



# **AMI Debug Remote User's Guide**

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## Revision History

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04/30/09	Initial Release
08/06/09	Added Setting up Section

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## **Limited Warranty**

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The buyer agrees that if this product proves to be defective, American Megatrends is only obligated to repair or replace this product at American Megatrends' discretion according to the terms and conditions of the warranty registration unit that accompanies this product. American Megatrends shall not be liable in tort or contract for any loss or damage, direct, incidental or consequential resulting from the use of this product. Please see your licensing agreement or contract for more information concerning technical support.

## **Technical Support**

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See your licensing agreement or contract for more information concerning technical support.

## **Web Site**

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We invite you to access the American Megatrends World Wide Web site at:

<http://www.ami.com/>

## Disclaimer

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Requests for technical information about American Megatrends products should be made to your American Megatrends account representative.

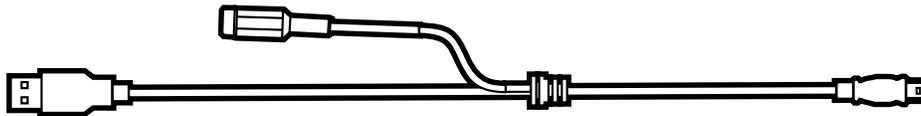
## Packing List

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You should have received the following:

- American Megatrends *AMI Debug Remote unit*
- Netbook with pre-installed software
- American Megatrends *Debug RX unit*
- USB to RS232 Converter
- USB 2.0 Hub
- Webcam
- VGA Splitter Cable
- AMI Debug Remote USB Cable with a power jack input for the AC Adapter
- AMI Debug Remote feature connector cable
- AC Adapter

### **Warning**



*The AMI Debug Remote USB Cable is specifically designed for the AMI Debug Remote and MegaRAC4 revision E PCB and newer revisions only. Do not use the AMI Debug Remote USB Cable for any other MegaRAC device.*

### **Note:**

The AC Adapter continues to provide power to the MegaRAC unit in the event that the host system is on standby mode (3.3V STB) or powered on. The AC Adapter plugs into the AMI Debug Remote USB Cable.

Your AMI Debug Remote may or may not ship with everything listed in the *Packing List*. Contact your AMI account representative to find out what is shipped with your AMI Debug Remote.

### **Note:**

To setup the AMI Debug Remote, you need to have two separate Ethernet cables.

- One Ethernet connection is required for the Netbook. The Netbook requires the use of TCP port number 4899. TCP port number 4899 must be allowed through your corporate firewall and directed to the IP address of the Netbook.
- One Ethernet connection is required for the AMI Debug Remote unit. The Ethernet connection for the AMI Debug Remote unit must be on the same subnet as the Netbook.

## FCC Class A Statement

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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.

### Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this device in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

### **Warning**

*Changes or modifications to this device not expressly approved by American Megatrends could void the user's authority to operate the equipment.*

## **Industry Canada**

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This Class A digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. Operation is subject to the following two conditions; (1) this device digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations. 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.

Cet appareillage numérique de la classe A répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux conditions suivantes: (1) ce dispositif peut ne pas causer l'interférence nocive, et (2) ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.

## **European Communities**

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### **Electromagnetic Compatibility (EMC)-Emissions**

- Directive 89/336/EEC as amended by
- Directive 92/31/EEC
- Directive 93/68/EEC [CE Marking]
- EN 55024: 1998 + A1:2001 + A2:2003
- EN 55022:1998 (EU)

### **Power Line Harmonics/Voltage Flicker**

- European Union-- EN 55022:1998 Radiated & Conducted Emissions Class A
- European Union-- EN 61000-3-2/-3 Harmonics & Flicker

### **Electromagnetic Compatibility-Immunity**

- European Union-- EN 55024: 1998 + A1:2001 + A2:2003



# Chapter 1      Configuring Your AMI Debug Remote Unit

## Note:

To setup the AMI Debug Remote, you need to have two separate Ethernet cables.

- One Ethernet connection is required for the Netbook. The Netbook requires the use of TCP port number 4899. TCP port number 4899 must be allowed through your corporate firewall and directed to the IP address of the Netbook.
- One Ethernet connection is required for the AMI Debug Remote unit. The Ethernet connection for the AMI Debug Remote unit must be on the same subnet as the Netbook.

## Hardware Installation

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Use the following steps to install the AMI Debug Remote unit.

Step	Action
1	Unpack the AMI Debug Remote unit
2	Unpack the Netbook
3	Setup the Netbook
4	Instant Message the IP Address of the Netbook
5	Connect Live with AMI BIOS Porting Engineer
6	Setup the AMI Debug Remote Unit with the Netbook
7	Configure the AMI Debug Remote onto your Network
8	Connect to the AMI Debug Remote using the Netbook
9	AMI Debug Remote User Name and Password
10	Attach AMI Debug Remote Cables to the Board
11	Access the Board through Console Redirection
12	Test Your Configuration
13	Configure the Webcam (optional)

### Step 1 Unpack the AMI Debug Remote unit

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Inspect the cardboard carton for obvious damage. If damaged, call 770-246-8600. Leave it in its original packing.

### Step 2 Unpack the Netbook

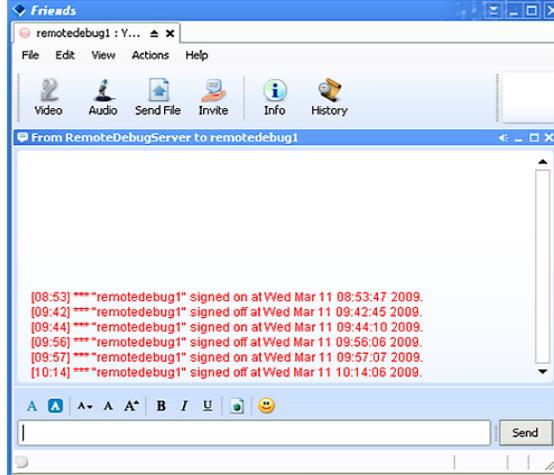
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Remove the Netbook and its power cable. The Netbook power cable is labeled to indicate that it belongs to the Netbook.

### Step 3 Setup the Netbook

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Connect the Netbook to an external Ethernet connection and power it on. Once the Netbook powers on, a notification will be sent via a pre-configured instant messaging (IM) client that the system is active and online.

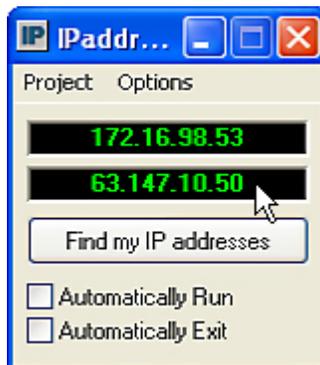


### Step 4 Instant Message the IP Address of the Netbook

---

Once the Netbook has fully booted up, the IP address discovery application runs and displays both the internal and external IP addresses of the Netbook.

Send the external IP address (as shown in the picture denoted by an arrow pointing to the second IP address) via the IM client. This is the IP address that is used by TCP port number 4899.



## Note:

TCP port number 4899 must be allowed through your corporate firewall and directed to the IP address of the Netbook.

## **Step 5 Connect Live with AMI BIOS Porting Engineer**

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Once the IM message is sent, your AMI BIOS Porting Engineer will attempt to establish a secure connection to the Netbook. The remote connection will be through the pre-installed VNC software.

### **Note:**

When this document was released, RaDmin3.3 was being used as the VNC software. The VNC software is subject to change.

Full control of the Netbook is handed over to the AMI BIOS Porting Engineer once your AMI BIOS Porting Engineer successfully establishes a connection with the Netbook. You can access the Netbook simultaneously during the remote session. During the remote session, the actions of the AMI BIOS Porting Engineer will override your actions.

## **Step 6 Setup the AMI Debug Remote Unit with the Netbook**

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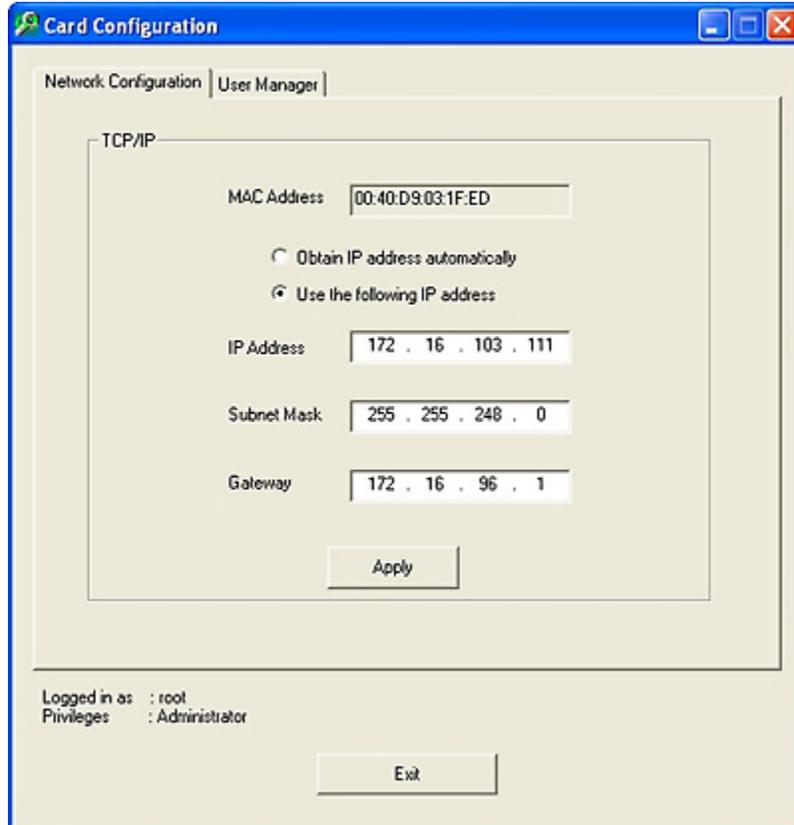
Connect the power cable and an Ethernet cable to the AMI Debug Remote unit. Wait approximately 45 seconds for the AMI Debug Remote unit to boot up. Next plug the USB cable end of the power cable into any USB port on the Netbook. The Netbook should now start seeing multiple USB devices and loading the necessary drivers. Upon the driver loading completion, run the G4 Configuration applet located on the desktop of the Netbook.



G4ConfigApp.exe  
G4ConfigApp  
American Megatrends Inc

## Step 7 Configure the AMI Debug Remote onto your Network

From within the Network Configuration screen of the G4 Configuration utility, add the IP address, Subnet Mask and Gateway addresses that are compatible with your network. A static IP address is the preferred method. An example can be found below.



The screenshot shows a window titled "Card Configuration" with two tabs: "Network Configuration" (selected) and "User Manager". The "Network Configuration" tab contains a "TCP/IP" section with the following fields and options:

- MAC Address: 00:40:D9:03:1F:ED
- Obtain IP address automatically:
- Use the following IP address:
- IP Address: 172 . 16 . 103 . 111
- Subnet Mask: 255 . 255 . 248 . 0
- Gateway: 172 . 16 . 96 . 1

Below the "TCP/IP" section is an "Apply" button. At the bottom of the window, it displays "Logged in as : root" and "Privileges : Administrator", along with an "Exit" button.

## Step 8 Connect to the AMI Debug Remote using the Netbook

---

Use the Netbook to locally log into the AMI Debug Remote unit, through the pre-installed Internet Explorer found on the desktop. Enter the IP address for the AMI Debug Remote unit in the following format:

xxx.xxx.xxx.xxx

### Note:

- Do not update the Internet Explorer on the Netbook.
- Simply type the IP address into the address bar. Typing 'http://' is not required.

## Step 9 AMI Debug Remote User Name and Password

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The MegaRAC G4 login page opens, asking for a username & password to log into the AMI Debug Remote unit.

Enter the proper credentials to obtain control of the AMI Debug Remote unit. The default user name is root and the default password is superuser. Both are case sensitive.

Field	Default
User Name	root
Password	superuser

### Note:

The default user name and password are in lower-case characters.

## Step 10 Attach AMI Debug Remote Cables to the Board

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Connect the video splitter cable and the voltage sensing header to the board that you want to debug.

### **Important**

Use only one of the following connectors:

- Jumper shunt
- USB plug
- ATX adapter

Next, connect the *MB Power* connector to your *Power Button* header and the *MB Reset* connector to your *Reset* header.

### **Note:**

By default the end caps are closed, only remove them if they are needed for the appropriate connections.

## Step 11 Access the Board through Console Redirection

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Step	Action
1	In the browser, navigate to <i>Remote Control</i> tab.
2	Select the <i>Launch Redirection</i> button located on the left side under <i>Options</i> .
3	Select the <i>ActiveX console</i> option. The <i>Active Console</i> option will open up a new window that will load the redirected video screen as long as the video connection was properly configured.

### **Note:**

If the popup window does not open, close Internet Explorer. Reconnect to the AMI Debug Remote again through a new Internet Explorer session.

## Step 12 Test Your Configuration

---

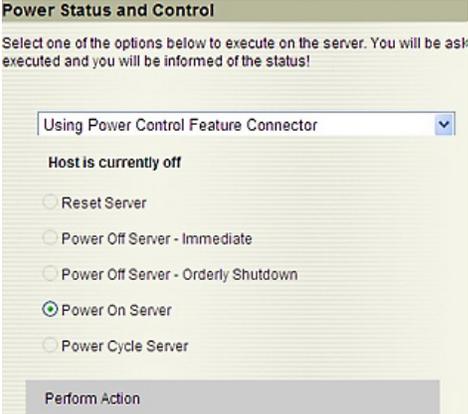
At this point make sure that *Power Controller Feature* cable is connected and sensing power correctly. To do this, you can perform a power cycle and a resetting sequence.

### Note:

Be sure to observe the system rebooting via the console redirection screen.

When the power connectors are configured properly the AMI Debug Remote will be able to detect the power status of the SUT.

If the board that is being debugged is off, your only available option is the *Power On* option.



**Power Status and Control**

Select one of the options below to execute on the server. You will be asked to confirm the action and you will be informed of the status!

Using Power Control Feature Connector

Host is currently off

- Reset Server
- Power Off Server - Immediate
- Power Off Server - Orderly Shutdown
- Power On Server
- Power Cycle Server

Perform Action

If the board that is being debugged is powered on, you will see a host of available options such as reset server, power cycle and two different power off options.



**Power Status and Control**

Select one of the options below to execute on the server. You will be asked to confirm the action and you will be informed of the status!

Using Power Control Feature Connector

Host is currently on

- Reset Server
- Power Off Server - Immediate
- Power Off Server - Orderly Shutdown
- Power On Server
- Power Cycle Server

Perform Action

## Step 13 Configure the Webcam (optional)

---

### **Note:**

This step is optional depending on your need for it.

<b>Step</b>	<b>Action</b>
1	Connect the Webcam to the USB port on the Netbook.
2	Once connected you can remotely open the Webcam via the pre-installed Webcam application to view the hardware.

### **Note:**

This application requires a high amount of system resources so only run it as necessary, to view the hardware.

# Chapter 2 Using Your AMI Debug Remote



## AMI Debug Remote GUI Overview

The AMI Debug Remote has a user-friendly Graphics User Interface (GUI) called the *AMI Debug Remote GUI*. It is designed to be easy to use. It has a low learning curve because it uses a standard Internet browser. You can expect to be up and running in less than five minutes.

This chapter allows you to become familiar with the *AMI Debug Remote GUI*'s various functions. Each function is described in detail.

### Note:

Your *AMI Debug Remote GUI* may not match this document. If it does not appear to be the same, you can visit [ami.com](http://ami.com) and download the most current user's guide.

## Default User Name and Password

---

When you first try to access your AMI Debug Remote, you will be prompted to enter a user name and password. The default user name and password are as follows:

Field	Default
User Name	<code>root</code>
Password	<code>superuser</code>

### Note:

The default user name and password are in lower-case characters.

## **AMI Debug Remote GUI Explained**

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After you successfully log into your AMI Debug Remote, you are greeted with the *AMI Debug Remote GUI*.

### **Menu Bar**

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There is a menu bar located at the top of the *AMI Debug Remote GUI*. It lists the following groups:

- General Information Group
- Server Health Group
- Configuration Group
- Remote Control Group
- Maintenance Group

### **General Information Group**

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This group of pages allows you to view system information.

### **System Information**

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This page displays information about the firmware and device availability.

### **Server Health Group**

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This group of pages allows you to view the sensor readings, system event logs and allows configuring of the health 'Monitoring Mode'.

## Sensor Monitoring Options

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This page allows you to select sensor monitoring options. Sensors can be monitored external baseboard management controller (BMC) connected to the PMB bus or you can directly monitor sensors on the I2C bus.

Item	Description
Monitoring Options	You can select how you want to monitor the sensors. Direct Monitoring of sensors on the I2C bus (needs PMCP files) Monitoring via External BMC (needs IPMB connection)
External BMC Slave Address	If being monitored by an external BMC, you will need to provide the slave address so that the AMI Debug Remote unit will be able to read data from the onboard BMC on the motherboard/ server board. 0x20 is the address most commonly used.
PMCP monitoring file (sp.bin)	Select the Soft Processor (SP) File with the <b>BIN</b> file extension.
Sensor definitions file (sdr.dat)	Select the SDR File with the <b>BIN</b> file extension.
Upload new file (if one already exists)	Select this option if the SDR and Soft Processor (SP) File are already loaded on the unit and you want to have it replaced with the new file.
Browse Button	Use this button to look for the SDR and Soft Processor (SP) File.
Save Button	Use this button to save your settings.

## Sensor Reading

---

This page displays all sensor readings and thresholds from the system.

Item	Description
Select a sensor type category	You can select a specific category of sensors that you may want to view or all the sensors.  All Sensors Temperature Sensors Voltage Sensors Fan Sensors
Sensor Readings	This field displays the individual sensor's name, reading and the current status of the sensor.
Refresh Button	Use this button to refresh the sensor readings view.
Show Thresholds Button	Clicking 'Show Thresholds' button expands the sensor reading table and also show the various threshold settings for every sensor.  Name Status Reading Low NR Low CT Low NC High NC High CT High NR

## Event Log

---

On this page there is a table of the events from the system's event log.

Item	Description
Select an event log category	Select one of the following event categories: <ul style="list-style-type: none"><li>• Sensor-Specific Events</li><li>• BIOS Generated Events</li><li>• System Management Software Events</li></ul>
Event Log	You can obtain the following information for each event: <ul style="list-style-type: none"><li>• Event ID</li><li>• Time Stamp</li><li>• Sensor Name</li><li>• Sensor Type</li><li>• Description</li></ul>
Clear Event Log Button	Left click the <i>Event Log</i> menu item to view and clear the event logs.

## Configuration Group

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This group of pages allows you to access various configuration settings.

## Network Settings

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This page allows you to view and modify the network settings on this page. Select whether to obtain an IP address automatically or manually configure one.

Item	Description
MAC Address	This field displays the MAC address of the AMI Debug Remote unit.
Obtain an IP address automatically (use DHCP)	This option allows the AMI Debug Remote's IP to be configured by a DHCP server (dynamically).
Use the following IP address	This option allows you to configure the AMI Debug Remote's IP address with a static IP. The <i>IP Address</i> , <i>Subnet Mask</i> , and <i>Gateway</i> fields will become editable when this option is selected.
IP Address	This field allows you to set the AMI Debug Remote's IP address.
Subnet Mask	This field allows you to set the <i>Subnet Mask</i> The AMI Debug Remote resides on.
Default Gateway	This field allows you to set the AMI Debug Remote's <i>Gateway</i> access address.
Save Button	Use this button to save your settings.

## User List

---

This page allows you to view the current list of user slots for the server. If you would like to delete or modify a user, select their name in the list and press Delete User or Modify User. To add a new user, select an un-configured slot and press Add User.

Item	Description
UserID	This field displays the ID number used in association with the User Name.
User Name	This field displays a list of all users who are able to access this AMI Debug Remote.  <b>Note:</b> The default administrator is <code>root</code> . It is prudent for you to change the <code>root</code> password.
Network Privilege	This field displays the network rights associated with the account.
Add User Button	Use this button to add a new user. You must select an open field first.
Modify User Button	Use this button to modify an existing user. You must select a user first.
Delete User Button	Use this button to delete an existing user. You must select a user first.

## Add New User

This page allows you to enter the requested information for the new user. You can add a new user by entering the information for the new user and by selecting the Add button. Press Cancel to return to the user list.

### Note:

Only user accounts with administrative rights are allowed to add, edit, and remove users. Non-administrator users can only change their own password. If a new user is given administrative privileges, permissions are automatically granted for all interfaces.

Item	Description
User Name	Enter a user name in the <i>Username</i> field. Your user name must be at least four characters long and no more than 32 characters long. User names are case-sensitive and <b>must</b> start with an alphabetical character.
Password	Enter a password in the <i>Password</i> field. Your password must be at least eight characters long.  <b>Note:</b> The password must be a minimum of eight characters and a maximum of 32 characters. Use a mixture of alphanumeric and special characters for better security. The password is case-sensitive.
Confirm Password	Confirm your password by entering your password again in the <i>Confirm Password</i> field.
Network Privileges	Assign network permissions and access rights. <ul style="list-style-type: none"><li>• Administrator</li><li>• Operator</li><li>• No Access</li></ul>
Add Button	Use this button to add the new user.
Cancel Button	Use this button to cancel this action.

## Modify User

Enter the new information for the user below and press Modify. Press Cancel to return to the user list.

Item	Description
User Name	This field contains the user name being modified. This field cannot be modified.
Change Password	Place a check in this box to change the password.
Password	Enter the new password in the <i>Password</i> field. Your password must be at least eight characters long.  <b>Note:</b> The password must be a minimum of eight characters and a maximum of 32 characters. Use a mixture of alphanumeric and special characters for better security. The password is case-sensitive.
Confirm Password	Confirm your password by entering your password again in the <i>Confirm Password</i> field.
Network Privileges	Assign network permissions and access rights. <ul style="list-style-type: none"><li>• Administrator</li><li>• Operator</li><li>• User</li><li>• Callback</li><li>• No Access</li></ul>
Modify Button	Use this button to update the user account.
Cancel Button	Use this button to cancel this action.

## Delete User

If you would like to delete a user, select their name in the list and select the Delete User button.

## Alert List

---

On this page you can configure alert destinations. To delete an alert, select it and press Delete. To create a new alert, select a “Not Configured” alert table entry and click ‘Modify’ button.

Item	Description
Alert #	Number of alert configuration entry. There are 15 alert configuration entries in the system.
Alert Level	This is associated with the severity of the event that causes the alert.
Destination Address	SNMP destination IP address for the configured alert entry.
Modify Button	Use this button to add a new alert configuration entry or modify an existing one.
Send Test Alert Button	Use this button to test the selected alert configuration entry.

### Alert - Modify Alert

Please enter the information for the new alert below and press Save.

Item	Description
Event Severity	You select the severity of the event that you want to trigger an alert. <ul style="list-style-type: none"><li>• Disable All</li><li>• Informational</li><li>• Warning</li><li>• Critical</li><li>• Non-recoverable</li></ul>
Destination IP	Type the SNMP destination IP address into this field.
Cancel Button	Use this button to cancel this action.
Save Button	Use this button to save your settings.

### Send Test Alert

To send a test alert, select it and select the *Send Test Alert* button.

## Mouse Mode Settings

---

Here you can configure the mouse mode.

Item	Description
Set mode to Absolute	Select this option to select mouse mode to “Absolute”, depending upon your system. This mode enables you to see 2 mouse cursors where one is redirected host mouse cursor and other is actual local mouse cursor. It is recommended to use this mode when host server is running in Windows platform.
Set mode to Relative	Select this option to select mouse mode to “Relative”, depending upon your system.. In this mode, the user can see only one mouse cursor i.e. redirected host mouse cursor. This mode will lock the local mouse cursor inside the redirected window and the user has to press Alt+M to unlock and stop mouse redirection. Here Alt+M is basically used to start/stop mouse redirection. It is recommended to use this mouse mode when host server is running in Linux and other OS platforms.
Apply Button	Use this button to make the settings active.

## SSL Configuration

---

Here you can upload an *SSL Certificate* and *SSL Private Key* to use when accessing your AMI Debug Remote.

Item	Description
Default Certificate	This field displays the <i>Default Certificate</i> .
Default Private Key	This field displays the <i>Default Private Key</i> .
New SSL Certificate	This field allows you to upload an <i>SSL Certificate</i> and <i>SSL Private Key</i> .
Browse Button	Use the <i>Browse</i> button to search for your <i>SSL Certificate</i> or <i>Private Key</i> . Both types of files have a <i>PEM</i> file extension.
Upload Button	Use this button to upload the files to the unit.

### Note:

The AMI Debug Remote does not support pass-phrase encrypted certificates. Once you upload the certificates, left click the OK button to reset your AMI Debug Remote.

You can now access your AMI Debug Remote securely using the following format in your IP Address field from your Internet browser:

`https://<your AMI Debug Remote's IP address here>`

For example, if your AMI Debug Remote's IP address is 192.168.0.30, enter the following:

`https://192.168.0.30`

Notice the `<s>` after `<http>`.

### Note:

You must accept the certificate before you are able to access your AMI Debug Remote again.

## LDAP Settings

---

This page allows you to access the Lightweight Directory Access Protocol (LDAP) Server and authentication information and LDAP Settings information.

LDAP is an Internet protocol that MegaRAC® unit can use to authenticate users. If you have an LDAP server configured on your network, you can use it as an easy way to add, manage and authenticate MegaRAC® unit users. It does this by passing login requests to your LDAP Server. This means that there is no need to define an additional authentication mechanism when using the MegaRAC unit. Since your existing LDAP Server keeps authentication centralized, you will always know who is accessing network resources and can easily define user/group-based policies to control access.

Use the following fields to authenticate and access the LDAP server.

Item	Description
Enable LDAP Authentication	Check this box to enable LDAP authentication through an LDAP server.
Port	Enter the port address of your LDAP server. A common port used by LDAP is port 389.
IP Address	Type in the IP address of your LDAP server.
Bind Password	The Bind Password specifies the password for the MegaRAC unit to use when binding to your LDAP server.
Bind DN	Type the Bind DN name in the Bind Distinguished Name field. The Bind DN is required if anonymous binds are not allowed on your LDAP server.
Searchbase	An LDAP directory requires an RFC 2247–compliant distinguished name, or search base, to perform an LDAP search. Type in your search base name here.

## Remote Control Group

---

This group of pages allows you to manage the remote console and power status of the server.

### Launch Redirection

---

This page allows you to launch console redirection and to manage the remote server. Select the desired viewer that you wish to use to start redirection. Click on the appropriate button to launch the remote console.

Two console viewers are available for redirection support.

1. ActiveX Console (Only on a windows platform with Internet Explorer)
2. Java Console (Recommended on all platforms)

### Remote Console Shortcut Key Combinations

---

The most powerful feature of your AMI Debug Remote is the ability to redirect the host system's console. To redirect the host system's console is the ability to manage your host system as if it were physically in front of you, when it is not. The following table is a list of basic keystrokes and their functions:

Keystroke	Description
<ATL> + <S>	Start Console Redirection
<ATL> + <T>	Stop Console Redirection
<ATL> + <R>	Restart Console Redirection
<ATL> + <F>	Toggle Full Screen Mode
<ATL> + <M>	Synchronize Mouse
<ATL> + <A>	Hold/Unhold Right <ATL> Key
<ATL> + <B>	Hold/Unhold Left <ATL> Key
<ATL> + <L>	Hold/Unhold Right <CTRL> Key
<ATL> + <N>	Hold/Unhold Left <CTRL> Key
<ATL> + <D>	Generate <CTRL>, <ATL>, + <DEL>
<ATL> + <E>	Start CD-ROM Drive Redirection

### Note:

Occasionally, when invoking the <ALT> + <E> keys, the screen does not refresh and will appear to be blank. You can hit any key on your keyboard or move the mouse to refresh the screen.

## Console Redirection Window

---

### Video

This dropdown menu contains the following dropdown menu items:

Menu Item	Description
Start Redirection	This menu item can be used to begin <i>Console Redirection</i> .
Stop Redirection	This menu item can be used to halt <i>Console Redirection</i> .
Restart	This menu item can be used to stop <i>Console Redirection</i> and then start <i>Console Redirection</i> again.
Compression	This menu item can be used to configure the compression used. You can select from the following options: <ul style="list-style-type: none"><li>• None (Default Setting)</li><li>• Type-I</li><li>• Type-II</li><li>• Both</li></ul>
Full Screen	This menu item can be used to view the <i>Console Redirection</i> in <i>Full Screen</i> mode.  <b>Note:</b> Set your client system's screen resolution to 1024 x 768 so that you can view the host system in true full screen.
Exit	This menu item can be used to exit and close the redirection window.

### Keyboard

This dropdown menu contains the following dropdown menu items:

Menu Item	Description
Hold Right Ctrl Key	This menu item can be used to act as the right-side <CTRL> key when in <i>Console Redirection</i> .
Hold Right Alt Key	This menu item can be used to act as the right-side <ALT> key when in <i>Console Redirection</i> .
Hold Left Ctrl Key	This menu item can be used to act as the left-side <CTRL> key when in <i>Console Redirection</i> .
Hold Left Alt Key	This menu item can be used to act as the left-side <ALT> key when in <i>Console Redirection</i> .
Left Windows Key	This menu item can be used to act as the left-side <WIN> key when in <i>Console Redirection</i> . You can also decide how the key should be pressed: <ul style="list-style-type: none"><li>• Hold Down</li><li>• Press and Release</li></ul>
Right Windows Key	This menu item can be used to act as the right-side <WIN> key when in <i>Console Redirection</i> . You can also decide how the key should be pressed: <ul style="list-style-type: none"><li>• Hold Down</li><li>• Press and Release</li></ul>
Alt+Ctrl+Del	This menu item can be used to act as if you depressed the <CTRL>, <ALT> and <DEL> keys down simultaneously on the host system that you are redirecting.

## Mouse

This dropdown menu contains the following dropdown menu item:

Menu Item	Description
Sync Cursor	This menu item can be used to synchronize or unsynchronize the mouse cursor.

## Options

This dropdown menu contains the following dropdown menu items:

Menu Item	Description
Bandwidth	The <i>Bandwidth Usage</i> option allows you to adjust the bandwidth. You can select one of the following: <ul style="list-style-type: none"><li>• 256 Kbps</li><li>• 512 Kbps</li><li>• 1 Mbps</li><li>• 10 Mbps</li><li>• 100 Mbps (Default Setting)</li></ul>
Quality	This option allows you to configure the video quality. Depending on the bandwidth selected, you can adjust the speed/quality level. The level can be from 1 through 5, 1 being the maximum speed for given bandwidth and 5 being the maximum quality for given bandwidth. The relation between speed and quality is that more speed tries to reduce the data over network and thus reducing quality and vice versa.
Video Settings	The <i>Video Performance Parameters</i> allows you to enhance the frame rate of your remote console session. <b>Red Gain slider</b> This slider allows you to increase or decrease the amount of red. <b>Green Gain slider</b> This slider allows you to increase or decrease the amount of green. <b>Blue Gain slider</b> This slider allows you to increase or decrease the amount of blue. <b>Horizontal</b> This allows you to modify the horizontal position of the screen. <b>Vertical Position</b> This allows you to modify the vertical position of the screen. <b>Set Default Gains button</b> This button allows you to reset the color gains to the default levels. <b>Auto Calibrate button</b> This button allows the unit to automatically set the color gains and noise thresholds.
KB/Mouse Encryption	This option allows you to encrypt keyboard inputs and mouse movements sent between the connections.

## Device

This dropdown menu contains the following dropdown menu items:

Menu Item	Description
CDROM	This menu item can be used to start or stop the redirection of the CD-ROM drive. You can redirect from an image of a CD or from a physical CD-ROM drive.
Floppy	This menu item can be used to start or stop the redirection of the floppy drive. You can redirect from an image of a disk or from a physical floppy drive.  <b>Note:</b> <i>Floppy Redirection</i> is not an available feature on all versions of the AMI Debug Remote units.

## Help

This dropdown menu contains the following dropdown menu item:

Menu Item	Description
About AVCView	Displays the copyright and version information.

## Power Status and Control

---

This page allows you to view and control the power of your host system. Select one of the options listed in the following table to execute on your host system. You will be asked to confirm your choice. Upon confirmation, the command will be executed and you will be informed of the status.

Item	Description
Select Power Control Mechanism Dropdown Menu	Select the power control mechanism option. You can select one of the following types: <ul style="list-style-type: none"><li>• Using External IPMI BMC via IPMB bus</li><li>• Using Power Control Feature Connector</li></ul>
Reset Server	Select this option to reset the host system.
Power Off Server - Immediate	Select this option to power down the host system immediately.
Power Off Server - Orderly Shutdown	Select this option to power down the host system gracefully.
Power On Server	Select this option to power up the host system.
Power Cycle Server	Select this option to power cycle the host system.
Perform Action Button	Select this button to execute the option selected.

## Maintenance Group

---

This group of pages allows you to do maintenance tasks on the device.

## Firmware Update

---

 **Warning**

*DO NOT CLOSE THE WINDOW USING THE CLOSE BUTTON (X) ON THE TITLE BAR WHEN THE MEGARAC® IS IN UPDATE MODE. USE THE CANCEL BUTTON ONLY!*

### Note:

- The firmware upgrade process is a crucial operation. Make sure that the chances of a power or connectivity loss are minimal when performing this operation.
- Once you enter into *Update Mode* and choose to cancel the firmware flash operation, the MegaRAC® unit must be reset. This means that you must close the Internet browser and log back onto the MegaRAC® unit before you can perform any other types of operations.

You can update the device's firmware here. Select the Enter Update Mode button to put the device in a special mode that allows firmware update. You can now follow the instructions presented in the subsequent pages to successfully update the unit's firmware. The device will reset if update is canceled.

Item	Description
Enter Update Mode Button	Select the Enter Update Mode button to put the device in a special mode that allows firmware update. Follow the instructions listed on the update wizard.  The device will reset if update is canceled.

## Logging Out

---

To log out, simply click on the *Log Out* link.

# Appendix A MegaRACG4ConfigApp

## Overview

---

The MegaRAC unit can be located using the *MegaRACG4ConfigApp* utility. Once the IP Address is located or configured, you can use your Internet browser to access the MegaRAC unit remotely. The *MegaRACG4ConfigApp* utility is a GUI-based program that must be run from the host machine. The host machine is the computer that has the MegaRAC unit installed in it.

## Getting Started

---

To run the *MegaRACG4ConfigApp* program, double left click the **MegaRACG4ConfigApp.exe** icon located in the following directories on your *MegaRAC™ REMOTE DEBUG CD*:  
**CDROM\ServerAgent\Windows\**

The *MegaRACG4ConfigApp Dialog* window will appear. When prompted for the user name and password, use **root** for the User Name and **superuser** for the Password. Both are all lower-case characters. Once logged in, you will be able to get the MegaRAC unit's current network information.

## Network Configuration Tab

---

The *Network Configuration* tab allows you to change the way the MegaRAC™ REMOTE DEBUG unit connects to the network. By default, the MegaRAC™ REMOTE DEBUG unit obtains an IP address dynamically via DHCP. You can change this by specifying the IP address, network mask, and gateway.

The *Network Configuration* fields are explained below:

Field/ Button	Description
MAC Address	The <i>MAC Address</i> field displays the current <i>MAC</i> and <i>PHY</i> unique hardware address.
Configuration Method	The <i>Configuration Method</i> buttons allows you to select the network configuration method. You can choose either <i>Obtain IP address automatically</i> (DHCP) or <i>Use the following IP address</i> (STATIC) method.
IP Address	The <i>Internet Address</i> field allows you to specify a new IP address when you use a <i>STATIC</i> configuration method.
Subnet Mask	The <i>Network Mask</i> field allows you to specify a new network mask when you use a <i>STATIC</i> configuration method.
Gateway	The <i>Gateway</i> field allows you to specify a gateway when you use a <i>STATIC</i> configuration method.
Apply Button	The <i>Apply</i> button allows you to save your <i>New Network Configuration</i> .
Exit Button	The <i>Exit</i> button allows you to log off the MegaRAC™ REMOTE DEBUG Unit Configuration program.

## User Manager Tab

---

The *User Manager* tab allows you to manage the MegaRAC™ REMOTE DEBUG unit's users. Here you can add, delete, and modify users.

Field/ Button	Description
Add Button	The <i>Add</i> button allows you to add a new administrator to the MegaRAC™ REMOTE DEBUG unit's user list. The user name must be no more than eight characters long.
Remove Button	The <i>Remove</i> button allows you to delete an existing administrator from the user list. Simply highlight the account name that you want to remove and left click the <i>Remove</i> button.
Properties Button	The <i>Properties</i> button allows you to view and edit an existing administrator's record.
Exit Button	The <i>Exit</i> button allows you to log off the MegaRAC™ REMOTE DEBUG Unit Configuration program.

### Adding a User

The *Add User* fields are explained below:

Field/ Button	Description
User Name	You can enter the name of this account in this field.
Description	You can enter a short description for this account.
Password	You can use this field to enter the account password.  <b>Note:</b> The password must be a minimum of eight characters and a maximum of 32 characters. Use a mixture of alphanumeric and special characters for better security.
Confirm Password	You must reenter the password. The <i>Confirm Password</i> field allows you to reenter the user's password.
Permissions	You can select the permission level for this account.

### User Properties

Field/ Button	Description
User Name	The selected MegaRAC™ REMOTE DEBUG unit user is displayed in this field. It cannot be changed.
Description	You can view and modify the short description for this account.
Change Password	Left click this box if you want to change the user's password.
New Password	After you check the <i>Change Password</i> box, you can use this field to enter the new password.  <b>Note:</b> The password must be a minimum of eight characters and a maximum of 32 characters. Use a mixture of alphanumeric and special characters for better security.
Confirm Password	You must reenter the new password. The <i>Confirm Password</i> field allows you to reenter the user's new password.
Permissions	You can view and modify the permission level for this account.

# Appendix B UPNP and Port Usage

## UPnP

The AMI Debug Remote supports Universal Plug and Play (UPnP). If your router supports UPnP, the AMI Debug Remote will automatically open the appropriate ports.

## Port Usage Table

Port	Protocol	Purpose	Direction
5121	TCP	Remote Keyboard and Mouse data (iUSB HID)	Bi-directional. Data sent from the AMI Debug Remote unit to the client as well as from the client to the AMI Debug Remote unit.
5120	TCP	CD Redirection (iUSB – CD)	Bi-directional. Data sent from the AMI Debug Remote unit to the client as well as from the client to the AMI Debug Remote unit.
5123	TCP	Floppy Redirection (iUSB- Floppy)	Not used in newer firmware
7578	TCP	Video Redirection	Bi-directional. Data sent from the AMI Debug Remote unit to the client as well as from the client to the AMI Debug Remote unit.
3072	UDP	Trap out port	Outgoing from the AMI Debug Remote unit to the Trap destination.
443	HTTPS over TCP	Web Server	Bi-directional. Data sent from the AMI Debug Remote unit to the client as well as from the client to the AMI Debug Remote unit.
4899	TCP	VNC	The Netbook requires the use of TCP port number 4899. TCP port number 4899 must be allowed through your corporate firewall and directed to the IP address of the Netbook.



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