible Computer

You can select one computer on your local network to be accessible from the Internet via the IP address assigned to the Modem 1 port. This computer will have maximum access to games and interactive applications.

Enable Disable

IP Address of Local Computer: 192 . 168 . 1 . 100

divert incoming Web (HTTP) requests to the WebRamp
 divert incoming Telnet requests to the WebRamp

Apply

Copyright © 1997 Ramp Networks, Inc.

Follow these steps to setup an Internet Visible Computer:

- 1 Click **Enable** and then enter the IP address of the local computer.
- 2 Select **divert incoming Web requests to the WebRamp M3t** or **divert incoming Telnet requests to the WebRamp M3t**.
- 3 Click **Apply**.

Diagnostics

This chapter describes the Diagnostic features of the WebRamp M3t. The features described in this chapter are used to test common functionality and reset the WebRamp M3t, as well as view the WebRamp M3t status.

WebRamp M3t Status

WebRamp M3t Status

The current WebRamp M3t status is :

	Modem 1	Modem 2	Modem 3
ISP Name	myISP	myISP	-
Connected	No	No	No
Speed(bits per second)	-	-	-
Local WAN IP Address	-	-	-
ISP's IP Address	-	-	-

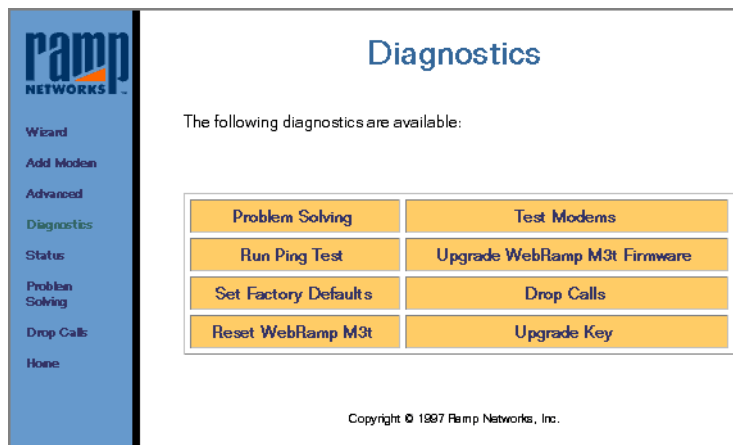
WebRamp M3t version:

1.00.00	Build 88	Mac Addr: 00.a0.2a.ff.00.1f
---------	----------	-----------------------------

Copyright © 1997 Ramp Networks, Inc.

WebRamp M3t Status is used to view the status of the WebRamp M3t at any time.

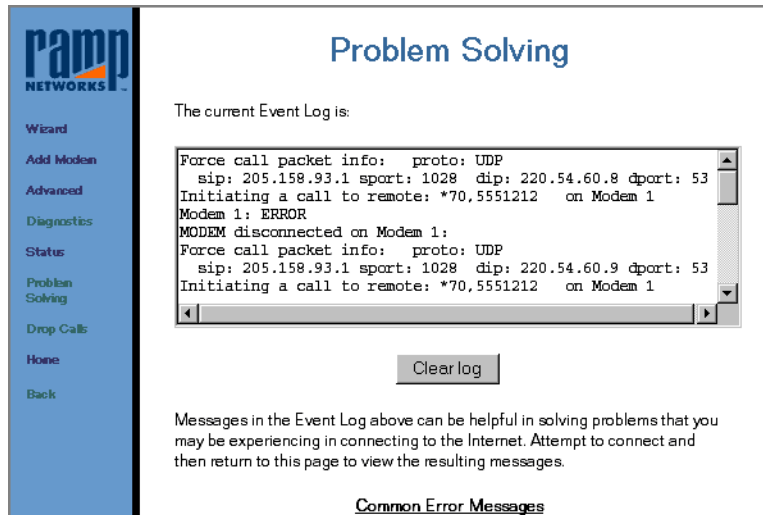
Using Diagnostics



These options are used to test common functions and reset the WebRamp M3t. The following pages describe each corresponding function. *Diagnostics* includes the following options:

- ◆ Problem Solving
- ◆ Test Modems
- ◆ Run Ping Test
- ◆ Upgrading Firmware
- ◆ Set Factory Defaults
- ◆ Drop Calls
- ◆ Reset WebRamp M3t
- ◆ Upgrade Key

Problem Solving

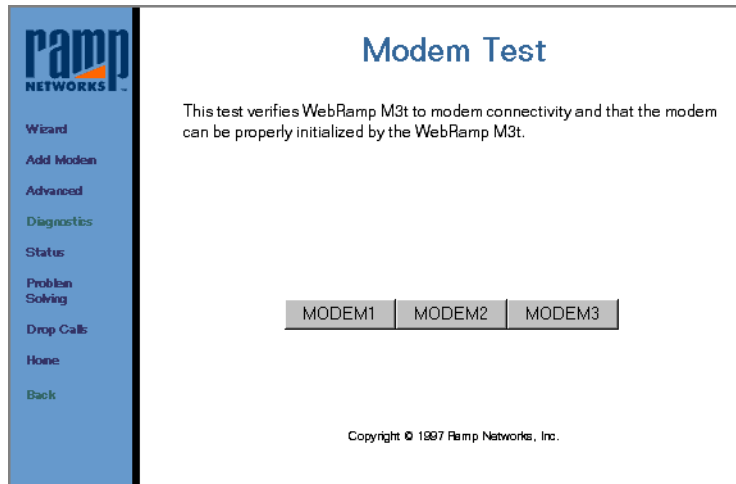


The screenshot shows the 'Problem Solving' page of the WebRamp M3t interface. On the left is a blue navigation sidebar with the 'ramp NETWORKS' logo and menu items: Wizard, Add Modem, Advanced, Diagnostics, Status, Problem Solving (highlighted), Drop Calls, Home, and Back. The main content area is titled 'Problem Solving' and contains the text 'The current Event Log is:' followed by a scrollable text box. The log contains the following text: 'Force call packet info: proto: UDP', 'sip: 205.158.93.1 sport: 1028 dip: 220.54.60.8 dport: 53', 'Initiating a call to remote: *70,5551212 on Modem 1', 'Modem 1: ERROR', 'MODEM disconnected on Modem 1:', 'Force call packet info: proto: UDP', 'sip: 205.158.93.1 sport: 1028 dip: 220.54.60.9 dport: 53', and 'Initiating a call to remote: *70,5551212 on Modem 1'. Below the log is a 'Clear log' button. At the bottom of the main area is the text 'Messages in the Event Log above can be helpful in solving problems that you may be experiencing in connecting to the Internet. Attempt to connect and then return to this page to view the resulting messages.' and a link for 'Common Error Messages'.

The *Event Log* contains an entry for recent actions or events that have occurred on the WebRamp M3t. Information in this window can be very useful in diagnosing problems that you may be experiencing in connecting to the Internet.

You should try to replicate your problem and then view the event log. Attempt to connect and then return to this page to view the resulting messages.

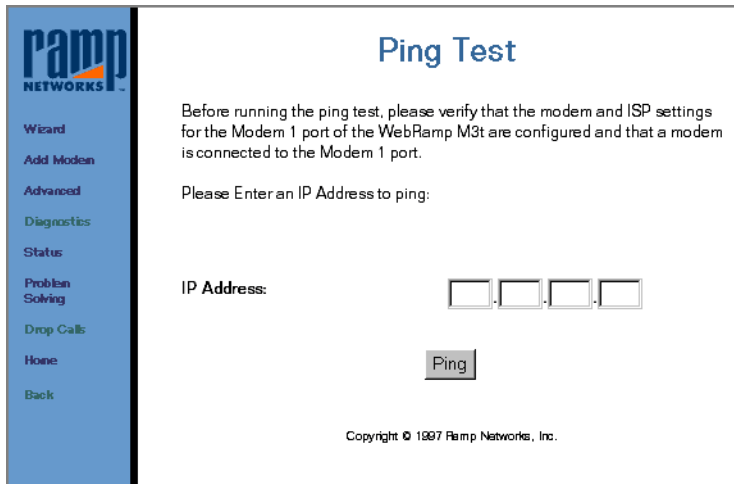
Test Modems



Modem Test checks the initialization strings and electrical connectivity for the modem. Modem failure means the connection between the WebRamp M3t and the modem is not working properly.

Check your modem cables to make sure they are connected securely and that the modem is turned on.

Run Ping Test



Run Ping Test verifies the WebRamp M3t ability to reach a particular destination using a connected modem. This test verifies connectivity from the WebRamp M3t to a specific Internet host, plus connectivity to your ISP through which the ping data would have to travel.

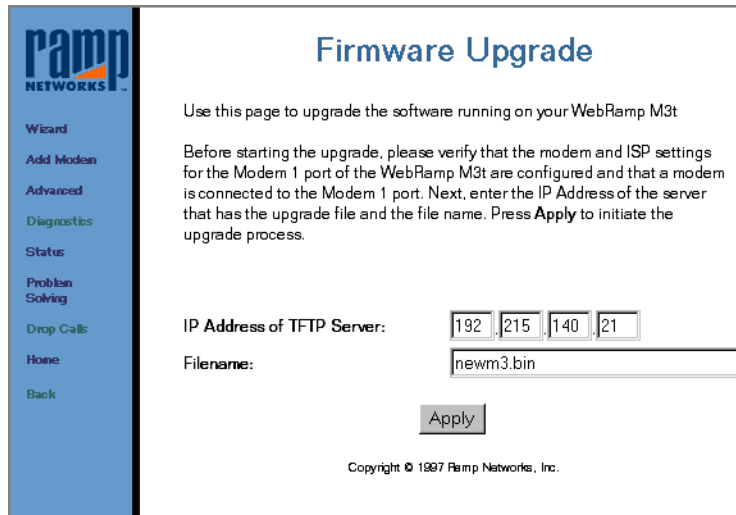
When a computer is “pinged”, a network packet is sent to the specified IP address. This command can be used to test DNS server addresses or determine if a host is working. Some ISPs will allow you to “ping” their fixed gateways for testing purposes. At the end of the test, the results are either a *success* message or an error message indicating the problem.



Note – The Ping test is executed from the WebRamp M3t to the given IP address and not from the configuring computer.

If the “ping” succeeds but the computer cannot “ping” this address, verify the local computer’s gateway IP address is setup properly (see [Gateway IP Address](#)).

Upgrading Firmware



ramp
NETWORKS

Wizard
Add Modem
Advanced
Diagnostics
Status
Problem Solving
Drop Calls
Home
Back

Firmware Upgrade

Use this page to upgrade the software running on your WebRamp M3t

Before starting the upgrade, please verify that the modem and ISP settings for the Modem 1 port of the WebRamp M3t are configured and that a modem is connected to the Modem 1 port. Next, enter the IP Address of the server that has the upgrade file and the file name. Press **Apply** to initiate the upgrade process.

IP Address of TFTP Server:

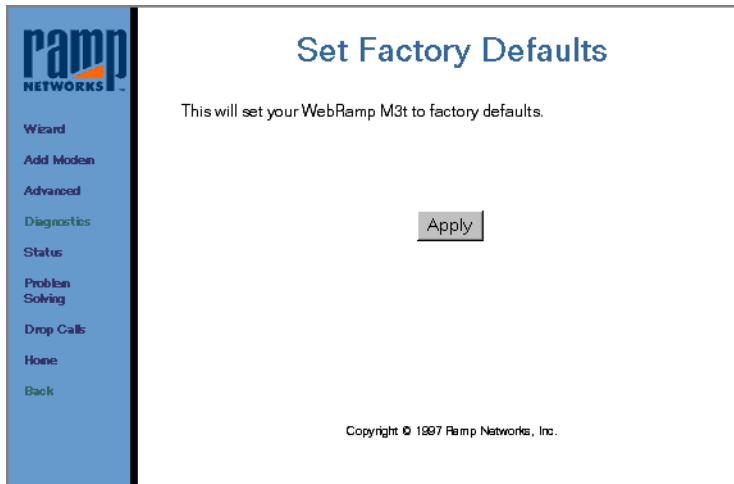
Filename:

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Firmware Upgrade is used to update the internal software, allowing functional improvements and new features to be added. Each time a new version of software is available, this page is used to download the new firmware directly to your WebRamp M3t. For your convenience, we have set the TFTP server and filenames for you.

See [Serial Firmware Upgrade for Windows 95](#) for information on upgrading your firmware using the serial port.

Set Factory Defaults



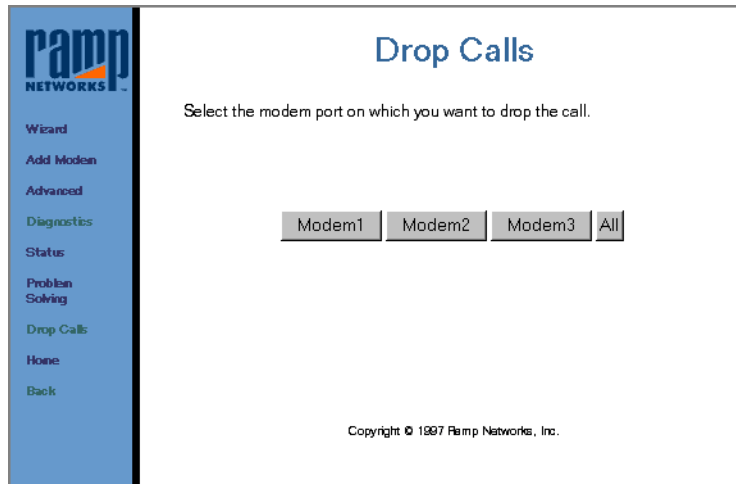
Set Factory Defaults is used as a “last resort” measure to reset the WebRamp M3t to default values. After the WebRamp M3t is set to factory defaults, it is basically a new WebRamp M3t that has not been configured as yet. Any information on IP addresses, DHCP or modem multiplexing will need to be configured using the Wizard.

If you reset your WebRamp M3t to factory defaults, you must use the Wizard to configure your WebRamp M3t.



Note – This option resets all configuration parameters back to the original default values. You will have to configure your WebRamp M3t as if it was new. Use *Set Factory Defaults* with caution.

Drop Calls

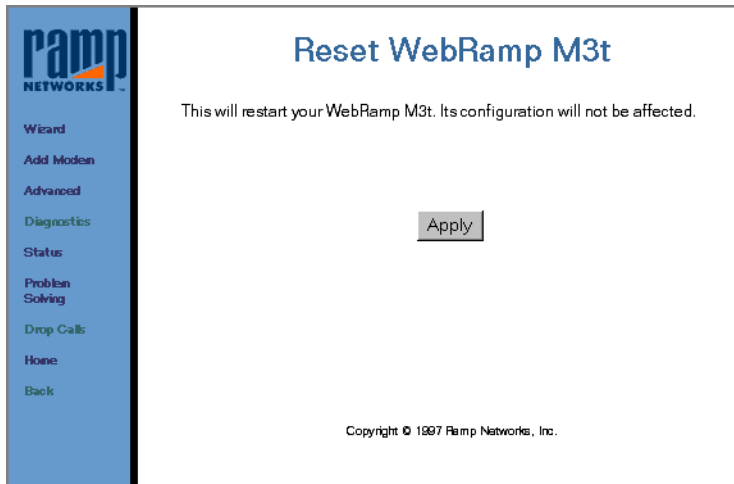


Drop Calls is used to disconnect all active modem connections. Use this option to disconnect the modems immediately.



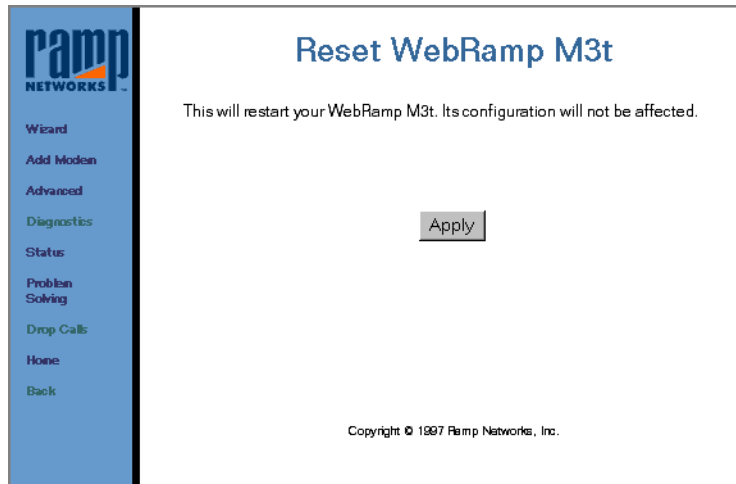
Note – All outgoing modem connections will disconnect after a period of non-usage, based on the “idle timeout” set in the ISP settings. Dial-in calls will not timeout and need to be explicitly disconnected by the dial-in client or by using this option.

Reset WebRamp M3t



Reset WebRamp M3t is used to clear connections, and reboot and re-initialize the WebRamp M3t. *Reset WebRamp M3t* does not affect any configuration parameters.

Upgrade Key



Upgrade Key is used to upgrade the firmware for your WebRamp M3t.

Windows Networking

Overview

In the *Quick Start*, we explained how to configure your network but didn't provide screen samples and additional information. The following pages contain detailed instructions to configure your network for both Windows 95 and Windows NT.

The WebRamp M3t is shipped pre-configured with DHCP (dynamic addressing) enabled. If your network does not support DHCP and you must use fixed or manual IP addresses, see [Non-DHCP Computers](#). Windows 95 and Windows NT support DHCP.

Setting Up a Windows 95 Network

Installing Ethernet Cards

This section contains basic instructions for installing a 10Base-T Ethernet network card. For detailed instructions, refer to the users guide that came with your new Ethernet network card.

- 1 Install your new network card according to the users guide that came with your network card.
- 2 Re-assemble your PC and start Windows 95.

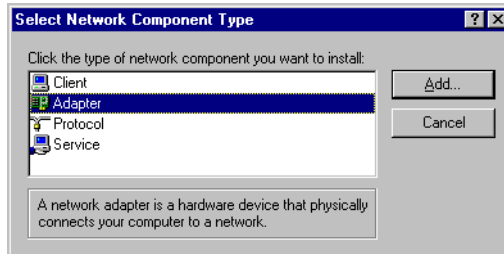
Windows 95 detects “Plug and Play” hardware and automatically installs the correct software driver for the new network card. Depending on how your system is setup, you may be prompted for the Windows 95 CD.

If your new network card was *not* detected by Windows 95, open the **Add New Hardware** control panel and follow the instructions on the screen.

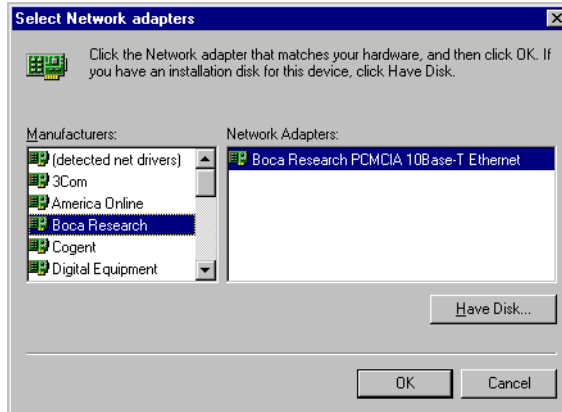
Installing Ethernet Software

A software driver or adapter enables the network card to communicate with your network. The steps below assume you have installed your network card but the software was *not* automatically installed.

- 1 Click **Start** | **Settings** | **Control Panel**.
- 2 Open the **Network** control panel and then click **Add**.
- 3 Click **Adapter** and then **Add** to add an adapter driver for your network card.



- 4 Select the manufacturer and model of the Ethernet network card installed in your PC and then click **OK**.



This example shows Boca Research as the manufacturer and Boca Research PCMCIA 10Base-T Ethernet as the network adapter installed.

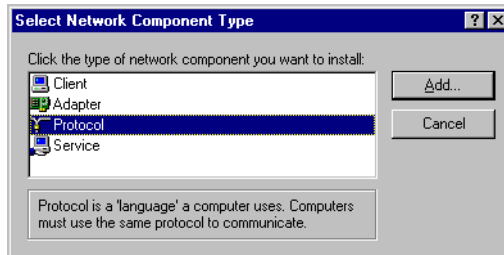
If you have an adapter that is not listed, click **Have Disk** and then follow the instructions on the screen.

Installing TCP/IP

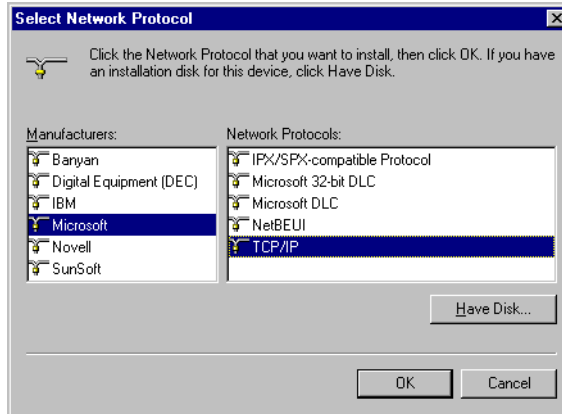
Now that you've installed your Ethernet card to communicate with the WebRamp M3t, you must now install TCP/IP as your protocol. A protocol is the "language" a computer uses to communicate over a network. Computers must use the same protocol to communicate with each other.

Windows 95 automatically connects the Ethernet network card driver (based on the Ethernet network card) information to TCP/IP. Follow these steps to install TCP/IP:

- 1 Click **Start** | **Settings** | **Control Panel**.
- 2 Open the **Network** control panel and then click **Add**.
- 3 Click **Protocol** and then click **Add** to add TCP/IP.



- 4 Select **Microsoft** (from the Manufacturers list), select **TCP/IP** (from the Network Protocols list), and then click **OK**.



When you install a network protocol, Windows 95 automatically binds (or connects) TCP/IP to the adapter driver installed in your computer. If your computer has multiple network adapters, an entry for TCP/IP displays for each adapter. You must configure each adapter with its own TCP/IP settings.

- 5 Click **OK** and follow the instructions on the screen.

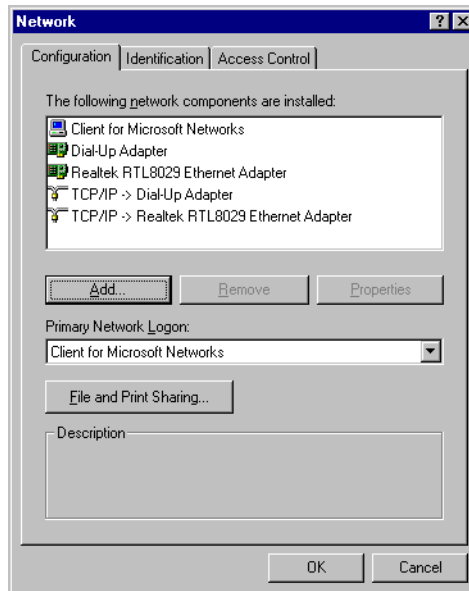
Follow these steps to “bind” TCP/IP to the network card:

- 1 To enable your new Ethernet network card to work with TCP/IP, double-click the **Network** control panel, select the network card and then click **Properties**.
- 2 Select **Bindings** and make sure the checkbox for TCP/IP is checked (and the other protocol options are not checked).

Configuring TCP/IP for Dynamic Addressing

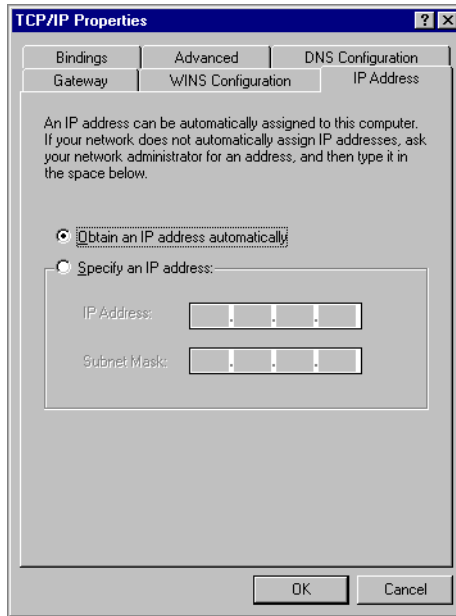
Follow these steps to configure TCP/IP for dynamic addressing (DHCP):

- 1 Click **Start** | **Settings** | **Control Panel**.
- 2 Open the **Network** control panel and then click **Add**.
- 3 A list of installed components display. To verify you have installed a network card driver and TCP/IP, click **TCP/IP** and then click **Properties**.



If TCP/IP is connected to a network card driver, an arrow points to the network card driver (as shown in the example above).

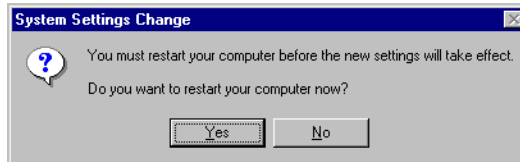
- 4 Select **Obtain an IP address automatically** and then select the Gateway tab.



- 5 Select the *Gateway* tab, type **192.168.1.1** for the Gateway address, click **Add** and then click **OK**.



- 6 Click **OK** again to exit the Network control panel, and then click **Yes** and restart Windows 95 and update the network settings.



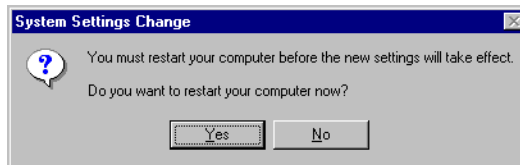
Where Do I Go From Here?

- To configure PCs on your LAN with DHCP, skip to [Enabling Dynamic Addressing on your LAN](#)
- To configure your LAN using pre-existing IP addresses, skip to [Pre-Existing IP Networks](#) or [Pre-Existing DHCP Networks](#)

Enabling Dynamic Addressing on your LAN

Follow these steps once the WebRamp M3t has completed configuration and the remaining computers on the LAN are connected (to the configured computer) by Ethernet:

- 1 See [Configuring TCP/IP for Dynamic Addressing](#) and follow the Step 1 through Step 4.
- 2 Click **OK** twice and then click **Yes** and restart Windows 95 and update the network settings.



Once your computer restarts, you should be able to browse the Internet.

See [Pre-Existing IP Networks](#) for information on using your existing gateway IP address.

Non-DHCP Computers

The WebRamp M3t can be used with computers that do not support DHCP. Follow these steps to identify and configure non-capable DHCP computers:

- 1 Determine if any computers on your network are **not** DHCP capable. An example of a non-DHCP capable computer would be a Windows 3.1x PC running an older version of TCP/IP.
- 2 On each non-DHCP computer, enter the following information when configuring TCP/IP:
 - ◆ IP Address (see [Selecting an IP Address](#))
 - ◆ Subnet Mask (typically 255.255.255.0)
 - ◆ Gateway IP Address (192.168.1.1 is the default)
 - ◆ Primary DNS Server IP Address (provided by your ISP)
 - ◆ Secondary DNS Server IP Address (optionally provided by your ISP)
 - ◆ Domain Name (optionally provided by your ISP)

Selecting an IP Address

If your networked computers do not support DHCP, you need to manually set the IP address on each computer. The WebRamp M3t is pre-configured with an IP address of **192.168.1.1** and a subnet mask of **255.255.255.0**. The WebRamp M3t recognizes computers with IP addresses in the range of **192.168.1.2** up to **192.168.1.254**.

Follow these steps to assign IP addresses to the computers that *do not* support DHCP:

- 1 Assign the first computer an IP address of **192.168.1.2**.
- 2 Assign the second computer and IP address of **192.168.1.3**.
- 3 Continue assigning IP addresses.

Mixed Networks

Once you've assigned an IP address to the computers not supporting DHCP, follow these steps to exclude the assigned IP addresses:

- 1 Click **Advanced** from the WebRamp M3t Configuration page and then click **DHCP**.
- 2 Click **Show Current Range** and then click **Exclude an IP Address**.
- 3 Enter the IP address to exclude and click **Apply**. This would be the IP address for the computer that does not support DHCP.

Pre-Existing IP Networks

The WebRamp M3t is easily added to an existing network that already has IP addresses assigned. The following assumes you have configured TCP/IP for your network and you are now adding the WebRamp M3t for Internet access. We also assume that you will not be using the WebRamp M3t's DHCP server to allocate and assign addresses automatically (since you've already assigned IP addresses to each computer).

The following steps uses an example pre-existing network of computers with addresses 205.1.1.1 through 205.1.1.154. Follow these steps to use your existing IP addresses with the WebRamp M3t:

- 1 From your available range of LAN addresses, select a single IP address to be used as the WebRamp M3t's address (such as 205.1.1.1).
- 2 Select one computer to configure the WebRamp M3t. Open the Network control panel, and note down the current IP address (such as 205.1.1.2).

Next, select **Specify an IP Address** and enter *192.168.1.254* (for the IP address) and *255.255.255.0* (for the subnet mask). You must now restart your computer to update the TCP/IP settings.

- 3 On the same computer, install a web browser, open the web browser and then type *192.168.1.1* in the address line or "Go To" area to access the WebRamp M3t Configuration page.



Note – Don't attempt to configure your WebRamp M3t yet - continue with the next step.

- 4 Click **Advanced** and then click **Change WebRamp M3t's IP Address**.
- 5 Enter the IP address you selected in Step 1 (such as 205.1.1.1) and click **Apply**.

- 6 Close the web browser and open the Network control panel again to change the computer's IP address and subnet mask back to its original setting (the IP address you started with (such as 205.1.1.2).
- 7 Select the **Gateway** tab and enter the IP address you selected for the WebRamp M3t in Step 1 (such as 205.1.1.1).
- 8 Select the **DNS** tab and enter the DNS Server Addresses you are currently using (provided by your ISP).



Note – You must now restart your computer to update the TCP/IP settings.

- 9 Open the web browser and type the WebRamp M3t's new IP address (from Step 1—205.1.1.1) in the address or “Go To” area to access the WebRamp M3t Configuration page.
- 10 Click **Wizard** and configure your WebRamp M3t. Once you've configured your first modem, the Enable DHCP window displays; leave the checkbox unchecked (do not click Enable DHCP).
- 11 Repeat Steps 7 and 8 on each computer located on your LAN.

Once your network is successfully configured, the computers on your network should be ready to access the Internet using the WebRamp M3t.

Pre-Existing DHCP Networks



Note – If you are already using a DHCP server on your network, *do not* use the WebRamp M3t's DHCP server.

If you've already assigned IP addresses to the computers located on your LAN, you need to exclude these computers from the WebRamp M3t's DHCP server table.

- 1** From the WebRamp M3t Configuration page click **Advanced** and then click **DHCP**.
- 2** Click **Show Current Range** and then click **Exclude an IP Address**.
- 3** Enter each IP address and click **Apply** to exclude each IP address previously assigned.

To use dynamic addressing with new networked computers (in the future), make sure DHCP is enabled on the WebRamp M3t and set the new computers to obtain their IP addresses automatically in the TCP/IP software.

Setting Up a Windows NT Network

Installing TCP/IP on Windows NT

You must be logged on as a member of the Administrators group for the local computer to install and configure TCP/IP. Follow these steps to install Microsoft TCP/IP on a Windows NT computer:

- 1 Open the **Network** control panel and click **Add Software**.
- 2 In the *Add Network Software* dialog box, select **TCP/IP Protocol and Related Components** from the Network Software list, and then click **Continue**.
- 3 In the *Windows NT TCP/IP Installation Options* dialog box, check the options for the TCP/IP components you want to install and then click **Continue**.

If any TCP/IP elements have been installed previously, these are dimmed and not available in the Windows NT TCP/IP Installation Options dialog box.

You can read the hint bar at the bottom of each TCP/IP dialog box for information about a selected item, or choose the Help button to get detailed online information while you are installing or configuring TCP/IP.

- 4 Windows NT Setup displays a message asking for the full path to the Windows NT distribution files. Provide the appropriate location, and click **Continue**.

You can specify a drive letter for floppy disks, a CD-ROM drive, or a shared network directory, or you can specify the Universal Naming Convention (UNC) path name for a network resource, such as \\NTSETUP\MASTER.

Note – If you are installing from floppy disks, Windows NT Setup may request disks more than once. This is normal and is not an error condition.

- 5 If you selected the options for installing the SNMP and FTP Server services, you are automatically asked to configure these services. Follow the directions provided in the online Help for these dialog boxes.
- 6 In the Network Settings dialog box click **OK**.
If you checked the Enable Automatic DHCP Configuration option and a DHCP server is available on your network, all configuration settings for TCP/IP are completed automatically. TCP/IP must be configured to be used.

Configuring TCP/IP for Windows NT

For TCP/IP to work on your computer, it must be configured with the IP addresses, subnet mask, and default gateway for each network adapter on the computer. Microsoft TCP/IP can be configured using two different methods:

- If there is a DHCP server on your internetwork, it can automatically configure TCP/IP for your computer using DHCP.
- If there is no DHCP server, or if you are configuring a Windows NT Server computer to be a DHCP server, you must manually configure all TCP/IP settings.

Using DHCP

The best method for ensuring easy and accurate installation of TCP/IP is to use automatic DHCP configuration, which uses DHCP to configure your local computer with the correct IP address, subnet mask, and default gateway.

You can take advantage of this method for configuring TCP/IP if there is a DHCP server installed on your network. The network administrator can tell you if this option is available. You cannot use DHCP configuration for a server that you are installing as a DHCP server. You must configure TCP/IP settings manually for DHCP servers.

Follow these steps to configure TCP/IP using DHCP:

- 1** Make sure the *Enable Automatic DHCP Configuration* option is checked in either the *Windows NT TCP/IP Installation Options* dialog box or the *TCP/IP Configuration* dialog box.
- 2** When you restart the computer after completing TCP/IP installation, the DHCP server automatically provides the correct configuration information for your computer.

If you subsequently attempt to configure TCP/IP in the Network Settings dialog box, the system will warn you that any manual settings will override the automatic settings provided by DHCP. As a general rule, you should not change the automatic settings unless you specifically want to override a setting provided by DHCP.

Configuring TCP/IP Manually

After the Microsoft TCP/IP protocol software is installed on your computer, you must manually provide valid addressing information if you are installing TCP/IP on a DHCP server or if you cannot use automatic DHCP configuration.

You must be logged on as a member of the Administrators group for the local computer to configure TCP/IP.



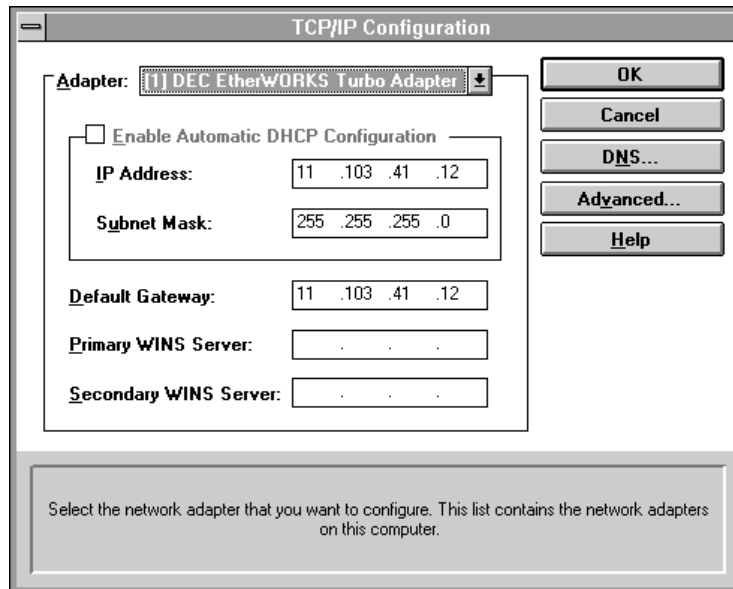
Warning – Be sure to use the values for IP addresses and subnet masks that are supplied by your network administrator to avoid duplicate addresses. If duplicate addresses do occur, this can cause some computers on the network to function unpredictably.

Follow these steps to manually configure the TCP/IP protocol:

- 1 When you are installing TCP/IP, the Microsoft TCP/IP Configuration dialog box appears automatically when you click **OK** in the Network Settings dialog box after completing all options in the Windows NT TCP/IP Installation Options dialog box.

Or

If you are reconfiguring TCP/IP, open the Network control panel to display the Network Settings dialog box. In the Installed Network Software list box, select TCP/IP Protocol, and click **Configure**.



The screenshot shows the 'TCP/IP Configuration' dialog box. The 'Adapter' dropdown menu is set to 'DEC EtherWORKS Turbo Adapter'. The 'Enable Automatic DHCP Configuration' checkbox is unchecked. The IP Address field contains '11 .103 .41 .12', and the Subnet Mask field contains '255 .255 .255 .0'. The Default Gateway field also contains '11 .103 .41 .12'. The Primary WINS Server and Secondary WINS Server fields are empty. On the right side, there are buttons for 'OK', 'Cancel', 'DNS...', 'Advanced...', and 'Help'. At the bottom, there is a note: 'Select the network adapter that you want to configure. This list contains the network adapters on this computer.'

- 2** In the Adapter list of the TCP/IP Configuration dialog box, select the network adapter for which you want to set IP addresses.

The Adapter list contains all network adapters to which IP is bound on this computer. This list includes all adapters installed on this computer.

You must set specific IP addressing information for each bound adapter with correct values provided by the network administrator. The bindings for a network adapter determine how network protocols and other layers of network software work together.

- 3** For each bound network adapter, type values in the IP Address and Subnet Mask boxes.
 - ◆ The value in the IP Address box identifies the IP address for your local computer or, if more than one network card is installed in the computer, for the network adapter card selected in the Adapter box.
 - ◆ The value in the Subnet Mask box identifies the network membership for the selected network adapter and its host ID. This allows the computer to separate the IP address into host and network IDs.

- 4** For each network adapter on the computer, type the correct IP address value in the Default Gateway box, as provided by the network administrator.

This value specifies the IP address of the default gateway (or IP router) used to forward packets to other networks or subnets. This value should be the IP address of your local gateway.

This parameter is required only for systems on internetworks. If this parameter is not provided, IP functionality will be limited to the local subnet unless a route is specified with the TCP/IP route utility.

If your computer has multiple network cards, additional default gateways can be added using the Advanced Microsoft TCP/IP Configuration dialog box.

- 5 If there are WINS servers installed on your network and you want to use WINS in combination with broadcast name queries to resolve computer names, type IP addresses in the boxes for the primary and, optionally, the secondary WINS servers. The network administrator should provide the correct values for these parameters. These are global values for the computer, not just individual adapters.

If an address for a WINS server is not specified, this computer will use name query broadcasts (the b-node mode for NetBIOS over TCP/IP) plus the local LMHOSTS file to resolve computer names to IP addresses. Broadcast resolution is limited to the local network.

Note – WINS name resolution is enabled and configured automatically for a computer that is configured with DHCP. On a WINS server, NetBIOS over TCP/IP (NETBT.SYS) uses WINS on the local computer as the primary name server, regardless of how name resolution may be configured. Also, NetBIOS over TCP/IP binds to the first IP address on a network adapter and ignores any additional addresses.

- 6 If you want to configure the advanced TCP/IP options for multiple gateways and other items, click **Advanced**, and continue with the configuration procedure.
- 7 If you want to use DNS for host name resolution, choose the DNS button, and continue with the configuration procedure.

- 8 If you do not want to configure DNS or advanced options, or if you have completed the other configuration procedures, click **OK**. When the Network Settings dialog box reappears, click **OK**.

Microsoft TCP/IP has been configured. If you are installing TCP/IP for the first time, you must restart the computer for the configuration to take effect. If you are changing your existing configuration, you do not have to restart your computer.

After TCP/IP is installed, the `\systemroot\SYSTEM32\DRIVERS\ETC` directory contains a default HOSTS file and a sample LMHOSTS.SAM file. The network administrator may require that replacement HOSTS and LMHOSTS files be used instead of these default files.

Configuring TCP/IP to Use DNS

Although TCP/IP uses IP addresses to identify and reach computers, users typically prefer to use computer names. DNS is a naming service generally used in the UNIX networking community to provide standard naming conventions for IP workstations. Windows Sockets applications and TCP/IP utilities, such as ftp and telnet, can also use DNS in addition to the HOSTS file to find systems when connecting to foreign hosts or systems on your network.

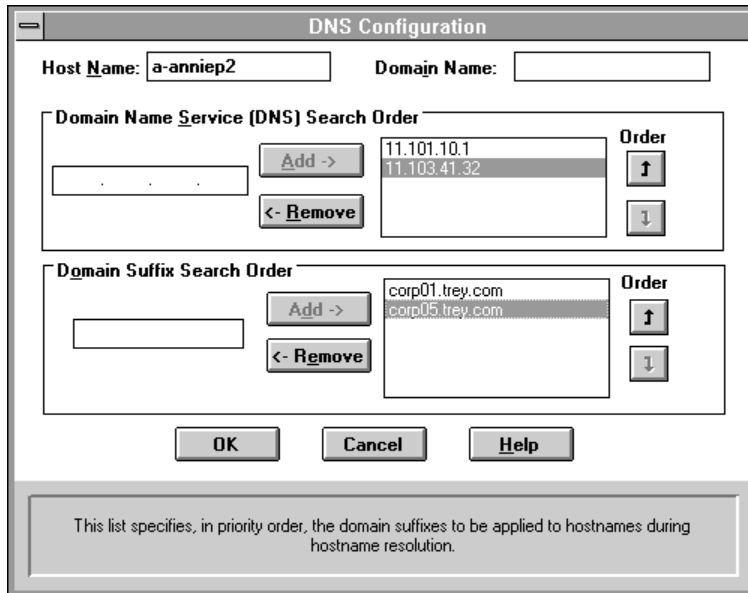
Contact the network administrator to find out whether you should configure your computer to use DNS. Usually you will use DNS if you are using TCP/IP to communicate over the Internet or if your private internetwork uses DNS to distribute host information.

Microsoft TCP/IP includes DNS client software for resolving Internet or UNIX system names. Microsoft Windows networking provides dynamic name resolution for NetBIOS computer names via WINS servers and NetBIOS over TCP/IP.

DNS configuration is global for all network adapters installed on a computer.

Follow these steps to configure TCP/IP DNS connectivity:

- 1 Open the Network control panel to display the Network Settings dialog box. In the Installed Network Software list box, select **TCP/IP Protocol** and then click **Configure**.
- 2 In the TCP/IP Configuration dialog box click **DNS**.



- 3** In the DNS Configuration dialog box, you can, optionally, type a name in the Host Name box (usually your computer name).

The name can be any combination of A-Z letters, 0-9 numerals, and the hyphen (-) plus the period (.) character used as a separator. By default, this value is the Windows NT computer name, but the network administrator can assign another host name without affecting the computer name.

Note – Some characters that can be used in Windows NT computer names, particularly the underscore, cannot be used in host names.

The host name is used to identify the local computer by name for authentication by some utilities. Other TCP/IP-based utilities, such as rexec, can use this value to learn the name of the local computer. Host names are stored on DNS servers in a table that maps names to IP addresses for use by DNS.

- 4** Optionally, type a name in the Domain Name box. This is usually an organization name followed by a period and an extension that indicates the type of organization, such as *microsoft.com*.

The name can be any combination of A-Z letters, 0-9 numerals, and the hyphen (-) plus the period (.) character used as a separator.

This DNS Domain Name is used with the host name to create a fully qualified domain name (FQDN) for the computer. The FQDN is the host name followed by a period (.) followed by the domain name. For example, this could be corp01.research.trey.com, where corp01 is the host name and research.trey.com is the domain name. During DNS queries, the local domain name is appended to short names.

Note – A DNS domain is not the same as a Windows NT or LAN Manager domain.

- 5** In the Domain Name System (DNS) Search Order box, type the IP address of the DNS server that will provide name resolution. Then click **Add** to move the IP address to the list on the right. The network administrator should provide the correct values for this parameter.

You can add up to three IP addresses for DNS servers. The servers running DNS will be queried in the order listed. To change the order of the IP addresses, select an IP address to move, and then use the up- and down-arrow buttons. To remove an IP address, select it and click **Remove**.

- 6** In the Domain Suffix Search Order box, type the domain suffixes to add to your domain suffix search list and then click **Add**.

This list specifies the DNS domain suffixes to be appended to host names during name resolution. You can add up to six domain suffixes. To change the search order of the domain suffixes, select a domain name to move, and use the up- and down-arrow buttons. To remove a domain name, select it and choose the Remove button.

- 7** When you are done setting DNS options click **OK**.

- 8** When the TCP/IP Configuration dialog box reappears click **OK**. When the Network Settings dialog box reappears click **OK**.

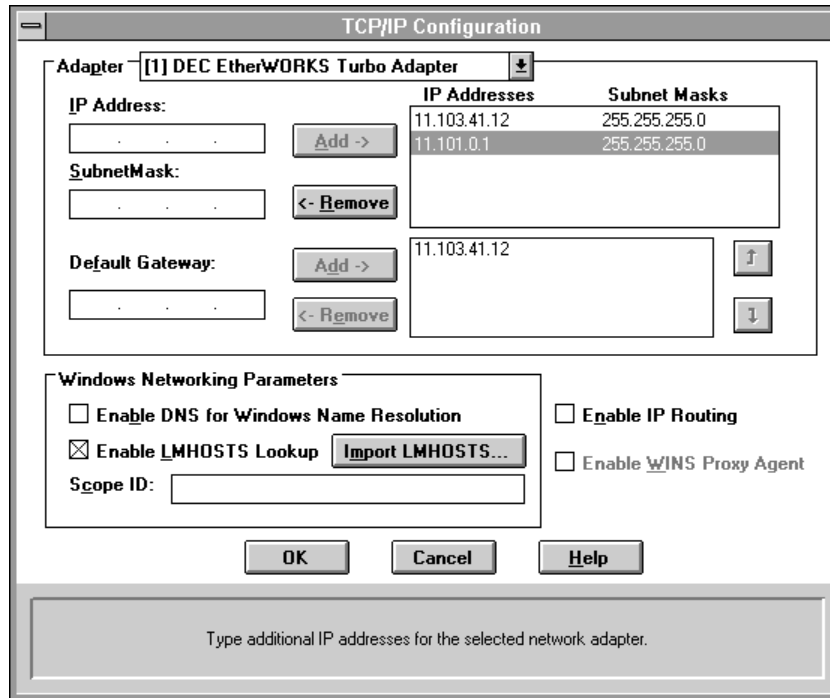
The settings take effect after you restart the computer.

Configuring Advanced TCP/IP Options

If your computer has multiple network adapters connected to different networks using TCP/IP, you can choose the Advanced button in the TCP/IP Configuration dialog box to configure options for the adapters or to configure alternate default gateways.

Follow these steps to configure or reconfigure advanced TCP/IP options:

- 1 Open the Network control panel to display the Network Settings dialog box. In the Installed Network Software list box, select TCP/IP Protocol and then click **Configure**.
- 2 In the TCP/IP Configuration dialog box and click **Advanced**.



- 3** In the Adapter box of the Advanced Microsoft TCP/IP Configuration dialog box, select the network adapter for which you want to specify advanced configuration values. The IP address and default gateway settings in this dialog box are defined only for the selected network adapter.
- 4** In the IP Address and Subnet Mask boxes, type an additional IP address and subnet mask for the selected adapter. Click **Add** to move the IP address to the list on the right. The network administrator should provide the correct values for this parameter.

Optionally, if your network card uses multiple IP addresses, repeat this process for each additional IP address. You can specify up to five additional IP addresses and subnet masks for identifying the selected network adapter. This can be useful for a computer connected to one physical network that contains multiple logical IP networks.

- 5** In the Default Gateway box, type the IP address for an additional gateway that the selected adapter can use. Click **Add** to move the IP address to the list on the right. Repeat this process for each additional gateway. The network administrator should provide the correct values for this parameter.

This list specifies up to five additional default gateways for the selected network adapter. To change the priority order for the gateways, select an address to move and use the up- or down-arrow buttons. To remove a gateway, select it and choose the Remove button.

- 6** If you want to use DNS for DNS name resolution on Windows networks, check the *Enable DNS For Windows Name Resolution* option.

If this option is checked, the system finds the DNS server by using the IP address specified in the DNS Configuration dialog box, as described earlier in this chapter. Checking this option enables DNS name resolution for use by Windows networking applications.

- 7 If you want to use the LMHOSTS file for NetBIOS name resolution on Windows networks, check the Enable LMHOSTS Lookup option. If you already have a configured LMHOSTS file, choose the Import LMHOSTS button and specify the directory path for the LMHOSTS file you want to use. By default, Windows NT uses the LMHOSTS file found in \systemroot\SYSTEM32\DRIVERS\ETC.

For any method of name resolution used in a Windows NT network, the LMHOSTS file is consulted last after querying WINS or using broadcasts, but before DNS is consulted.

- 8 In the Scope ID box, type the computer's scope identifier, if required on an internetwork that uses NetBIOS over TCP/IP.

To communicate with each other, all computers on a TCP/IP internetwork must have the same scope ID. Usually this value is left blank. A scope ID may be assigned to a group of computers that will communicate only with each other and no other systems. Such computers can find each other if their scope IDs are identical. Scope IDs are used only for communication based on NetBIOS over TCP/IP.

The network administrator should provide the correct value, if required.

- 9 To turn on static IP routing, check the *Enable IP Routing* option.

This option allows this computer to participate with other static routers on a network. You should check this option if you have two or more network cards and your network uses static routing, which also requires the addition of static routing tables.

This option is not available if your computer has only one network adapter and one IP address. Also, this option does not support routers running the Routing Information Protocol (RIP).

- 10** If you want this computer to be used to resolve names based on the WINS database, check the *Enable WINS Proxy Agent* option.

This option allows the computer to answer name queries for remote computers, so other computers configured for broadcast name resolution can benefit from the name resolution services provided by a WINS server.

This option is available only if you entered a value for a primary WINS server in the TCP/IP Configuration dialog box. However, the proxy agent cannot be run on a computer that is also a WINS server.

Consult with the network administrator to determine whether your computer should be configured as a WINS proxy agent, as only a few computers on each subnetwork should be configured for this feature.

- 11** When you are done setting advanced options click **OK**. When the TCP/IP Configuration dialog box reappears click **OK**. When the Network Settings dialog box reappears click **OK** to complete advanced TCP/IP configuration.

You must restart the computer for the changes to take effect.

Macintosh Networking

Overview

The following pages contain the detailed instructions you need to configure your network.

Note – The Macintosh information for Open Transport and MacTCP is based on system software version 7.5.3. If you are using system software version 8.0, see your Open Transport documentation.

The WebRamp M3t is shipped pre-configured with DHCP (dynamic addressing) enabled. If the Macintosh computers on your LAN do not support DHCP, see [Configuring TCP/IP Manually](#) and [Enabling MacTCP with Manual Addressing on your LAN](#) for the Macintosh.

Installing Media Adapters

- If you have a newer PowerPC or PowerMacintosh, an Ethernet network card came pre-installed in your Macintosh and probably has a 10Base-T Ethernet port located on the back for direct connection.
- If you have an older Macintosh, you must have an available PCI slot to install an Ethernet network card in your computer. If your Macintosh does not use PCI slots, an external Ethernet modem may be used.
- If you have a Macintosh that **does** have an Ethernet card installed but does not have an Ethernet port located on the back of the Macintosh, you need an *Apple Ethernet AUI Adapter*. Contact your Apple-authorized dealer for information on the AUI to 10Base-T Adapter.

Selecting Network Software

The Network Software Selector (NSS) utility is used to switch between TCP/IP (Open Transport) and MacTCP (classic networking). The NSS utility is located in the Apple Extras folder when you install System Update 2.0 (system software 7.5.3.).

Follow these steps to switch between Open Transport and MacTCP:

- 1 Using the Apple menu, select **Control Panel** and then select **Network Software Selector**.
- 2 Select either **Classic Networking** (MacTCP) or **Open Transport**, close the control panel and restart your Macintosh to update the network software.

Setting Up a Macintosh Network



Note – Please read this section completely before starting any installation or configuration instructions.

The Macintosh can use either Open Transport 1.1.2 or MacTCP 2.0.6 to communicate with the WebRamp M3t, but not both. Depending on your networking selection, you have the following choices:

- ◆ **Configuring TCP/IP using DHCP Server**
- ◆ **Configuring TCP/IP Manually**
- ◆ **Enabling MacTCP with Manual Addressing on your LAN**

Open Transport

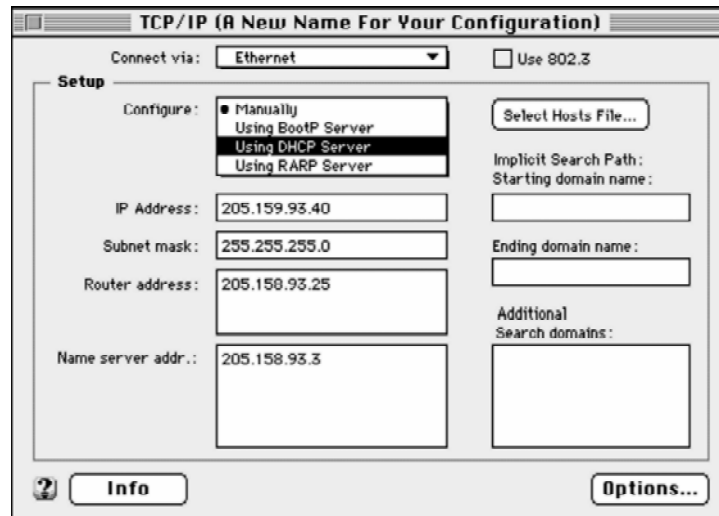
Both Open Transport 1.1.2 and the WebRamp M3t support 10Base-T Ethernet network cards. Open Transport may be obtained by downloading it from the Apple Computer Web Page at www.info.apple.com or by contacting your local Apple Authorized Reseller or Apple Assistance Center at 1-800-SOS-APPL (1-800-767-2775). If you have a newer PowerMacintosh, Open Transport was either pre-installed or included on the Apple Macintosh CD.

Open Transport must be configured before your Macintosh can communicate with the WebRamp M3t. This section describes setting up TCP/IP with Open Transport.

Configuring TCP/IP using DHCP Server

Follow these steps to configure TCP/IP:

- 1 Using the Apple menu, select **Control Panel** and then select **TCP/IP** to open the TCP/IP Control Panel.
- 2 Select **Ethernet** from the *Connect via* list and then select **Using DHCP Server** from the *Configure* list.

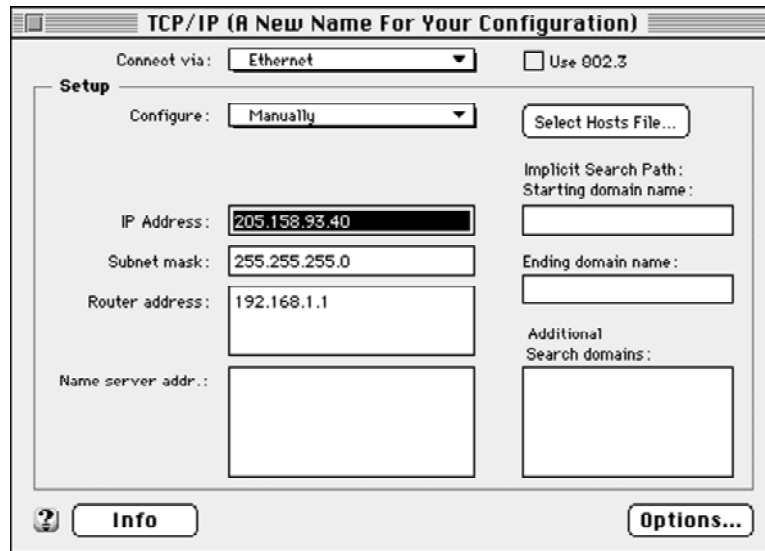


- 3 Select **Save** from the File menu and quit TCP/IP. TCP/IP is now configured for dynamic IP addressing.
- 4 Restart the Macintosh.

Configuring TCP/IP Manually

Follow these steps to configure TCP/IP for manual IP addressing:

- 1 Using the Apple menu, select **Control Panel** and then select **TCP/IP** to open the TCP/IP Control Panel.
- 2 From the Configure pull-down menu, select **Manually**.

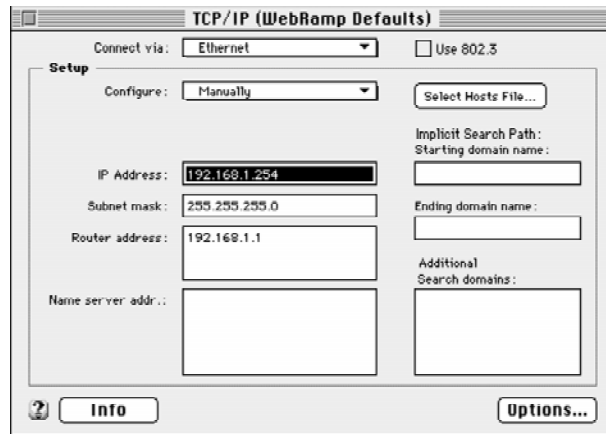


- 3 Type the *IP Address*, *Subnet Mask* and the *Router Address* (the WebRamp M3t's IP address) for the Macintosh. The *Name Server Address* information is used only if your ISP provided you with the information.
- 4 Select **Save** from the File menu and quit TCP/IP. TCP/IP is now configured for fixed IP addressing.
- 5 Restart the Macintosh.

Configuring Open Transport for an Existing Network

Follow these steps to configure TCP/IP for an existing network:

- 1 Using the Apple menu, select **Control Panel** and then select **TCP/IP** to open the TCP/IP Control Panel.
- 2 Select *Configurations* from the File menu, select your existing network configuration and then click **Duplicate**.
- 3 Rename your existing configuration to a new name, click **OK** and then click **Make Active**.
- 4 Type the *IP Address*, *Subnet Mask*, *Router Address* (the WebRamp M3t's IP address) and *Name Server Address*.



- 5 Close the TCP/IP window. TCP/IP is now configured for manual IP addressing.

MacTCP

To use MacTCP you must select one of the following options:

- Use the *Network Software Selector* utility (included in the Apple Extras folder installed with Open Transport), select **Use classic networking** and then restart your Macintosh to disable Open Transport (and enable MacTCP).
- Drag all Open Transport extensions and control panels to a disabled system folder or directly to the trash.

For a list of installed Open Transport files, see your *Open Transport User's Guide*.

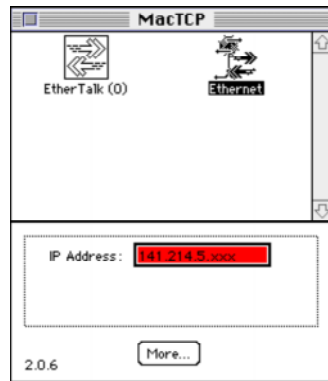


Note – You cannot use MacTCP and Open Transport at the same time.

Enabling MacTCP with Manual Addressing on your LAN

Each Macintosh located on your network must be configured so it can communicate with the WebRamp M3t. Follow these steps to configure MacTCP for manual addressing:

- 1 Using the Apple menu, select **Control Panel** and then select **Open MacTCP**.
- 2 Select **Ethernet** and then click **More** to open the MacTCP dialog box.



- 3 Click **Manually** from the *Obtain Address* list and enter the Domain Name Server information (domain and IP address).

The screenshot shows the MacTCP configuration dialog box. The 'Obtain Address' section has three radio buttons: 'Manually' (selected), 'Server', and 'Dynamically'. The 'Routing Information' section has a 'Gateway Address' field containing '137.222.20.250'. The 'IP Address' section shows 'Class: B' and 'Address: 137.222.20.142'. Below this is a 'Subnet Mask' field with '255.255.255.0' and a visual representation of the mask. A table shows 'Net | Subnet | Node' with 'Bits: 16 | 8 | 8'. Below that are fields for 'Net: 35294', 'Subnet: 20', and 'Node: 142', each with a 'Lock' checkbox. The 'Domain Name Server Information' section has a table with columns 'Domain', 'IP Address', and 'Default'. The first row is 'bris.ac.uk', '137.222.10.39', and a selected radio button. The second row is '.', '137.222.10.39', and an unselected radio button. The third row is '.', '137.222.10.36', and an unselected radio button. There are 'OK' and 'Cancel' buttons at the bottom left.

Domain	IP Address	Default
bris.ac.uk	137.222.10.39	<input checked="" type="radio"/>
.	137.222.10.39	<input type="radio"/>
.	137.222.10.36	<input type="radio"/>

- 4 Leave the *Net*, *Subnet* and *Node* setting defaults. Make sure the checkbox for each setting is not checked.
- 5 Type **192.168.1.1** for the Gateway Address, click the *Default* radio button and then complete the *Domain Name Server* information (if your ISP provided you with the information).
- 6 Click **OK**, close MacTCP and then restart your Macintosh.

Tips on Using Multiple Services

MacTCP stores settings for a single ISP, as well as for online services (such as America Online and Prodigy) that use TCP/IP. If you installed MacTCP using the standard option, MacTCP saved any existing settings as MacTCP Prep.old.

Follow these steps if you want to use both new settings and any additional settings:

- 1** Rename *MacTCP Prep* to *MacTCP Prep.WebRamp*.
- 2** Rename *MacTCP Prep.old* to *MacTCP Prep*.
- 3** Restart your Macintosh.

As an alternative, you can use an application specifically designed to help switch between different ISPs. Once your WebRamp M3t is configured, you can use your browser to search the Internet for Macintosh shareware and software archives for the MacTCP Switcher application or other similar utilities.

Configuration Commands

The following sections explain how to configure your WebRamp M3t using a Command Line Interface (CLI) commands instead of the WebRamp M3t Configuration page. All WebRamp products can be configured, monitored and customized using *commands*. A command is a set of instructions that tells the computer what to do.

To use these commands, you must have a “terminal” software application installed in your computer, such as Telnet, HyperTerminal or Zterm. To send commands from your software application to your WebRamp M3t, you simply connect a serial cable (DB-9 male) to one of your communication (COM) ports on your computer and connect the other end of the cable (DB-9 female) directly to the WebRamp M3t’s Console port.




Note – If you are using Macintosh computer, you must purchase a 8-pin mini DIN male to DB-9 female serial cable to connect to the WebRamp M3t’s Console port.

Setting Up a Terminal Connection for Windows 95

If you are using Windows 95, your Accessories program group should have HyperTerminal already installed. If HyperTerminal is not installed, open the Control Panel, double-click on Add/Remove Programs and then select the Windows Setup tab. Double-click Communications, select HyperTerminal and click OK to install the application. Depending on how your computer was originally configured, you may need the Windows 95 CD to install HyperTerminal.

- Verify the serial port's baud rate is set to 9600 with 8 data bits, 1 stop bit, no parity and Xon/Xoff flow control
- To Telnet to the WebRamp M3t, use *192.168.1.1* as the IP address and logon as **wradmin** (with the password **trancell**). See [Telnet](#) for additional information.
- If you are using the WebRamp M3t in an existing network (with IP addresses already assigned), use the IP address you assigned (see [Pre-Existing IP Networks](#)) to access the WebRamp M3t.

The following example shows established communication with the WebRamp M3t using Telnet.



```
Telnet - 192.168.1.1
Connect Edit Terminal Help

WebRamp login: wadmin
Password:
->
```

Setting Up Outgoing Calls

Follow these steps to setup your WebRamp M3tt for outgoing calls using commands:

- 1 Set the modem information. The first modem is a Motorola 33600 bps modem.

```
setmodeminfo "-n 1 -m 6 -s 33600"
```

- 2 Set the ISP information. Enter the ISP information for Modem 1.

```
setprofile "-n 1 -s newisp -a 1"  
setppp "-n 1 -i 9885353 -a myusername -p mypassword"
```

- ◆ The ISP name is "newisp"
 - ◆ The access number is 9885353
 - ◆ The user name and password are "myusername" and "mypassword"
- 3 Setup DHCP for the computers on the LAN.

```
enabledhcp "-s on"
```

4 Set the DHCP parameters.

```
setdhcpto " -d mydomainname.com -g 192.168.1.1 -n -1 199.2.80.1 "
```

- ◆ "mydomainname.com" is the domain name or the ISP's domain name
- ◆ 192.168.1.1 is the gateway address (the WebRamp M3tt's LAN address)
- ◆ 199.2.80.1 is the DNS server (provided by the ISP)

5 Add additional modems and ISP accounts (maximum of 3 total).

Repeat steps 1 and 2 for each new modem and ISP accounts. Modify the "-n" parameter to 2 and 3 for modem 2 and modem 3. Setup modem multiplexing to use all modems always.

```
setclminfo " -d 1 "
```

Setting Up Dial-In Users

- 1 Set the DNS addresses to be assigned to the dial-in client:

```
setdialindns "-d 2 -p 205.144.2.34 -s 205.144.2.35"
```

- 2 Setup modem 1 for dial-in.

```
setprofile "-n 1 -c 2 -e 1"
```

- 3 Allow for both incoming and outgoing on modem 1.

```
setprofile "-n 1 -c 2 -e 1"
```

- 4 Set the IP address to be assigned to the dial-in client.

```
setwanip "-n 1 -A 192.168.1.254 -M 255.255.255.0"
```


Adding Dial-In Users

Set the name and password for dial-in users.

```
setppp "-n 1 -T 2 -A john -P September"
```

```
setppp "-m 2 -T 2 -A tom -P August"
```

```
setppp "-m 3 -T 2 -A lisa -P July"
```

Command Descriptions

This section lists the available commands, divided by functionality.

General Commands

Command	Description
<code>help</code>	Lists all available commands if used without arguments. For help with a specific command, type <code>help "command name"</code>
<code>showall</code>	Displays all configuration information
<code>showlog</code>	Displays event log messages
<code>showstats</code>	Displays the number of packets received or transmitted
<code>showstatus</code>	Displays the WebRamp M3t status
<code>showversion</code>	Displays the WebRamp M3t firmware version, along with the model name and physical (MAC) address
<code>setwrpasswd</code>	Sets and confirms the WebRamp M3t's administrative access password
<code>clearlog</code>	Clears all log entries
<code>dropcalls</code>	Forces the existing calls to be dropped
<code>exitwr</code>	Exits an open Telnet session for WebRamp M3t configuration
<code>logoutwr</code>	Logs out of the WebRamp M3t using the serial port
<code>resetwr</code>	Power cycles the WebRamp M3t and retains the configuration information
<code>saveconfig</code>	Saves the WebRamp M3t configuration in Flash memory

Command	Description (Continued)
<code>testping</code>	Issues a Ping request to a specified IP address
<code>setfactorydefaults</code>	Resets the WebRamp M3t's current configuration to its factory default settings
<code>setinauthpasswd</code>	Sets and confirms the incoming authentication password for a given profile
<code>showlocalip</code>	Displays the local IP address and subnet mask
<code>showppp</code>	Displays the PPP parameters of a given profile
<code>showwanip</code>	Display the WAN interface configuration information
<code>setdefaultroute</code>	Creates a default route for either ISP or local network
<code>setlocalip</code>	Sets the WebRamp M3t's IP address and the subnet mask
<code>setoutauthpasswd</code>	Sets and confirms the outgoing authentication password
<code>setppp</code>	Sets the PPP parameters
<code>setwanip</code>	Sets the WebRamp M3t's IP address, remote router's IP address and the corresponding subnet masks
<code>netupgrade</code>	Upgrades the WebRamp M3t over a network
<code>netupgradestatus</code>	Displays the status of the network upgrade

DHCP Commands

Command	Description
<code>enabledhcp</code>	Enables or disables the DHCP server functionality
<code>showdhcp</code>	Displays the DHCP options and current assignment of the IP address to the MAC address of the Macintosh on the LAN
<code>showdhcpopts</code>	Displays the current settings of the DHCP options. This is used to check if the DHCP server is enabled or not enabled.
<code>setdhcpxclude</code>	Excludes one or more addresses from the list of available addresses, assigned by the DHCP server
<code>setdhcpfree</code>	Releases the addresses previously assigned and moves them into the free list of addresses
<code>setdhcpinclude</code>	Moves one or more previously excluded IP addresses from the excluded list into the free list
<code>setdhcpreserve</code>	Reserves an IP address for a specific computer, assigned by the DHCP server
<code>setdhcpopts</code>	Sets the value of the DNS server addresses, domain name and the gateway address in the DHCP server
<code>cleardhcp</code>	Clears all DHCP entries

Remote (Outgoing) Commands

Command	Description
setmodeminfo	Sets the modem information
setppp	Sets the PPP parameters
setprofile	Sets profile options
setdhcpcpts	Sets DHCP options
enabledhcp	Enables DHCP
setclminfo	Sets modem multiplexing information

Remote (Incoming) Commands

Command	Description
setprofile	Sets the remote profile
setdialindns	Sets the IP addresses of the DNS servers
showdialindns	Shows the IP address of the DNS servers
setwanip	Sets the WAN IP address
setppp	Sets the PPP parameters

Local Servers (Port Mapping) Commands

Command	Description
setipportmap	Configures internal servers hosted on the LAN
showipportmap	Displays the current portmapping table
enableipportmap	Enables or disables portmapping

Internet Visible Computers (NAT) Commands

Command	Description
setnatip	Enables or disables NAT profile and set the NAT IP address
shownatip	Displays NAT entries and status
divertport	Enables or disables specific services on the WebRamp M3t
showdivertport	Displays the status of services on the WebRamp M3t

Special Application Support Commands

Command	Description
setappinfo	Enables or disables support for a special application
showappinfo	Displays the current applications table
enableappsupport	Enables or disables special application handling features

thelp

The thelp command displays a complete list of commands.

Format

```
thelp "command name"
```

Example

```
thelp "showipportmap"
```

addiproute

The addiproute command adds an IP route.

Format

```
addiproute "-r <Route_type> -d <Destn_type> -n <Profile id>  
-a <Destn_ipaddr> [-g <Gateway_ipaddr> -m <metric>]"
```

Options

- r Route type. 1=static, 2=permanent
- d Destination type. 0=destination host, 1=destination network
- n Profile ID. Values are 1 through 3 or 0=local network
- a Destination IP address
- g Gateway IP address
- m Metric

Example

```
addiproute "-r 2 -d 1 -n 0 -a 192.168.1.5 -m 3"
```

This example defines a permanent route to the network 129.1.1.0 to use the local network with a cost metric of 3. The gateway address is 192.168.1.5.

cleardhcp

The cleardhcp command clears all DHCP entries.

Format

```
cleardhcp
```

clearlog

The clearlog command clears all log entries.

Format

```
clearlog
```

deleteiproute

The deleteiproute command deletes an IP route.

Format

```
deleteiproute "-r <Route_type> -a <Destn_ipaddr> -g <Gateway_ipaddr>"
```

Options

- r Route type. 1=static, 2=permanent
- a Destination IP address
- g Gateway IP address

Example

```
deleteiproute "-r 1 -a 129.1.1.0 -g 129.1.1.1"
```

This example deletes an existing static route from the IP routing table that has the destination network as 129.1.1.0 and the gateway address as 129.1.1.1.

disablewan

The disablewan command disables the WAN.

Format

```
disablewan
```

divertport

The divertport command is used to enable/disable certain services on the WebRamp M3t. If a service is enabled on the WebRamp M3t, all the inbound traffic for that service will go to the WebRamp M3t. If the service is disabled on the WebRamp M3t, all the inbound traffic to the WebRamp M3t will be diverted to the NAT computer.

Current services on the WebRamp M3t are telnet and HTTP (Web). If telnet service is disabled on a particular profile, remote configuration will not be possible through telnet (on that profile).

Format

```
divertport "-n <profile id> -s <service number> -e <enable/disable>"
```

Options

- n Profile ID. Values are 1 through 3.
- s Service number. 1=Telnet, 2=HTTP
- e Values are 1=enable, 0=disable

Examples

```
divertport "-n 1 -s 1 -e 1"
```

This command enables Telnet service on profile 1.

```
divertport "-n 2 -s 2 -e 0"
```

This command disables HTTP service on profile 2.

dropcalls

The dropcalls command forces all calls to be dropped.

Format

```
dropcalls "-n <port id>"
```

Option

-n Port ID. Values are 0=All Modems, 1=Modem 1, 2=Modem 2, 3=Modem 3

Example

```
dropcalls "-n 2"
```

enableappsupport

The enableappsupport command is used to enable/disable special application handling. The status of the application is displayed by the showappinfo command.

Format

```
enableappsupport "-s <[on/off]>"
```

Option

-s Values are on=enable, off=disable

Example

```
enableappsupport "-s on"
```


enabledhcp

The enabledhcp command enables or disables the DHCP server functionality.

Format

```
enabledhcp
```

Option

-s Values are on=enable, off=disable

Example

```
enabledhcp "-s on"
```

enableipportmap

The enableipportmap command is used to enable/disable portmapping. The status of portmapping is displayed by the showipportmap command.

Format

```
enableipportmap "-s <on|off>"
```

Option

-s Values are on=enable, off=disable

Example

```
enableipportmap "-s on"
```

enablenetbios

The enablenetbios command modifies filtering of NetBIOS based TCP/IP packets. By default, these packets are blocked.

Format

```
enablenetbios "-s <on|off>"
```

Option

-s Values are on=enable, off=disable

Example

```
enablenetbios "-s on"
```

enabletrace

The enabletrace command is used as a tool to verify a login script. This command shows the execution of the script and the strings being sent and received when a connection is attempted.

Format

```
enabletrace "-s <on/off>"
```

Option

-s Values are on=enable, off=disable

Example

```
enabletrace "-s on"
```

exitwr

The `exitwr` command exits the Telnet session (if you are using Telnet to configure your WebRamp M3t).

Format

```
exitwr
```

logoutwr

The logoutwr command is used to logout from a serial session.

Format

```
logoutwr
```

Note – This only logs out of the WebRamp M3t and is not the same as logout for Telnet.

netupgrade

The netupgrade command initiates a TFTP network firmware upgrade from a TFTP server at the specified IP address.

Format

```
netupgrade "-f <filename> -a <ipaddr>"
```

Options

- f Filename to be used for the upgrade
- a IP address

Example

```
netupgrade "-f newm3.bin -a 192.215.140.21"
```

netupgradestatus

The netupgradestatus command displays the status of a network upgrade.

Format

```
netupgradestatus
```


resetwr

The resetwr command restarts the WebRamp M3t without effecting the configuration settings.

Format

```
resetwr
```

saveconfig

The saveconfig command saves the WebRamp M3t configuration in permanent memory. After all information is configured, you must then save it.

Format

```
saveconfig
```

serialupgrade

The serialupgrade command is used to perform a serial firmware upgrade.

Format

```
serialupgrade
```

See [Serial Firmware Upgrade for Windows 95](#) for additional information.

setappinfo

The setappinfo command is used to enable/disable support for a particular application entry, configure the control and data port ranges for an application and change the name of an existing application.

The maximum number of ranges that can be configured (control + data) is 10. The maximum size of a name is 10 characters. The name cannot contain a space, hyphen or minus. The start port and end port should be separated by either a colon or a space.

Format

```
setappinfo "-a <action> -e <enable/disable>  
           -n <name of app> -N <new name>  
           -c <control protocol tcp/udp> <start port> <end port>  
           -d <data protocol tcp/udp> <start port> <end port>"
```

Option

- a Action. 1=add, 2=delete
- n Name of application configuration is being supplied for

- N New name of application. Required only when the name of an existing application is modified
- e 1=enable, 0=disable
- c Control protocol information for current application. Information consists of a control protocol, control start port and data end port (for a range).
Control protocol =tcp/udp
- d Data protocol information for current application. Information consists of a data protocol, data start port and data end port (for a range). Data protocol =tcp/udp

Examples

```
setappinfo "-a 1 -e 1 -n MyApp -c tcp 100:200, udp 20 -d tcp 50"
```

Adds a new application **"MyApp"**

```
setappinfo "-a 1 -e 1 -n MyApp -d tcp 70:80"  
setappinfo "-a 2 -e 1 -n MyApp -d tcp 50"
```

Modifies an existing application

```
setappinfo "-n MyApp -N NewAppName"
```

Changes the name of the application **"MyApp"** to **"NewAppName"**

setclminfo

The setclminfo command sets the modem multiplexing information.

Format

```
setclminfo "-d -m <modem> -t <threshold value> -a <add time>"
```

Options

- d Values are 0=Off, 1=Always, 2=Dynamic
- m Values are 2=Modem 2, 3=Modem 3
- t Threshold value range from 1 to 100
- a Add time range from 0 to 100

Example

```
setclminfo "-d 2 -m 2 -t 30 -a 10"
```

setdefaultroute

The setdefaultroute command creates a default route for either ISP, remote office or local network.

Format

```
setdefaultroute "-n <Profile Id>" OR "-l <ipaddress of router on local LAN>"
```

Options

-n Profile ID
-l IP address

Example

```
setdefaultroute "-l 207.56.75.3"
```

setdhcp

The setdhcp command sets the starting IP address and number of IP addresses used for DHCP. The number of addresses must be greater than zero.

Format

```
setdhcp "-a <Start of Address> -n <Number of Addresses> [-f] [-p]"
```

Options

- a Starting IP address
- n Number of IP addresses
- f
- p

Example

```
setdhcp "-a 192.168.1.2 -n 50"
```


setdhcpexclude

The setdhcpexclude command excludes one or more addresses from the list of available addresses, assigned by the DHCP server. Number of addresses must be greater than zero.

Format

```
setdhcpexclude "-a <Start of Address> -n <Number of Addresses>"
```

Options

- a Starting IP address
- n Number of IP addresses

Example

```
setdhcpexclude "-a 192.168.1.200 -n 10"
```

setdhcpfree

The setdhcpfree command releases the addresses previously assigned and moves them into the free list of addresses. Number of addresses must be greater than zero.

Format

```
setdhcpfree "-a <Start of Address> -n <Number of Addresses>"
```

Options

- a Starting IP address
- n Number of IP addresses

Example

```
setdhcpfree "-a 192.168.1.200 -n 10"
```

setdhcpinclude

The setdhcpinclude command moves one or more previously excluded IP addresses from the excluded list into the free list. Number of addresses must be greater than zero.

Format

```
setdhcpinclude "-a <Start of Address> -n <Number of Addresses>"
```

Options

- a Starting IP address
- n Number of IP addresses

Example

```
setdhcpinclude "-a 192.168.1.200 -n 10"
```

setdhcpreserve

The setdhcpreserve command reserves an IP address for a specific computer, assigned by the DHCP server.

Format

```
setdhcpreserve "-a <Start of Address> -m <MAC Addresses>"
```

Options

- a Starting IP address
- m MAC address. Number of characters must be 12 and should be formatted [0...9, a...f, A...F]

Example

```
setdhcpreserve "-a 192.168.1.200 -m 0A 2A FF 13 45 F2"
```

setdhcpopts

The setdhcpopts command sets the value of the DNS server addresses, domain name and the gateway address in the DHCP server.

Format

```
setdhcpopts "-d <Domain Name> -g <Gateway Address> -n <-i>
```

Options

- d Domain name
- g Gateway address (usually 192.168.1.1)
- n Number. i=1, 2, 3

Example

```
setdhcpopts "-d mycompany.com -g 192.168.1.1"
```

setdialindns

The setdialindns command sets the DNS addresses to be assigned to a dial-in client.

Format

```
setdialindns "-d <DNS address> [-p <primary DNS address>]  
[-s <secondary DNS address>]"
```

Options

- d 1 DHCP DNS. Specifies that the DNS address present in the DHCP table should be used.
- d 2 User DNS. Specifies that the dial-in user will specify the DNS address information by using the "-p" and "-s" options
- p Primary DNS address.
- s Secondary DNS address

Example

```
setdialindns "-d 2 -p 205.144.2.34 -s 205.144.2.35"
```

setfactorydefaults

The setfactorydefaults command sets the WebRamp M3t configuration to the factory defaults.

Format

```
setfactorydefaults
```

setinauthpasswd

The setinauthpasswd command sets the incoming authentication password for the given profile. User is prompted for the authentication password.

Format

```
setinauthpasswd "-n <Profile Id>"
```

Option

-n Profile ID. Values are 1=ISP1, 2=ISP2, 3=ISP3

Example

```
setinauthpasswd "-n 1"
```


setipportmap

The setipportmap command is used to configure internal servers hosted on the LAN. The IP address of the internal server should reside on the WebRamp M3t's local LAN network.

Format

```
setipportmap "-d <Action> -n <Name of Server> -a <Server IP Address>  
              -p <Protocol> -e <Server External Port Number>  
              -i <Server Internal Port Number>"
```

Options

- d Action. Values are 1=add, 2=delete
- n Name of server
- a Internal server IP address
- p Protocol. 1=tcp, 2=udp
- e External port (visible to the outside world). Range is 1 to 65535
- i Internal port (typically the same as the external port). Range is 1 to 65535

Examples

The following example adds a portmap entry for an internal FTP server with an external port of 21, internal port of 100, protocol of TCP and an internal IP address of 192.168.1.3.

```
setipportmap "-d 1 -p 1 -e 21 -i 100 -a 192.168.1.3"
```

The following example deletes the previously added portmap entry.

```
setipportmap "-d 2-p 1 -e 21 -i 100 -a 192.168.1.3"
```

setlocalip

The setlocalip command sets the local IP address and netmask.

Format

```
setlocalip "-a <local ipaddr> -m <netmask>"
```

Options

- a IP address of the WebRamp M3t
- m Netmask for the WebRamp M3t

Example

```
setlocalip "-a 200.60.50.1 -m 255.255.255.0"
```

setmodeminfo

The setmodeminfo command sets the modem information.

Format

```
setmodeminfo -n <port id> -m <manufacturer> -s <speed>  
              -i <modem init string> -d <dial mode> -l <login chat>
```

Options

- n Port ID. 1=Modem 1, 2= Modem 2, 3=Modem 3
- m Manufacturer. 1=AT&T Paradyne, 2=Boca Research, 3=Hayes,
4=Global Village, 5=Maxtech, 6=Motorola, 7=Multi-tech, 8=Supra,
9=US Robotics, 10=ZOOM Telephonics, 11=Standard, 12=Other
- s Speed. 14400, 19200, 28800, 33600, 56000, 115000
- i Modem initialization string
- d 1=pulse, 2=tone
- l 1=enable, 2=disable

Example

```
setmodeminfo "-n 2 -m 2 -s 56000"
```

setnatip

The setnatip command is used to enable/disable NAT on a profile and to set the NAT computer address. For each profile, a different NAT computer IP address needs to be specified.

Format

```
setnatip "-n <proflD> -a <local PC ipaddr> -e <enable|disable>
```

Options

- n Profile ID. Values are 1 through 3 (corresponding to the 3 modem ports)
- a Local PC IP address. Should be the same network as the WebRamp M3t's local LAN address.
- e Values are 1=enable, 0=disable

Examples

```
setnatip "-n 1 -a 192.168.1.4 -e 1"
```

Sets the NAT computer's IP address to 192.168.1.4 and enables profile 1.

```
setnatip "-n 1 -e 0"
```

Disables NAT on profile 1.

setoutauthpasswd

The setoutauthpasswd command sets the outgoing authentication password. Using this command prompts you for an authentication password (which is not displayed when typed). The following shows the format of the setoutauthpasswd command.

Format

```
setoutauthpasswd "-n <proflid>"
```

Option

-n Profile ID. Values are 1=ISP, 2=Remote Office

Example

```
setoutauthpasswd "-n 1"
```

setppp

The setppp command sets all PPP parameters.

Format

```
setppp "-n <Profile Id> -i <ISP Num> -T <Auth type>  
        [-c <header compression> -t <idle time> -m <MRU>  
        -a <out auth name> -p <out auth passwd>  
        -A <in auth name> -P <in auth passwd>]"
```

Options

- n Profile ID. Values are 1=ISP1, 2=ISP2, 3=ISP3
- i ISP phone number
- T Authentication Type. Valid values are 0=None, 1=PAP, 2=CHAP
- c Header Compression. Valid values are 0=None, 1=VJ compression. Default value is 0.
- t Idle time (in seconds) before the connection is dropped. Values should be greater than 30 (default is 120). Range is 10 to 65535; 0=never drop.
- m MRU (Maximum Receive Unit) value must be between 128 and 1524. Optional parameter if omitted, default value is 1524.
- a Outgoing authentication name
- p Outgoing authentication password
- A Incoming authentication name
- P Incoming authentication password

Example

```
setppp "-n 1 -i 2540708 -T 2 -a abcdxy -p abc123"
```

Note – Authentication passwords can be set separately using `setinauthpasswd` or `setoutauthpasswd` commands, if the password is not to be displayed.

setprofile

The setprofile command sets profile options for incoming and outgoing calls.

Format

```
setprofile "-n <Profile Id> -e <enable/disable>"
```

Options

- n Profile ID. Values are 1=ISP1, 2=ISP2, 3=ISP3
- e 1=enable profile, 0=disable profile

Example

```
setprofile "-n 1 -e 1"
```

setwanip

The setwanip command sets the IP address to be assigned to the dial-in client. The following shows the format of the setwanip command.

Format

```
setwanip "-n <port id> -d <ISP dynamic> -a <ISP IP address>  
-m <ISP netmask> -D <Local WAN dynamic>  
-A <Local WAN IP address> -M <Local WAN netmask>"
```

Options

- n Port ID. Values are 1=ISP1, 2=ISP2, 3=ISP3
- d ISP dynamic. 0=Static, 1=Dynamic
- a ISP's IP address
- m ISP netmask
- D Local WAN dynamic. 0=Static, 1=Dynamic
- A Local WAN IP address
- M Local WAN netmask

Example

```
setwanip "-n 1 -A 192.168.1.254 -M 255.255.255.0"
```

setwrpasswd

The setwrpasswd command sets the administrator access password for the WebRamp M3t. User is prompted for password. The following shows the format of the setwrpasswd command.

Format

```
setwrpasswd "[-p <password>]"
```

Option

-p Password

showall

The showall command displays configuration information. The following shows the format of the showall command.

Format

```
showall "-n <Profile Id>"
```

Option

-n Profile ID. Values are 1=ISP1, 2=ISP2, 3=ISP3

Example

```
showall "-n 1"
```

showappinfo

The showappinfo command shows the current applications table.

Format

```
showappinfo
```

Sample

Name	Status	Control Information			Data Information		
		Protocol	Start	End	Protocol	Start	End
MyApp	enabled	tcp	20	30	udp	100	200
					udp	1000	1500
MyApp2	disabled	udp	70	70	udp	500	700
		tcp	70	70			

showclminfo

The showclminfo command displays the modem multiplexing information.

Format

```
showclminfo
```

showdhcp

The showdhcp command displays the DHCP options and current assignment of the IP address to the MAC address.

Format

```
showdhcp "-a <Start of Address> -n <Number of Addresses>"
```

Options

- a Starting IP address
- n Number of IP addresses

showdhcpts

The showdhcpts command displays the current settings of the DHCP options. This is used to check if the DHCP server is enabled or not enabled.

Format

```
showdhcpts " {-d} {-n} {-s} {-g} "
```

Options

- d Domain Name
- n DNS Addresses
- s Subnet mask ID
- g Gateway Address

showdialindns

The showdialindns command shows the existing DNS addresses to be provided to the dial-in client.

Format

```
showdialindns
```

showdivertport

The showdivertport command shows the status of services on the WebRamp M3t.

Format

```
showdivertport "-n <proflid>"
```

Option

-n Profile ID. Values are 1 through 3

Example

```
showdivertport "-n 1"
```

showiproutes

The showiproutes command shows the existing IP routes.

Format

```
showiproutes
```

showipportmap

The showipportmap command is used to display the current portmapping table, as well as the status of portmapping.

Format

```
showipportmap
```

Sample

Portmapping Status: Enabled

Server IP Address	Protocol	External Port Number	Internal Port Number
192.168.1.3	TCP	21	100

showlocalip

The showlocalip command displays the local IP address and netmask. The following shows the format of the showlocalip command.

Format

```
showlocalip
```

Example

```
showlocalip
```

Sample Output

```
IP Address    200.60.50.1  
Subnet Mask  255.255.255.0
```

showlog

The showlog command displays the event log messages.

Format

```
showlog
```

showmodeminfo

The showmodeminfo command displays the modem information.

Format

```
showmodeminfo "-n <port id>"
```

Option

-n Port ID. Values are 1=Modem 1, 2=Modem 2, 3=Modem 3

Example

```
showmodeminfo "-n 1"
```

showppp

The showppp command displays the PPP parameters of the given profile.

Format

```
showppp "-n <proflid>"
```

Option

-n Profile ID. Values are 1 =ISP, 2=Remote Office

Example

```
showppp "-n 2"
```


shownatip

The shownatip command displays the NAT entries and their status. Without any options, this command displays the status of all three profiles.

Format

```
shownatip "-n <profile id>"
```

Option

-n Profile ID. Values are 1=ISP1, 2=ISP2, 3=ISP3

Example

```
shownatip "-n 1"
```

showprofile

The showprofile command displays the profile. Without any options, this command displays the status of all three profiles.

Format

```
showprofile "-n <Profile Id>"
```

Option

-n Profile ID. Values are 1=ISP1, 2=ISP2, 3=ISP3

Example

```
showprofile "-n 1"
```

showstats

The showstats command displays the combined number of packets received or transmitted on the modem side.

Format

```
showstats
```

Sample

Packets Received : 6

Packets Transmitted : 6

showstatus

The showstatus command displays the status of the WebRamp M3t.

Format

```
showstatus
```

showupgradekey

The showupgradekey command displays the upgrade key used for firmware upgrades.

Format

```
showupgradekey
```

showversion

The showversion command displays the current firmware version.

Format

```
showversion
```

showwanip

The showwanip command displays the WAN IP address and netmask for a given profile.

Format

```
showwanip "-n <Profile Id>"
```

Option

-n Profile ID. Values are 1=ISP1, 2=ISP2, 3=ISP3

Example

```
showwanip "-n 1"
```

Sample Output

```
Profile ID           : 1 (profile ID number)
Remote IP Address    : 137.37.27.4
Remote Subnet Mask   : 255.255.255.0
Local IP Address     : 200.60.50.1
Local Subnet Mask    : 255.255.255.0
```

testmodem

The testmodem command tests the modem located on the port.

Format

```
testmodem "-n <port id>"
```

Option

-n Port ID. 1=Modem 1, 2=Modem 2, 3=Modem 3

Example

```
testmodem "-n 2"
```


testping

The testping command “pings” the given IP address.

Format

```
testping “-a <ipaddr>”
```

Options

-a IP address to ping

Example

```
testping “-a 137.37.27.4”
```

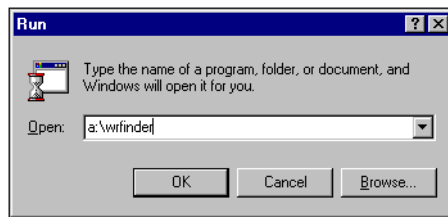

Utilities

This chapter describes the WebRamp Finder, WINIPCFG, Telnet and general information on using Windows 95 utilities.

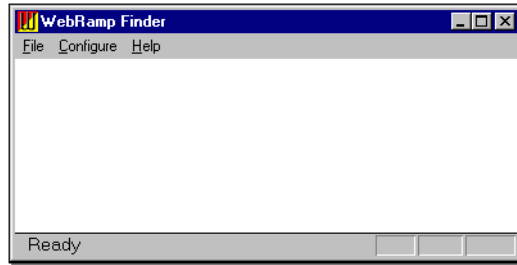
WebRamp Finder

The WebRamp Finder is used to find WebRamp M3ts on a local area network. Follow these steps to use WebRamp Finder:

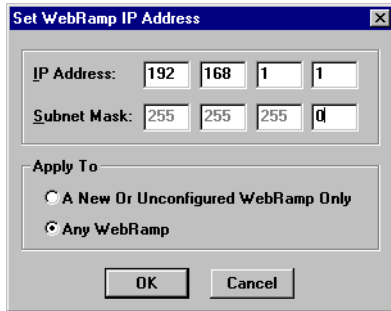
- 1 Click **Start** | **Run**, type **wrfinder** and click **OK**.



The WebRamp Finder windows displays.



- 2 From the *Configure* menu select **Search for WebRamps**.
- 3 If your WebRamp M3t is not found, you can then set the IP address by selecting **Set IP Address** from the *Configure* menu.



- 4 Enter the IP address and subnet mask, select **Any WebRamp** and then click **OK**.

WINIPCFG

If you were unable to connect to the WebRamp M3t Configuration Homepage from your Internet Browser, check the following:

- ◆ The PC is physically connected to the WebRamp M3t with an Ethernet cable.
- ◆ The Ethernet port light is ON and it corresponds to the port that your PC is connected to.

Follow these steps once you have verified your WebRamp M3t connections:

- 1** Select **Run** from the Start menu, type **c:\windows\winipcfg** and click **OK** to open the IP Configuration window.
- 2** Click **Release**, click **Renew** and then click **OK**. The IP address should now be between 192.168.1.2 and 192.168.1.254.

Telnet

For Windows 95, the Telnet application is found in the Accessories program group after you install the TCP/IP connectivity utilities. The Telnet command starts terminal emulation, providing DEC™ VT 100, DEC VT 52 or TTY emulation, using connection-based services of TCP.

The login process using Telnet into WebRamp M3t is similar to login via serial port. Once successfully logged in, you can access the restricted shell and configure the WebRamp M3t using the shell commands.

Format

```
telnet [host [port]]
```

Options

- | | |
|------|--|
| host | Specifies the host name or IP address of the remote system you want to connect to. |
| port | Specifies the remote port you want to connect to. The default value is specified by the telnet entry in the SERVICES file. If no entry exists in the SERVICES file, the default connection port value is decimal 23. |

Using Telnet

Follow these steps to use Telnet for Windows 95:

- 1 Click **Start | Run**, type **telnet** and press ENTER.
- 2 From the *Connect* menu in the Telnet window, select **Remote System**.
- 3 In the *Connect* dialog box, type the host name you want to connect to, and then click **Connect**. A connection is made, and you can begin a work session.
- 4 To end a session, select **Disconnect** from the *Connect* menu.

You can specify your preferences for items such as emulation options, the screen font, and color by selecting *Preferences* from the Terminal menu. You can also use commands from the Edit menu to select, copy and paste text from the Clipboard. For information about Telnet options, see the Telnet online Help.

Note – The recommended buffer size is 99.

Using Windows 95 TCP/IP Utilities

Microsoft TCP/IP allows access to resources on other networks, such as VMS, IBM mainframe, and UNIX, through the ftp and telnet utilities, which are installed automatically with TCP/IP. Windows Sockets-based TCP/IP utilities from any other vendor may also run under Windows 95.

When Microsoft TCP/IP is installed under Windows 95, TCP/IP utilities are installed automatically. In addition to arp, nbtstat, netstat, ping, route, and tracert, Windows-based versions are provided for telnet, ftp, and winipcfg (the Windows-based version of the ipconfig utility provided with Windows NT).

Windows 95 does not provide any components to allow connectivity to NFS-based UNIX resources. Network File System (NFS) connectivity must be added by installing additional software from another vendor that includes an NFS redirector, such as that provided by Sun Microsystems or Beame and Whiteside.

The additional TCP/IP utilities provided with Windows NT Server 3.5 and later will not run under Windows 95.

The key utilities in Windows 95 for checking configuration are ping, tracert, and winipcfg, which are all included automatically with TCP/IP on Windows 95. The key items to check for TCP/IP configuration problems are:

- Invalid subnet mask
- Invalid default gateway address

Tool	Description
ping	Used to send ICMP echo requests to an IP address and then wait for ICMP echo responses. The ping utility reports on the number of responses received and the time interval between sending the request and receiving the response.
tracert	Used to trace the route of networking messages. Tracert sends ICMP echo requests to an IP address while incrementing the TTL (Time To Live) field in the IP header by 1 starting at 1, and then analyzes the ICMP errors that are returned. Each succeeding echo request should get one hop further into the network before the TTL field reaches 0 and before an ICMP Time Exceeded error is returned by the router attempting to forward it. Tracert creates an ordered list of the routers in the path that returns these error messages.
winipcfg	With DHCP, used to report the IP configuration settings provided by the DHCP server for the local computer.

Route

Defining Static Routes in Windows 95

The route utility is provided with Windows 95 when Microsoft TCP/IP is installed.

Format

```
route [-f] [command [destination] [MASK netmask] [gateway]]
```

Options

- f Clears the routing tables of all gateway entries. If this parameter is used in conjunction with a command, the tables are cleared prior to running the command.
- command* Specifies one of four commands:
- print to print a route
 - add to add a route
 - delete to delete a route
 - change to modify an existing route
- If the *command* is print or delete, wildcards can be used for the *destination* and *gateway*, or the *gateway* argument can be omitted.
- destination* Specifies the host to which the command is to be sent. All symbolic names used for destination are looked up in the NETWORKS file.

<code>MASK</code>	Specifies, if present, that the next parameter be interpreted as the netmask parameter.
<code>netmask</code>	Specifies, if present, the subnet mask value to be associated with this route entry. If not present, this parameter defaults to 255.255.255.255. However, the route utility does not accept a subnet mask value of 255.255.255.255 on the command line. To specify a subnet mask with this value, you must accept the default.
<code>gateway</code>	Specifies the gateway. All symbolic names for gateway are looked up in the HOSTS file.
<code>/p</code>	Not a valid parameter for Windows 95. Under Windows NT 3.51, this switch specifies permanent routes.

Note – Although you cannot define a permanent route as a parameter with the route command, you can create a batch file that runs as part of system startup to define the route parameters that you want.

The route utility uses the NETWORKS file to convert destination names to addresses (network ID). The following shows the basic NETWORKS file installed in the Windows folder when you install Microsoft TCP/IP on a computer running Windows 95. Modify this file by using a text editor to add the network name and network ID for other local networks.

```
# Copyright (c) 1993-1995 Microsoft Corp.
#

# This file contains network name/network number mappings for
# local networks. Network numbers are recognized in dotted decimal form.
#
# Format:
#
# <network name> <network number> [aliases...] [#<comment>]
#
# For example:
#
# loopback    127
# campus      284.122.107
# london      284.122.108

loopback      127
```

Follow these steps to troubleshoot the NETWORKS file on a local computer:

- 1** Make sure the format of entries in the file matches the format defined in the sample file installed with Microsoft TCP/IP.
- 2** Check for and correct spelling errors.
- 3** Check for and correct invalid IP addresses and identifiers.
- 4** If problems occur when using the route utility, add trailing zeroes as the fourth octet for each entry. For the route utility to work correctly, the network numbers in the NETWORKS file must specify all four octets in dotted decimal notation. For example, a network number of 284.122.107 must be specified in the NETWORKS file as 284.122.107.0, with trailing zeroes appended.

Notice, however, that the sample entries provided in the basic NETWORKS file installed with Microsoft TCP/IP will correctly support the ping utility without including a trailing zero as the fourth octet.

The route table maintains four different types of routes. The following list shows the order in which they are searched for a match:

- 1** Host (a route to a single, specific destination IP address)
- 2** Subnet (a route to a subnet)
- 3** Network (a route to an entire network)
- 4** Default (used when there is no other match)

For example, if the Dial-up Adapter is connected to the Internet and a network adapter is using TCP/IP on the local LAN (creating the problem described in the previous section), the following route command allows this workstation to connect to a computer on a remote subnet in the enterprise network, rather than routing to the Internet:

```
route add 11.1.0.0 mask 255.255.0.0 130.25.0.1
```

In this example:

- 11.1.0.0 is the remote subnet
- 255.255.0.0 is the subnet mask
- 130.25.0.1 is the default gateway on the local LAN

Notice that this will fail unless the destination gateway can always be reached from the directly connected network. In this example, the local computer must always be able to reach the node with the address 130.25.0.1 without going through a router.

Troubleshooting

Modem Troubleshooting

The following information lists typical problems and solutions.

Modem X: No response

There is no modem connected to the Modem X port (X can be 1, 2 or 3)

- ◆ The modem is not turned on
- ◆ The cable connecting the WebRamp M3t to the modem is not proper

Modem X: Error

The configuration for the Modem X port does not match the connected modem (Modem X may be configured as a US Robotics but a Motorola is connected).

Modem X: No Carrier

- ◆ A working phone line is not connected to the modem
- ◆ The ISP's phone number was incorrectly entered
- ◆ The ISP is returning a busy signal
- ◆ The number may need to be dialed with number such as "9," in front to get an outside line

Why does my WebRamp M3t occasionally initiate a call even though there isn't any traffic on my network?

The call is initiated due to a NetBIOS DNS query for Windows 95 and Windows NT only.

PPP Authentication Failed

The user name given by the ISP was not properly entered

- ◆ The password given by the ISP was not properly entered

No Messages Appear

- ◆ The WebRamp M3t is not configured
- ◆ The computer accessing the Internet does not have the WebRamp M3t set as its Gateway in the computer's TCP/IP software.

Windows 95 Troubleshooting

This section provides troubleshooting topics for TCP/IP and Windows 95. Some tips provided here recommend unbinding the TCP/IP protocol from one or more adapters or services. To unbind a protocol from an adapter, follow the instructions under the Windows 95 Help topic named “Binding an adapter to a protocol,” making sure that the related protocol or service is not checked in the list.

When you need to use the Microsoft TCP/IP protocol again for a particular connection, it must be bound to the client, service, and adapter again by making sure the related boxes are checked.

TCP/IP

The most common areas where some users have problems related to TCP/IP include the following:

- Errors with ping, winipcfg, and stack initialization can occur if files exist in the Windows folder from TCP/IP-32 for Windows for Workgroups. Any TCP/IP files in the Windows folder should be deleted. (TCP/IP supporting files for Windows 95 are stored only in the Windows SYSTEM folder.)
- By default, TCP/IP uses DHCP for automatic configuration of IP-related settings. The user must manually configure correct IP address, subnet mask, and default gateway for TCP/IP to work.
- DNS and WINS settings are global for all adapters. If a user enters information for DNS servers or WINS servers for any adapter in the Network option in Control Panel (including the Dial-Up Adapter), these settings will be used for all name resolution on the computer. This problem is corrected by removing erroneous entries and then entering correct DNS and WINS settings in Control Panel.

- Name resolution problems can occur when using PPP to connect to the Internet while a network adapter is connected to a private IP network. If simultaneous connections are required, this problem can be resolved by configuring the routing table using the route command, as described earlier in this paper.
- Each Dial-Up Networking connection can be configured with unique IP settings, but all configuration changes should be made for the particular connection in the Dial-Up folder in My Computer, not using the Network option in Control Panel.

Checking Microsoft TCP/IP Device Drivers

The following device VxDs are provided for Microsoft TCP/IP and should be present on the computer in the Windows SYSTEM folder. If any of these files are missing, remove Microsoft TCP/IP in the Network option in Control Panel, and then reinstall it.

Filename	Description
icmp.dll	Provides Windows Sockets support for ping
vdhcp.386	Provides the DHCP and WINS protocols. This file uses the 32-bit Windows Sockets interface.
vip.386	Provides the Internet Protocol (IP), Internet Control Message Protocol (ICMP), and Address Resolution Protocol (ARP).
vnbt.386	Provides support for NetBIOS over TCP/IP. Used by NetBIOS applications (such as Client for Microsoft Networks) to access NetBIOS over TCP/IP services, including name, session, and datagram services. (Notice that support for NetBIOS over TCP/IP does not involve NetBIOS encapsulation in any packets.)
vtcp.386	Provides the TCP and UDP protocols over IP

Filename	Description (Continued)
vtdi.386	Provides support to TCP for TDI applications
wsock.vxd, afvxd.vxd	Provide Windows Sockets-based access to TCP or UDP for sockets. The related DLL and helper files are WSHTCP.VXD and WSOCK32.DLL.
rpcrt*.dll, rpcns4.dll, rpcrt4.dll	Provide support for DCE-compliant remote procedure call (RPC). These files are required to support RPC applications.

Checking TCP/IP Configuration Problems

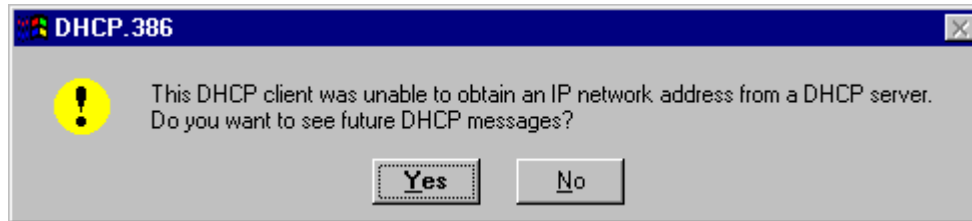
If a DHCP server is not available on the network, make sure that the box named Obtain An IP Address Automatically is not checked in the TCP/IP properties.

Make sure appropriate options are checked for WINS and DNS name resolution:

- Either the Enable WINS or Obtain WINS From DHCP option must be checked for name resolution using WINS.
- The Enable DNS option must be checked if DNS or the HOSTS file is used for name resolution. This setting must also be checked to ensure NetBIOS name resolution for Windows Sockets applications.

DHCP Configuration Reset Warnings

By default, Microsoft TCP/IP is configured to use the setting named Obtain An IP Address Automatically, which enables DHCP configuration. This can cause problems for users who do not have a DHCP server available on the network. If a user does not specify an IP address and subnet mask and does not have a DHCP server, the next time Windows 95 is started, the following error message appears.



If the user selects No in this message, DHCP error messages will no longer appear. However, because there is no DHCP server on the network, the computer will not be configured for an IP address, subnet mask, and default gateway, and therefore will not have any TCP/IP connectivity.

To enable this message to display again (if the user erroneously chose No in the message shown earlier), change the value of the entry named PopupValue to 0 in the following Registry key:

Hkey_Local_Machine\System\CurrentControlSet\Services\VXD\DHCP

Checking DHCP Configuration Information

Always confirm that the user is using DHCP before accepting the WINIPCFG information as valid. The DHCP-provided IP configuration settings are stored in binary form in the registry. The WINIPCFG utility merely reads and displays the contents of registry. If a user enabled DHCP and then disabled it, and then manually entered an IP address configuration, running WINIPCFG will still show the registry contents and, hence, the old IP address information obtained through DHCP rather than the current manually configured IP address.

Note – The version of Microsoft TCP/IP-32 provided for Windows for Workgroups stored DHCP information in the DHCP.BIN file in the computer's Windows folder. After upgrading a Windows for Workgroups computer to Windows 95, this file might still be present, but it is no longer used by Microsoft TCP/IP and can be deleted.

Dial-In Troubleshooting

Dialing into the WebRamp M3t, the modems doesn't seem to connect. There is no sound indicating that the WebRamp M3t modem has answered the call.

Please verify the following:

- 1 The number you are dialing is correct and the modem connected to the WebRamp M3t is turned on.
- 2 The WebRamp M3t is configured to accept incoming calls on the corresponding modem port (see [Setting Up the Dial-In Computer](#)).
- 3 If things still don't work, see [Problem Solving](#) to see if there was an incoming call.

Dialing into the WebRamp M3t, the modem connects but the connection doesn't complete

Please verify the following:

- The name and password entered in the mobile computer's PPP dial-up setup matches at least one user name and password pair in the WebRamp M3t Users list.
- The mobile computer's PPP dial-up setup is configured to dynamically accept the IP address assigned by the remote server. In Windows 95, go to the Network control panel, select Properties of the Dial-Up Adapter and verify that it is set to *Obtain IP Address automatically*. If a static address must be entered, verify that it matches the IP address that the WebRamp M3t will be assigning to the dial-in client (see [Setting Up the Dial-In Computer](#)).
- The WebRamp M3t is configured to accept incoming calls on the corresponding modem port (see [Setting Up the Dial-In Computer](#)).
- If things still don't work, see [Problem Solving](#) to see if there was an incoming call.

The dial-in computer connects to the WebRamp M3t, but I can't access e-mail

- If you dialed into a local mail server on the LAN, make sure it works over TCP/IP. The WebRamp M3t only passes TCP/IP over the dial-in connection. If the mail server requires IPX/SPX to be accessed, then the dial-in computer will not be able to access it.
- If the mail server resides at the ISP, refer to the following question.

The dial-in computer connects to the WebRamp M3t, but I can't access the Internet

- If you are using the WebRamp M3t for dial-in access, as well as Internet access, verify that at least one other modem on the WebRamp M3t is available to dial-out to the Internet. Also, verify that the dial-out modem is not the one you are dialing into and that it has been configured.
- If another router on your office LAN will be used for Internet access, change the default route of the WebRamp M3t to point to that router (by default the WebRamp M3t assumes that it is the gateway to the Internet). From the WebRamp M3t Configuration page, select Advanced, Routing, click Edit Default Route and then specify the other router's LAN IP address.
- Check if you can access Internet sites using their IP address, if this succeeds then read the next question.

The dial-in computer connects to the WebRamp M3t, I can access the Internet using IP addresses but I can't browse using domain names such as www.rampnet.com.

The dial-in client may not have DNS server addresses setup. The WebRamp M3t will automatically assign DNS server addresses to Windows 95 and Windows NT dial-in clients. Other types of dial-in clients should manually setup the DNS server addresses in their dial-up PPP setup.

Network Neighborhood doesn't work from my dial-in Windows 95 computer

Please verify the following:

- See [Windows 95 File Sharing](#) for instructions on sharing files
- If the Dial-in computer has an Ethernet network card, make sure that the IP address doesn't belong to the same network as the LAN you are dialing in from. This will prevent Network Neighborhood requests from going out through the PPP dial-up connection.

Dial-Up Configuration Problems

If the modem dials but no connection is established with the dial-in server, check the following items:

- Make sure you chose the correct server type, as described earlier.
- Make sure that compatible protocols are installed and bound in the Dial-Up Adapter properties in the Network option in Control Panel.
- Try turning off software compression. To do so, right-click the icon for the connection in the Dial-Up Networking folder, then click Properties. Click Configure, click the Connection tab, then click Advanced. Use Windows 95 Help for guidance in selecting settings.
- Open the Terminal window after dialing to determine whether additional logon information is required. To do so, right-click the icon for the connection, then click Properties. On the Options tab, make sure the option named Bring Up Terminal Window After Dialing is checked. Use the Terminal window to enter any required logon information. This is especially useful if you dial into several different servers.
- Check the PPPLOG.TXT file to ensure that the provider has assigned an IP address.
- Check with your Internet provider to confirm that the connection is using the required settings for protocols, logon information, and TCP/IP addressing.

LAN Adapters and PPP Connections

A Windows 95 computer can be configured with both a LAN adapter connected to an IP network and a Dial-Up Adapter for a PPP connection to the Internet or another IP LAN. When such a computer attempts to access a particular IP address, the destination server is located by checking the routing table and using the following process:

- If the destination IP address indicates that it is on the same IP subnet as the workstation's LAN adapter, then data is sent using the LAN adapter.
- If the destination IP address indicates that it is not on the same subnet as the workstation's LAN adapter, then data is sent to the default gateway. The default gateway then locates the destination route on behalf of the computer. By default, the dial-up connection becomes the default gateway.

This configuration becomes complicated for a user who is either dialing into the Internet when connected to a local private IP network or, conversely, when connected directly to the Internet and dialing into a private IP network. This is because PPP creates a default route if the option named Use Default Gateway On Remote Net is checked.

The default route that PPP creates establishes a priority for this connection in the computer's routing table. This priority allows full access to the remote network for name resolution and forwarding packets. However, it means more limited access for the local connection, because the default gateway used for network communications becomes the default gateway specified for the PPP connection. You will probably become aware of problems that this can cause when you try to connect to computer on a remote subnet, but Windows 95 reports that it can't find that computer name.

Basically this problem occurs because neither the Domain Name System nor the TCP/IP protocol suite is not designed to support multiple address spaces, which is the situation that occurs when a computer is simultaneously connected to a private IP network and the public Internet (or another private IP network).

To resolve the name resolution problems that can occur when you maintain a local network connection while using a Dial-Up connection to the Internet, see the Windows 95 Route command documentation for instructions on modifying the route table.

Gateway Problems

If a host computer on one subnet has problems communicating to computers on another subnet when using TCP/IP, the following information can help you determine if the problem is with the WebRamp M3t.

Follow these steps to troubleshoot possible problems:

- 1 Use Ping to access the host computer having problems communicating outside the subnet. For example:

```
ping 195.22.3.33
```

If this works, this host is probably healthy at the IP level.

If this doesn't work, use the usual methods to check the IP configuration and network connections on this host.

- 2 If the problem is not solved, use Ping to access the near side of the WebRamp M3t (the default gateway). For example:

```
ping 195.22.3.1
```

If this works, this side of the WebRamp M3t is healthy.

If this doesn't work, use the usual methods to check the actual IP configuration and network connection for the near side of the WebRamp M3t. Adjust the gateway settings on the problem host computer, if required.

Notice, however, that if you can use Ping to get a response from this address, it does not necessarily mean that this is actually a WebRamp M3t.

- 3** If the problem is not solved, use Ping to access the far side of the WebRamp M3t. For example:

```
ping 195.22.4.25
```

If this works, the WebRamp M3t is working.

If this doesn't work, have another user use the same ping command from the destination node (195.22.4.66 in the example).

If this works, the WebRamp M3t is not working correctly.

- 4** If the problem is not solved, use ping to access the remote host. For example:

```
ping 195.22.4.66
```

If this works and all problems in the previous steps have been resolved, TCP/IP should be working fine.

If this doesn't work, check the IP configuration and network connections on the destination computer. Typically, at this point the problem is that the remote computer has not route configured back to the original host computer.

When troubleshooting WebRamp M3t connections, note the following:

- Do not use the host name when you are testing the WebRamp M3t; instead, use the IP address to avoid any problems related to the HOSTS or LMHOSTS files, DNS server, WINS server, or any other methods of name resolution.
- In most cases, the subnet mask should be the same for all hosts on the same side of the WebRamp M3t.
- There could be two WebRamp M3ts at separate sites performing the same job as described above; if this is the case, treat this situation the same as above, keeping in mind that each WebRamp M3t could have a near and far side, depending on the configuration.
- If multiple WebRamp M3ts exist between the source and destination, use tracert to see an ordered list of WebRamp M3ts used.

Appendix

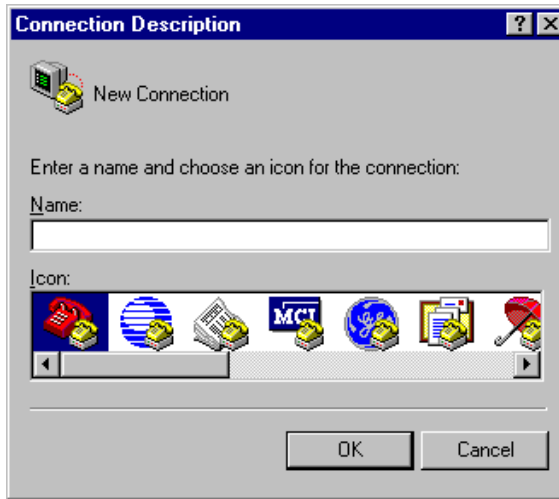
This appendix includes the following information:

- ◆ [Serial Firmware Upgrade for Windows 95](#) contains information on firmware upgrades using the serial port
- ◆ [Recovering the WebRamp M3t's IP Address](#) contains information on recovering the WebRamp M3t's IP address
- ◆ [Expanding your WebRamp M3t Network](#) shows how expand your network
- ◆ [Accessing Fax Services](#) contains information on fax services
- ◆ [Accessing Email Services](#) contains information on email services

Serial Firmware Upgrade for Windows 95

Follow these steps to upgrade your WebRamp M3t firmware using the Console port:

- 1 Connect a serial cable from an available COM port to the Console port of the WebRamp M3t.
- 2 Select **HyperTerminal** from the *Accessories* program group.
- 3 When the *Connection Description* window displays, type any name and click **OK**.

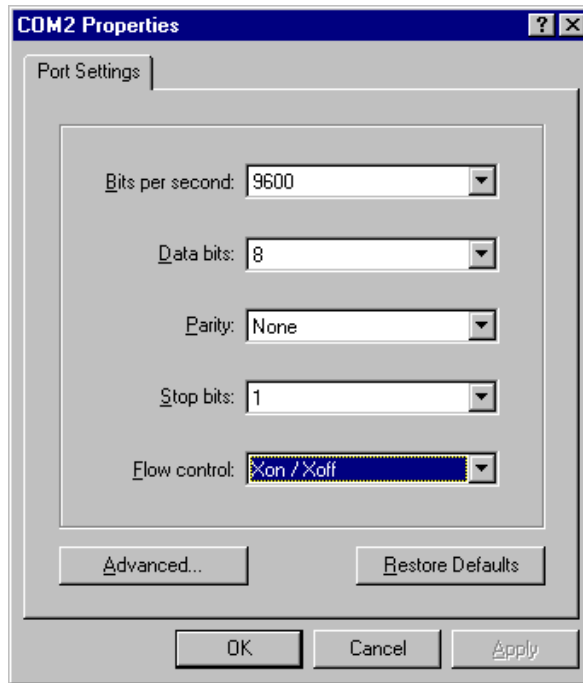


- 4 Select the COM port you are connected to and then click **OK**.



The image shows a Windows-style dialog box titled "Phone Number". It features a blue title bar with a question mark and a close button. Below the title bar is a red telephone icon and the text "test". The main area contains the instruction "Enter details for the phone number that you want to dial:". There are four input fields: "Country code:" (a dropdown menu), "Area code:" (a text box), "Phone number:" (a text box), and "Connect using:" (a dropdown menu showing "Direct to Com 1"). At the bottom are "OK" and "Cancel" buttons.

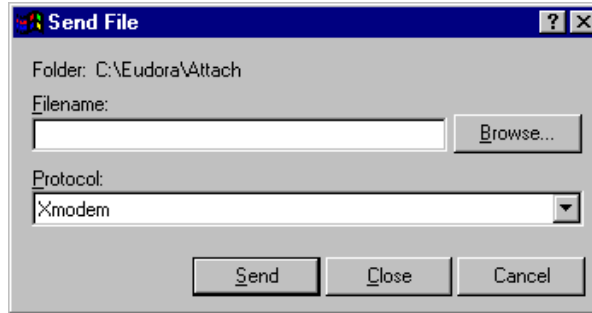
- 5 Verify the COM port settings are set in the example below and then click **OK**. Make sure the *Bits per second* is set to 9600, *Data bits* to 8, *Parity* to None, *Stop bits* to 1 and *Flow Control* to Xon/Xoff.



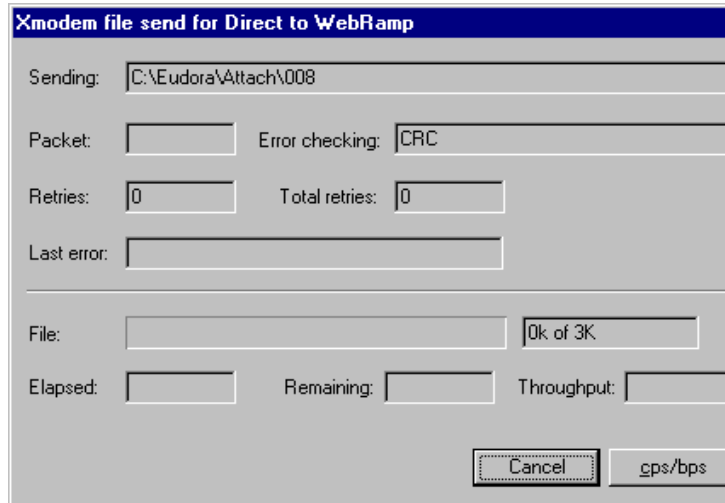
- 6 Power off the WebRamp M3t and follow the instructions as they appear on the HyperTerminal screen.

7 From the *File* menu, select **Properties** to change the baud rate of the serial port. Click **Configure** and then change the baud rate to 38.4K. Click **OK** twice.

8 From the *Transfer* menu, select **Send File**.



9 Use the browse key to locate the upgrade file. Verify the protocol is set to **Xmodem**. Click **Send** to continue the upgrade.



The upgrade takes about 5 minutes to update the firmware. The following message display when the upgrade is complete:

*Xmodem receive completed
Erasing the flash image...
Writing the flash image with the new WebRamp software...
Download successful. WebRamp software has been updated.
Please restore computer's baud rate back to 9600 bps, then
unplug and plug in the power supply to restart WebRamp.*

The upgrade is now successful.

Recovering the WebRamp M3t's IP Address

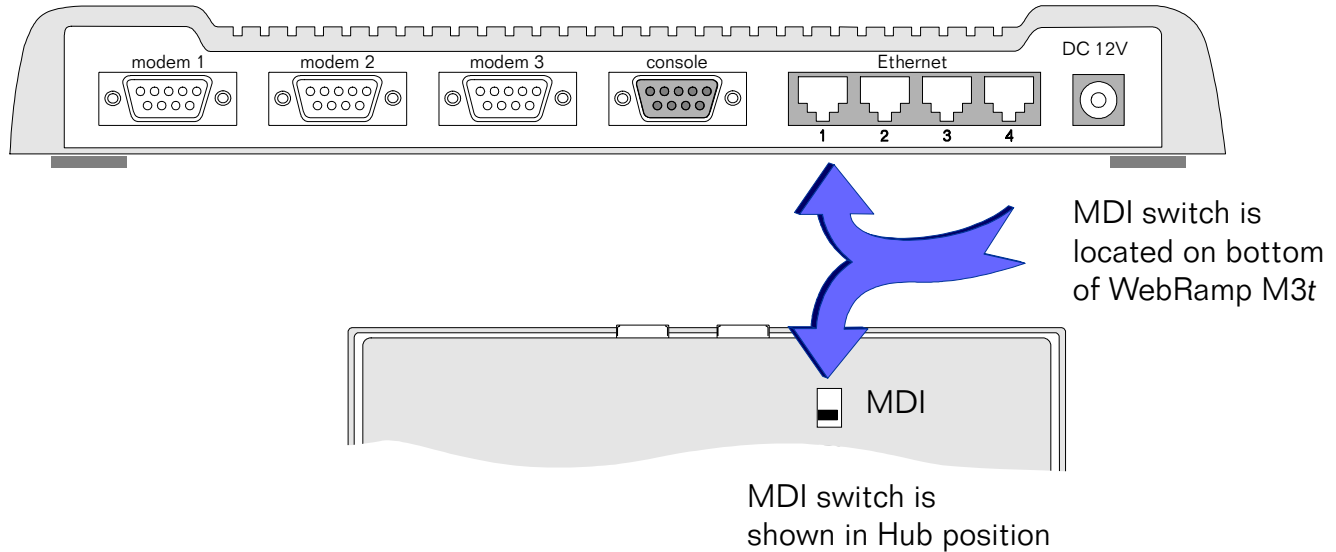
Follow these steps to recover the WebRamp M3t's IP address:

- 1 The default WebRamp M3t's IP address is 192.168.1.1 with a subnet mask of 255.255.255.0.
- 2 The WebRamp M3t's IP address can be changed or recovered by:
 - a Connecting to the WebRamp M3t Configuration page, click **Advanced** and then click **Change WebRamp IP Address**.
 - a Locate the WebRamp Finder utility (wrfinder.exe) included on the WebRamp M3t CD. This utility can be used to set the WebRamp M3t's IP address from a Windows computer. To start, verify the computer has TCP/IP software and that it is connected to the WebRamp M3t via an Ethernet cable. Insert the WebRamp M3t CD, select **Start | Run** and type **wrfinder** and then click **OK**. Once the WebRamp Finder opens, select **Set IP Address** from the Configure menu. Enter the desired IP address and subnet mask for the WebRamp M3t, select **Any WebRamp** and then click **OK**.
 - a Connecting a serial cable between the computer and the WebRamp M3t Console port. The terminal program on the computer should be set to 9600 Baud, 8-N-1 with no flow control. At the login prompt enter **wradmin**. When prompted for a password, enter **trancell** and press Enter twice. A “->” character should appear. Enter the following commands:

```
-> setlocalip "-a <desired IP address> -m <desired subnet mask>"  
-> saveconfig  
-> logoutwr
```

Expanding your WebRamp M3t Network

The WebRamp M3t Ethernet hub can be cascaded with a secondary hub to expand the number of available Ethernet ports. This can be done by connecting one end of a regular 10 Base-T Ethernet cable to Ethernet port 1 of the WebRamp M3t and the other end to any available port on the second hub. If the port 1 light on the WebRamp M3t is not ON, then move the MDI switch found underneath the WebRamp M3t to the Hub position.



Accessing Fax Services

Faxing over the Internet is an easy and cost-effective solution for faxing documents worldwide. You don't have to pay for toll calls when sending faxes outside of your calling area. No more relying on other people at work to help you send a fax to the fax machine down the hall. You no longer have to worry about dedicated phone lines to support a fax machine or fax modem any longer.

Using 3rd party Internet faxing software and the WebRamp M3t, you can fax documents directly from your desktop. Faxing has never been easier! With just a click of a button, you can send a fax across the globe using your existing Internet connection.

Although there are several packages available, we recommend using FaxStorm from NetCentric, FaxLauncher from faxSAV or Faxaway from International Telecom.

FaxStorm

FaxStorm Desktop is a Windows fax application designed specifically for the Internet architecture. If your office has a LAN, everybody on the network can use FaxStorm Desktop. A single Internet connection eliminates the need for a fax server or the need to install and maintain additional expensive phone lines or fax modems at each desktop. FaxStorm comes in two flavors: FaxStorm Desktop - a full-featured Windows 95 and NT 4.0 compatible Internet faxing application. FaxStorm SoftModem - a Windows 95 compatible software modem which allows you to use your existing fax program to send faxes over the Internet.

Download: www.faxstorm.com
Email: sales@faxstorm.com
Sales: 1-617-720-5200
Fax: 1-617-720-5201
Support: 1-617-720-5200, extension 150 / support@faxstorm.com

FaxLauncher

Use your Internet connection to fax from your desktop through the best global network in the world - from anywhere to anywhere. Distribute the same document to thousands of fax machines at the same time from your fax machine, desktop, modem or server.

Download: www.faxsav.com
Email: sales@faxsav.com
Sales: 1-800-711-1895 / Fax 1-800-711-1896
Support: 1-800-828-7115 / Fax 1-800-336-0835 / support@faxsav.com

Faxaway

Using Faxaway is simple: just send an Internet email message to *faxnumber@faxaway.com*, making sure to include the country code and area code of the recipient (the country code for the United States is 1, thus a fax to Faxaway in the Seattle area would be sent to *12063017500@faxaway.com*). The email arrives at our Internet Node in the U.S. and is faxed through our state of the art high-speed equipment to the proper destination.

Download: www.faxaway.com
Email: admin@faxaway.com
Fax: 1-206-301-7500
Telephone: 1-800-906-4329

Accessing Email Services

With the WebRamp M3t, multiple people on your network can access email simultaneously. Although the WebRamp M3t accesses the Internet using a single IP address Internet account, this does not restrict your network from having multiple email accounts. The number of email accounts you can use are not tied to the type of Internet accounts that you have.

In today's fast-paced world, everyone needs email access and their own email account. ISP's typically provide one or more email accounts when you order your single-user account. Most ISP's also offer additional email accounts for a nominal fee.

The following lists the information provided by your ISP for email accounts and configuring any 3rd party applications (such as Eudora or Eudora Lite):

- ◆ Email name (for example *joeuser@ispname.com*)
- ◆ Email account password
- ◆ Mail server (SMTP) for outgoing email
- ◆ News and discussion server (NNTP) (optional)
- ◆ Mail server (POP3 or IMAP) for incoming email

Additionally, to configure your 3rd party applications or Internet browser, you also need the following optional information:

- ◆ Reply-to address
- ◆ Organization
- ◆ Signature file
- ◆ Send and post mail and discussion messages
- ◆ Where to send copies of email messages

