

MTA 6328Re

Install Guide



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Section 1

MTA 6328Re Introduction

Overview

The MTA 6328Re uses your broadband connection to deliver voice quality and features equivalent to those of the PSTN. It is compatible with any standard analog telephone set, and it is very easy to install and configure.

In addition to providing quality voice services, MTA 6328Re's NAT & DHCP functionalities allow users to share a single broadband connection throughout their home network by either connecting a PC or a hub into the MTA downlink port.

Features and Advantages

Product Features and Values

Encompasses value-added features available in traditional PSTN networks, advanced IP telephony, as well as simple broadband router features:

- CLASS feature support
- Fax
- Caller ID
- NAT capabilities provide simultaneous Internet access for up to 3 PCs
- The built-in DHCP server automatically assigns IP addresses to devices on the network.
- The web-based interface allows configuration of the MTA 6328Re to handle IP routing and port forwarding for various services such as FTP and Telnet, and other applications, such as gaming and remote PC access.

Package Contents

The InnoMedia MTA 6328Re comes with the following items:

- 1 MTA
- 1 AC / DC Power Adapter
- 1 Telephone Cable
- 1 Ethernet Cable
- 1 Quick Install Guide



Section 2

MTA 6328Re Setup

Overview

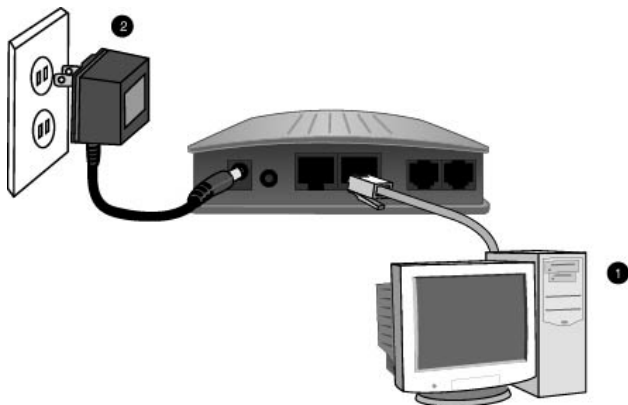
This section provides a step-by-step procedure to install the MTA 6328Re and setup the system for connecting to your ISP.

NOTE: These steps must be performed BEFORE connecting to your broadband Internet connection. Before proceeding, make sure that the MTA is powered on and your PC is connected to the LAN port. Do not connect any device to the WAN port at this time.

Setting up Your Computer

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

1. Using a network cable, connect your PC's NIC to the MTA's LAN port.
2. Connect the power adapter included with your MTA, to the port marked PWR.
3. Wait until the MTA is completely initialized. You will know that the MTA is ready when the RUN light is solid green.



Using DHCP

Your MTA 6328Re's LAN is setup for DHCP as the default. It will automatically assign your PC an IP address if the PC is configured to use DHCP.

We recommend that you reference your Operating System manual for instructions on how to configure your PC for DHCP. An example of how to do this with Windows 2000 appears below:

Setting up Your Computer

1. Click Start on your Taskbar.
2. Click Settings.
3. Click Control Panel.
4. Click Network.
5. Right-click on Local Area Connection.
6. Choose Properties.
7. Double Click on TCP/IP.
8. Write down the current settings before making any changes in case you need to restore your original settings.
9. Select the Obtain an IP address automatically option, then select the Obtain DNS server address automatically option.
10. Click OK.
11. Restart your PC if prompted.
12. Your PC should now have automatically obtained an IP address from the MTA's built-in DHCP server.
13. Verify this by typing "ipconfig" at the command prompt. Your PC should have an IP address in the default range of 192.168.99.100 to 192.168.99.199.



Section 3

MTA 6328Re Configuration

Overview

Setup and Configuration of the MTA 6328Re are managed via a Web Browser interface. In order to access this interface, your PC must be configured properly as outlined in Section 2. If you have not completed the steps outlined in Section 2, please do so before proceeding with this part of the installation.

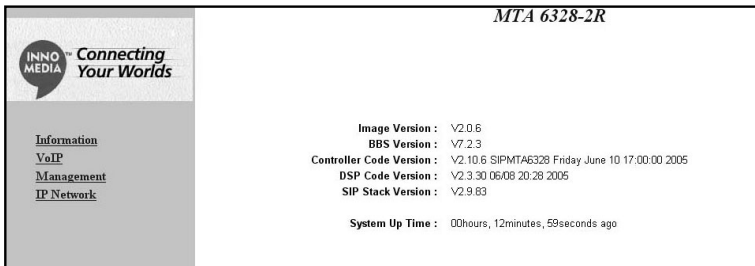
Configuring MTA 6328Re

Logging In

To login to the Web User Main page, follow these steps:

1. Open your web browser and enter the IP address of the MTA.
http://192.168.99.1 is the default address.
2. Enter your Username and Password. The default Username is: **User**
The default Password is: **password**.
3. You should now see the browser interface of the MTA 6328Re.

Note: The virtual interface is meant to provide access to the MTA in an isolated network environment. If you have multiple MTA's connected to the same network, you must verify that you are connected to the correct device. Please confirm that the MAC address displayed on the page matches the one on the bottom of the MTA that you are connecting to.



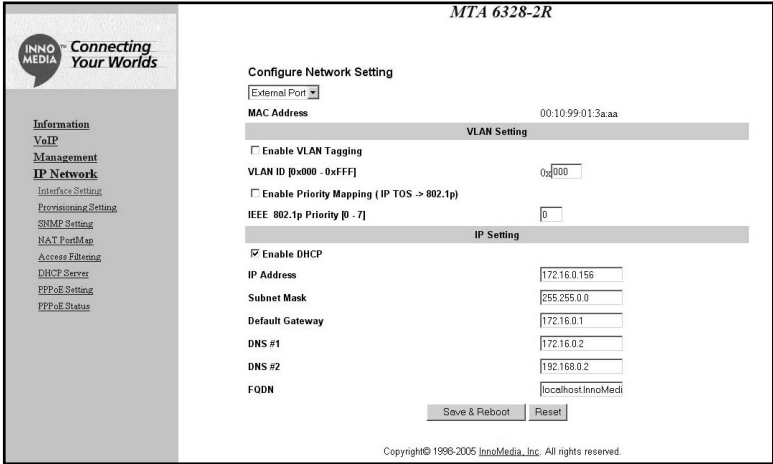
Configuring IP Addresses for your MTA

MTA 6328Re needs two IP addresses, one is for WAN(External Port) and one is for LAN(Internal Port.)

The IP address used by the "WAN" is the IP assigned by your ISP. This address may be assigned in a number of ways, including:

- DHCP—Usually used with Cable Modem connections
- Static IP—Used on both Cable Modem and ADSL connections
- PPPoE—Usually used with ADSL connections

Please check with your ISP to determine which method is used for your connection. You will need to know this before you can proceed with configuring the MTA 6328Re.




Configuring PPPoE Settings - For External IP

If your ISP provides your external IP address using PPPoE, then you will need to configure your MTA 6328Re so that it will be able to establish a PPPoE connection.

1. Open your web browser and connect to your MTA. (See Logging In on page 7 for more details.)
2. Click on IP Network, then PPPoE Settings.
3. Click Enable PPPoE Driver to enable the service.
4. Enter your Service ID if provided by your ISP. Otherwise, leave this field blank.
5. Enter your User ID, sometimes referred to as Username. (A sample User ID has been entered for your reference)
6. Enter your Password.
7. Choose the Authentication Protocol.
8. Click Save & Reboot to save your settings and reboot the MTA. The system will take a few seconds to connect to your ISP when you reboot.

NOTE: Your ISP will supply you with your User ID, Password, and Authentication Protocol.



**Connecting
Your Worlds**

MTA 6328-2R

Configure PPPoE Settings

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

Enable PPPoE:

Service ID:

User ID:

Password:

Authentication Protocol:

Idle Time Out (min):

- Check the box if you would like to enable PPPoE function.
- Enter the Service ID here.
- Enter the User ID here.
- Enter the Password here.
- Select the Authentication Protocol.
- 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.



PPPoE Status

The PPPoE Status link allows you to manage your connection with your DSL provider. When you power on your MTA, it normally will auto-connect to your DSL using PPPoE. If you ever wish to manually disconnect and/or reconnect to your DSL internet connection, simply click the appropriate button on the PPPoE Status page.

The screenshot shows a web interface for an MTA 6328-2R. On the left is a navigation menu with the InnoMedia logo and the slogan 'Connecting Your Worlds'. The menu items are: Information, VoIP, Management, IP Network, Interface Setting, Provisioning Setting, SNMP Setting, NAT PortMap, Access Filtering, DHCP Server, PPPoE Setting, and PPPoE Status. The main content area displays 'Current PPPoE Connection Status:' followed by 'Not Connected'. Below this, there are two buttons: 'Connect' and 'Disconnect & Reboot'.



Section 4

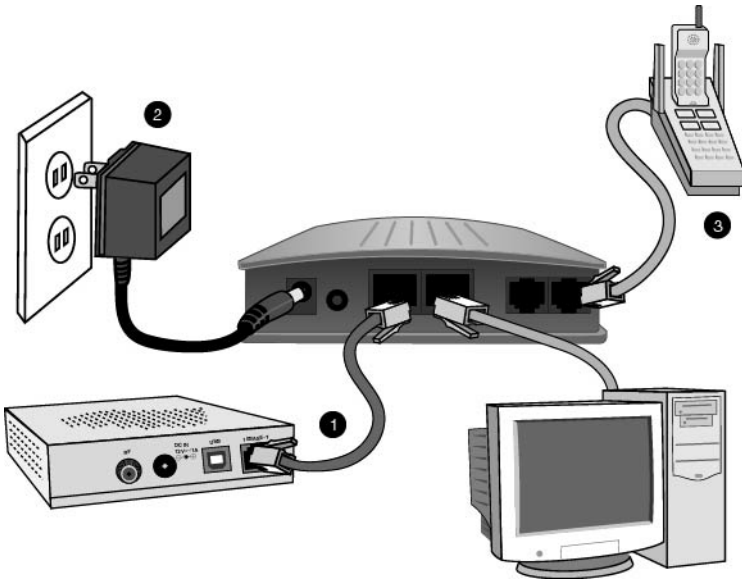
Connecting for the first time

Now that you have set up your MTA 6328Re, you are ready to connect to your voice service. Just a few more steps, and you'll be ready to start making phone calls.

Connecting to your voice service

In order for your MTA 6328Re to connect to your voice service, follow these steps:

1. With the MTA 6328Re powered OFF, connect a network cable from the port marked WAN on the MTA to the port marked Ethernet on your broadband access device (cable modem or DSL modem).
2. Plug the power adapter into an outlet, then plug the power into the MTA.
3. Plug any standard phone into the ports marked <phone> on the MTA, and start making calls!



Section 5

MTA 6328Re Advanced Configuration

Overview

By now you have configured your MTA 6328Re's basic settings and are making phone calls and surfing the internet as usual. This guide will show you how to manage the other features available with the MTA 6328Re

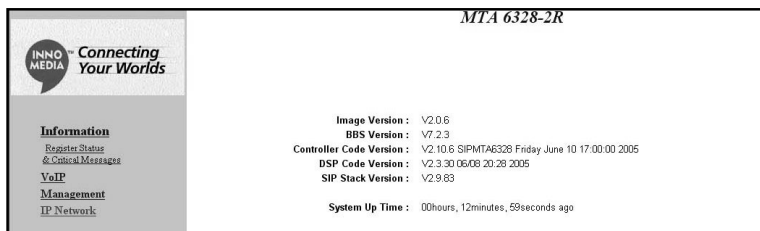
Setting up

Before proceeding with the features described in this guide, you must have completed the steps outlined in sections 2 and 3. If you have not done so, please complete the steps in sections 2 and 3 before moving on.

Logging In

To login to the Web User Main page, follow these steps:

1. Open your web browser and enter the IP address of the MTA.
http://192.168.99.1 is the default address.
2. Enter your Username and Password. The default Username is: **User**
The default Password is: **password**
3. You should now see the browser interface of the MTA 6328Re



The screenshot displays the web interface for the MTA 6328-2R. On the left, there is a navigation menu with the InnoMedia logo and the tagline "Connecting Your Worlds". The menu items are: Information, Register Status & Contact Message, VoIP, Management, and IP Network. The main content area on the right is titled "MTA 6328-2R" and lists the following system information:

Image Version :	V2.0.6
BBS Version :	V7.2.3
Controller Code Version :	V2.10.6 SIPMTA6328 Friday June 10 17:00:00 2005
DSP Code Version :	V2.3.30 06/08 20:28 2005
SIP Stack Version :	V2.9.83
System Up Time :	00hours, 12minutes, 59seconds ago




Configuring DHCP Server Information

At this point, your PC is already running with a valid IP address and is able to surf the web on the same connection that you are making phone calls with. The IP address assigned to your PC is a result of the DHCP server on the MTA 6328Re. The default address pool is a range from 192.168.99.10 to 192.168.99.15. If you check your PC's IP address, you will see that it falls within this range. The default settings should be fine for most users.

If you wish to change the range, or if you opt to assign your own static IP address to your PC rather than have it auto-assigned by the DHCP server, then you will need to access the browser interface to change some settings by following the steps below.

1. Open your web browser and connect to your MTA at <http://192.168.99.1>.
2. Click on IP Network, then DHCP Server.
3. Click on Enable DHCP Server, to enable the feature, or uncheck it if you want to use static IP for your PC.
4. Enter the IP address ranges, Subnet Mask, and DNS information. The DNS addresses must be supplied by your ISP.
5. You may also change how long your PC may keep its current IP address before the MTA will reassign it another address from the pool. For most users, the default times (in seconds) are appropriate and should not be modified.
6. Click on Save & Reboot to let your new settings take effect.



**Connecting
Your Worlds**

- Information
- VoIP
- Management
- IP Network**
- Interface Settings
- Provisioning Settings
- SNMP Settings
- NAT Firewall
- Access Filtering
- DHCP Server
- PPP-IE Settings
- PPP-IE Status

MTA 6328-2R

Configure DHCP Server Information

Please complete the following form to define or modify the DHCP server configuration.

Enable the DHCP Server:

The lowest IP address:

The highest IP address:

Subnet Mask:

Default Router address:

Primary DNS Server:

Secondary DNS Server:

Default Lease Time:

- Check the box if you need to enable the DHCP server.
- The lowest IP address of a range of IP address(es) that will be associated with a particular configuration.
- The highest IP address of a range of IP address(es) that will be associated with a particular configuration.
- Subnet mask to be present to the client.
- Default Router IP address that the client should add to its routing table. This is also the address of the device's web configuration page.
- Primary DNS Server IP address that the client should add to its routing table.
- Secondary DNS Server IP address that the client should add to its routing table.
- Default lease time for the binding that client will use.
- 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.




Configuring NAT Port Mapping

Port mapping is an advanced configuration in which the router forwards incoming protocols to computers on your local network. You will need to determine which type of service, application or game you'll provide and the IP address of the computer that will provide each service. This feature only works with a static IP assigned to your PC.

To configure the NAT Port Mapping, do these steps:

1. Open your web browser and connect to your MTA.
2. Click on IP Network, then NAT PortMap.
3. Enter External Source Port number that you want to redirect to another unit.
4. Choose either TCP/IP or UDP protocol.
5. Enter The IP address of the PC that is running the application or game that uses this source port and protocol.
6. Enter the Internal Source Port you want to send it to. If the application or service only uses one port, then the Internal Source Port will be the same as the External Source Port.
7. Alternatively, you may select an Application in the drop-down box. The well-known port used for that application will be assigned automatically.
8. Save the settings by clicking on Save.

Note: Ports 6024, 6026, 6028 and 6030 are reserved for voice and cannot be configured in this feature.

Connecting
Your Worlds

MTA 6328-2R

Configure NAT Port Map Database

Please complete the following form to add, update, and delete entries in the NAT Port Map database.

	External Delete	Source Port	Protocol	Internal Source IP	Internal Source Port	Application
<input type="checkbox"/>	21	TCP	192.168.99.100	21	FTP	
<input type="checkbox"/>		UDP			User Defined	
<input type="checkbox"/>		UDP			User Defined	
<input type="checkbox"/>		UDP			User Defined	
<input type="checkbox"/>		UDP			User Defined	

NOTE For best results, a port should only be mapped to an Internal Source IP that is static. Therefore, you should assign a static IP address to the PC or PCs that will be forwarded any traffic by the port maps above.

- Enter a new entry in any empty entry.
- Select an Application to set the default Port and Protocol.
- Check the box to the left of an entry and click **Save** to delete the entry.
- An example of Internal source IP address is 90.0.0.20.
- Modification will **not** take effect unless you click on the **Save** button to save to flash memory.
- Click on the **Reset** button to restore old entries.

Information

VoIP

Management

IP Network

[Interface Setting](#)

[Provisioning Setting](#)

[SNMP Setting](#)

[NAT PortMap](#)

[Access Filtering](#)

[DHCP Server](#)

[PPPOE Setting](#)

[PPPOE Status](#)



Configuring MAC Cloning

In some cases, your broadband service provider might restrict internet connections only to the original PC that you installed with the cable or DSL modem. The network restricts this by reading the hardware address (MAC) of your PC's network card.

In this type of network, your MTA would not be allowed to connect to the network since its MAC is different from your PC's MAC. The MAC Cloning feature is used to let the MTA appear to have the MAC of your original PC.

To configure MAC Cloning:

1. Open your web browser and connect to your MTA's address. The default is `http://192.168.99.1`
2. Click on IP Network, then MAC Cloning
3. Check the box to Enable MAC Address Cloning
4. Enter the MAC address of the network card for the PC that was originally connected to your broadband connection.
5. Click on Save and Reboot to save the cloned MAC and reconnect to the network.

MTA 6328-2R

Configure MAC Address Cloning

Enable MAC Address Cloning

Cloning MAC Address:



Troubleshooting

Problem: Telephone has no dial tone

Solution:

1. Ensure that all cables (power, Ethernet, telephone) are properly connected to the MTA (see Page 11) and your broadband access device. Ensure that MTA's AC/DC power adapter is plugged in, and PWR and WAN indicator lights are ON (see Front Cover Picture).
2. Pick up telephone handset (phone off-hook), check for PHONE 1 indicator light to be ON and RUN indicator light blinking (see Front Cover Picture). If not, please disconnect MTA power cable, and then reconnect it again.
3. If previous steps fail, report the failure to your VoIP service provider for attention.

Specifications

Telephone Interface	1 or 2 FXS voice ports	
Network Interface	10/100 Base-T RJ-45 Uplink and Downlink ports	
Dimension	1.18 in (H) x 4.60 in (W) x 5.12 in (D)	
	30 mm (H) x 117 mm (W) x 130 mm (D)	
Power Supply	1 port	Output: DC 12V, 500mA / Input: AC 120V, 60Hz, 100mA
	2 port	Output: DC 12V, 1A / Input: AC 120V, 60Hz, 200mA
Power Consumption	Idle: 12V/0.19A(2.28W) / Talking: 12V/0.28A(3.36W)	
Operating Temperature	32 ~ 122 °F (0 ~ 50 °C)	



LED Status Summary

LED	Blinking State	MTA 6328-Re State
PWH	Steady - Green	The device power is on.
	Off	The device power is off.
RUN	Blinking - Red	The device failed to download a configuration or an image file
	Blinking - Orange	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.
WAN	Blinking - Green (10 Base T) Blinking - Yellow (100 Base T)	PC or Voice Data is being transferred.
	Steady - Green (10 Base T) Steady - Yellow (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) Blinking - Yellow (100 Base T)	PC Data is being transferred.
	Steady - Green (10 Base T) Blinking - Yellow (100 Base T)	The device is connected to an external PC.
	Off	The device is not connected to an external PC.
VOIP	Off	Unit failed to register with both lines
	Steady - Green	The VoIP module is internally initialized and the unit is ready to make calls.
PHONE 1/ PHONE 2	Blinking - Yellow	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	The connected telephone handset is on the hook (not in use) and there are no new voice mail messages.



