Examination

Manual found on the enclosed CD-ROM.

For more detailed installation and operating instructions, please consult the User



Quick Installation and Setup Guide

Dominion" KSX

I. Prepare Devices and Network for Remote Operation

Congratulations on your purchase of Dominion KSX, the complete solution for remote office administration. Before installing Dominion KSX, first configure each device which you intend to access remotely with the following parameters. This very important installation procedure ensures optimal performance and responsiveness.

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 KSX, 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 1152x864 @ 75Hz 800x600 @ 60Hz 800x600 @ 72Hz 1280x1024 @ 60Hz 800x600 @ 75Hz

Network / Firewall

800x600 @ 85Hz

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

Optional: If you wish to access Dominion KSX 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; because Dominion KSX will forward all HTTP requests to HTTPS, allowing the initial HTTP requests on TCP Port 80 usually reduces complication for end users (users may securely use either "http" or "https" as

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 > Mouse Pointers.

Disable transition effects in Control Panel > Display > Appearance > Settings.

Windows 2000 / ME

Set mouse pointer acceleration to "None", and the mouse motion speed exactly to the middle speed

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

setenv output-device screen:r1024x768x70 Then issue the "boot" command to reboot.

Macintosh

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

Serial Consoles

Make note of your serial console communication settings. Dominion KSX's serial ports default to 9600 baud, no parity bit, 8 data bits, and 1 stop bit (9600-N-8-1). Ensure that your serial console supports VT100 emulation.

II. Attach Local Console for Initial Configuration



- 1. Attach the included AC power cord to the Dominion KSX unit, and into an AC power outlet.
- 2. Attach a PS/2 keyboard and multisync monitor to the corresponding ports in the back of Dominion KSX marked "Admin Console."
- 3. Power ON Dominion KSX.
- 4. After booting, Dominion KSX will display the Setup Wizard on the Admin Console screen. Press 'B' on the Admin Console keyboard to begin configuring Dominion KSX.
- 5. On the Key Configuration Screen, enter the 16-digit user license key located on the software certificate included with your Dominion KSX unit. Press < Ctrl+S> to save.
- 6. On the Network Configuration Screen, assign a unique name (e.g., "Atlanta Office") and IP Address parameters for this Dominion KSX unit.
- 7. The Main Menu appears. Browse through the Admin Console options to configure Dominion KSX 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 Dominion KSX configuration, return to the main menu of the Admin Console, and press 'R' to "Restart or shutdown". Press 'S' to shutdown, and power OFF Dominion KSX
- 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 Dominion KSX 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 Dominion KSX and your computer; enter Dominion KSX'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 Dominion KSX unit. On the left-hand side of the window, double-click on the "Admin Console" port to commence remote administration of your Dominion KSX unit.

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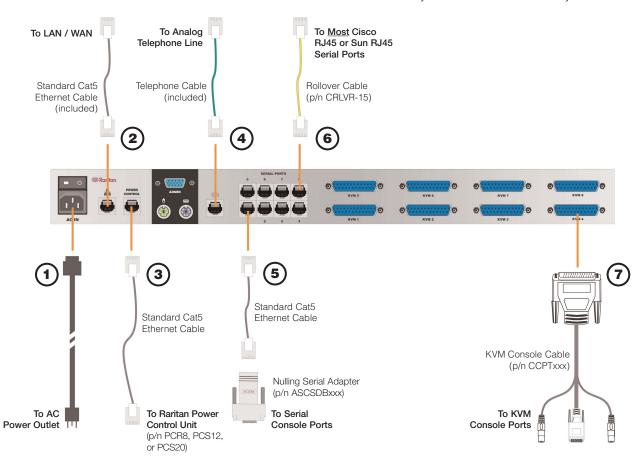
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III. Connect to Network: Attach Servers to be Remotely Accessed

In this step, connect Dominion KSX to the network and attach the servers and devices that you wish to access remotely.



- **1.** Attach the included AC power cord to the port labeled "AC IN" and connect to an AC power source.
- **2.** Connect a standard Cat5 Ethernet cable from the Dominion KSX network port, to your networked switch / hub / router.
- **3.** [Optional] To employ Dominion KSX's integrated power control graphical interface, connect a standard Cat5 Ethernet cable from the port labeled "Power Control" to the equivalently labeled port found on a Raritan Remote Power Control unit (p/n PCR8, PCS12, or PCS20).

NOTE: This port works only with Raritan brand Remote Power Control units. You may use similar products from other vendors by connecting them as a standard serial device (see Step 5). However,

note that Dominion KSX does not present a graphical interface to other vendors' power control products.

- **4.** [Optional] Connect the integrated modem found in Dominion KSX by attaching one end of the included telephone cable to the modem port, and the other end to an analog telephone line.
- **5.** To connect a standard DB9 or DB25 serial console port to Dominion KSX, use a Raritan Nulling Serial Adapter (p/n ASCSDB9F, ASCSDB9M, ASCSDB25F, ASCSDB25M) to interconnect the console port to Dominion KSX via a standard Cat5 Ethernet cable
- **6.** Many Cisco and Sun devices are equipped with serial console ports employing non-standard

RJ45 connections. <u>Most</u> of these devices' serial console ports can be directly connected to Dominion KSX with a "serial rollover cable" (not a standard Ethernet cable, nor a crossover Ethernet cable). If you have misplaced the rollover cable supplied with your Cisco or Sun device, you may purchase one from Raritan (p/n CRLVR-15).

7. To connect servers with graphical video cards, such as those running Microsoft Windows or Linux, attach the DB25 end of a Raritan KVM Console Cable (p/n CCPTxxx) to a KVM port found on the back panel of Dominion KSX. Connect the other end of the cable to corresponding PS/2 keyboard, mouse, and VGA video ports of the server to which you wish to provide remote network access.

IV. Launch Raritan Remote Client (RRC)

Dominion KSX provides secure web-browser access to devices at each of your remote locations 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 on to any Windows-based computer with network access to Dominion KSX.
- **2.** If you are using Windows NT, 2000, or XP, ensure that you are not a "restricted" user.
- **3.** If you are using Windows XP, ensure that only one version of Java Virtual Machine is installed.
- **4.** Launch Microsoft Internet Explorer. Ensure that your Internet Explorer security settings allow the download and execution of ActiveX controls.

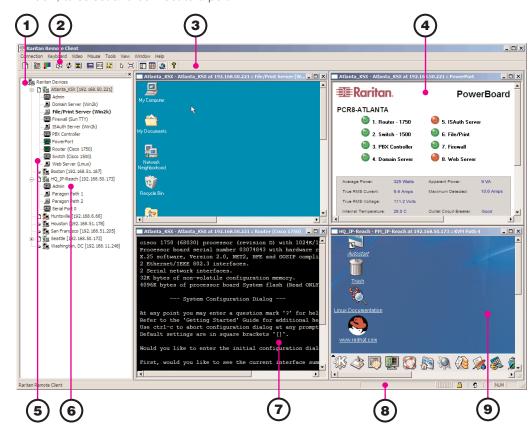
NOTE: The Windows default security setting, "Medium", will suffice.

5. In the text field found on the Internet Explorer "Address" bar, type in the IP address you assigned to Dominion KSX 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), you may access your Dominion KSX using its graphical navigation interface. Login with the default username and 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 Raritan networked appliances 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.
- **3.** The RRC Toolbar provides easy access to RRC's most frequently utilized features.
- **4.** If a Raritan Remote Power Control Unit is attached to Dominion KSX, double-click on "PowerPort" in the RRC Navigator to invoke the graphical power control interface.
- **5.** Double-click on any serial or KVM port to establish access to and control of the device attached.
- **6.** RRC works with many different Raritan IP-based products, each of which may be configured remotely by double-clicking on the "Admin" port.
- **7.** RRC provides VT100 console access to devices connected to the Serial Ports of Dominion KSX.
- **8.** The RRC Status Bar provides real-time information on connection parameters.
- **9.** When connected to a KVM console port, keystrokes and video signals are transmitted in real-time, exactly as if you were situated locally.

VI. Maximize Remote KVM Performance

Dominion KSX's dynamic video compression algorithms maintain usability of KVM consoles under varying bandwidth environments. Unlike other hardware solutions, Dominion can optimize its output for the lower-bandwidth WAN and dial-up connections typically found in remote office applications. By adjusting color depth and limiting video output, Dominion KSX 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 can prohibit Dominion KSX 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 KSX reduces the bandwidth it consumes by intelligently ignoring extraneous signal noise.

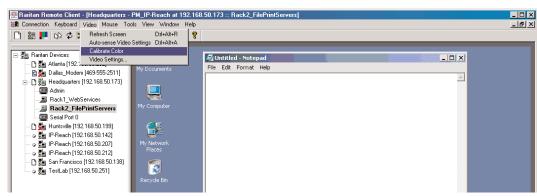
Setting the noise filter too high can prohibit Dominion KSX from correctly transmitting screen changes.

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 inital setup:

1. On the remote server desktop that you are controlling with Dominion KSX, 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.