

Dominion[™] KX III

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Quick Setup Guide

Thank for choosing the Dominion[™] KX III, the industry's highest performance enterprise-class, secure, digital KVM (Keyboard, Video, Mouse) switch.

This Quick Setup Guide explains how to install and configure the KX III. For details on using the KX III, access online help from the application, or download help in PDF format from the <u>Support page</u> on Raritan's website.

Package Contents

Each KX III ships as a stand-alone product in a standard 1U or 2U 19" rackmount chassis, depending on your KX III model.

The KX III device ships with the following contents:

- 1 KX III device
- 1 KX III Quick Setup Guide
- 1 Rackmount kit
- 2 AC power cords
- 1 Set of 4 rubber feet (for desktop use)
- 1 Application note
- 1 Warranty card

In Raritan products that require Rack Mounting, please follow these precautions:

- Operation temperature in a closed rack environment may be greater than room temperature. Do not exceed the rated maximum ambient temperature of the appliances. See **Specifications**
- Ensure sufficient airflow through the rack environment.
- Mount equipment in the rack carefully to avoid uneven mechanical loading.
- Connect equipment to the supply circuit carefully to avoid overloading circuits.
- Ground all equipment properly, especially supply connections, such as power strips (other than direct connections), to the branch circuit.

Rack Mounting

The KX III can be mounted in 1U (1.75", 4.4 cm) of vertical space in a standard 19" equipment rack.

Note: The Raritan device depicted in the rack mounting diagrams is for example purposes only and may not depict

your device. The mounting instructions are specific to your device.

Forward Mount

The steps correspond to the numbers shown in the front rackmount diagrams.

- 1. Secure the cable-support bar to the back end of the side brackets using two of the included screws.
- 2. Slide the KX III between the side brackets, with its rear panel facing the cable-support bar, until its front panel is flush with the "ears" of the side brackets.
- 3. Secure the KX III to the side brackets using the remaining included screws (three on each side).
- Mount the entire assembly in your rack, and secure the side brackets' ears to the rack's front rails with your own screws, bolts, cage nuts, and so on.
- 5. When connecting cables to the rear panel of the KX III drape them over the cable-support bar.



Rear Mount

The steps correspond to the numbers shown in the rear rackmount diagrams.

1. Secure the cable-support bar to the front end of the side brackets, near the side brackets' "ears," using two of the included screws.



- Slide the KX III between the side brackets, with its rear panel facing the cable-support bar, until its front panel is flush with the back edges of the side brackets.
- 3. Secure the KX III to the side brackets using the remaining included screws (three on each side).
- 4. Mount the entire assembly in your rack and secure the side brackets' ears to the rack's front rails with your own screws, bolts, cage nuts, and so on.
- 5. When connecting cables to the rear panel of the user station or switch, drape them over the cable-support bar.



Step 1: Configuring Network Firewall Settings

TCP Port 5000

Allow network and firewall communication on TCP Port 5000 to enable remote access to the KX III.

Alternatively, configure the KX III to use a different TCP port, then allow communication on that port.

TCP Port 443

Allow access to TCP Port 443 (Standard HTTPS) so you can access KX III via a web browser.

TCP Port 80

Allow access to TCP Port 80 (Standard HTTP) to enable automatic redirection of HTTP requests to HTTPS.

Step 1: Configuring KVM Target Servers

Mouse Settings

Raritan recommends using Absolute Mouse Synchronization to minimize mouse settings on target servers. For other mouse modes, see <u>Additional Supported Mouse Settings</u> in KX III Online Help.

In this mode, absolute coordinates are used to keep the client and target cursors in synch, even when the target mouse is set to a different acceleration or speed.

This mode is supported on servers with USB ports and is the default mode for Virtual Media CIMs.

Absolute Mouse Synchronization requires the use of a virtual media CIM:

- D2CIM-VUSB
- D2CIM-DVUSB
- D2CIM-DVUSB-DVI
- D2CIM-DVUSB-HDMI
- D2CIM-DVUSB-DP

Target Server Video Resolutions

For a list of supported target video server resolutions, see <u>Supported Target Server Video Resolutions</u> in KX III Online Help.

Step 3: Connecting the Equipment



A. AC Power

Connect the power supply(s):

- 1. Attach the included AC power cord to the KX III, and plug it into an AC power outlet.
- 2. For dual-power failover protection, attach the second included AC power cord to the KX III, and plug it into a different power source than the first power cord.

B. Network Port

The KX III provides two Ethernet ports for failover purposes - not for load-balancing.

By default, only LAN1 is active, and the automatic failover is disabled.

Enable network failover if you want LAN2 to use the same IP address should the KX III internal network interface or the network switch it is connected to become unavailable.

To connect to the network:

- 1. Connect a standard Ethernet cable from the network port labeled LAN1 to an Ethernet switch, hub, or router.
- 2. To use the optional KX III Ethernet failover capabilities:
 - a. Connect a standard Ethernet cable from the network port labeled LAN2 to an Ethernet switch, hub, or router.
 - b. Enable 'Automatic Failover' on the KX III Network Configuration page.



- C. Local User Port (Local Console)
- To connect the keyboard and mouse:
- Connect a USB keyboard and mouse to the respective Local User ports on the back of the KX III.

Use the KX III Local User port for administrative and target server access at the rack via a graphical user interface.

The Local User port is required for installation and setup, but is optional for subsequent use.

D. Local DVI-D Port

A standard DVI cable is used to connect to a local DVI monitor or keyboard tray (not included with the KX III). Connect to the DVI port or Raritan's T1700-LED keyboard tray.

Use a required DVI-D to VGA converter to connect to VGA monitors. See <u>Connect to a VGA Monitor (Optional)</u> in KX III Online Help.

Connect to a DVI Monitor

- To connect to a DVI monitor:
- 1. Connect a USB keyboard and mouse to the respective Local User ports on the back of the KX III.
- 2. Connect one end of a DVI cable into the DVI-D port on the back of the KX III.
- 3. Connect the other end of the DVI cable into the DVI port on the DVI monitor.
- E. Connect Target Servers to the KX III

To connect a target server to the KX III:

- 1. Connect the keyboard, mouse and video plugs on the CIM to the corresponding ports on the target server.
- 2. Connect the CIM to an available target server port on the back of the KX III via a Cat5/5e/6 cable.

F. Tier (Optional)

See Configuring and Enabling Tiering in KX III Online Help.

Step 4: Configuring the KX III

For the following steps, you must change the default password and assign the KX III its IP address at the Local Console.

All other steps can be performed from either the Local Console, or from the KX III Remote Console via a supported web browser using the KX III's default IP address. Java[®] 1.7 (or higher) or Microsoft .NET[®] 3.5 (or later) is required to use KX III.

Change the Default Password

The first time you start the KX III, you are required to change the default password.

To change the default password:

- 1. Once the unit has booted, enter the default username *admin* and password *raritan*. Click Login.
- 2. Enter the old password *raritan*, then enter and reenter a new password.

Passwords can be up to 64 characters in length consisting of English, alphanumeric and special characters.

3. Click Apply. Click OK on the Confirmation page.

Assign the KX III an IP Address

To assign an IP address to the KX III:

- 1. Choose Device Settings > Network. The Network Settings page opens.
- Specify a meaningful Device Name for your KX III device. Up to 32 alphanumeric and valid special characters, no spaces between characters.
- 3. Next, configure the IPv4, IPv6 and DNS settings.

Configure the IPv4 Settings

- 1. In the IPv4 section, enter or select the appropriate IPv4-specific network settings:
 - a. Enter the IP Address if needed. The default IP address is 192.168.0.192.
 - b. Enter the Subnet Mask. The default subnet mask is 255.255.255.0.
 - c. Enter the Default Gateway if None is selected from the IP Auto Configuration drop-down.
 - d. Enter the Preferred DHCP Host Name if DHCP is selected from the IP Auto Configuration drop-down.
 - e. Select the IP Auto Configuration. The following options are available:
 - None (Static IP) This option requires you manually specify the network parameters.

This is the recommended option because the KX III is an infrastructure device, and its IP address should not change.

 DHCP - Dynamic Host Configuration Protocol is used by networked computers (clients) to obtain unique IP addresses and other parameters from a DHCP server. With this option, network parameters are assigned by the DHCP server.

If DHCP is used, enter the Preferred host name (DHCP only). Up to 63 characters.

2. Next, configure IPv6 and/or DNS settings.

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Configure the IPv6 Settings

- 1. If using IPv6, enter or select the appropriate IPv6-specific network settings in the IPv6 section:
 - a. Select the IPv6 checkbox to activate the fields in the section and enable IPv6 on the device.
 - b. Enter a Global/Unique IP Address. This is the IP address assigned to the KX III.
 - c. Enter the Prefix Length. This is the number of bits used in the IPv6 address.
 - d. Enter the Gateway IP Address.
 - e. Link-Local IP Address. This address is automatically assigned to the device, and is used for neighbor discovery or when no routers are present. **Read-Only**
 - f. Zone ID. Identifies the device the address is associated with. **Read-Only**
 - g. Select an IP Auto Configuration option:
 - None use this option if you do not want an auto IP configuration and prefer to set the IP address yourself (static IP). This is the default and recommended option.

If None is selected, the following Network Basic Settings fields are enabled: Global/Unique IP Address, Prefix Length, and Gateway IP Address allowing you to manually set the IP configuration.

- Router Discovery use this option to automatically assign IPv6 addresses that have Global or Unique Local significance beyond that of the Link Local, which only applies to a directly connected subnet.
- 2. Next, configure DNS settings.

Configure the DNS Settings

- Select Obtain DNS Server Address Automatically if DHCP is selected and Obtain DNS Server Address is enabled. When Obtain DNS Server Address Automatically, the DNS information provided by the DHCP server will be used.
- If Use the Following DNS Server Addresses is selected, whether or not DHCP is selected, the addresses entered in this section is used to connect to the DNS server. Enter the following information if the Following DNS Server Addresses is selected. These addresses are the primary and secondary DNS addresses used if the primary DNS server connection is lost due to an outage.
 - a. Primary DNS Server IP Address
 - b. Secondary DNS Server IP Address
- 3. When finished, click OK.

Your KX III device is now network accessible.

Name Your Target Servers

To name the target servers:

1. Connect all of the target servers if you have not already done so.

- 2. Select Device Settings > Port Configuration, then click the Port Name of the target server you want to name.
- 3. Enter a name for the server.
- Up to 32 alphanumeric and special characters.
- 4. Click OK.

Specify Power Supply Autodetection

The KX III provides dual power supplies.

When both power supplies are used, the KX III automatically detects them and notifies you of their status.

Additionally, both the PowerIn1 and PowerIn2 Auto Detect checkboxes are automatically selected on the Power Supply Setup page.

If you are using only one power supply, you can enable automatic detection for only the power supply in use.

To enable automatic detection for the power supply in use:

- 1. Choose Device Settings > Power Supply Setup. The Power Supply Setup page opens.
- If you are plugging power input into power supply number one (left-most power supply at the back of the device), select the PowerIn1 Auto Detect option.
- If you are plugging power input into power supply number two (right-most power supply at the back of the device), select the PowerIn2 Auto Detect option.
- 4. Click OK.

If either of these checkboxes is selected and only power input is connected, the power LED on the front of the device is Red.

Configure Date/Time Settings (Optional)

Optionally, configure the date and time settings.

The date and time settings impact SSL certificate validation if LDAPS is enabled.

To set the date and time:

- 1. Choose Device Settings > Date/Time. The Date/Time Settings page opens.
- 2. Choose your time zone from the Time Zone drop-down list.
- 3. Adjust for daylight savings time by checking the "Adjust for daylight savings time" checkbox.
- 4. Choose the method to use to set the date and time:
 - User Specified Time use this option to input the date and time manually. For the User Specified Time option, enter the date and time. For the time, use the hh:mm format (using a 24-hour clock).
 - Synchronize with NTP Server use this option to synchronize the date and time with the Network Time Protocol (NTP) Server.
- 5. For the Synchronize with NTP Server option:



- a. Enter the IP address of the Primary Time server.
- b. Enter the IP address of the Secondary Time server. **Optional**

Note: If DHCP is selected for the Network Settings on the Network page, the NTP server IP address is automatically retrieved from the DHCP server by default.

Manually enter the NTP server IP address by selecting the Override DHCP checkbox.

6. Click OK.

Step 5: Launching the KX III Remote Console

Log in to your KX III Remote Console from any workstation with network connectivity that has Microsoft .NET[®] and/or Java Runtime Environment[®] installed.

To launch the KX III Remote Console:

- 1. Launch a supported web browser.
- 2. Enter the either:
 - The URL http://IP-ADDRESS to use the Java-based Virtual KVM Client

Or

 http://IP-ADDRESS/akc for the Microsoft .NET-based Active KVM Client

IP-ADDRESS is the IP address assigned to your KX III

You can also use HTTPS, or the DNS name of the KX III assigned by your administrator (if applicable).

- KX III always redirects the IP address from HTTP to HTTPS.
- 4. Enter your username and password. Click Login.

Access and Control Target Servers Remotely

The KX III Port Access page provides a list of all KX III ports, as well as the connected target servers, their status, and availability.

Access a Target Server from the KX III

To access a target server:

 On the KX III Port Access page, click the Port Name of the target you want to access. The Port Action Menu is displayed.

Port Access

Click on the individual port name to see allowable operations. 0 / 4 Remote KVM channels currently in use.

View By F	Port View By Group	View By Search	Set Scan
▲ No.	Name		
1	Dominion_KX3_	Port1	
2	_{DP-D} Conne	ct _{vort13}	
3	Dominion-KX2_F	Port3	
مريقين كالقلين	Mindhws XP SP	3	

2. Choose Connect from the Port Action menu. A KVM window opens with a connection to the target.

Switch between Target Servers

- **To switch between KVM target servers:**
- 1. While already using a target server, access the KX III Port Access page.
- 2. Click the port name of the target you want to access. The Port Action menu appears.
- 3. Choose Switch From in the Port Action menu. The new target server you selected is displayed.

		- e individual po	rt name to see a Is currently in g		
6	A No.	Name	View By Search		
Switch From Windows XP SP3 Connect					
	3	Dominion-KX2_Port3			
	4	Windows XP SP3			
	5 Dominion-KX2-Port5				

Disconnect from a Target Server

- To disconnect a target server:
- On the Port Access page, click the port name of the target you want to disconnect from, then click Disconnect on Port Action menu when it appears.
- Close the KVM client window.

Step 6: Configuring the Keyboard Language (Optional)

Note: This step is not required if you are using the US/International language keyboard.

If you are using a non-US language, the keyboard must be configured for the appropriate language.

Additionally, the keyboard language for the client machine and the KVM target servers must match.

Consult your operating system documentation for additional information about changing the keyboard layout.

Step 7: Create and Install an SSL Certificate

Raritan strongly recommends you install your own SSL Certificate in each KX III device.

This security best practice reduces the number of Java[®] warning messages, and avoids man-in-the-middle attacks.

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It also prevents future Java versions and browser versions from blocking access to your KX III device.

For information creating and installing SSL certificates, see <u>SSL Certificates</u> in KX III Online Help.

Additional Information

For more information about the KX III[®] and the entire Raritan product line, see Raritan's website (<u>www.raritan.com</u>). For technical issues, contact Raritan Technical Support. See the Contact Support page in the Support section on Raritan's website for technical support contact information worldwide.

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(http://www.raritan.com/about/legal-statements/open-source-softwarestatement/) on Raritan's website.