

IP-Reach M Series Quick Installation and Setup Guide

IP-Reach® Quick Installation and Setup Guide

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I. Prepare Servers and Network for Remote Operation

Congratulations on your purchase of IP-Reach, the industry-leading solution for multi-platform, high-performance, remote, network-based KVM console access. IP-Reach enables highly-secure, multi-user, bandwidth-efficient, and software-independent access to your servers' KVM consoles via a web browser.

Before installing IP-Reach, first configure each server which you intend to access remotely with the following parameters. This important installation procedure ensures optimal video / mouse performance and responsiveness.

All Servers

A. For optimal bandwidth efficiency and video performance, set the desktop background to a predominantly solid, plain, light-colored graphic.

B. Ensure that the server's video resolution and refresh rate are supported by IP-Reach, and the signal is non-interlaced:

| | |
|----------------|------------------|
| Text Mode | 1024x768 @ 60Hz |
| 640x480 @ 60Hz | 1024x768 @ 70Hz |
| 640x480 @ 72Hz | 1024x768 @ 75Hz |
| 640x480 @ 75Hz | 1024x768 @ 85Hz |
| 640x480 @ 85Hz | 1152x864 @ 60Hz |
| 800x600 @ 60Hz | 1152x864 @ 75Hz |
| 800x600 @ 72Hz | 1280x1024 @ 60Hz |
| 800x600 @ 75Hz | |
| 800x600 @ 85Hz | |

Network / Firewall

In order to enable IP-Reach, your network and firewall must allow communication on TCP Port 5000. Alternatively, IP-Reach can be configured to use a different TCP port of your own designation (in step II-6 below).

Windows XP

Disable "Enhanced Pointer Precision", and set the mouse motion speed exactly to the middle speed setting; these options are located in Control Panel > Mouse > Mouse Pointers.

Windows 2000 / ME

Set mouse pointer acceleration to "none", and the mouse motion speed exactly to the middle speed setting.

Windows 95 / 98 / NT

Set mouse motion speed to the slowest setting in Control Panel > Mouse > Motion.

Linux

Set mouse acceleration to exactly 1, and threshold to exactly 1.

Sun Solaris

Set mouse acceleration to exactly 1.0. Also be sure that your video card is set to a supported resolution, and is outputting VGA (H-and-V Sync, not composite sync). This non-default configuration can be set in the bootprom mode by issuing the command "setenv output-device screen:1024x768x70", followed by "boot" to reboot.

Macintosh

While no specific mouse setting is required, when using IP-Reach to access and control a Macintosh system, you must set the IP-Reach client to "single cursor" mode. See IP-Reach User Manual for more details.

II. Attach Local Console for Initial Configuration

1. Attach the included AC power cord to IP-Reach, and into an AC power outlet.

2. Attach a PS/2 keyboard and multisync monitor to the corresponding ports in the back of IP-Reach marked "Admin Console."

3. Power ON IP-Reach.

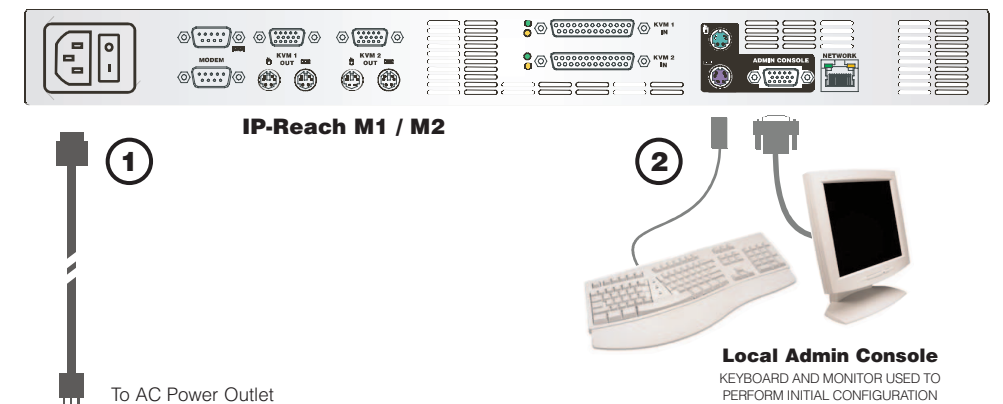
4. After booting, IP-Reach will display the Setup Wizard on the Admin Console screen. Press 'B' on the Admin Console keyboard to begin configuring IP-Reach.

5. On the Key Configuration Screen, enter the 16-digit user license key located on the software certificate included with your IP-Reach unit. Press <Ctrl+S> to save.

6. On the Network Configuration Screen, assign a unique name (e.g. "Server_Room") and IP Address parameters for IP-Reach.

7. The Main Menu appears. Browse through the Admin Console options to configure IP-Reach as appropriate to your environment. Refer to the User Manual found on the enclosed CD-ROM for detailed descriptions of administrative parameters.

8. When satisfied with your IP-Reach configuration, return to the main menu of the



Admin Console, and press 'R' to "Restart or shutdown IP-Reach". Press 'S' to shutdown, and power OFF IP-Reach.

9. At this time, you may detach the PS/2 keyboard and multisync monitor from the Admin Console ports, or leave them attached for future monitoring or further configuration.

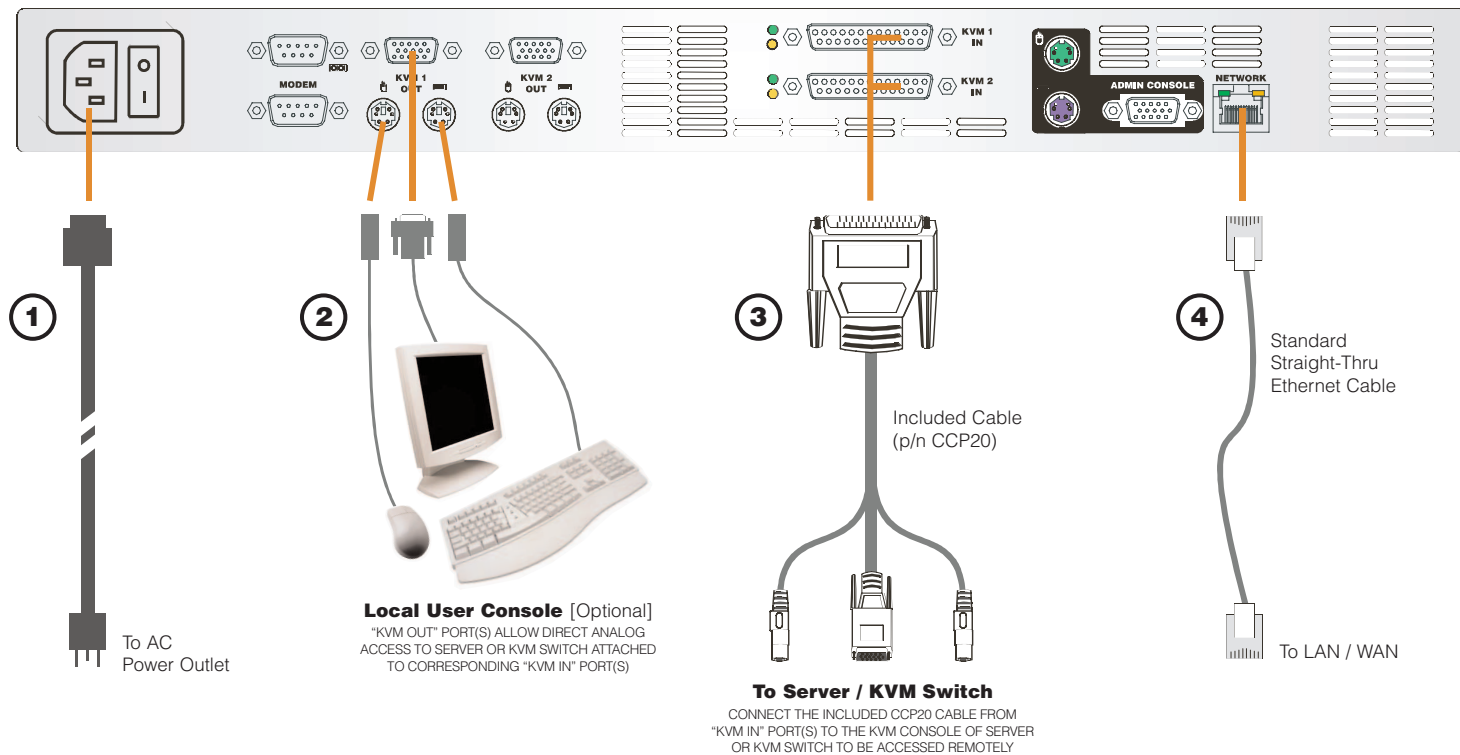
ALTERNATIVE: As an alternative method of performing initial configuration, you may connect to IP-Reach via a web browser on a Windows computer, instead of directly via a keyboard and monitor as described above.

To do so, simply attach a crossover Ethernet cable between the network ports of IP-Reach and your computer; enter IP-Reach's default IP address into Internet Explorer (192.168.0.192); and login with the default username / password ("admin" / "raritan").

After authenticating, you will be directly connected to your IP-Reach unit. On the left-hand side of the window, double-click on the "Admin Console" port to commence remote administration of your IP-Reach unit.

III. Connect to Network; Attach Servers to be Remotely Accessed

In this step, connect IP-Reach to the network; and attach the server(s) or KVM switch(es) which you wish to access remotely.



1. Attach the included AC power cord to IP-Reach, and into an AC power outlet.

2. [Optional] The KVM Out port(s) provide transparent, pass-thru output of the KVM console(s) connected to IP-Reach.

Connect a PS/2 keyboard, mouse, and multisync monitor to the KVM Out port(s) if you wish to have local, direct analog access to the server(s) or KVM switch(es) to be connected to IP-Reach.

3. Connect the DB25 end of an included CCP20 cable, to the KVM In Port(s) found on the back panel IP-Reach.

Connect the other end of the CCP cable, to corresponding PS/2 keyboard, mouse, and VGA video ports of the KVM switch(es) or server(s) to which you wish to provide remote, network access.

4. Connect a standard Ethernet cable from the IP-Reach network port, to your network switch / hub / router.

5. After checking to ensure all connections are secure, power IP-Reach ON; bootup requires approximately 30-45 seconds.

NOTE: You may also attach a serial modem to the IP-Reach dedicated modem port, for network-independent telephone access.

IV. Launch Raritan Remote Client (RRC)

IP-Reach provides secure web-browser access to connected KVM switch(es) or server(s) from any Windows-based computer. This enables convenient remote access to your server(s) without the burden of having software on-hand.

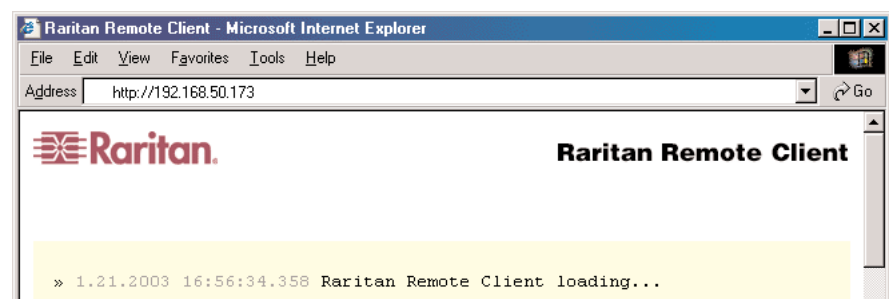
1. Log into any Windows-based computer with network access to IP-Reach.

2. If you are using Windows NT, 2000, or XP, ensure that you are not a "restricted" user.

3. Launch Microsoft Internet Explorer. Ensure that your Internet Explorer security settings allow the download and execution of ActiveX controls.

NOTE: The Windows default security setting, "Medium", will suffice.

4. In the text field found on the Internet Explorer "Address" bar, type in the IP address you assigned to IP-Reach in Step II-6. Press [ENTER] to load and launch the web access client.



V. Establish a Connection

Immediately upon launching the Raritan Remote Client (RRC), IP-Reach will request your user credentials. (See your IP-Reach User Manual for user account administration). Login with the default username and password ("admin"/"raritan"). You will immediately be connected to your IP-Reach unit. Use the RRC Navigator, found on the left-hand side of the RRC window, to select and connect to a port.

The RRC Navigator displays any known Raritan networked appliances in a single view.

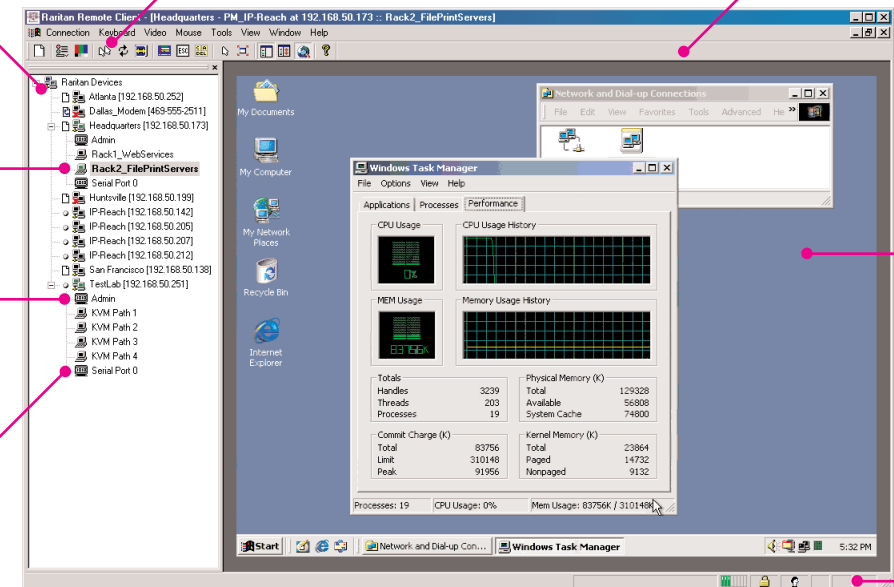
Click on "Synchronize Mouse" to converge the mouse pointers displayed.

The RRC Toolbar provides single-click access to RRC's most frequently utilized features.

Double-click on a port to establish control over the server or KVM switch attached to that port.

Users with Administrator privileges may modify IP-Reach configuration settings remotely.

Remotely access VT100 serial consoles connected to the "Serial IN" port of IP-Reach.



Once connected to a port, keystrokes and video signals are transmitted in real-time — exactly as if you were situated locally.

The RRC Status Bar provides real-time information on connection parameters.

VI. Maximize IP-Reach Performance

IP-Reach's dynamic video compression algorithms maintain usability under varying bandwidth constraints. Unlike competitive solutions, IP-Reach optimizes its output for not just LAN utilization, but also via the WAN and dial-up. By adjusting color depth and limiting video output, IP-Reach offers the optimal balance between video quality and system responsiveness in any bandwidth constraint. Familiarize yourself with the following configurable parameters to adjust performance options even further.

Video Smoothing

Setting the video smoothing level too high could cause IP-Reach to refrain from correctly transmitting color gradations.

On the menu bar, select "Connection" > "Properties" to adjust the Smoothing level to an appropriate setting for your environment.

Noise Filter

All video graphics cards generate electrical noise that cannot be seen by the naked eye when displayed on a monitor. IP-Reach reduces the bandwidth it consumes by intelligently ignoring extraneous signal noise.

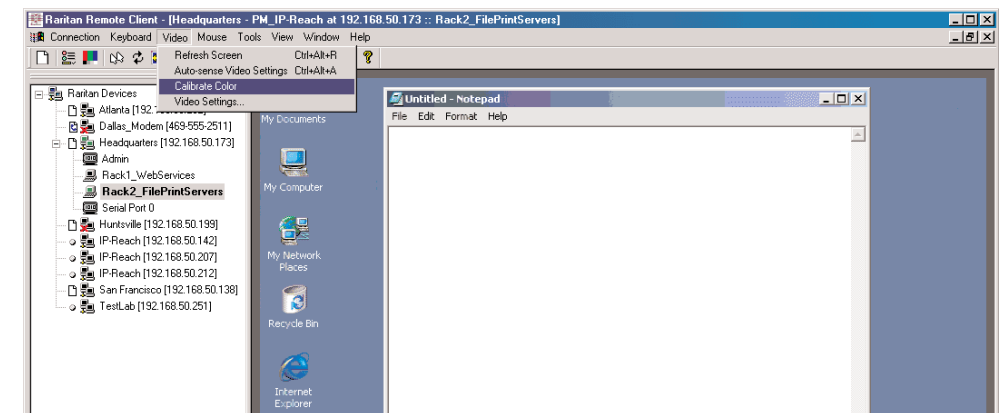
Setting the noise filter too high can cause IP-Reach to refrain from correctly transmitting screen changes.

On the menu bar, select "Video" > "Video Settings" to adjust the Noise Filter level to an appropriate setting for your environment.

Color Calibration

Some video cards output non-standard signal levels. Therefore, to optimize transmitted color for accuracy, perform a color calibration upon initial setup:

1. On the remote server desktop that you are controlling with IP-Reach, ensure that a solid white color covers approximately 15% or more of the screen. One simple way to accomplish this is to open the Notepad application and maximize its window size:



2. On the RRC menu bar, select "Video" > "Calibrate Color" to perform the color calibration.