Dominion® KX
Quick Installation and Setup Guide

For more detailed installation and operating instructions,
please consult the User Manual found on the enclosed CD-ROM.

ΞΞ Raritan.

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I. Prepare Devices and Network for Remote Operation

Congratulations on your purchase of Dominion KX, the industry's most fully featured digital KVM (keyboard/video/mouse) switch. Before connecting the Dominion KX, configure each device, which you intend to access via Dominion KX, with the following parameters. This very important installation procedure ensures optimal performance and responsiveness when using the remote server access capabilities of Dominion KX.

All Servers

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

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

Text Mode

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

Network / Firewall

In order to enable remote access to Dominion KX, your network and firewall must allow communication on TCP Port 5000. Alternatively, Dominion KX can also be configured to use a different TCP port of your own designation (see User Manual).

Optional: If you wish to access Dominion KX via web browser, your firewall must also allow access to TCP Port 443 (Standard HTTPS). You may also wish to allow access to TCP Port 80 (Standard HTTP) for additional convenience; Dominion KX will forward all HTTP requests to HTTPS, allowing end users to securely use either "http" or "https" as a URL.

Windows XP / Windows 2003

Disable "Enhanced pointer precision", and set the mouse motion speed exactly to the middle speed setting. These options are located in Control Panel > Mouse > Pointer Options. Disable transition effects in Control Panel > Display > Appearance > Effects.

Windows 2000 / ME

Set mouse pointer acceleration to "None" and the mouse motion speed exactly to the middle speed setting. Disable transition effects in Control Panel > Display > Effects.
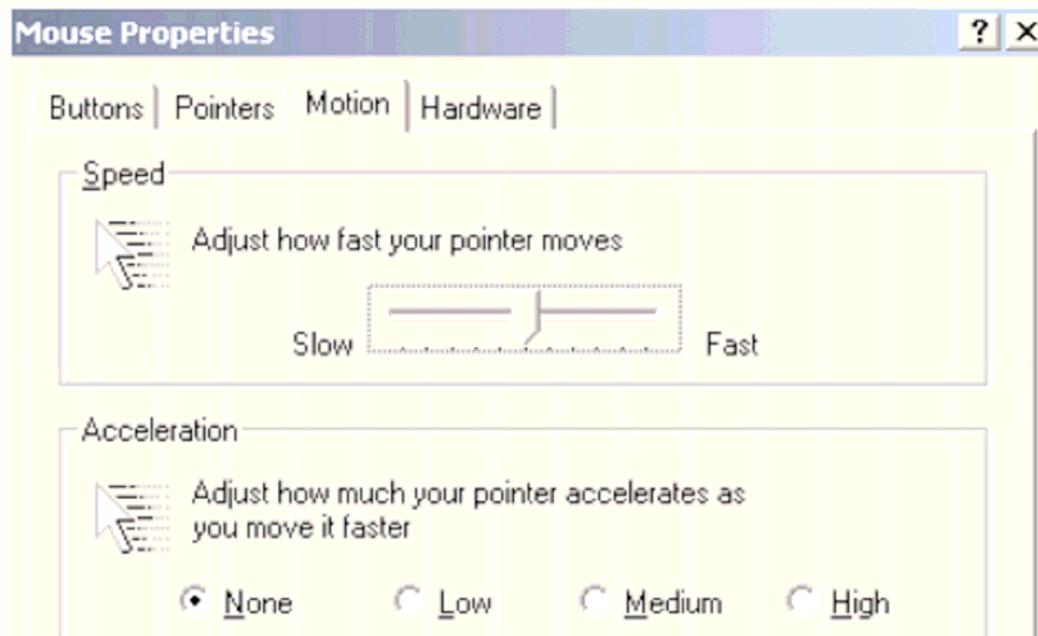
Windows 95 / 98 / NT

Set mouse motion speed to the slowest setting in Control Panel > Mouse > Motion. Disable window, menu, and list animation in Control Panel> Display > Effects.

Linux (with Graphical Desktop)

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

Sun Solaris (with Graphical Desktop)

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:r1024x768x70

Then issue the "boot" command to reboot.

Macintosh

While no specific mouse setting is required, when using Dominion KX to access and control a Macintosh system remotely, you must set the Raritan Remote Client to "single cursor" mode. Please see the User Manual for more details.

II. Attach Local User Console and Set IP Address

In this step, you will connect the console used for accessing servers directly at the rack, and use this console to set Dominion KX's IP address.

1. Attach the included AC power cord to the Dominion KX unit, and plug into an AC power outlet.

2. Attach a keyboard and mouse (either PS/2 or USB); and a multisync monitor to the corresponding ports in the back of Dominion KX marked "Local User."

3. Power ON Dominion KX.

4. After booting, you will see Dominion KX's local access On Screen Display (OSD), used to choose between servers while using the KVM switch at the rack. Log in with the default username/password of admin/raritan.

5. Press [F5] to enter the Administrative Menu.

6. Select option #3 ("Network Settings"), and press [ENTER].

7. Specify TCP/IP parameters for your Dominion KX unit: IP address; subnet mask; and default gateway. When complete, press [S]. The unit will reboot automatically.
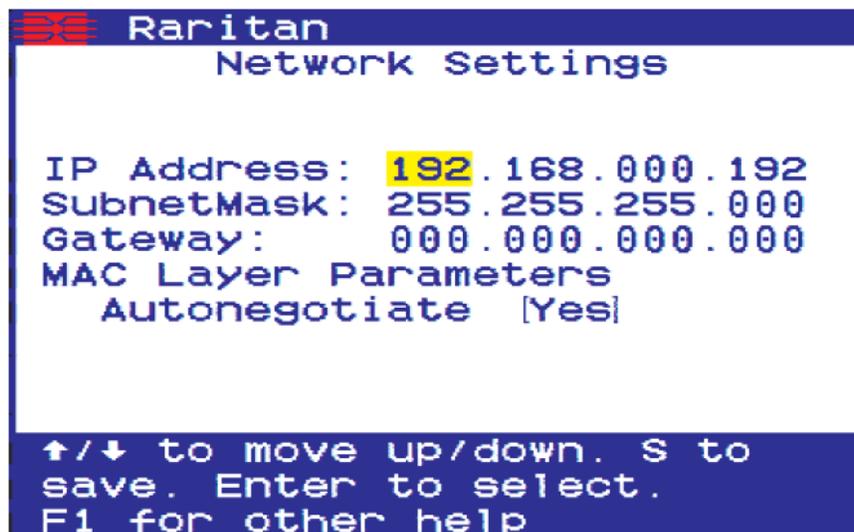
8. Connect one end of a straight-through Ethernet cable (included) to the port labeled "LAN1" on Dominion KX, and the other end to a network switch or router.

9. From any networked workstation with Java Runtime Environment 1.4.x (or later) installed, you can access all administrative functions by entering the following URL into any standard Web browser:

http://IP-ADDRESS/admin

where IP-ADDRESS is the IP address that you designated in Step 7 above.

ALTERNATIVE:

As an alternative method of performing initial configuration, you may connect to Dominion KX directly via Ethernet from your workstation, skipping steps 4 - 8 above. To do so, attach one end of a crossover Ethernet cable (included) directly to your workstation's Ethernet card, and the other end to Dominion KX's "LAN1" port. Enable your workstation to access the default IP address of Dominion KX: 192.168.0.192. One easy method is to temporarily set your workstation's IP parameters to:

> **IP Address: 192.168.0.1**
> **Subnet mask: 255.255.255.0**
> **Default gateway: 192.168.0.1**

Then, follow Step 9 above, being sure to use Dominion KX's default IP address of 192.168.0.192.

III. Connect to Network and Attach Servers

In this step, connect Dominion KX to the network and attach the servers that you wish to manage with Dominion KX.
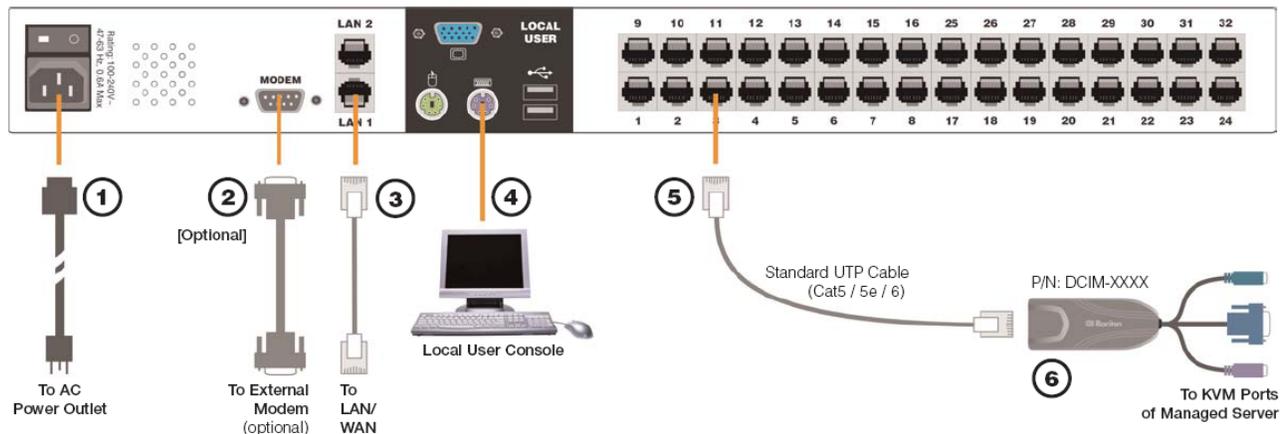

1. Attach the included AC power cord to the Dominion KX unit, and plug into an AC power source.

2. [Optional] Use a straight-through serial cable to connect an external modem.

3. Connect one end of a straight-through Ethernet cable (included) to the port labeled "LAN1" on Dominion KX, and the other end to a network switch or router. [Optional] For Ethernet redundancy, use a straight-through Ethernet cable to connect the "LAN2" port to another network switch or router. Should the Ethernet connectivity on LAN1 become unavailable, Dominion KX will failover to this port with the same TCP/IP settings — at all other times, this port will be disabled.

4. Attach a keyboard and mouse (either PS/2 or USB), and a multi -sync monitor to the corresponding ports in the back of Dominion KX marked "Local User." This Local User Console is used to access servers directly from the rack.

5. Connect one end of a standard, straight through UTP cable (Cat5 / 5e / 6) to an unoccupied server port; connect the other end to the RJ45 ports on a Dominion KX Computer Interface Module:

DCIM-PS2 (PS/2 ports); DCIM-USB (USB ports);
DCIM-SUSB (USB ports for Sun servers); or
DCIM-SUN (Sun ports with HD15 video).

6. Connect the remaining ports on the Computer Interface Module (CIM) to the corresponding KVM ports of a server that you wish to manage using Dominion KX.

7. Repeat steps 5 and 6 for to connect all servers that you wish to manage using Dominion KX.

8. Power ON Dominion KX by moving the rocker AC power switch to the ON position.

VI. Remotely Access and Control Connected Servers

Familiarize yourself with the features of Raritan Remote Client (RRC). After logging on to your unit with the default username/password (admin / raritan), use the RRC Navigator found on the left-hand side of the RRC window to select and connect to a port.
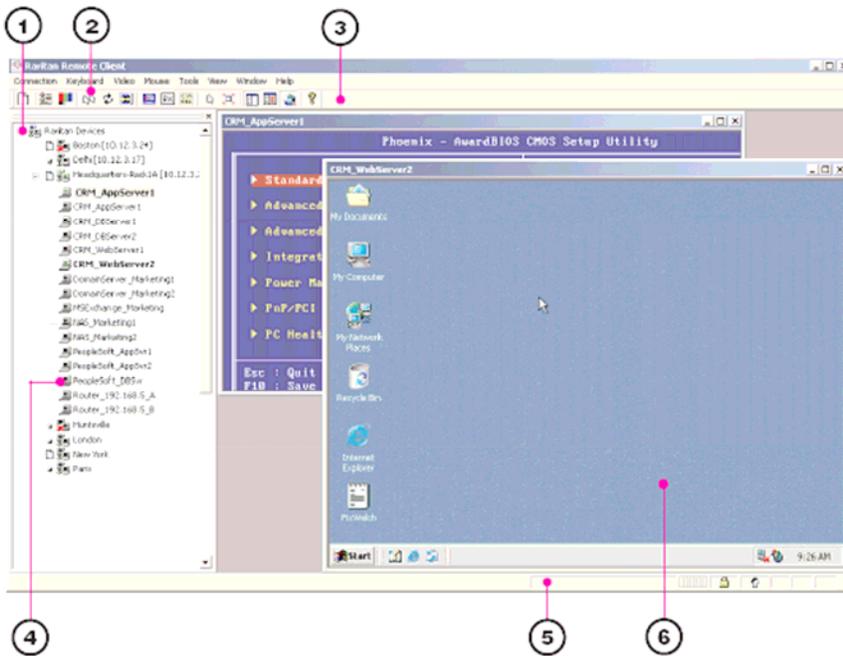
1. The RRC Navigator displays any known Dominion KX units in a single view. Select Connection > New Profile to create new entries.

2. Click on "Synchronize Mouse" to converge the mouse pointers displayed in KVM windows. Should your mouse pointers fail to converge, be sure to review Section I ("Prepare Devices and Network for Remote Operation", above) to correctly configure your managed server.

3. The RRC Toolbar provides easy access to RRC's most frequently-used features.

4. Double-click on server port to establish access to and BIOS-level control of the server's KVM ports.
   Double-clicking another server port on the same Dominion KX unit will switch your session to that server. If your Dominion KX hardware model supports multiple simultaneous remote server connections, you can right-click on a port to open an additional session.

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

6. When connected to a KVM console port, keystrokes and video signals are transmitted in real-time, exactly as if you were situated locally.

IV. Assign Names to Server Ports

USING LOCAL USER CONSOLE

1. On the local user console, log on with the default username/password of admin / raritan.

2. Press the [F5] key to activate the Administrative Menu, and select Option 5, "Channel Configuration".

3. Select a server port to rename, and press [ENTER]. When the cursor changes to a green color, assign a name (up to 20 characters) to identify the server connected to that port. Press [ENTER] to complete.

**4.** Press [S] to save your changes and press [ESC] to exit the menu.

USING WEB BROWSER

1. On any workstation with network connectivity to your Dominion KX, and with Java Runtime Environment 1.4.x (or later) installed, launch a Web browser and enter the URL, http://IP-ADDRESS/admin, where IP-ADDRESS is the IP address that you designated in Step II-7 earlier.

2. The Dominion KX Manager applet will load and launch. Log on with the default username/password of admin / raritan.

3. Use Dominion KX Manager to navigate to the server port that you wish to change, and assign a name (up to 20 characters) to identify that server.
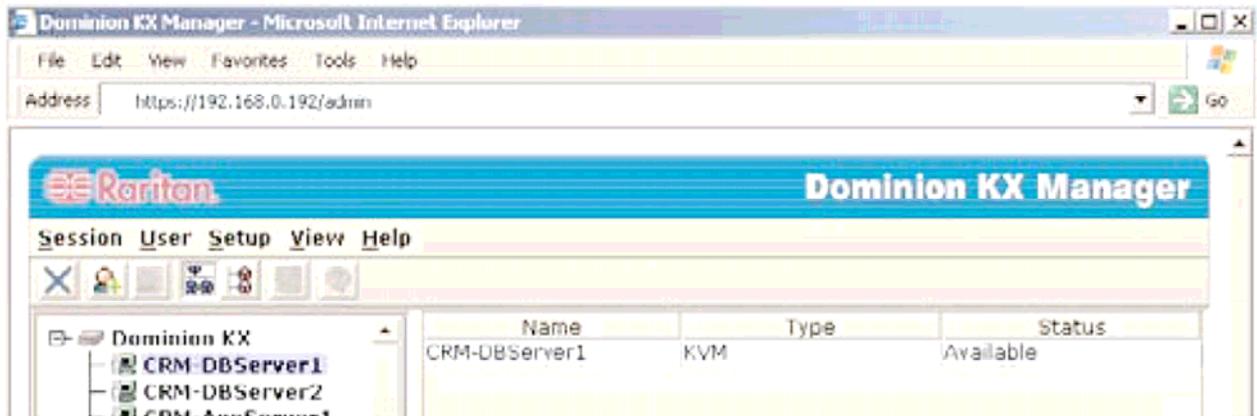
V. Launch Raritan Remote Client (RRC)

Dominion KX provides secure Web-browser access from any Windows-based computer, enabling remote access to your server(s) without the burden of having software on-hand.

1. Log on to any Windows-based computer with network access to Dominion KX. If you are using Windows NT, 2000, or XP, ensure that you are not a "restricted" user.

2. Launch Internet Explorer, Mozilla, or Netscape. Ensure that your security settings allow the download and execution of ActiveX controls. **NOTE:** The IE default security setting of "Medium" is sufficient.

3. In the URL text field of your Web browser, enter the IP address you assigned earlier in Step II-7.

4. Raritan Remote Client (RRC), the applet used to access and control servers connected to Dominion KX, will automatically launch and display all Dominion KX units located on the same network subnet. If your Dominion KX unit is not automatically detected, select Connection > New Profile in the menu bar to create a new entry.

5. Double-click on the entry corresponding to your Dominion KX, and log on with the default username/password of admin/raritan. Double-click on a port to connect to the connected server with full BIOS-level control.

VII. Maximize Remote KVM Performance

Dominion KX's dynamic video compression algorithms maintain usability of KVM consoles under varying bandwidth environments. Dominion KX can optimize its output not just for the corporate LAN, but also for lower-bandwidth WAN and dial-up connections. By adjusting color depth and limiting video output, Dominion KX offers the optimal balance between video quality and system responsiveness in any bandwidth constraint. Familiarize yourself with the following parameters to adjust performance options even further.

Video Smoothing

Setting the video smoothing level too high can prohibit Dominion KX 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. Dominion KX reduces the bandwidth it consumes by intelligently ignoring extraneous signal noise. Setting the noise filter too high can prohibit Dominion KX 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. Perform a color calibration upon inital setup to optimize transmitted color for accuracy:

1. On the remote server desktop that you are controlling with Dominion KX, 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.
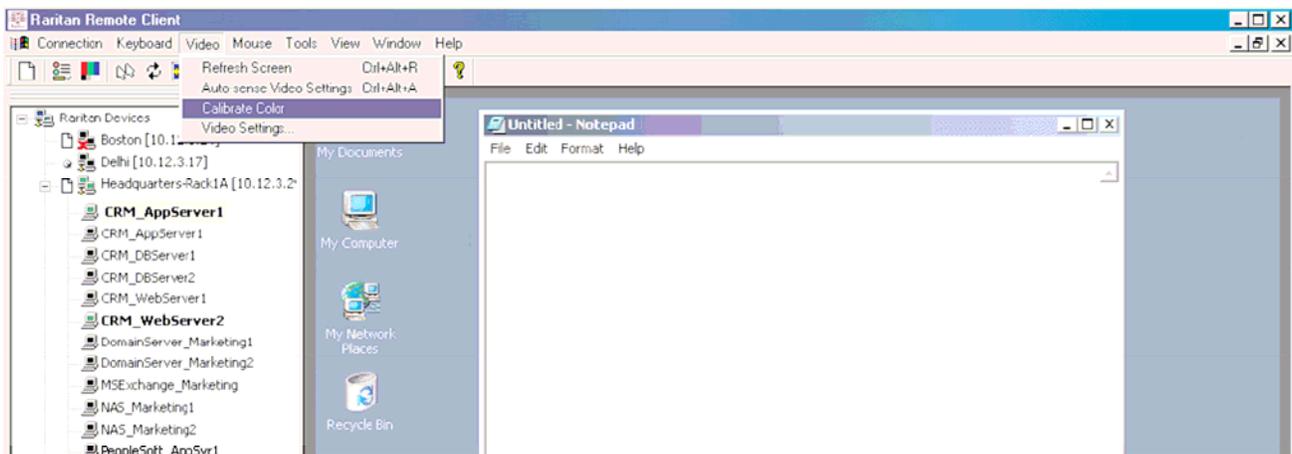
For more detailed instructions, please consult the User Manual found on the enclosed CD-ROM or visit www.raritan.com.

If you have any questions during your Dominion KX installation, please consult the User Manual, and feel free to contact 3Plus Technology Sdn. Bhd.

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