

InnoMedia MTA XT 6328-2Re

Version 2.0

User's Guide



IMPORTANT NOTICE CONCERNING EMERGENCY 911 SERVICES

Your service provider, not the manufacturer of the equipment, is responsible for the provision of telephony services through this equipment. Any services provided through this equipment are not intended to replace or be a substitute for primary line voice services or Plain Old Telephone Service (“POTS”) and are not meant to provide Automatic Number Identification or Automatic Location Information capabilities associated with emergency 911 or E911 services. Check with your service provider to determine whether emergency 911 or E911 services are offered as part of your plan. Even where emergency 911 services are offered as part of your plan, the service will not work properly if you move the equipment to a different location from your registered location. You should also be aware that telephony services (including 911) will not work in the event of either a failure of your internet service or in the event of a power outage. You must inform any other persons who may use this equipment of the limitations of 911 and E911 emergency services. It is strongly recommended that you always maintain an alternate means of reaching a 911 operator in case of an emergency. The manufacturer, distributor and service provider shall not be liable for, and expressly disclaim, any direct or indirect damages, claims, losses, expenses, liabilities, actions, risks, or harms arising out of or related to the services provided through this equipment, including without limitation, emergency 911 or E911 services.

All Rights Reserved. Copyright © 2005

The use, disclosure, modification, transfer, or transmittal of this work for any purpose, in any form, or by any means, without the written permission of the copyright holder, is strictly forbidden.

Disclaimer

The content of this manual is subject to change without notice and should not be construed as a commitment by the manufacturer, distributor, or service provider. This manual is furnished for informational use only and the manufacturer, distributor, or service provider assumes no responsibility for any errors or inaccuracies that may appear herein.

Table of Contents

1	WELCOME	1
	OVERVIEW.....	1
	PRODUCT FEATURES	2
	PACKAGE CONTENTS	2
	SYSTEM AND SERVICE REQUIREMENTS.....	3
	ABOUT THIS GUIDE	3
	<i>Symbols</i>	5
2	GETTING STARTED	7
	OVERVIEW.....	7
	INNOMEDIA MTA XT 6328-2RE HARDWARE OVERVIEW.....	7
	<i>LED Lights</i>	7
	<i>Back Panel</i>	10
	SETTING UP THE MTA.....	11
	<i>Preparing for Installation</i>	11
	<i>Installing the MTA</i>	11
	Installation without an External Router	11
	<i>Verifying that You Have Internet Connectivity</i>	13
	Installation with an External Router	14
	<i>Recommended Configuration with an External Router</i>	15
	<i>Alternate Configuration with an External Router</i>	17
	CONFIGURING THE MTA WAN INTERFACE.....	20
	<i>Using DHCP Addressing</i>	21
	<i>Using Static IP Addressing, PPPoE, or MAC Address Cloning</i>	22
	Configuring Your PC for DHCP Addressing.....	22
	<i>Verifying that the PC Has Obtained an IP Address</i>	23
	Logging into the Web Management Tool	23
	Using Static IP Addressing	24
	<i>Verifying that You Have Internet Connectivity</i>	26
	Using PPPoE.....	27
	<i>Verifying that You Have Internet Connectivity</i>	29
	Using MAC Cloning	29
	<i>Verifying that You Have Internet Connectivity</i>	30
3	PLACING CALLS	32

OVERVIEW.....	32
UNDERSTANDING DIAL PLANS.....	32
CALLING WITH A NORTH AMERICAN DIAL PLAN	33
<i>Calling North American Destinations</i>	33
<i>Calling International Destinations</i>	33
CALLING WITH A NON-NORTH AMERICAN DIAL PLAN	34
4 USING THE WEB MANAGEMENT TOOL	36
OVERVIEW.....	36
LOGGING INTO THE WEB MANAGEMENT TOOL	37
CONFIGURING THE MTA VIA THE WEB MANAGEMENT TOOL ..	38
<i>Network Configuration</i>	38
<i>Port Configuration</i>	40
<i>Device Management</i>	42
Device Information.....	42
Username and Password.....	44
Firmware Upgrade	45
<i>Advanced Settings</i>	47
<i>Router Settings</i>	48
Router/Switch Mode.....	48
NAT Port Map	49
<i>Configuring NAT Port Mapping</i>	50
<i>Deleting a Port Mapping Entry</i>	51
Voice QoS Settings.....	51
<i>Configuring the Voice QoS Settings</i>	52
Access Filtering	53
<i>Configuring IP Filtering</i>	54
<i>Configuring Domain Filtering</i>	55
<i>Configuring URL Filtering</i>	57
<i>Configuring MAC Filtering</i>	59
DHCP Server	61
MAC Cloning.....	64
PPPoE Setting	65
PPPoE Status	66
<i>Disconnecting and/or Reconnecting to PPPoE</i>	66
DMZ Settings	67
<i>Configuring DMZ Setting</i>	67
<i>Reboot</i>	68
<i>Restore Default Values</i>	68
5 TELEPHONY FEATURES.....	70

OVERVIEW.....	70
6 APPENDICES.....	72
APPENDIX A – TROUBLESHOOTING & TECHNICAL SUPPORT..	73
APPENDIX B – APPROVALS AND LISTINGS	76
<i>FCC Declaration of Conformity</i>	76
<i>FCC Compliance Statement:</i>	76
APPENDIX C – END USER WARRANTY	77
7 INDEX.....	80

1

Welcome

Overview

Congratulations on purchasing the InnoMedia MTA XT 6328-2Re!

The MTA is a Voice over Internet Protocol (VoIP) broadband device that allows you to connect up to two analog telephones and make and receive calls over the Internet using a broadband connection. The MTA includes a built-in broadband router that shares the Internet connection with your PC.

The MTA converts the analog signal from your telephone(s) to Voice over Internet Protocol (VoIP). It then uses the LAN's broadband connection to send calls over the Internet via the service platform. Since calls bypass most of the Public Switched Telephone Network (PSTN), the result is significant savings on long-distance communications services.

This chapter will introduce you to the InnoMedia MTA XT 6328-2Re device (MTA), its features, and its requirements.



This chapter describes:

- ★ **Product Features**
- ★ **Package Contents**
- ★ **System and Service Requirements**
- ★ **About this Guide**



NOTE: If you need technical support for the MTA, contact your service provider. Please do not contact InnoMedia directly.

Product Features

Designed for versatility and performance, the MTA provides the following features.

- ★ **Auto-provisioning** – the device settings are automatically obtained from a central provisioning server, so the device is ready to use as soon as you set it up and connect it to the Internet.
- ★ **LEDs** – the device has light-emitting diodes (LEDs) that communicate the status of the device and each call.
- ★ **Built-in router** – provides an IP address to a connected PC.
- ★ **Port mapping** – supports port mapping for routing inbound data requests.
- ★ **Voice QoS settings** – Voice QoS (Quality of Service) settings allow you to designate the amount of bandwidth available on the MTA's uplink ports. This can be helpful to control the bandwidth to prevent data clogging, thus preserving voice quality.
- ★ **Voice prioritization** – prioritizes voice traffic over data traffic for Quality of Service (QoS) management.
- ★ **Access filtering** – provides Internet access control of the connected PC.
- ★ **PPPoE** – supports authentication via the PPPoE broadband authentication protocol.
- ★ **MAC cloning** – accommodates users whose service providers authenticate via MAC address.

Package Contents

You should find the following contents in your InnoMedia package:

- ★ InnoMedia MTA XT 6328-2Re device
- ★ One 12-volt D/C power adapter
- ★ One standard telephone cable (RJ-11)
- ★ One standard Ethernet network cable (RJ-45)

- ★ User's Guide (if not available in your package, please contact your distributor)
- ★ Getting Started Guide

System and Service Requirements

You will need the following items/services to use the MTA:

- ★ A broadband Internet connection (such as DSL, cable, or T1)
- ★ A valid account from your distributor
- ★ A cordless or wired analog telephone
- ★ A PC with any recent Web browser (for managing your account details and calling features only)
- ★ Most broadband Internet connections use dynamic IP addressing (DHCP), but if your WAN uses static IP addresses, you will also need the following information for the MTA:
 - IP address
 - Netmask
 - Gateway address
 - DNS server address
 - PPPoE information, if applicable

This information is available from your broadband service provider or LAN administrator.

About this Guide





This User's Guide, as well as the other instructional literature that accompanies the InnoMedia, is intended for people who have a moderate degree of experience installing networking equipment such as routers, hubs, servers, and switches, and are familiar with basic wiring and cabling practices.

The table below provides a brief overview of the main topics covered in this Guide.

FOR INFORMATION ON...	GO TO...
Product features	Chapter 1, <i>Welcome</i>
System requirements	Chapter 1, <i>Welcome</i>
Hardware overview	Chapter 2, <i>Getting Started</i>
Connecting the device to a network	Chapter 2, <i>Getting Started</i>
Placing calls	Chapter 3, <i>Placing Calls</i>
Logging into the Web Management Tool	Chapter 4, <i>Using the Web Management Tool</i>
Configuring the device via the Web Management Tool	Chapter 4, <i>Using the Web Management Tool</i>
Upgrading the firmware	Chapter 4, <i>Using the Web Management Tool</i>
Enabling reverse polarity	Chapter 4, <i>Using the Web Management Tool</i>
Rebooting the device	Chapter 4, <i>Using the Web Management Tool</i>
Restoring the default values	Chapter 4, <i>Using the Web Management Tool</i>
Troubleshooting	Chapter 5, <i>Appendices</i>
Contacting Technical Support	Chapter 5, <i>Appendices</i>

Symbols

Throughout the user's guide, you will see information highlighted for you with the following fun symbol icons:

SYMBOL	REPRESENTS
	Chapter Description
	Note
	Tip
	Important

2

Getting Started

Overview

Before you can start using your MTA, it's a good idea to familiarize yourself with the hardware. Once you have done that, setting up the MTA should be very simple.



This chapter describes:

- ★ **The MTA hardware**
- ★ **How to set up the MTA**
- ★ **How to connect the MTA to the network**

InnoMedia MTA XT 6328-2Re Hardware Overview

The following images show the top and back panel of the MTA.

LED Lights

On the top of the device, there are nine (9) light-emitting diode (LED) lights that communicate the device, call, and feature statuses.



InnoMedia MTA XT 6328-2Re LEDs

The following table describes each LED and what the different behaviors (blinking light, steady light, etc.) mean:

MTA LED STATUS INDICATORS		
LED	Light Status	MTA Status
PWR	Steady (Green)	The device power is on.
	Off	The device power is off.
RUN	Blinking (Red)	The device failed to do one of the following: <ul style="list-style-type: none"> • Download a configuration file. • Download an image file. • Complete SIP Registration. • Obtain valid IP connectivity.
	Blinking (Green)	The device is actively downloading a configuration file or a firmware update.
	Steady (Green)	The device has been configured successfully and is running normally.
	Off/Other	The device is malfunctioning.

MTA LED STATUS INDICATORS		
LED	Light Status	MTA Status
WAN	Blinking (Green - 10 Base T or Orange - 100 Base T)	PC or voice data is being transferred.
	Steady (Green - 10 Base T or Orange - 100 Base T)	The device is connected to a broadband network.
	Off	The device is not connected to a broadband network.
LAN	Blinking (Green - 10 Base T or Orange - 100 Base T)	PC data is being transferred.
	Steady (Green - 10 Base T or Orange - 100 Base T)	The device is connected to an external PC.
	Off	The device is not connected to an external PC.
VOIP	Off	The unit failed to complete SIP registration.
	Steady (Green)	The VoIP module is internally initialized and the unit is ready to make calls.
PHONE 1/ PHONE 2	Blinking (Orange)	The connected telephone handset is on the hook (not in use) and there are new voice mail messages.
	Steady (Green)	The connected telephone handset is off the hook.
	Off	There are no new VoiceMail messages, and the phone is not in use.



IMPORTANT: All of the LEDs will be on and/or blinking when the MTA is booting, which can take several minutes. The device is ready to use when the RUN light is steady.

Back Panel

The back panel of the MTA contains the input/output ports.

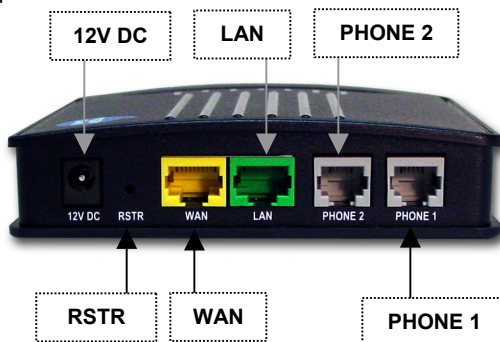


Figure 2 – InnoMedia MTA XT 6328-2Re Back Panel

- ★ **12V DC (Power)** – connects to a wall outlet with the supplied 12-Volt D/C power adapter.
- ★ **RSTR** – resets the factory default settings.
- ★ **WAN (Yellow port)** – connects to your broadband Internet connection with an Ethernet network cable (RJ-45).
- ★ **LAN (Green port)** – connects to your PC's Ethernet port with an Ethernet network cable (RJ-45).
- ★ **Phone 1** – connects to an analog telephone with a standard telephone wire (RJ-11).
- ★ **Phone 2** – connects to an analog telephone with a standard telephone wire (RJ-11).

Setting up the MTA

This section provides step-by-step instructions for installing the MTA and configuring your PC's IP settings.



NOTE: You will need to use a PC that has an Internet browser and a network interface card (NIC) installed.

Preparing for Installation

Before you begin the installation process, you will need to know the connection type used by your Internet Service Provider (ISP). The connection type determines how the device will communicate with your broadband service provider. The options are:

- ★ DHCP, or Dynamic Host Configuration Protocol, addressing (default setting on the MTA)
- ★ Static IP addressing
- ★ PPPoE, or Point-to-Point Protocol over Ethernet
- ★ MAC address cloning

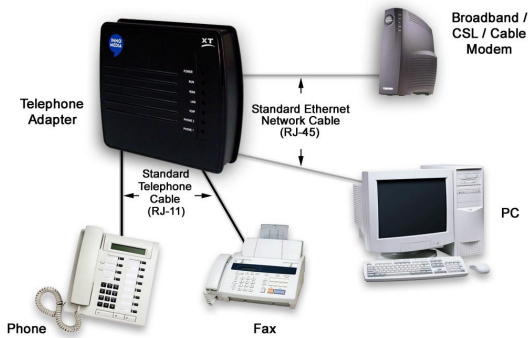
These will be explained in more detail in the **Configuring the InnoMedia MTA WAN Interface** section on page 20. Contact your ISP to determine the connection type you should configure for the MTA.

Installing the MTA

If you have only one PC that will need to access the Internet, your broadband service provider uses DHCP, and you do not have a router, continue to the following section, **Installation without an External Router**. If you currently use a router to share your broadband connection with multiple PCs, skip to the **Installation with an External Router** section on page 14.

Installation without an External Router

These instructions explain how to set up the MTA with one PC. The diagram below displays an example of this configuration.



Recommended Configuration with a Single PC

To set up the MTA with one PC:

1. Turn off your PC, & unplug the broadband/DSL/cable modem power cord.



IMPORTANT: Do not plug in the MTA's power cord until instructed to do so.

2. Using the standard Ethernet network cable (RJ-45) included with the MTA device, connect the **LAN (Green port)** port on the back of the MTA to your PC's Ethernet port.
3. Using the standard telephone wire (RJ-11) included with the device, connect the **Phone 1** port on the back of the device to your telephone.
4. Using the standard Ethernet network cable (RJ-45) supplied by your Internet Service Provider, connect the **WAN (Yellow port)** port on the back of the MTA to your broadband/DSL/cable modem or existing LAN broadband connection (i.e., office network).
5. Plug in the broadband/DSL/cable modem's power cord.

Wait about two minutes for the modem to initialize.

6. Connect the D/C power adapter (included with the device) to the **12V DC** port on the back of the MTA, and then plug in the power cord. *Wait several minutes for the device to initialize. It may take up to fifteen (15) minutes for the device to download the configuration files.*
The MTA is ready when the RUN light is steady.
7. Turn on your PC.
 - ♦ **DHCP users:** *If your broadband service provider uses DHCP, wait several minutes for the device to initialize. It may take up to fifteen (15) minutes for the device to download the configuration files.*

The MTA is ready when the RUN light is steady.

*Continue to the next section, **Verifying that You Have Internet Connectivity** to make sure that your PC can connect to the Internet.*

- ♦ **Static IP addressing, PPPoE, or MAC address cloning users:** *If your broadband service provider uses one of these connection types, continue with the **Configuring the InnoMedia MTA WAN Interface** section on page 20 in this Guide.*

VERIFYING THAT YOU HAVE INTERNET CONNECTIVITY

To verify that your PC can now access the Internet through the MTA and that your broadband connection is functioning properly, open a Web browser on the PC connected to the MTA, and attempt to connect to a Web site.

- ★ If you are **able** to connect to a Web site successfully, you are now ready to make phone calls with your MTA! For more details on placing and receiving calls, continue to Chapter 3, **Placing Calls**.

- ★ If you are **unable** to connect to a Web site from the PC connected to the MTA, check your cabling and repeat steps 1 through 7 on the previous page.

If you repeated the steps and are still unable to connect to a Web site, contact your service provider.

Installation with an External Router

If you already have a router that allows you to share your broadband connection with multiple PCs, the recommended configuration connects the broadband modem directly with the MTA, which connects to the external router, which connects to the PC. This configuration ensures that you will experience higher voice quality than you would if the router were directly connected to the broadband modem. This is because the Voice QoS functionality gives priority to voice transmissions over data transmissions. If you try to make a phone call while transferring data, the MTA gives priority to the voice traffic over the data traffic and maintains the high voice quality.

Because of the voice quality advantage, this configuration is highly recommended. To connect the device using this configuration, continue with the following section, **Recommended Configuration with an External Router**.

If you prefer to keep your current router configuration, you can connect the MTA to the router. To connect the device using this configuration, skip to the **Alternate Configuration with an External Router** section on page 17 in this Guide.

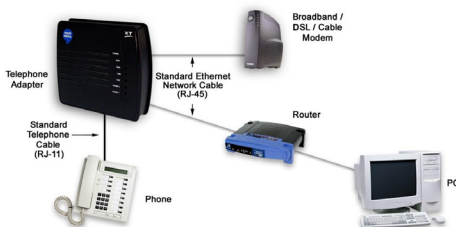


NOTE: If you decide to use this alternate configuration, you will not be able to take advantage of the MTA's Voice QoS functionality. This feature gives priority to voice transmissions over data transmissions and optimizes the voice quality of your calls.

To use the recommended configuration and utilize the device's Voice QoS functionality, refer to the **Recommended Configuration with an External Router** section on page 15 in this Guide.

RECOMMENDED CONFIGURATION WITH AN EXTERNAL ROUTER

This configuration is recommended if you have a router and would like to set up the MTA while allowing multiple PCs to access your broadband connection. The diagram below displays an example of this configuration.



Recommended Configuration with an External Router



IMPORTANT: If your router is configured to use static IP addressing, PPPoE, or MAC address cloning, you must re-set it to use DHCP before beginning the installation. Refer to the router's User's Guide for instructions.

To set up the MTA with more than one PC using the recommended configuration:

1. Turn off your PC, and unplug the cable modem and router.



IMPORTANT: Do not plug in the MTA's power cord until instructed to do so.

2. Using the standard Ethernet network cable (RJ-45) included with the MTA device, connect the **LAN (Green port)** port on the back of the MTA to the router.
3. Using a standard Ethernet network cable (RJ-45), connect the Ethernet port on your PC to the router.
4. Using the standard telephone cable (RJ-11) included with the device, connect the **Phone 1** port on the back of the device to your telephone.
5. Using a standard Ethernet network cable (RJ-45), connect the **WAN (Yellow port)** port on the back of the MTA to your broadband/DSL/cable modem or existing LAN broadband connection (i.e., office network).
6. Plug in the broadband/DSL/cable modem's power cord.
Wait about two minutes for the modem to initialize.
7. Connect the D/C power adapter (included with the device) to the **12V DC** port on the back of the MTA, and then plug the power cord into a wall outlet.
8. Plug in the router.
9. Turn on the PC.
 - ♦ **DHCP users:** *If your broadband service provider uses DHCP, wait several minutes for the device to initialize. It may take up to fifteen (15) minutes for the device to download the configuration files.*

The MTA is ready when the RUN light is steady.

*Continue to the next section, **Verifying that You Have Internet Connectivity** to make sure that your PC can connect to the Internet.*

- ♦ **Static IP addressing, PPPoE, or MAC address cloning users:** *If your broadband service provider uses one of these connection types, continue with the **Configuring the InnoMedia MTA WAN Interface** section on page 20 in this Guide.*

VERIFYING THAT YOU HAVE INTERNET CONNECTIVITY

To verify that your PC can now access the Internet through the MTA and that your broadband connection is functioning properly, open a Web browser on the PC connected to the MTA, and attempt to connect to a Web site.

- ★ If you are **able** to connect to a Web site successfully, you are now ready to make phone calls with your MTA! For more details on placing and receiving calls, continue to Chapter 3, **Placing Calls**.
- ★ If you are **unable** to connect to a Web site from the PC connected to the MTA, check your cabling and repeat steps 1 through 7 on the previous page.

If you repeated the steps and are still unable to connect to a Web site, contact your service provider.

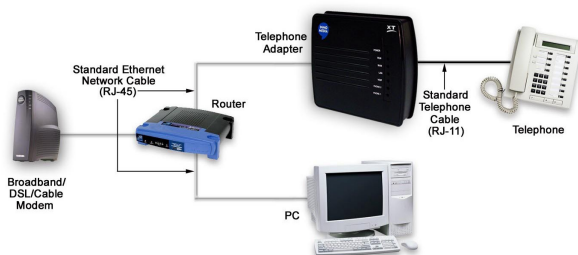
ALTERNATE CONFIGURATION WITH AN EXTERNAL ROUTER

If you already have a router connected to your broadband connection and you do not want to change your configuration, you can connect the MTA to the router. The diagram on the next page displays an example of this configuration.



NOTE: If you decide to use this alternate configuration, you will not be able to take advantage of the MTA's Voice QoS functionality. This feature gives priority to voice transmissions over data transmissions and optimizes the voice quality of your calls.

To use the recommended configuration and utilize the device's Voice QoS functionality, refer to the **Recommended Configuration with an External Router** section on page 15 in this Guide.



Alternate Configuration with an External Router



NOTE: For the steps below, please make sure that the cable/DSL modem and the router are connected, turned on, and functioning properly.

To set up the MTA with more than one PC using the alternate configuration:



IMPORTANT: Do not plug in the MTA's power cord until instructed to do so.

1. Using a standard Ethernet network cable (RJ-45) included with the device, connect the

WAN (Yellow port) port on the back of the MTA to the router.

2. Using the standard telephone cable (RJ-11) included with the device, connect the **Phone 1** port on the back of the MTA to your telephone.
3. Connect the D/C power adapter (included with the device) to the **12V DC** port on the back of the MTA, and then plug the power cord into a wall outlet.
 - ♦ **DHCP users:** *If your broadband service provider uses DHCP, wait several minutes for the device to initialize. It may take up to fifteen (15) minutes for the device to download the configuration files.*

The MTA is ready when the RUN light is steady.

*Continue to the next section, **Verifying that You Have Internet Connectivity** to make sure that your PC can connect to the Internet.*

- ♦ **Static IP addressing, PPPoE, or MAC address cloning users:** *If your broadband service provider uses one of these connection types, continue with the **Configuring the InnoMedia MTA WAN Interface** section on the next page.*

VERIFYING THAT YOU HAVE INTERNET CONNECTIVITY

To verify that your PC can now access the Internet through the MTA and that your broadband connection is functioning properly, open a Web browser on the PC connected to the MTA, and attempt to connect to a Web site.

- ★ If you are **able** to connect to a Web site successfully, you are now ready to make phone calls with your MTA! For more details on placing and receiving calls, continue to Chapter 3, **Placing Calls**.
- ★ If you are **unable** to connect to a Web site from the PC connected to the MTA, check your cabling and repeat steps 1 through 7 on

the previous page.

If you repeated the steps and are still unable to connect to a Web site, contact your service provider.



NOTE: If you are using the alternate configuration as described in this section and would like to connect to the device's Web Management Tool, you must first connect the PC to the MTA's LAN port.

Configuring the MTA WAN Interface

There are four (4) possible methods in which your ISP provides an IP address to the MTA:

- ★ **DHCP addressing** – With this method, the device's IP address parameters are configured automatically when you connect it to your broadband service connection. This is the default setting on the MTA.
- ★ **Static IP addressing** – Using this method, the MTA is assigned a constant IP address.
- ★ **PPPoE** – With PPPoE, a user name and password is configured on the MTA, which then authenticates the user name and password to the broadband service provider.
- ★ **MAC cloning** – Some service providers authenticate from the customer's location via the customer's MAC address (on the PC). MAC cloning allows the user to enter their PC's MAC address in the router (built into the MTA), to successfully authenticate into the service provider.

If you are not sure which connection type applies to your Internet connection, please contact your ISP to determine which type they use.

If your ISP uses DHCP, all you need to do is connect the device and wait for the initialization to complete. Refer to the **Using DHCP Addressing** section below for more details.

If your ISP uses static IP addressing, PPPoE, or MAC address cloning, you will need to configure the MTA according to the specific connection type being used. The steps required to do this are listed below and are explained in more detail in following sections:

1. **Set your PC to use DHCP addressing.**
(This will allow the PC to obtain an IP address from the MTA.)
2. **Log into the Web Management Tool.**
3. **Configure the settings according to the connection type your ISP uses.**
4. **Verify that your PC can access the Internet successfully.**

To begin the configuration process, skip to the **Using the Static IP Addressing, PPPoE, or MAC Address Cloning** section on the next page.

Using DHCP Addressing

DHCP enables individual computers on an IP network to obtain their configurations from a server (the DHCP server). If your ISP uses DHCP addressing and you have a valid Internet connection, the MTA will automatically connect to the provisioning server and download its configuration file as soon as it is connected to the network (steps described above, **Connecting the InnoMedia MTA to a Network**). If it finds a firmware upgrade, it will also automatically install the new version. The **Run** LED will blink quickly to signal that the device is actively provisioning.

If the provisioning process fails, refer to **Appendix A, Troubleshooting and Technical Support**, on page 73 in this Guide.



NOTE: The device will automatically re-connect to this server periodically to check for new configuration or firmware files.

The setup is complete when the **Run** LED is a steady green.

If you need to share the MTA's Internet connection with your PC (i.e., it is connected to the MTA's LAN port), you must configure the PC to access the Internet via the MTA's built-in router. Continue to the **Configuring Your PC for DHCP Addressing** section below.

If you have completed the set-up steps successfully, you are now ready to make phone calls with your MTA! For more details on placing and receiving calls, continue to Chapter 3, **Placing Calls**, on page 32 in this Guide.

Using Static IP Addressing, PPPoE, or MAC Address Cloning

If your ISP does not use DHCP, you will need to configure the device via the Web Management tool to use another connection method.

Configuring Your PC for DHCP Addressing

In order to connect to the Internet, you must first configure the PC connected to the LAN port to use DHCP so that it can obtain an IP address from the MTA's built-in DHCP server. Once you have done that, you can begin configuring the MTA for your ISP's connection type.

The steps below are an example of how to configure your PC to use DHCP with Windows 2000. The steps may vary for other operating systems.

To configure your PC to connect to the Internet via DHCP addressing:

1. Click the **Start** button on the taskbar in the lower left-hand corner of the screen, and then select **Settings: Control Panel**.
The Control Panel window displays.
2. Double-click the **Network** or **Network and Dial-Up Connections** icon.
The Network or Network and Dial-Up Connections window displays.
3. Right-click the **Local Area Connection** option and select **Properties** from the short-cut menu.
The Local Area Connection Properties window displays.

4. Double-click the **TCP/IP** (or **Internet Protocol TCP/IP**) option.
The TCP/IP Properties window displays.
5. Write down the current settings before making any changes (in case you need to restore your original settings).
6. Click the radio button next to the **Obtain an IP address automatically** option.
7. Click the radio button next to the **Obtain DNS Server address automatically** option.
8. Click the **OK** button to save your changes.
9. Restart the PC.
The PC will automatically obtain an IP address from the MTA's built-in DHCP server.

Once these steps have been completed, it is a good idea to make sure that the IP address has been assigned successfully.

VERIFYING THAT THE PC HAS OBTAINED AN IP ADDRESS

To verify that the PC obtained an IP address:

1. Click the **Start** button and select **Programs: Accessories: Command Prompt**.
A command prompt window displays.
2. At the command prompt, type `ipconfig` and then press the **Enter** key.
The PC's IP address should be within the default range of 192.168.99.100 to 192.168.99.199.
 - ♦ If it does not have an IP address within that range, repeat the steps for **Configuring Your PC for DHCP** above.
3. Close the command prompt window.

Continue with the next section, **Logging into the Web Management Tool**, to configure the MTA.

Logging into the Web Management Tool

Now that your PC has obtained an IP address from the MTA's DHCP server, the next step is to log into the

Web Management tool to configure the WAN interface settings.

To log onto the Web Management tool:

1. From a PC connected to the MTA's **LAN (Green port)** port, open a Web browser.
2. In the **Address** text box, enter the following IP address to connect to the MTA Web Management Tool:
192.168.99.1
The InnoMedia MTA Web Management login page displays.
3. Enter the user ID **admin** and the password **n2p**, and then click the **OK** button.
The Web Management tool home page (the Device Management: Device Information page) displays.



NOTE: User IDs and passwords are case sensitive.

You are now ready to configure the MTA to use your ISP's connection type. If your ISP uses static IP addressing, continue to the **Using Static IP Addressing** section below.

If your ISP uses PPPoE, refer to the **Using PPPoE** section on page 27 in this Guide. If you need to configure the MTA for MAC address cloning, refer to the **Using MAC Cloning** section on page 29 in this Guide.

Using Static IP Addressing

Now that you have configured your PC to access the Internet via the MTA's built-in router and logged into the Web Management tool site, you are ready to configure the device's WAN interface to use static IP addressing.

To assign a static IP address to the MTA, contact your broadband service provider and obtain the following information:

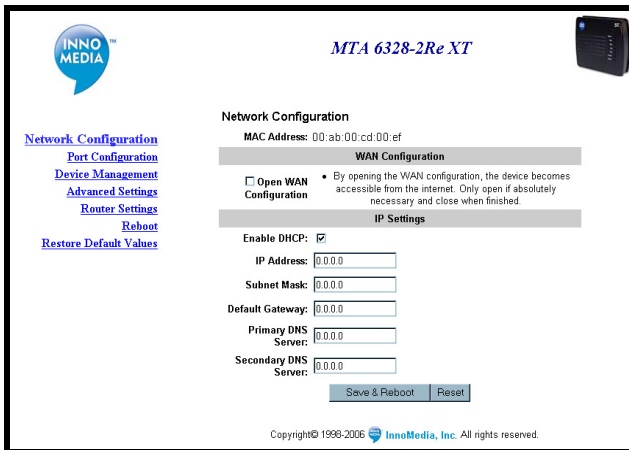
- ★ IP address
- ★ Subnet mask

- ★ Default gateway
- ★ Primary DNS server
- ★ Secondary DNS server (if necessary)

Once you have this information, follow the steps below.

To set a static IP address on the MTA:

1. If it is not already on your screen, access the Web Management tool via the Web. Refer to the **Logging into the Web Management Tool** section on page 23 for instructions.
2. Click the **Network Configuration** link on the sidebar menu.
The Network Configuration page displays.



Network Configuration Page

3. Disable DHCP by clicking the **Enable DHCP** checkbox to remove the checkmark (✓).
4. In the **IP Address** field, enter the static IP address.
5. In the **Subnet Mask** field, enter the subnet mask value.
6. In the **Default Gateway** field, enter the default gateway address.
7. In the **Primary DNS Server** field, enter the primary DNS server address.

8. In the **Secondary DNS Server** field, enter the secondary DNS server address, if applicable.
9. Click the **Save & Reboot** button.
The settings will be saved and the MTA will restart.



IMPORTANT: After you set up the InnoMedia for the first time, it may take up to fifteen (15) minutes to download the configuration files. During the download process, the device's RUN LED blinks quickly. When the RUN LED stops blinking and remains steady, the download process is complete -- you will now hear a dial tone.

The setup is complete when the **RUN** LED is a steady green.

Continue with the next section to make sure that your PC can connect to the Internet.

VERIFYING THAT YOU HAVE INTERNET CONNECTIVITY

To verify that your PC can now access the Internet through the MTA and that your broadband connection is functioning properly, open a Web browser on the PC connected to the MTA, and attempt to connect to a Web site.

- ★ If you are **able** to connect to a Web site successfully, you are now ready to make phone calls with your MTA! For more details on placing and receiving calls, continue to Chapter 3, **Placing Calls**.
- ★ If you are **unable** to connect to a Web site from the PC connected to the MTA, repeat steps 1 through 9 in the **Using Static IP Addressing** section, starting on page 24.

If you repeated the steps and are still unable to connect to a Web site, contact your service provider.

Using PPPoE

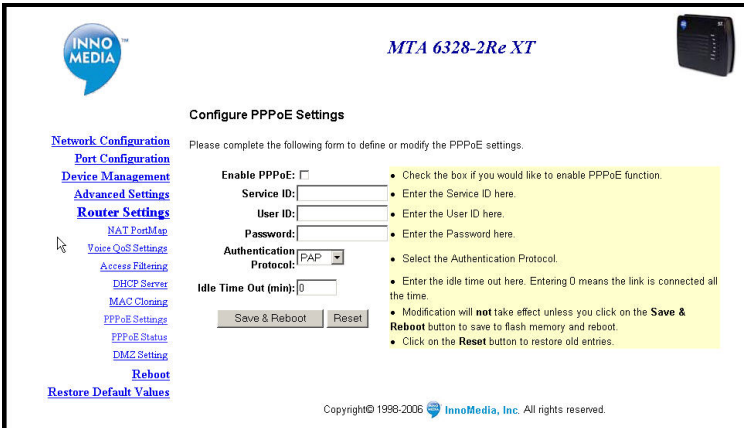
Now that you have configured your PC to access the Internet via the MTA's built-in router and logged into the Web Management tool site, you are ready to configure the device's WAN interface to use PPPoE.

To complete the configuration, you will need to know your PPPoE authentication information (user name and password). If you are unsure about your PPPoE user name and password, contact your service provider to obtain this information.

For more information about the PPPoE Settings page, refer to the **PPPoE Setting** section on page 73 in this Guide.

To configure PPPoE settings:

1. If it is not already on your screen, access the Web Management tool via the Web. Refer to the **Logging into the Web Management Tool** section on page 23 for instructions.
2. In the sidebar menu, click the **Router Settings** link, and then click the **PPPoE Setting** link.
The Configure PPPoE Settings page displays.



Configure PPPoE Settings

Please complete the following form to define or modify the PPPoE settings.

Enable PPPoE: • Check the box if you would like to enable PPPoE function.

Service ID: • Enter the Service ID here.

User ID: • Enter the User ID here.

Password: • Enter the Password here.

Authentication Protocol: PAP • Select the Authentication Protocol.

Idle Time Out (min): • Enter the idle time out here. Entering 0 means the link is connected all the time.

Save & Reboot **Reset**

- Modification will **not** take effect unless you click on the **Save & Reboot** button to save to flash memory and reboot.
- Click on the **Reset** button to restore old entries.

Copyright © 1998-2006 InnoMedia, Inc. All rights reserved.

Configure PPPoE Settings Page

3. Click the **Enable PPPoE** checkbox to place a checkmark (✓) in the box and enable the feature.

4. This checkbox must be enabled to ensure connectivity.
5. If your service provider requires a service ID, enter it in the **Service ID** field. If no ID is required (most service providers DO NOT require one), leave this field blank.
6. In the **User ID** field, enter your PPPoE user name.
7. In the **Password** field, enter your PPPoE password.
8. Select the PPPoE **Authentication Protocol** that your service provider uses. Most service providers use PAP. If you are unsure about the protocol to select, contact your service provider.
9. The default value for the **Idle Time Out** field is 0 (zero). This field represents the time limit (in minutes) after which the device will time out. A value of 0 means that the router will remain connected all the time, which is necessary to ensure that incoming calls will be received properly.
10. Click the **Save & Reboot** button to save the settings.
The settings will be saved and the MTA will reboot and automatically connect to PPPoE.



IMPORTANT: After you set up the InnoMedia for the first time, it may take up to fifteen (15) minutes to download the configuration files. During the download process, the device's RUN LED blinks quickly. When the RUN LED stops blinking and remains steady, the download process is complete -- you will now hear a dial tone.

The setup is complete when the **RUN** LED is a steady green.

Continue with the next section to make sure that your PC can connect to the Internet.

VERIFYING THAT YOU HAVE INTERNET CONNECTIVITY

To verify that your PC can now access the Internet through the MTA and that your broadband connection is functioning properly, open a Web browser on the PC connected to the MTA, and attempt to connect to a Web site.

- ★ If you are **able** to connect to a Web site successfully, you are now ready to make phone calls with your MTA! For more details on placing and receiving calls, continue to Chapter 3, **Placing Calls**.
- ★ If you are **unable** to connect to a Web site from the PC connected to the MTA, repeat steps 1 through 10 in the **Using PPPoE** section, starting on page 27.

If you repeated the steps and are still unable to connect to a Web site, contact your service provider.



TIP: If, for any reason, you need to disconnect or reconnect the PPPoE Internet connection, refer to the PPPoE Status section on page 64 in this Guide.

Using MAC Cloning

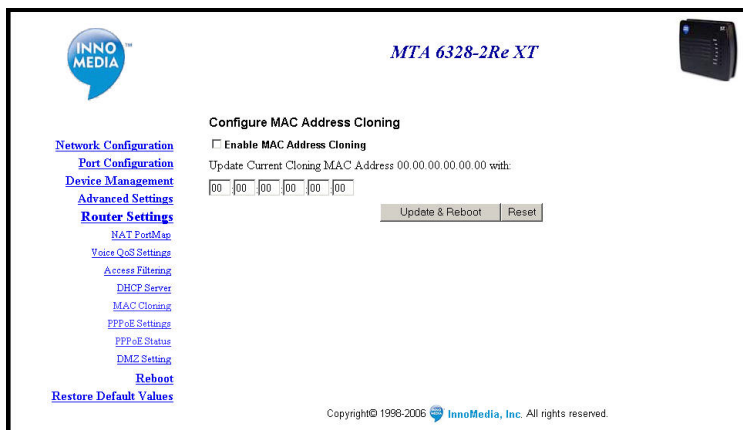
Now that you have configured your PC to access the Internet via the MTA's built-in router and logged into the Web Management tool site, you are ready to configure the device's WAN interface to use MAC address cloning.

Some service providers authenticate from the customer's location via the customer's MAC address (on the PC). MAC cloning allows the user to enter their PC's MAC address in the router (built into the MTA), to successfully authenticate into the service provider.

For more information about the Configure MAC Address Cloning page, refer to the **MAC Cloning** section on page 64 in this Guide.

To configure the MAC cloning feature:

1. If it is not already on your screen, access the Web Management tool via the Web. Refer to the **Logging into the Web Management Tool** section on page 23 for instructions.
2. In the sidebar menu, click the **Router Settings** link, and then click the **MAC Cloning** link.
The Configure MAC Address Cloning Information page displays.



Configure MAC Address Cloning Information Page

3. Click the **Enable MAC Address Cloning** checkbox to place a checkmark (✓) in the box and enable the feature.
4. In the **Cloning MAC Address** field, enter the MAC address of the PC you want to clone.
5. Click the **Save & Reboot** button to save the settings.
The settings will be saved and the MTA will restart.

Continue with the next section to make sure that your PC can connect to the Internet.

VERIFYING THAT YOU HAVE INTERNET CONNECTIVITY

To verify that your PC can now access the Internet through the MTA and that your broadband connection

is functioning properly, open a Web browser on the PC connected to the MTA, and attempt to connect to a Web site from the PC connected to the MTA.

- ★ If you are **able** to connect to a Web site successfully, you are now ready to make phone calls with your MTA! For more details on placing and receiving calls, continue to Chapter 3, **Placing Calls**.
- ★ If you are **unable** to connect to a Web site from the PC connected to the MTA, repeat steps 1 through 5 in the **Using MAC Cloning** section, starting on page 29.

If you repeated the steps and are still unable to connect to a Web site, contact your service provider.

3

Placing Calls

Overview

Placing calls using the InnoMedia MTA is almost as easy as placing a regular phone call – with added benefits. Not only can you place calls to and receive calls from any telephone in the world, you can also communicate with other MTA devices. This chapter offers instructions on placing and receiving different types of calls with the MTA.



This chapter describes how to:

- ★ **Place calls using a North American dial plan**
- ★ **Place calls using all other dial plans**

Understanding Dial Plans

Dial plans allow you to dial phone numbers as you normally would from the specified country instead of having to dial as if you are in the United States. When you purchased the broadband telephony service, a dial plan was assigned to your account. That dial plan allows you to dial as you normally do from your PSTN (Public Switched Telephone Network) telephone.

If you have a North America dial plan (US or Canada), refer to the **Calling With a North American Dial Plan** section on the following page.

If you have any other dial plan, refer to the **Calling With a Non-North American Dial Plan** section, on page 34 in this Guide.

Calling with a North American Dial Plan

Calling North American Destinations

To place a call to another North America phone number on your MTA using a North American dial plan:

1. Pick up the telephone handset and listen for a dial tone.



NOTE: If you do not hear a dial tone when you pick up the handset, reboot the device by unplugging it and then plugging it back in. Then check for a dial tone again. If this is unsuccessful, refer to Appendix A for details on troubleshooting.

2. Using your telephone keypad, dial **1 + the area code + the local telephone number**.

For example, if the area code is 212 and the local number is 555-6789, you would dial:
12125556789.

3. When you have finished your call, simply hang up the telephone handset.

Calling International Destinations

To place a call to an international phone number on your MTA using a North American dial plan:

1. Pick up the telephone handset and listen for a dial tone.
2. Using your telephone keypad, dial **011 + the country code + the city code + the local phone number**.

For example, if the country code is 44, the city code is 33 and the local phone number is 555-6789, you would dial:
01144335556789.

3. When you have finished your call, simply hang up the telephone handset.

Calling With a Non-North American Dial Plan

If you obtained your MTA from a distributor, it should already be set up with your local dialing plan.

If you need to change the local dialing plan configuration, contact your distributor or change the settings yourself on your account center website.

If you purchased the service with your credit card directly from the Web site, please return to the Web site, click the **Personal Profile** link on the sidebar menu, and then click the **Dial Plan Country & Time Zone** link.

To place a call to any destination on your MTA using a non-North American dial plan:

1. Pick up the telephone handset and listen for a dial tone.
2. Using your telephone keypad, dial the telephone number, as you would on a regular local PSTN telephone line, including all country and city codes.
3. When you have finished your call, simply hang up the telephone handset.

4

Using the Web Management Tool

Overview

The InnoMedia MTA XT 6328-2Re Web Management tool can be used to review the device's settings and configure features.



This chapter describes how to:

- ★ **Log into the Web Management tool**
- ★ **View and/or edit IP settings**
- ★ **View the account number and PIN associated with the device**
- ★ **View and/or edit the Hot Phone settings**
- ★ **View the device's MAC address, firmware version, and the port registration status**
- ★ **Change the user name and/or password**
- ★ **Upgrade the firmware**
- ★ **Enable/disable reverse polarity**
- ★ **Configure the router settings and functions**
- ★ **Reboot the device**
- ★ **Restore the factory defaults**

Logging into the Web Management Tool

By default, the MTA's Web interface and terminal are accessible only from the PC connected to the device's LAN port. Refer to the **Network Configuration** section on page 38 for instructions on opening the WAN interface via the Open WAN Configuration checkbox.



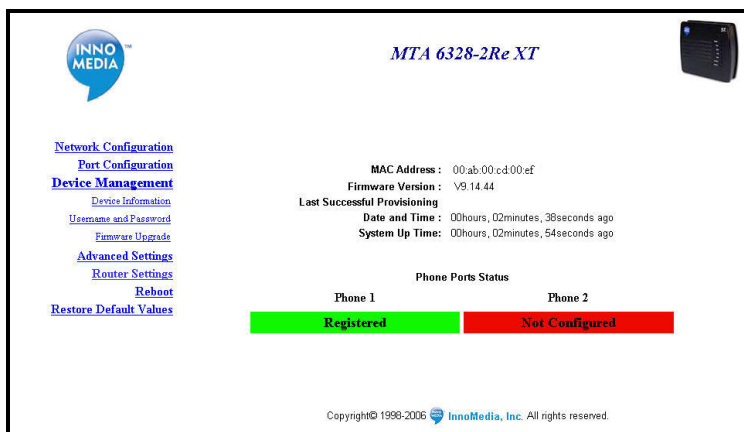
NOTE: If you are using the alternate configuration as described on page 17 in this Guide and would like to connect to the device's Web Management tool, you must first connect the PC to the MTA's LAN port.

To log onto the Web Management tool:

1. From a PC connected to the MTA's LAN port, open a Web browser.
2. In the **Address** text box, enter the following IP address to connect to the MTA Web Management tool:
192.168.99.1
The InnoMedia MTA XT 6328-2Re Web Management login page displays.
3. Enter the user ID **admin** and the password **n2p**, and then click the **OK** button.
The Web Management tool home page (the Device Management: Device Information page) displays.



NOTE: User IDs and passwords are case sensitive.



Web Management Tool Home Page

Configuring the MTA via the Web Management Tool

On the left-hand side of the page, there are seven (7) sidebar menu items:

- ★ **Network Configuration**
- ★ **Port Configuration**
- ★ **Device Management**
- ★ **Advanced Settings**
- ★ **Router Settings**
- ★ **Reboot**
- ★ **Restore Default Values**

The sections below describe each menu item and the settings available on each page.

Network Configuration

In the Web Management tool, click the **Network Configuration** link on the sidebar menu on the left-hand side of the page.

The Network Configuration page displays the number that uniquely identifies the device (MAC Address), along with the IP settings that allow the device to connect to the Internet.

INNO MEDIA

MTA 6328-2Re XT

[Network Configuration](#)
[Port Configuration](#)
[Device Management](#)
[Advanced Settings](#)
[Router Settings](#)
[Reboot](#)
[Restore Default Values](#)

Network Configuration

MAC Address: 00:ab:00:cd:00:ef

WAN Configuration

Open WAN Configuration ▪ By opening the WAN configuration, the device becomes accessible from the internet. Only open if absolutely necessary and close when finished.

IP Settings

Enable DHCP:

IP Address:

Subnet Mask:

Default Gateway:

Primary DNS Server:

Secondary DNS Server:

Copyright © 1999-2006 InnoMedia, Inc. All rights reserved.

Network Configuration Page

This page displays the following information:

- ★ **MAC Address** – the unique ID assigned to your MTA device; you can find the MAC address on the bottom of the device.
- ★ **Open WAN Configuration** – when this checkbox has a checkmark (✓), the WAN port is opened, and the device can be accessed from the Internet (default is closed – no checkmark).



IMPORTANT: To connect through the WAN port IP address, pick up the telephone handset connected to the MTA and press ***1 on the keypad. The system will announce the WAN IP address. You can then access the MTA Web Management Tool using the WAN port IP address.



IMPORTANT: If you open the WAN configuration, which makes the device accessible from the Internet, it is recommended that you change the default user name and password.

- ★ **Enable DHCP** – when this checkbox has a checkmark (✓), DHCP is enabled (default setting); to disable DHCP (e.g., when using static IP addressing), click the checkbox to remove the checkmark (✓).
- ★ **IP Address** – displays the IP address obtained by the device (if DHCP is enabled) or the static IP address you assigned (if DHCP is disabled).
- ★ **Subnet Mask** – displays the current subnet mask value associated with the device's IP address.
- ★ **Default Gateway** – displays the default gateway obtained by the device (if DHCP is enabled) or assigned to the device (if using static IP addressing, PPPoE, or MAC cloning).
- ★ **Primary DNS Server** – allows you to enter a primary DNS address if you are specifying an IP address or displays what was obtained via DHCP.
- ★ **Secondary DNS Server** – allows you to enter a secondary DNS address if you are specifying an IP address or displays what was obtained via DHCP.

There are two buttons at the bottom of the page:

- ★ **Save & Reboot** – saves any changes you made to the values on the Network Configuration page and reboots the device.
- ★ **Reset** – resets the values on the Network Configuration page to the previously saved settings; if you edit one or more fields without saving your changes and then click the **Reset** button, the edits will disappear and the previously saved settings will return.

Port Configuration

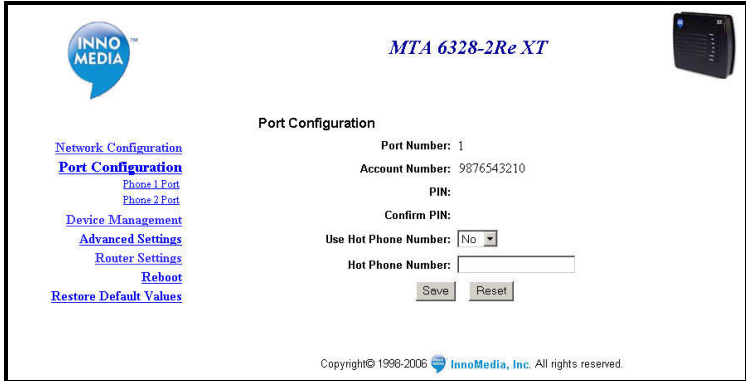
In the Web Management tool, click the **Port Configuration** link on the sidebar menu on the left-hand side of the page.

When the Port Configuration page opens, the sidebar menu displays two sub-menu items:

- Port 1
- Port 2

This page displays basic information about your ports and allows you to set up the forwarding feature. With this feature, you can set that port to automatically dial a defined phone number when the handset is picked up (i.e., taken off the hook).

The page displays Port 1 settings by default. To view settings for Port 2, click the **Port 2** link in the Port Configuration sub-menu on the sidebar menu on the left-hand side of the page.



INNO MEDIA

MTA 6328-2Re XT

Port Configuration

Port Number: 1

Account Number: 9876543210

PIN:

Confirm PIN:

Use Hot Phone Number:

Hot Phone Number:

Copyright© 1998-2006 **InnoMedia, Inc.** All rights reserved.

Port Configuration Page



NOTE: When you enable the Hot Phone feature and enter a phone number in the Hot Phone Number field, that number will be dialed each time you pick up the phone from the hook connected to the MTA.

This page displays the following information:

- ★ **Port Number** – indicates which port settings are displayed on the page: 1 or 2.
- ★ **Account Number** – displays the account number associated with the port.
- ★ **PIN** – hidden for security purposes.
- ★ **Use Hot Phone Number** – dials all calls to the designated phone number when you pick up the phone from the hook.
 - if the value is **No**, the feature is disabled

- if the value is **Yes**, the feature is enabled.

- ★ **Hot Phone Number** – allows you to enter the telephone number to which all calls should be dialed when you pick up the phone from the hook (when **Use Hot Phone Number = Yes**)

For example, if you enable the hot phone feature and then enter your friend's phone number as the **Hot Phone Number**, each time you pick up the phone, the phone will automatically dial your friend's number.

There are two buttons on this page:

- ★ **Save** – saves any changes you made to the values on the Port Configuration page.
- ★ **Reset** – resets the values on the Port Configuration page to the previously saved settings; if you edit one or more fields without saving your changes and then click the **Reset** button, the edits will disappear and the previously saved settings will return.

Device Management

In the Web Management tool, click the **Device Management** link on the sidebar menu on the left-hand side of the page.

When the Device Management page opens, the sidebar menu displays three (3) sub-menu items:

- ★ Device Information
- ★ Username and Password
- ★ Firmware Upgrade

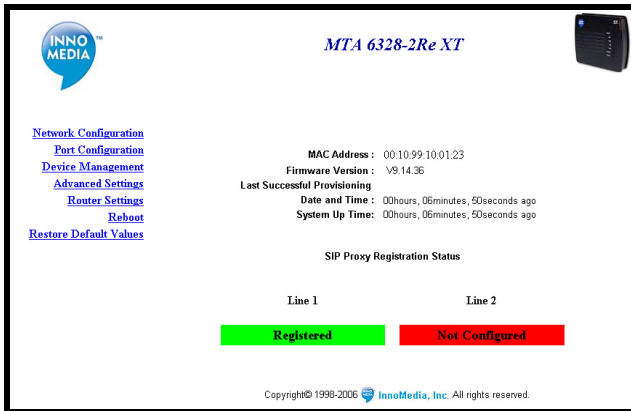
The page displays the first sub-menu item page, Device Information, by default. To switch to one of the other sub-menu items, just click the desired item in the Device Management sub-menu on the sidebar menu.



NOTE: The Device Information page is the same page that displays upon logging into the Web Management tool.

Device Information

This page displays basic information about the device, its firmware, and the most recent provisioning attempt.



Device Management: Device Information Page

This page displays the following information:

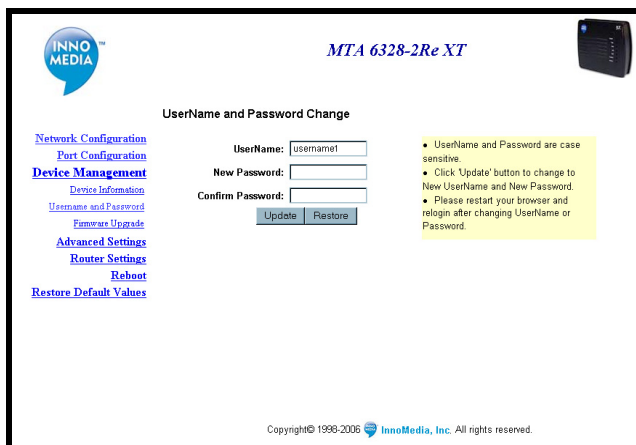
- ★ **MAC Address** – the unique ID assigned to your MTA device; you can find the MAC address on the bottom of the device.
- ★ **Firmware Version** – the version of the firmware on the device.
- ★ **Last Successful Provisioning Date and Time** – indicates the time of the device's most recent successful attempt to download configuration files; if the most recent attempt failed, the field will display, "Last provisioning failed."
- ★ **System Up Time** – indicates the time elapsed since the device was powered on.
- ★ **Phone Ports Status** – indicates the status of the **Phone 1** and **Phone 2** ports; status options are
 - **Registered** – Displays on a green background when the phone port is configured and has a dial tone.
 - **Not Registered** – Displays on a red background when the phone port is configured but there is no dial tone due to Internet connectivity failure.

- **Not Configured** – Displays on a red background when the phone port is not configured with a valid account number.

Username and Password

This page allows you to change the user name and/or password associated with the device.

The pale yellow box on the right-hand side of the page contains guidelines for changing your user name and password.



Device Information: Username and Password Page

This page displays the following information:

- ★ **UserName** – allows you to change the user name assigned to the device.
- ★ **New Password** – allows you to assign a new password to the user name in the field above.
- ★ **Confirm Password** – confirms the new password by having you enter it a second time.

There are two buttons on this page:

- ★ **Update** – saves the new user name and/or password in the fields above.
- ★ **Restore** – resets the values on the Username and Password page to the previously saved settings.

To change the user name:

1. On the Username and Password page, click in the **UserName** field.
2. Enter the new user name you would like to assign to the device.
3. Click the **Update** button.
The new user name is saved. Remember to use the new user name the next time you log into the Web Management tool.



NOTE: After you change the user name and click the Update button, you may need to close your Web browser window, re-open it, and log in again to the Web Management tool. Refer to the Logging into the Web Management Tool section on page 23 in this Guide.

To change the password:

1. On the Username and Password page, click in the **New Password** field.
2. Enter the new password you would like to assign to the user name.
3. Confirm the new password by re-typing it in the **Confirm Password** field.
4. Click the **Update** button.
The new password is saved. Remember to use the new password the next time you log into the Web Management tool.



NOTE: After you change the password and click the Update button, you may need to close your Web browser window, re-open it, and log in again to the Web Management tool. Refer to the Logging into the Web Management Tool section on page 23 in this Guide.

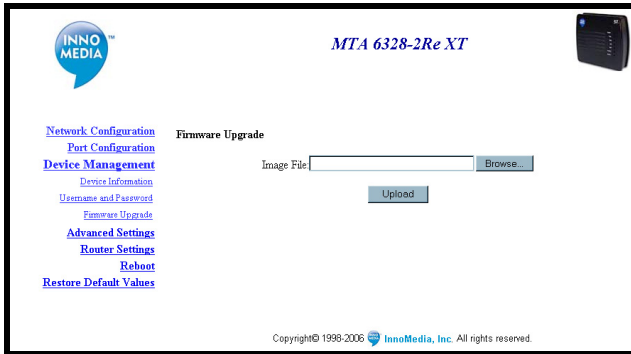
Firmware Upgrade

The MTA performs firmware upgrades automatically. The device compares the firmware version on the

device against the one on the provisioning servers. If it finds a more recent version on the servers, the device will wait until active calls are cleared from the device and will download and install the upgrade.



IMPORTANT: ONLY use the Firmware Upgrade link on the Web management tool (in the Device Management sub-menu) if directed to by technical support.



Device Management: Firmware Upgrade Page

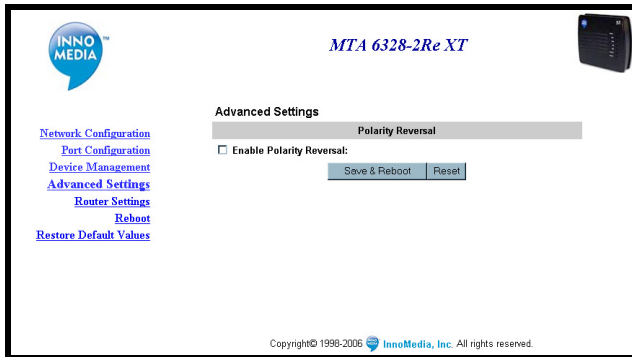
To upgrade the firmware:

1. Obtain the upgrade file from technical support or your service provider.
2. On the Firmware Upgrade page, click the **Browse** button.
A Choose file dialog box displays.
3. Navigate to the upgrade file on your PC and click on it to select it.
4. Click the **Open** button.
The file name appears in the Image File box.
5. Click the **Upload** button.
The upgrade file is installed.

Advanced Settings

In the Web Management tool, click the **Advanced Settings** link on the sidebar menu on the left-hand side of the page.

This page allows you to control the device's reverse polarity feature, which connects the MTA to a billing machine that uses reverse polarity to determine the start and end of a call. The billing machine receives a "reverse polarity signal" from the MTA that indicates when the call has started (and will start billing) and when it ends (and will stop billing).



Advanced Settings Page

This page displays the following information:

- ★ **Enable Polarity Reversal** – when this checkbox has a checkmark (✓), the polarity reversal feature is enabled (default is disabled); to enable polarity reversal, click the check box so a checkmark appears.

There are two buttons on this page:

- ★ **Save & Reboot** – saves any changes you made to the values on the Advanced Settings page and reboots the device.
- ★ **Reset** – resets the values on the Advanced Settings page to the previously saved settings; if you edit one or more fields without saving your changes and then click the **Reset** button, the edits will disappear and the previously saved settings will return.

Router Settings

In the Web Management tool, click the **Router Settings** link on the sidebar menu on the left-hand side of the page.

When the Router Settings page opens, the sidebar menu displays six (6) sub-menu items:

- ★ **Router/Switch Mode**
- ★ **NAT Port Map**
- ★ **Voice QoS Settings**
- ★ **Access Filtering**
- ★ **DHCP Server**
- ★ **MAC Cloning**
- ★ **PPPoE Setting**
- ★ **PPPoE Status**
- ★ **DMZ Setting**

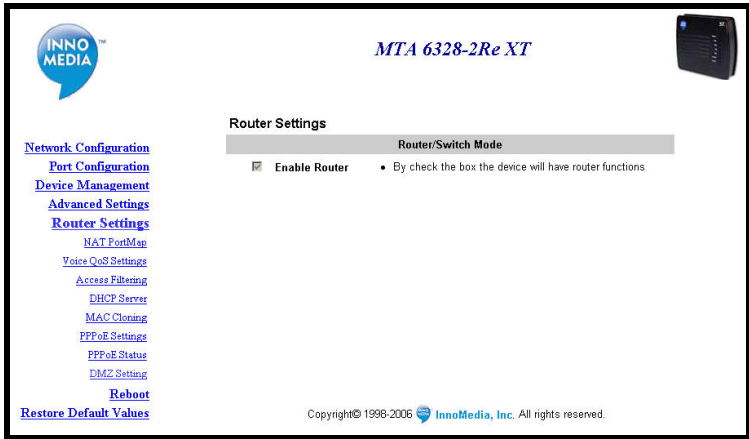
When you click on **Router Settings**, the Device Information page displays by default. To switch to one of the other sub-menu items, just click the desired item in the Router Settings sub-menu on the sidebar menu.

Router/Switch Mode

The Router Settings (Router/Switch Mode) page allows you determine if the LAN port of the MTA is to function as a router or as a switch.

The **Enable Router** checkbox is selected by default, meaning the PC connected to the LAN port of the MTA receives an IP address from the MTA's DHCP server.

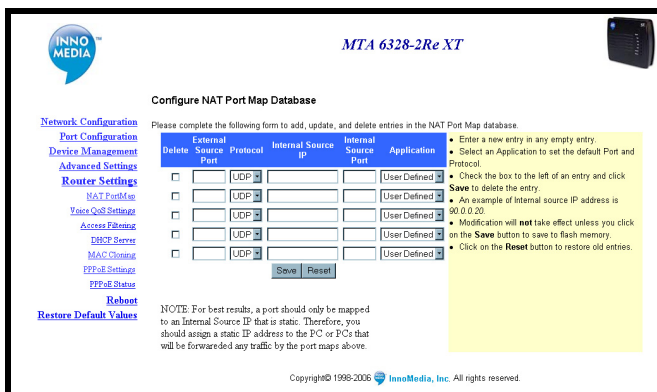
When the **Enable Router** checkbox is unchecked the LAN port of the MTA acts as a switch. This means that the PC connected to the MTA will attempt to obtain an IP address from another network device connected to the WAN port of the MTA.



Router/Switch Mode Setting

NAT Port Map

Port mapping is an advanced configuration in which the router forwards incoming requests to its WAN port to the PC connected to its LAN port. You will need to determine which type of service or application you will provide and the IP address of the PC that will provide each service. This feature only works with a static IP assigned to the PC connected to the LAN port.



Router Settings NAT Port Map Page

This page displays a form that asks for the following information:

- ★ **External Source Port** – the port (on the WAN side) on which the request will come in.
- ★ **Protocol** – the protocol type (TCP or UDP) of the request.
- ★ **Internal Source IP** – the internal IP address to which the MTA should forward the request.
- ★ **Internal Source Port** – the internal port to which the MTA should forward the request.
- ★ **Application** – the application type of the incoming request; if unknown, it can remain user-defined.

CONFIGURING NAT PORT MAPPING

To configure NAT port mapping:

1. If it is not already on your screen, access the Web Management tool via the Web. Refer to the **Logging into the Web Management Tool** section on page 23 for instructions.
2. In the sidebar menu, click the **IP Network** link, and then click the **NAT Port Map** link. *The Configure NAT Port Map Database page displays.*

3. In the **External Source Port** field, enter the port number that you would like to redirect to another unit.
4. Click the **Protocol** drop-down menu and select either **TCP** or **UDP**.
5. In the **Internal Source IP** field, enter the IP address of the PC that is running the application that uses this source port and protocol.
6. In the **Internal Source Port** field, enter the port to which you would like to send the request. If the application or service only uses one port, the **Internal Source Port** will be the same as the **External Source Port**.
7. Click the **Save** button to save the settings.

For example, if you have a Web server that is listening on port 80 with an IP address of 192.168.99.5 and is connected to the MTA's LAN port, you would enter the following values:

- ★ **External Source Port:** 80
- ★ **Protocol** (drop-down menu): TCP
- ★ **Internal Source IP:** 192.168.99.5
- ★ **Internal Source Port:** 80
- ★ **Application** (drop-down menu): HTTP

In this scenario, when any Web requests arrive at the WAN IP address, the MTA will automatically forward them to the Web server at 192.168.99.5.

DELETING A PORT MAPPING ENTRY

To delete a mapping entry, click the checkbox in the corresponding **Delete** column (so a checkmark (✓) appears), and then press the **Save** button.

Voice QoS Settings

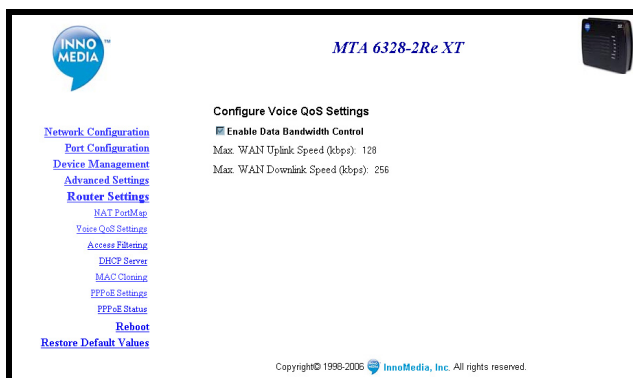
The Voice QoS (Quality of Service) settings allow you to configure the available bandwidth for the purpose of optimizing the quality of both your phone calls and Internet service.

This feature is helpful in assigning the proper amount of bandwidth to your phone calls to ensure superior sound

quality, while allocating the rest of the available bandwidth for Internet access on your PC.

For example, if you have a 1.5Mbps connection for downloads and 340K for uploads, and you enter 200 in the **Max. WAN Uplink Speed** field, the MTA will maximize the uploaded data transfer rate at 200K. If you are using the highest bandwidth setting available for voice calls and then make a phone call, you use 90K, leaving 110K of upload bandwidth available for data.

This feature is useful for heavy data or limited bandwidth users. These users can set the QoS value so that if there is heavy data traffic, the router (or ADSL modem) will not get clogged by the data, which would compromise the voice quality.



Voice QoS Settings Page

CONFIGURING THE VOICE QoS SETTINGS

To Configure Voice QoS Settings:

1. From a PC connected to the MTA's LAN port, open a Web browser and connect to the Web Management tool.
2. In the sidebar menu, click the **Router Settings** link, and then click the **Voice QoS Settings** link.
3. Check the **Enable Data Bandwidth Control** checkbox to enable the feature.

4. Enter the uplink speed value in kbps (kilobits per second) units in the **Max. Wan Uplink Speed** field.
5. Enter the downlink speed value in kbps (kilobits per second) units in the **Max. Wan Downlink Speed** field.
6. Click the **Save** button to save the settings.



NOTE: This feature might not be configurable on the web management tool if your service provider has chosen to configure it for you.



NOTE: If you enter incorrect values for the true available bandwidth on your service, this feature will not be helpful to enhance the QoS.

Access Filtering

Access filtering is a feature designed to help you regulate the access of internal PCs to the outside Internet. It is useful when you want to block access to certain Web sites or addresses or limit access to specific Web sites for individual PCs that are connected to the MTA.

The MTA offers three (3) ways to control the access available to your internal PCs:

- ★ **IP Filtering** – Allows you to block access to specific ports and protocols from the PCs connected to the MTA's LAN port. This is useful if you want to prevent access to certain services, such as Web browsing or FTP. This filtering can be assigned per PC or to a range of PCs.
- ★ **Domain Filtering** – Allows you to block or allow access to specific domains and Web sites. This is useful for controlling access to certain Web addresses. This is a global

setting that applies to all PCs connected to the MTA's LAN port.

★ **MAC Filtering** –

There are two buttons on this page:

- ★ **Save** – saves any changes you made to the values on the IP Filtering page.
- ★ **Reset** – resets the values on the IP Filtering page to the previously saved settings; if you edit one or more fields without saving your changes and then click the **Reset** button, the edits will disappear and the previously saved settings will return.

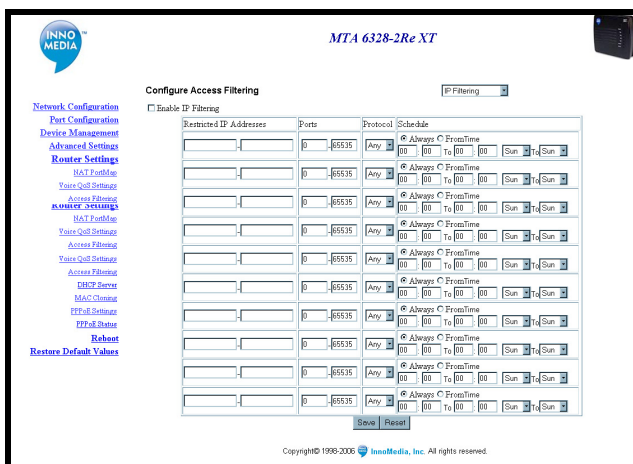
CONFIGURING IP FILTERING

This feature allows you to block access to specific ports and protocols.

To configure IP filtering:

1. From a PC connected to the MTA's LAN port, open a Web browser and connect to the Web Management tool.
2. In the sidebar menu, click the **Router Settings** link, and then click the **Access Filtering** link.

The Configure Access Filtering page displays, with IP Filtering in the drop-down menu at the top of the page.



Configure Access Filtering Page – IP Filtering

3. Click the **Enable IP Filtering** checkbox to place a checkmark (✓) in the box and enable the feature.
4. In the first available field under the **Restricted IP Addresses** column, enter the IP address or range of IP addresses of the PC(s) that you would like to block from accessing the port(s).
5. In the **Port** column of the same row as the IP address you entered, specify the port or range of ports that you would like to block.
6. In the **Protocol** column, select the protocol that is used on the ports you would like to block.
7. In the **Schedule** column select if you would like to enable filtering at all times, or during specific hours of the day.
8. Repeat steps 3 through 5 for all additional PCs you would like to block from a particular port.
9. Click the **Save** button to save the settings.

CONFIGURING DOMAIN FILTERING

This feature allows you to block or allow access to certain domains for the PC connected to the MTA's **LAN (Green)** port.

To configure domain filtering:

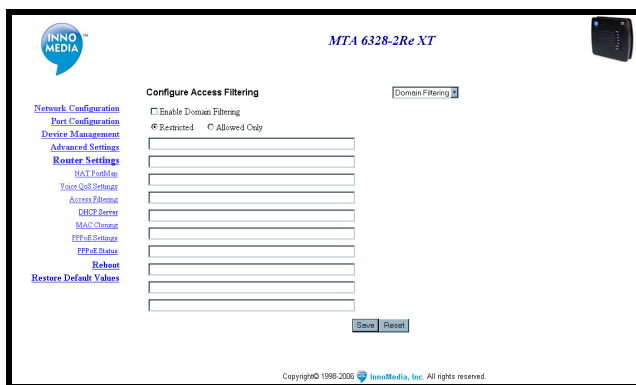
1. From a PC connected to the MTA's LAN port, open a Web browser and connect to the Web Management tool.
2. In the sidebar menu, click the **Router Settings** link, and then click the **Access Filtering** link.
The Configure Access Filtering page displays. See the screen on the following page.
3. In the drop-down field at the top of the page, change the value from **IP Filtering** to **Domain Filtering**.

4. Click the **Enable Domain Filtering** checkbox to place a checkmark (✓) in the box and enable the feature.
5. Select the radio button for the function you would like to enable.
 - **Restricted** – allows you to specify the domain or domains to which you would like to block access for PCs connected to the MTA's **LAN (Green)** port; ALL domains listed will be inaccessible.

Click this radio button to enable this feature and block certain domains.

- **Allowed Only** – allows you to designate the specific domain or domains to which you are granting access for PCs connected to the MTA's **LAN (Green)** port; ONLY those domains on the list are accessible.

Click this radio button to enable this feature and allow only specific domains.



Configure IP Filtering Page – Domain Filtering



NOTE: These options are mutually exclusive. You cannot enable both at the same time.

6. Enter the specific domains you are blocking or allowing.

- If you selected the **Restricted** radio button, enter a single domain name in each text box for all of the domains you would like to block.

For example, to block the PCs connected to the MTA's **LAN (Green)** port from connecting to www.yahoo.com, select the **Restricted** radio button, and enter www.yahoo.com in the text box.

- If you selected the **Allowed Only** radio button, enter a single domain name in each text box for the only domains you would like to allow.

For example, to grant users access to www.yahoo.com ONLY (no other Web sites), select the **Allowed Only** radio button, and enter www.yahoo.com in the text box.

7. Click the **Save** button to save the settings.



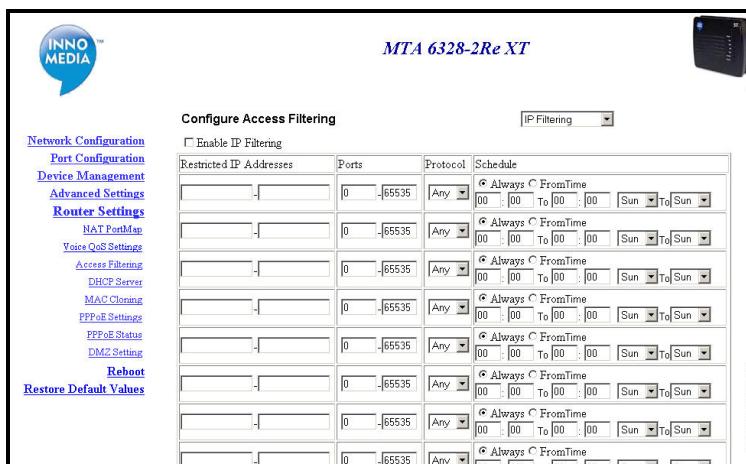
NOTE: All settings changes made on the Domain Filtering page will apply globally to all PCs connected to the MTA's LAN (Green) port.

CONFIGURING URL FILTERING

This feature allows you to block or allow access to websites specified with URL addresses for the PC, which is connected to the MTA's LAN port.

1. From a PC connected to the MTA's LAN port, open a Web browser and connect to the MTA Web Management tool.
2. In the sidebar menu, click the **Router Settings** link, and then click the **URL Filtering** link.

The Configure Access Filtering page displays. See the screen on the following page.



Configure Access Filtering Page

3. In the drop-down field at the top of the page, change the value from **IP Filtering** to **URL Filtering**.
4. Click the **Enable URL Filtering** checkbox to place a checkmark (✓) in the box and enable the feature.
5. Select the radio button for the function you would like to enable.
 - **Restricted** – allows you to specify the URL address(es) to which you would like to block web access for PCs connected to the MTA's LAN port; ALL URL addresses listed will not have access to the websites.

Click this radio button to enable this feature and block the specified URL addresses.

- **Allowed Only** – allows you to designate the specific URL address(es) to which you are granting website access for PCs connected to the MTA's LAN port; ONLY those URL addresses on the list will have access.

Click this radio button to enable this feature and allow only the specified URL address.

6. Enter the specific URLs you are blocking or allowing.
 - If you selected the **Restricted** radio button, enter a single URL address in each text box for each of the websites you would like to block.

For example, to block the PCs connected to the MTA's **LAN (Green)** port from connecting to <http://www.yahoo.com>, select the **Restricted** radio button, and enter <http://www.yahoo.com> in the text box.

- If you selected the **Allowed Only** radio button, enter a single URL address in each text box for the website you would like to allow.

For example, to grant users access to <http://www.yahoo.com>/ONLY (no other Web sites), select the **Allowed Only** radio button, and enter <http://www.yahoo.com> in the text box.

7. Click the **Save** button to save the settings.



NOTE: All settings changes made on the URL Filtering page will apply to all PCs connected to the MTA's LAN port.

CONFIGURING MAC FILTERING

This feature allows you to block or allow Internet access to specific PCs based on their MAC addresses.

To configure MAC filtering:

1. From a PC connected to the MTA's LAN port, open a Web browser and connect to the MTA Web Management tool.
2. In the sidebar menu, click the **Router Settings** link, and then click the **Access Filtering** link.

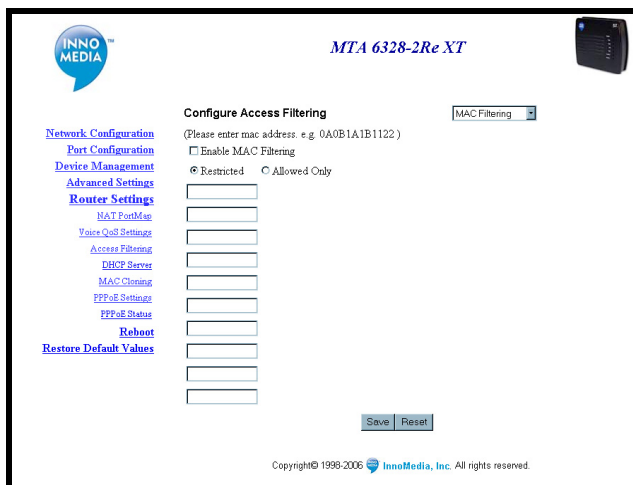
The Configure Access Filtering page displays. See the screen on the following page.

3. In the drop-down field at the top of the page, change the value from **IP Filtering** to **MAC Filtering**.
4. Click the **Enable MAC Filtering** checkbox to place a checkmark (✓) in the box and enable the feature.
5. Select the radio button for the function you would like to enable.
 - **Restricted** – allows you to specify the MAC address(es) to which you would like to block Internet access for PCs connected to the MTA's LAN port; ALL MAC addresses listed will not have access to the Internet.

Click this radio button to enable this feature and block the specified MAC addresses.

- **Allowed Only** – allows you to designate the specific MAC address(es) to which you are granting access for PCs connected to the MTA's LAN port; ONLY those MAC addresses on the list will have access to the Internet.

Click this radio button to enable this feature and allow only the specified MAC address.



Configure IP Filtering Page – MAC Filtering



NOTE: These options are mutually exclusive. You cannot enable both at the same time.

6. Enter the specific MAC address(es) you are blocking or allowing.
 - If you selected the **Restricted** radio button, enter a single MAC address in each text box for all of the MAC addresses you would like to block.

For example, to block Internet access to a PC with a MAC address of 00:11:22:33:44:55 connected to the MTA's LAN port, select the **Restricted** radio button, and enter **001122334455** in the text box.

- If you selected the **Allowed Only** radio button, enter a single MAC address in each text box for the only MAC addresses you would like to allow.

For example, to grant Internet access to a PC with a MAC address of 00:11:22:33:44:55 connected to the MTA's LAN port, select the **Allowed Only** radio button, and enter **001122334455** in the text box.

7. Click the **Save** button to save the settings.



NOTE: All settings changes made on the MAC Filtering page will apply to all PCs connected to the MTA's LAN port.

DHCP Server

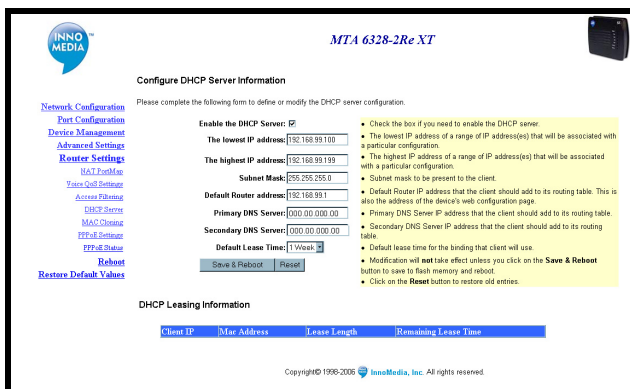
The MTA has a DHCP Server function that assigns IP addresses to a PC or PCs connected to the MTA's LAN port. It is recommended that you retain the default settings for the DHCP server.

By default, the MTA assigns IP addresses in the range of 192.168.99.100 to 192.168.99.199. To change the range of IP addresses assigned, enter the lowest and

highest IP addresses in the appropriate fields. See the instructions below.

To configure the DHCP Server function:

1. From a PC connected to the MTA's LAN port, open a Web browser and connect to the MTA Web Management tool.
2. In the sidebar menu, click the **Router Settings** link, and then click the **DHCP Server** link.
The Configure DHCP Server Information page displays.



Configure DHCP Server Information Page

3. The **Enable DHCP Server** feature is enabled (a checkmark (✓) appears in the checkbox) by default. If you want to disable the feature, remove the checkmark by clicking the checkbox. When disabled, the server will not assign IP addresses to PCs connected to the MTA's LAN port.
4. In **The lowest IP address** and **The highest IP address** fields, enter the lowest and highest addresses that define the range that will be assigned. The default values are 192.168.99.100 for the lowest and 192.168.99.199 for the highest.
5. Enter the **Subnet Mask** for the device.

- The **Default Router address** is the IP address you can use to connect to the device from the Web browser (via the Web Management tool) and the default gateway for PCs connected to the MTA's LAN port. The default value for the field is 192.168.99.1.



NOTE: If you change the device's IP address in the Default Router address field, you must:

- ♦ **restart the PC connected to the LAN port so it obtains new IP settings with the new gateway, and**
- ♦ **use the new IP address when connecting to the device via the Web browser.**

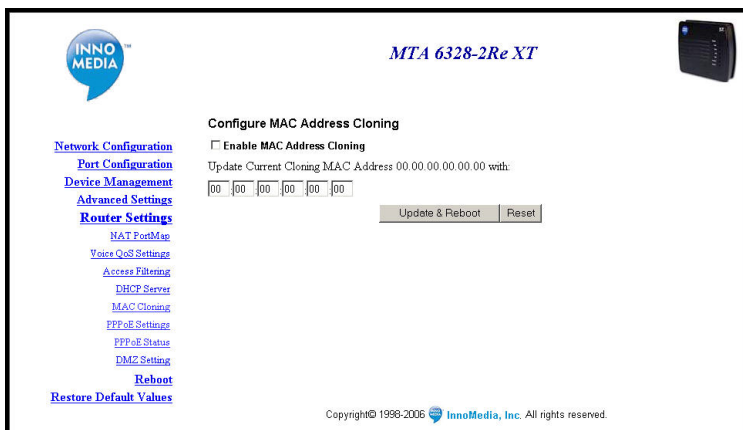
- Enter the **Primary and Secondary DNS address** information. The primary and secondary servers are obtained from the WAN configuration of the device.
- The **Default Lease Time** is the length of time a PC is allowed to keep its IP address before it must request a new one from the MTA.

Click the drop-down menu and select the desired time. The default value is **1 Week**. The options are:

- 1 Week
 - 3 Days
 - 2 Days
 - 1 Day
 - 8 Hours
 - 3 Hours
 - 2 Hours
 - 1 Hour
- Click the **Update and Reboot** button to save the settings.
The settings will be saved and the MTA will restart.

MAC Cloning

Some service providers authenticate from the customer's location via the customer's MAC address (on the PC). The Configure MAC Address Cloning page allows the user to enter their PC's MAC address in the router (built into the MTA), to successfully authenticate into the service provider.



Configure MAC Address Cloning Information Page

This page displays the following information:

- ★ **Enable MAC Address Cloning** – when this checkbox has a checkmark (✓), the MAC address cloning feature is enabled (the default is disabled); to enable, click the checkbox so a checkmark appears.
- ★ **Cloning MAC Address** – when MAC address cloning is enabled, this field contains the PC's MAC address to allow successful authentication into the service provider.

To configure MAC Cloning settings, refer to the **Using MAC Cloning** section on page 29 in this Guide.

PPPoE Setting

This page allows you to define PPPoE settings, based on your service provider's information.

Configure PPPoE Settings

Please complete the following form to define or modify the PPPoE settings.

Enable PPPoE: • Check the box if you would like to enable PPPoE function.

Service ID: • Enter the Service ID here.

User ID: • Enter the User ID here.

Password: • Enter the Password here.

Authentication Protocol: PAP • Select the Authentication Protocol.

Idle Time Out (min): 0 • Enter the idle time out here. Entering 0 means the link is connected all the time.

• Modification will **not** take effect unless you click on the **Save & Reboot** button to save to flash memory and reboot.

• Click on the **Reset** button to restore old entries.

Save & Reboot Reset

Copyright© 1998-2006 InnoMedia, Inc. All rights reserved.

Configure PPPoE Settings Page

This page displays the following information:

- ★ **Enable PPPoE** – when this checkbox has a checkmark (✓), the PPPoE feature is enabled (the default is disabled); to enable, click the checkbox so a checkmark appears.
- ★ **Service ID** – some service providers require a service ID to connect; if no ID is required (most service providers DO NOT require one), the field can remain blank.
- ★ **User ID** – allows you to enter your PPPoE user name.
- ★ **Password** – allows you to enter your PPPoE password.
- ★ **Authentication Protocol** – allows you to select the protocol your service provider uses; most ISPs use PAP, but you can contact your service provider to find out what they use.
- ★ **Idle Time Out (min)** – represents the time limit (in minutes) after which the device will time out; the default value is 0 (zero), which means that the router will remain connected all the time, which is necessary to ensure that incoming calls will be received properly.

To configure PPPoE settings, refer to the **Using PPPoE** section on page 27 in this Guide.

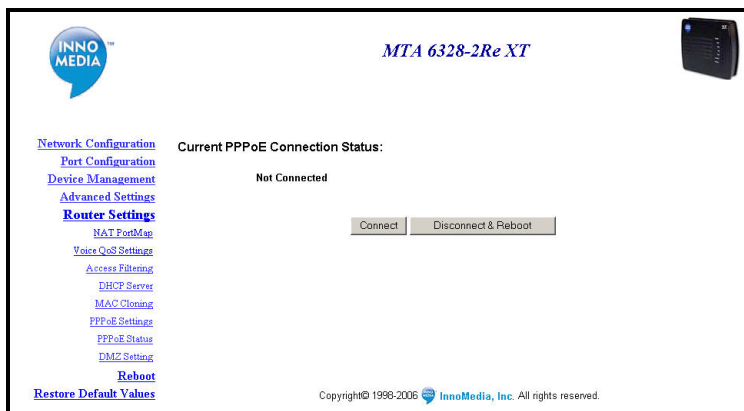
PPPoE Status

When you turn on the MTA and you configure the device to use PPPoE, it will normally connect to the broadband connection automatically using PPPoE. This page allows you to manually disconnect and/or reconnect to PPPoE. It also displays your PPPoE connection status, which may be useful for Troubleshooting.

DISCONNECTING AND/OR RECONNECTING TO PPPoE

To manually disconnect and/or reconnect to the PPPoE connection:

1. If it is not already on your screen, access the Web Management tool via the Web. Refer to the **Logging into the Web Management Tool** section on page 23 for instructions.
2. In the sidebar menu, click the **Router Settings** link, and then click the **PPPoE Status** link.
The Configure PPPoE Connection Status page displays the current connection status.



Configure PPPoE Connection Status Page

3. You may now disconnect or connect your PPPoE connection.

- ♦ To disconnect the PPPoE connection, click the **Disconnect & Reboot** button.
- ♦ To connect via PPPoE, click the **Connect** button.

DMZ Settings

DMZ (Demilitarized Zone) settings remove the router's firewall protection from the configured PC allowing it to be seen from the Internet. DMZ configuration will forward all the ports for one PC at the same time. The router will only allow one PC to be the DMZ host.

CONFIGURING DMZ SETTING

To Configure the DMZ Setting:

1. From a PC connected to the MTA's LAN port, open a Web browser and connect to the Web Management tool.
2. In the sidebar menu, click the **Router Settings** link, and then click the **DMZ Setting** link.
3. Check the **Enable DMZ** checkbox to enable the feature.
4. Enter the IP address of the PC you would like to configure in DMZ in the **LAN side IP** field.

The screenshot displays the web management interface for the InnoMedia MTA 6328-2Re XT. The page title is "Configure DMZ Setting". Below the title, there is a instruction: "Please complete the following form to define or modify the DMZ settings." The form includes two main fields: "Enable DMZ:" with a checked checkbox, and "LAN side IP:" with a text input field containing "0.0.0.0". Below these fields are "Save" and "Reset" buttons. To the right of the form, there is a yellow box with the following instructions: "• Check the box if you would like to enable DMZ.", "• Enter the LAN side IP address.", "• Modification will **not** take effect unless you click on the **Save** button to save to flash memory.", and "• Click on the **Reset** button to restore old entries." The left sidebar contains a navigation menu with links for "Network Configuration", "Port Configuration", "Device Management", "Advanced Settings", "Router Settings", "NAT PortMap", "Voice QoS Settings", "Access Filtering", "DHCP Server", "MAC Cloning", "PPPoE Settings", "PPPoE Status", "DMZ Setting", "Reboot", and "Restore Default Values". The top right corner shows the InnoMedia logo and the model number "MTA 6328-2Re XT". The bottom of the page has a copyright notice: "Copyright© 1998-2006 InnoMedia, Inc. All rights reserved."

Configure DMZ Setting Page

5. Click the **Save** button to save the settings.



NOTE: Setting up your PC as DMZ will fully expose it to the Internet without any kind of security.

Reboot

In the Web Management tool, click the **Reboot** link on the left-hand side of the page.

When you click the **Reboot** link, a dialog box will appear to confirm that you would like to reboot the device. If you would like to reboot, click the **OK** button; if you do not want to reboot, click the **Cancel** button.

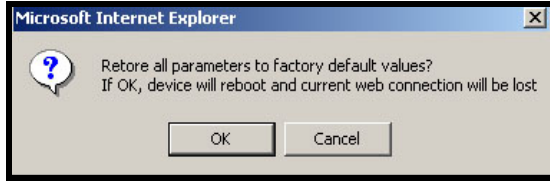


Reboot Dialog Box

Restore Default Values

In the Web Management tool, click the **Restore Default Values** link on the sidebar menu on the left-hand side of the page.

When you click the **Restore Default Values** link, a dialog box will appear to confirm that you would like to reset all parameters to the factory default values. If you would like to restore the default values, click the **OK** button; if you do not want to restore the default values, click the **Cancel** button.



Restore Default Values Dialog Box



IMPORTANT! You should not restore default values unless instructed to do so by technical support personnel.

5

Telephony Features

Overview

If you subscribe to a broadband telephone service, you may have access to some or all of the following features:

- ★ 3-Way Calling
- ★ Account Balance Announcement
- ★ Call Blocking
- ★ Call Forwarding
- ★ Call Hold
- ★ Call Return
- ★ Call Waiting
- ★ Caller ID
- ★ Do Not Disturb
- ★ Reach Me
- ★ Redial
- ★ Remote Feature Management
- ★ Service Interruption Forwarding
- ★ Speed Dial
- ★ VoiceMail

To find out which features are available to you and how to use them, please contact your service provider for the service user's guide.

6

Appendices

The Appendices include the following sections:

- ★ Appendix A – Troubleshooting and Technical Support
- ★ Appendix B – Approvals and Listings
- ★ Appendix C – End User Warranty

Appendix A – Troubleshooting & Technical Support

If there appears to be a malfunction, first check all cables and connections. If these appear to be in order, see the following table for specific troubles and solutions.

Symptom: The RUN LED is blinking red.

The device is unable to provision or register with call servers.

Corrective Actions:

- Reboot the device by unplugging the power cord and then plugging it back in.
- Verify that the device obtained an IP address by picking up the connected telephone's handset and pressing ***1 on the keypad. If it announces "0.0.0.0" as the IP address, the device did not get an IP address. Contact your ISP.
- Verify also that your ISP uses DHCP and that there is no network service outage.

Symptom: There is no dial tone.

The device is not logging into the call servers.

Corrective Actions:

- After you set up the MTA for the first time, it may take up to 15 minutes to download the configuration files onto the device. During this download process, the MTA's **RUN** LED blinks green quickly (1 second on, 1 second off). When the **RUN** LED stops blinking and remains steady green, the download process is complete – you will now hear a dial tone.
- If it has been over 15 minutes since you set up the MTA and you still do not hear a dial tone:
- Verify that your phone is connected to the correct port on the MTA.
- See following page for additional actions.

Symptom: There is no dial tone. (continued)

Corrective Actions: (continued)

- Verify that the device obtained an IP address by picking up the connected telephone's handset and pressing ***1 on the keypad. If it announces "0.0.0.0" as the IP address, the device did not get an IP address. Contact your Internet Service Provider.
- Verify that your broadband connection is functioning properly by attempting to connect to a Web site from a PC on the same network.
- Try connecting another phone (one that you are certain works properly) to see if the phone you are using is faulty.

Symptom: I hear a fast busy signal when I try to make a call.

Corrective Actions:

- ▶ Make sure you are dialing according to the Dial Plan Country assigned to your account. (The Dial Plan Country was assigned when the account was created.) For example, if your Dial Plan Country is the U.S., you should dial in the U.S. format:

1 + area code + phone number

NOTE: If the "1" prefix is omitted, the call will not go through.

To change the Dial Plan Country assigned to your account, log onto your account center website. If you purchased the service with your credit card directly from the Web site, please return to the Web site and edit your dial plan there.

- ▶ Verify that your broadband connection is functioning properly by attempting to connect to a Web site from a PC on the same network.

Verify that the device obtained an IP address by picking up the connected telephone's handset and pressing ***1 on the keypad. If it announces "0.0.0.0" as the IP address, the device did not get an IP address. Contact your Internet Service Provider.

Symptom: The Call Waiting Caller ID feature is not working.

The device is unable to provision or register with call servers.

Corrective Actions:

Please note that you must have a telephone or Caller ID display box that supports the Call Waiting Caller ID feature.

If the problem you are experiencing remains unresolved, please contact your distributor for assistance.

Appendix B – Approvals and Listings

FCC Declaration of Conformity

- ★ Product name: **InnoMedia MTA XT 6328-2Re**
- ★ FCC Rules: Tested to comply with FCC part 15, Class B
- ★ Operating environment: for office use

FCC Compliance Statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two 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.



IMPORTANT! Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment. Use with an approved telephone set.

Appendix C – End User Warranty

This product is warranted to be free from manufacturing defects including original parts and workmanship for a period of one year from the date of original purchase. Should you find your unit is not operating properly during the one-year term of this warranty, you should contact your original place of purchase. Please do not contact InnoMedia directly.

Providing the manufacturing defect is verified along with the date of purchase, and at the manufacturer's discretion, the defective unit will be repaired or replaced with either a new, refurbished, or equivalent model at no charge for up to one year from the date of original purchase.

The end-user should delete all personal account information from the product, as provided in the owner's manual, before returning the product to the distributor for repair or replacement.

This warranty is void if the product is:

- A) Damaged through negligence, abuse, misuse, accident, or acts of God.
- B) Modified or repaired by anyone other than an expressly authorized representative.
- C) Damaged resulting from the improper connection to equipment of other manufacturers.

This warranty does not cover:

- A) Costs incurred in the shipping of the product to and from the original place of purchase.
- B) Damage or improper operation caused by the failure to follow the operating instructions provided with this product.
- C) Routine adjustments to the product, which can be performed by the end-user as outlined in the owner's manual.
- D) Communication problems caused by external factors such as insufficient bandwidth or arising from the Internet service used by the end-user.

THIS WARRANTY IS NON-TRANSFERRABLE AND APPLIES SOLELY TO THE ORIGINAL END-USER AND DOES NOT EXTEND TO SUBSEQUENT END-USERS OF THE PRODUCT. ANY APPLICABLE IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED IN DURATION TO A PERIOD OF THE EXPRESSED WARRANTY AS PROVIDED HEREIN BEGINNING WITH THE DATE OF THE ORIGINAL PURCHASE, AND NO WARRANTIES, WHETHER EXPRESSED OR IMPLIED SHALL APPLY TO THE PRODUCT THEREAFTER. THERE IS NO WARRANTY AS TO THE FITNESS OF THE PRODUCT FOR ANY PARTICULAR PURPOSE OR USE. ALL SERVICES PROVIDED WITH THE PRODUCT ARE PROVIDED "AS IS."

THE EXTENT OF LIABILITY UNDER THIS LIMITED WARRANTY IS THE REPAIR OR REPLACEMENT PROVIDED ABOVE AT THE SOLE DISCRETION OF THE MANUFACTURER. IN NO EVENT SHALL ANY LIABILITY EXCEED THE PURCHASE PRICE PAID BY THE PURCHASER. UNDER NO CIRCUMSTANCES SHALL THERE BE LIABILITY FOR ANY LOSS, DIRECT, INDIRECT, INCIDENTAL, FORESEEN, UNFORESEEN, SPECIAL, OR CONSEQUENTIAL DAMAGE ARISING OUT OF OR IN CONNECTION WITH THE USE OF THIS PRODUCT.

7 Index

A

- Access Filtering** · 52
- Account Number
 - Port Configuration page · 41
- Advanced Settings** · 47
- Application · 49
- Authentication Protocol
 - PPPoE Setting page · 28, 64

B

- Back Panel** · 10

C

- Calling**
 - using a non-North American dial plan** · 34
 - using North American dial plan** · 33
- Cloning MAC Address
 - MAC Cloning page · 30
- Confirm Password field · 44

D

- Default Gateway
 - Network Configuration page · 25, 40
- Default Lease Time
 - DHCP Server page · 62
- Default Router address

- DHCP Server page · 62
- Device Information Page** · 42
- Device Management** · 42
- DHCP Addressing** · 21
 - Configuring your PC for** · 22
- DHCP Server** · 60
- Dial Plans** · 32
- Disconnect & Reboot**
 - PPPoE Status page · 66
- Domain Filtering · 52
 - Configuring** · 54

E

- Enable DHCP
 - Network Configuration page · 40
- Enable DHCP field**
 - Network Configuration page · 25
- Enable DHCP Server
 - DHCP Server page · 61
- Enable Domain Filtering
 - Domain Filtering page · 54
- Enable IP Filtering
 - IP Filtering page · 53
- Enable MAC Address Cloning
 - MAC Cloning page · 30
- Enable MAC Filtering
 - MAC Filtering page · 57, 59
- Enable PPPoE
 - PPPoE Setting page · 27, 64
- External Source Port · 49

F

- Features** · 2
- Firmware Upgrade** · 45
- Forwarding Number
 - Port Configuration page · 42

H

- hardware overview** · 7
- highest IP address
 - DHCP Server page · 61

I

- Idle Time Out
 - PPPoE Setting page · 28, 64
- Image Version
 - Device Information page · 43
- Installing the device** · 11
- Internal Source IP · 49
- Internal Source Port · 49
- IP Address**

- Network Configuration page · 25, 40
- IP Filtering · 52
- Configuring** · 53

L

- LED
 - states · 8
- LED lights** · 7
- Line Number
 - Port Configuration page · 41
- lowest IP address
 - DHCP Server page · 61

M

- MAC Address
 - Device Information page · 43
 - Network Configuration page · 39
- MAC Address Cloning · 63
- MAC Cloning** · 29. *See MAC Address Cloning*
- MAC Filtering**
- Configuring** · 58

N

- NAT Port Map** · 48
- Network Configuration** · 38
- Network Configuration page** · 25
- New Password
 - field · 44

O

- Open WAN Configuration · 39

P

- Package Contents** · 2
- password
 - change · 45
- Password**
- PPPoE Setting page · 28, 64
- Phone Port Status · 43
- PIN
 - Port Configuration page · 41
- Placing Calls** · 32
- Polarity Reversal · 47
- Port
 - IP Filtering page · 54

Port Configuration · 40

PPPoE · 27

PPPoE Setting · 64

PPPoE Status · 65

Primary DNS address

DHCP Server page · 62

Primary DNS Server

Network Configuration
page · 25, 40

Protocol · 49

IP Filtering page · 54

Provision Time

Device Information page ·
43

Q

QoS

Voice Settings · 2

QoS Settings

Voice · 51

R

Reboot the device · 66

Requirements

system and service · 3

Reset

button · 40, 42, 47, 53

Restore

button · 44

Restore Default Values · 66

Restricted IP Addresses

IP Filtering page · 54

router · 2

Router Settings · 48

S

Save

button · 42, 52

Save & Reboot

button · 40, 47

Secondary DNS address

DHCP Server page · 62

Secondary DNS Server

Network Configuration
page · 26, 40

Service ID

PPPoE Setting page · 28,
64

Static IP Addressing · 24

Subnet Mask

DHCP Server page · 61

Network Configuration
page · 25, 40

System Up Time · 43

T

Technical Support · 71

Troubleshooting · 71

U

Update

button · 44

Use Forwarding Number

Port Configuration page ·
41

User ID

PPPoE Setting page · 28,
64

user name

change · 45

UserName

field · 44

**Username and Password
Page** · 44

V

Voice QoS settings · 2

Voice QoS Settings · 51

VoiceLine Features · 68

W

Warranty · 75

Web Management tool · 36

**Configuring
the MTA** · 38

Logging in · 37

Web Management Tool

Logging in · 23