Raritan Dominion KX III 1 Local User Digital KVM 16 Port KVM Switch User Guide

Raritan

A brand of legrand

Dominion® XK III
QUICK SETUP GUIDE

Contents

Dominion KX III 1 Local User Digital KVM 16 Port KVM Switch

Thank you for choosing the Dominion XK 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 XK III. For details on using the XK III, access online help from the application or the Support page **http://www.raritan.com/support** on the Raritan website.

Package Contents

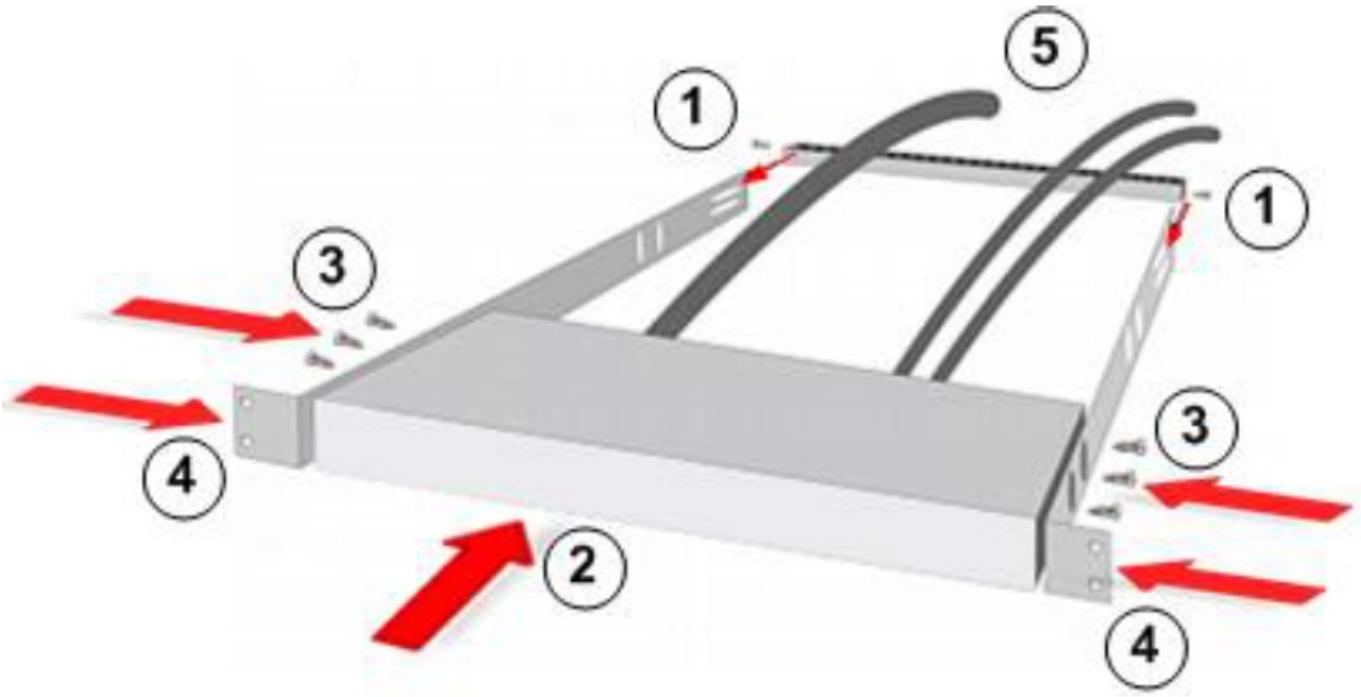
Each XK III ships as a stand-alone product in a standard 1U or 2U 19″ rackmount chassis, depending on your XK III model.
The XK III device ships with the following contents:
1 – XK III device
1 – XK III Quick Setup Guide
1 – Rackmount kit
2 – AC power cords
1 – Set of 4 rubber feet (for desktop use)
1 – Application note
1 – Warranty card

- 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 in Administrators Guide.
- Ensure sufficient airflow through the rack environment.
- Mount equipment in the rack carefully to avoid uneven mechanical loading.
- Connect the 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

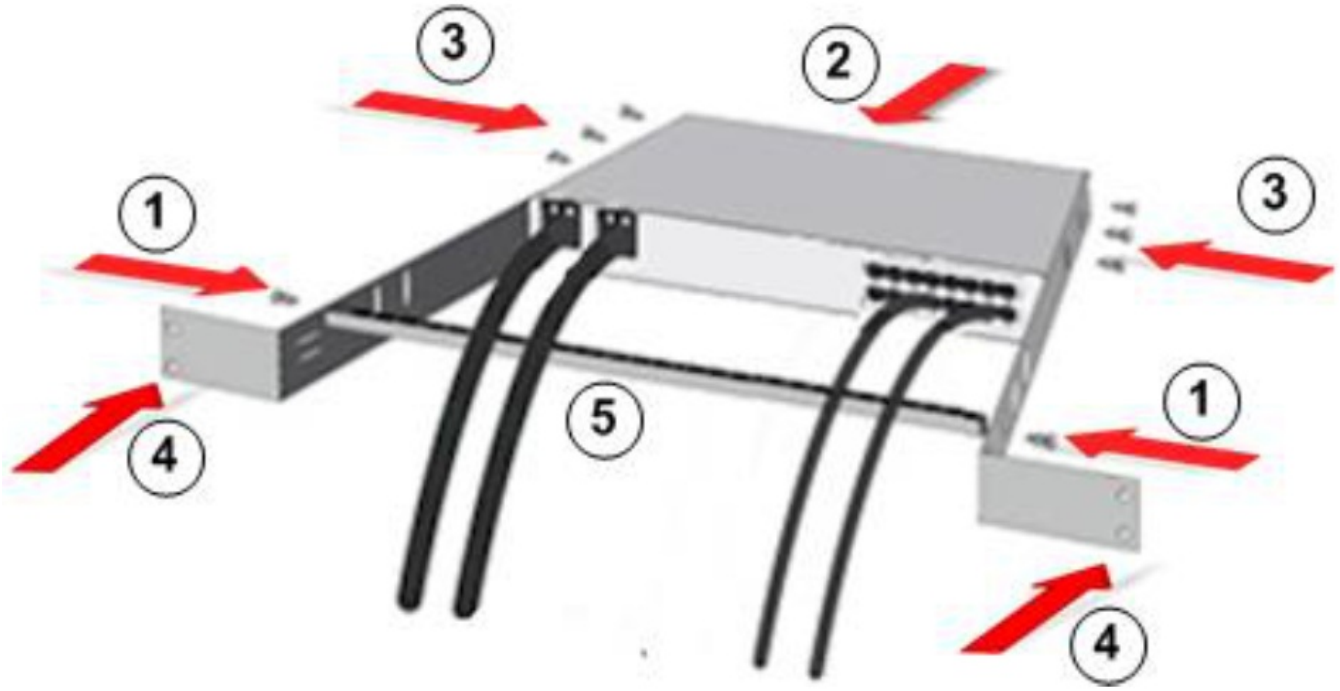
The XK III can be mounted in 1U (1.75″, 4.4 cm) of vertical space in a standard 19″ rack.
Note: Diagram may not depict your exact device. The mounting instructions are specific to your device.
Forward Mount
The steps correspond to the numbers shown in the front rackmount diagrams.

1. Secure the cable-support bar to the back end of the side brackets using two of the included screws.
2. Slide the XK 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 XK 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, 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.
2. Slide the XK 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 XK 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, drape them over the cable-support bar.



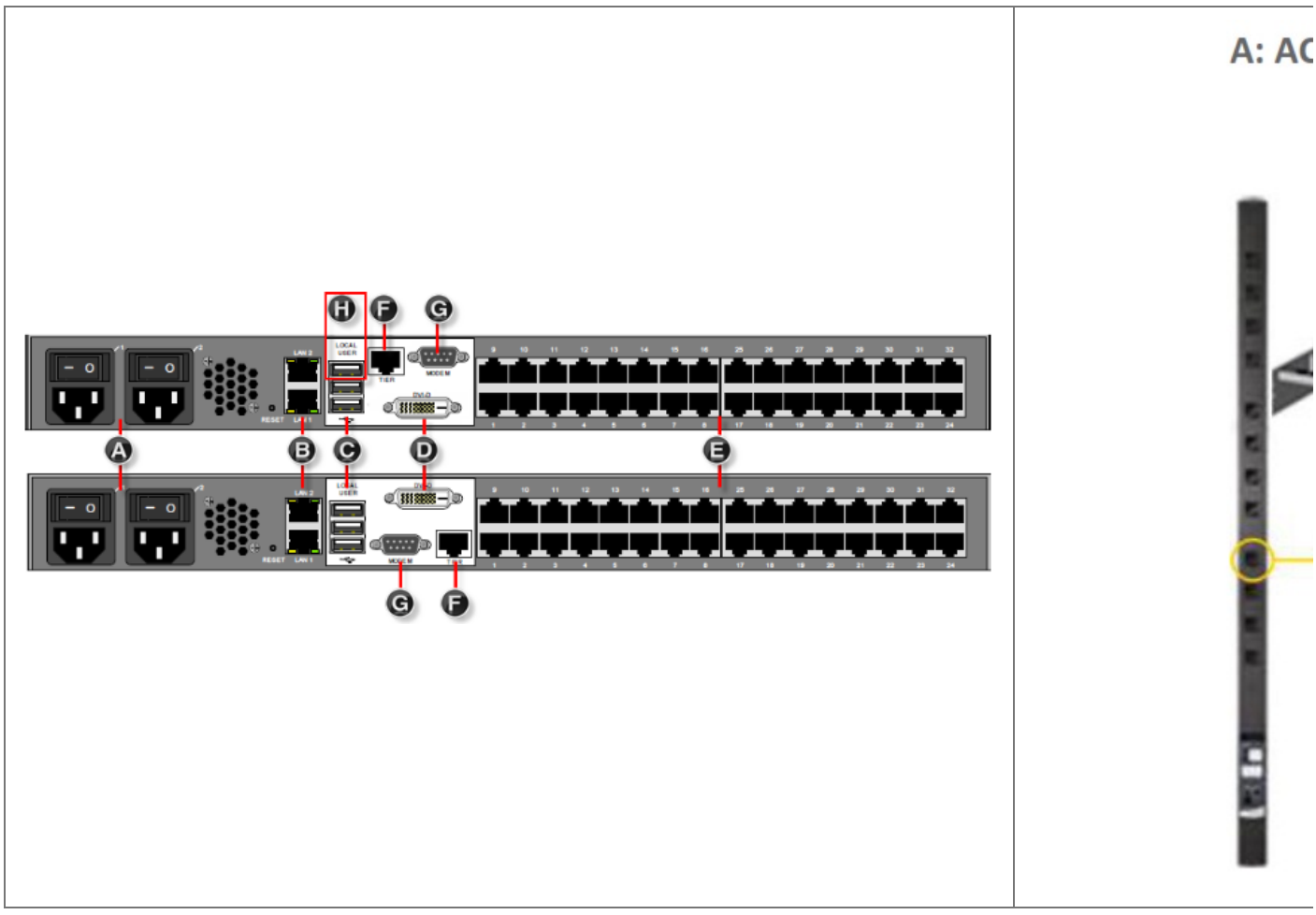
Step 1: Configuring Network Firewall Settings

- TCP Port 5000: Allow network and firewall communication to enable remote access.
- TCP Port 443: Allow access to the standard HTTPS port to enable access via a web browser.
- TCP Port 80: Allow access to the standard HTTP port to enable redirection of HTTP requests.

TCP Port 5000
Enable remote access to XK III by allowing network and firewall communication on TCP Port 5000.
TCP Port 443
Allow access to TCP Port 443 (Standard HTTPS) so you can access XK 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 2: Configuring KVM Target Servers
Mouse Settings
Absolute Mouse Synchronization is recommended to minimize mouse settings on target servers.
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, D2CIM-VUSB-USBC

Target Server Video Resolutions
See Supported Target Server Video Resolutions (**https://help.raritan.com/kx-iii/v3.8.0/en/#32872.htm**) in Online Help.
Step 3: Connecting the Equipment
The Hardware versions may vary.



1. Use the power cords that came with XK III. Use both cords with AC power outlets for dual-power failover protection.

B: Network Ports
Connect a standard Ethernet cable from the LAN1 network port to an Ethernet switch, hub, or router.
To enable the failover or isolation mode capabilities, connect a standard Ethernet cable from the LAN2 network port to an Ethernet switch, hub, or router.
C: USB Ports (Local User Port)
To connect the keyboard and mouse:

- Connect a USB keyboard and mouse to the respective Local User port on the back of KX III.

Use the KX III Local User port for administrative and target device access at the rack. The Local User port is required for installation and setup but is optional for subsequent use.
If you're also using Dominion Serial Access Modules (DSAM), reserve the top USB port on the rear of the unit for connecting DSAM.
D: Local DVI-D Port
A single-link DVI cable is used to connect to a local DVI monitor or keyboard tray (not included with the XK III).
Connect to the DVI port on Raritan's T1700-LED or T1900-LED keyboard tray.
Use a required DVI-D to VGA converter to connect to VGA monitors.
E. Connect Target Servers to XK 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 XK III via a Cat5/5e/6 cable.

F. Tier (Optional)
See Configuring and Enabling Tiering in Online Help.
G: Modem Port (Optional)
See Configuring Modem Settings in Online Help
H: Dominion Serial Access Module (Optional)
Connecting an XK III and a Dominion Serial Access Module (DSAM) provides access to devices such as LAN switches and routers that have an RS-232 serial port.

1. Connect the DSAM unit's USB cable to the top USB port on the rear of the XK III device. Connect additional DSAM units to any other USB port.
2. Connect the serial devices to the serial ports on the DSAM unit.

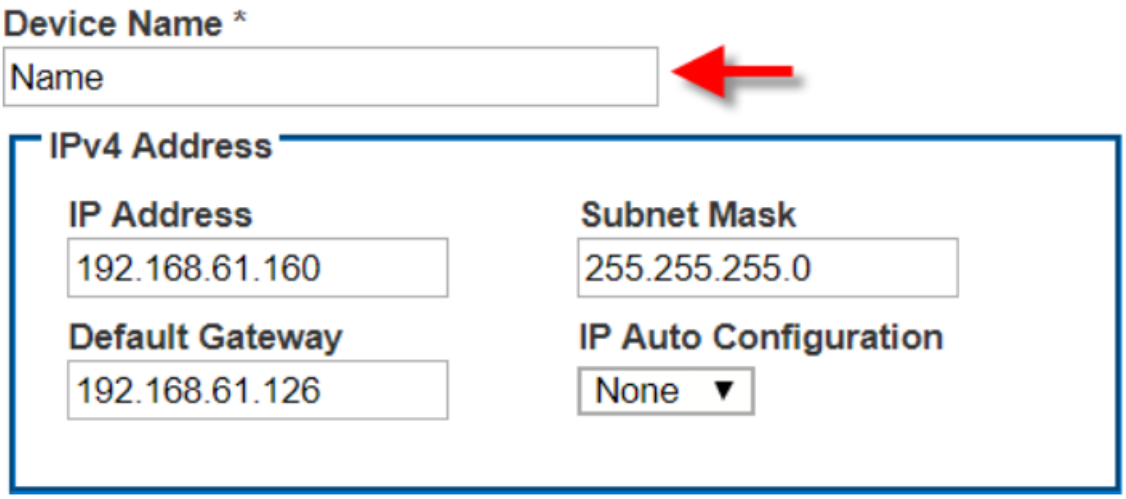
Step 4: Configuring the XK III
For the following steps, you must change the default password and assign the XK III its IP address at the Local Console. All other steps can be performed either from the Local Console or the XK III Remote Console in a web browser using the XK III's IP address.
Default Login – Change the Password
The XK III device is shipped with the following default settings. You are forced to change the password at first login to a strong password.

- Username = admin
- Password = Raritan
- IP address = 192.168.0.192

Important: For backup and business continuity purposes, it is strongly recommended you create a backup administrator username and password, and keep that information in a secure location.

Assign the XK III a Device Name
Choose Device Settings > Network to go to the Basic Network Settings page in the XK III Remote client.

Basic Network Setting

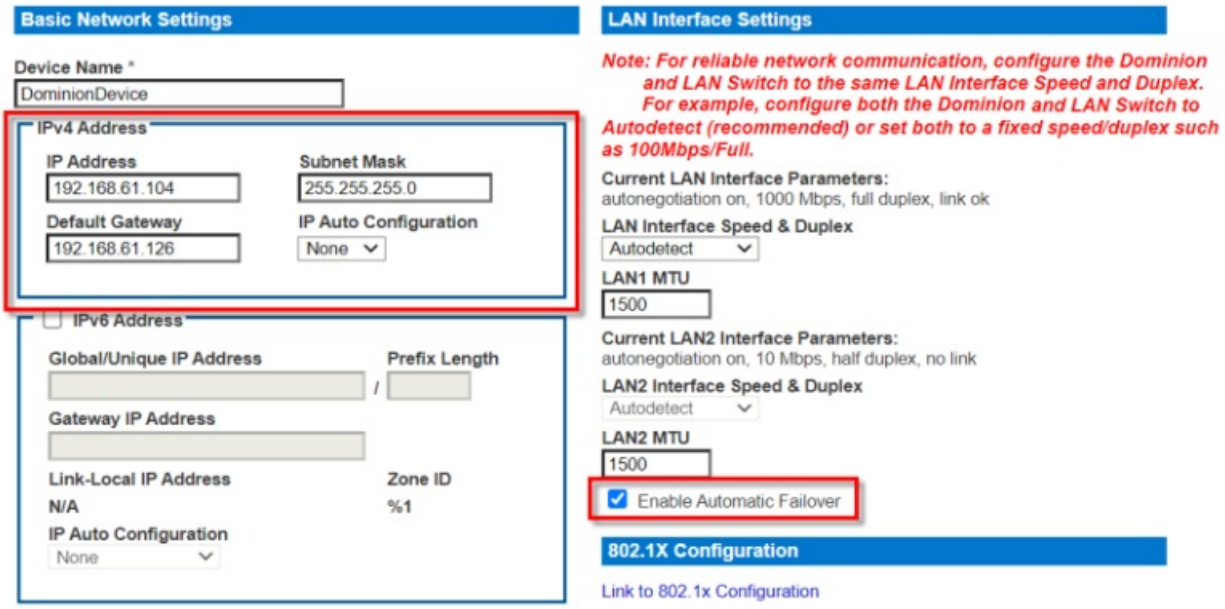


- Specify a meaningful Device Name for your XK III device.
    - Up to 32 alphanumeric and valid special characters, with no spaces between characters.

    Next, configure the IP address and DNS settings.

Choose Failover or Isolation Mode
Configure XK III for Dual LAN Failover Mode (on page 3): In failover mode, LAN status is used to determine which LAN port is used in failover. LAN port #1 is switched as default. If the switched LAN port status is down, then the other LAN port will be switched until a LAN port whose status is on is found.
Configure XK III for Dual LAN Isolation Mode (on page 4)
Configure XK III for Dual LAN Failover Mode
LAN1 and LAN2 share the same IP address to support automatic failover.
LAN1 is the primary port. If LAN1 fails, LAN2 is used to access XK III.

1. Select Device Settings > Network to open the Device Network Settings page.
2. Set the IP Auto Configuration to None in the IPv4 section.
3. Select the “Enable Automatic Failover” checkbox under LAN Interface Settings to enable failover.
4. Manually specify the network parameters by entering the Default Gateway.
5. Enter the IPv4 IP Address, if needed. The default IP address is 192.168.0.192.
6. Enter the IPv4 Subnet Mask. The default subnet mask is 255.255.255.0.
7. The LAN1 settings are applied to LAN2 if failover occurs.



8. Complete the IPv6 sections, if applicable.
9. Select the IP Auto Configuration.

   If None is selected, you must manually specify –

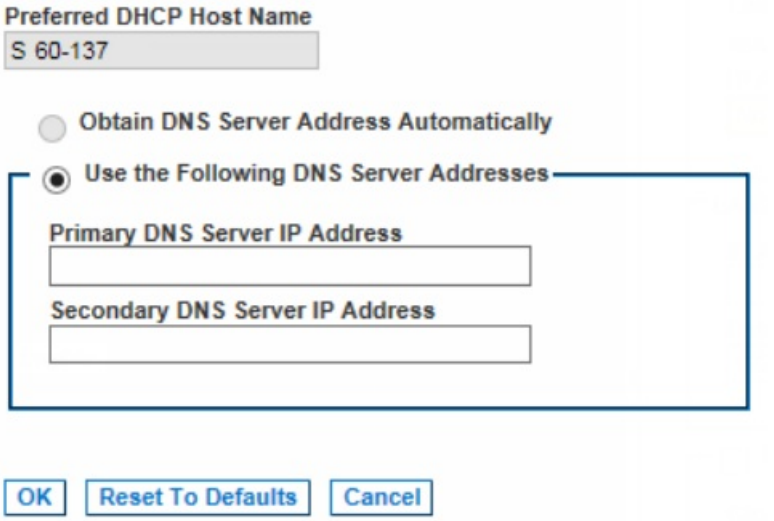
   - Global/Unique IP Address – This is the IP address assigned to XK III.
   - Prefix Length – This is the number of bits used in the IPv6 address.
   - Gateway IP Address.

   Select Router Discovery to locate a Global or Unique IPv6 address instead of a Link-Local subnet. Once located, the address is automatically applied.

   Note that the following additional, read-only information appears in this section –

   - Link-Local IP Address – this address is automatically assigned to the device. It is used for neighbor discovery or when no routers are present.
   - Zone ID – Identifies the device the address is associated with. Read-Only
10. Next, select “Use the Following DNS Server Addresses” and enter the Primary DNS Server IP Address and Secondary DNSServer IP Address. The secondary address is used if the primary DNS server connection is lost due to an outage.

    Note: “Obtain DNS Server Address Automatically” and “Preferred DHCP Host Name” are only enabled when KX III is configured in DHCP mode



11. Set the LAN 1/LAN 2 Interface Speed and Duplex, and the LAN 1/LAN 2 MTU.
    - Valid range for MTU is 576 – 1500.

12. When finished, click OK. Your XK III device is now network accessible.

Configure XK III for Dual LAN Isolation Mode

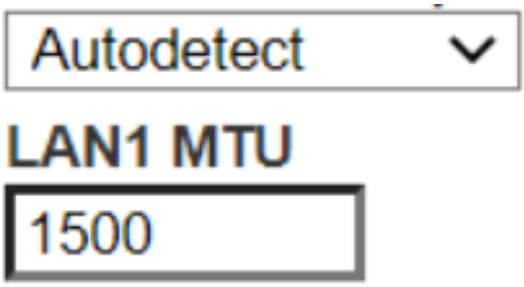
Isolation mode allows you to access each LAN port independently using different IP addresses. Failover is not supported in this mode.

1. Select Device Settings > Network to open the Device Network Settings page.
2. Set the IP Auto Configuration to None in the IPv4 section.
3. Ensure the “Enable Automatic Failover” checkbox is not selected.

   Current LAN Interface Parameters:

   auto-negotiation on, 1000 Mbps, full duplex, link ok

   LAN Interface Speed & Duplex

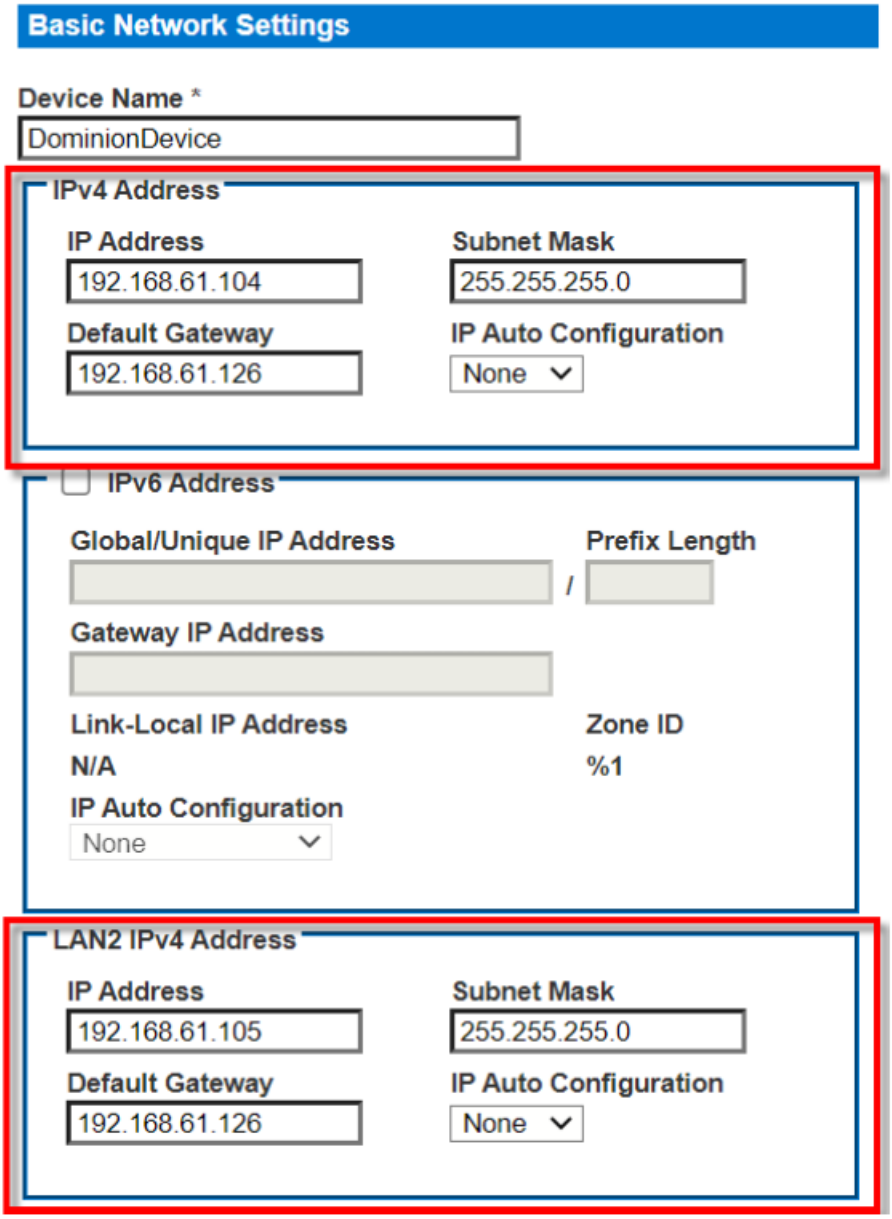


   Current LAN2 Interface Parameters:

   auto-negotiation on, 10 Mbps, half duplex, no link

   LAN2 Interface Speed & Duplex

4. If needed, manually specify the network parameters by entering the Default Gateway and then complete the steps that follow.
5. Enter the IP address you want to use to connect to the XK III LAN1. The default IP address is 192.168.0.192.
6. Enter the IPv4 Subnet Mask. The default subnet mask is 255.255.255.0.
7. In the LAN2 IPv4 section, set the IP Auto Configuration to None.
8. Enter the IP address you want to use to connect to the XK III LAN2.
9. Enter the LAN2 IPv4 Default Gateway and Subnet Mask.



10. Complete the IPv6 sections, if applicable.
11. Select the IP Auto Configuration.

    If None is selected, you must manually specify –

    ▪ Global/Unique IP Address – This is the IP address assigned to XK III.

    ▪ Prefix Length – This is the number of bits used in the IPv6 address.

    ▪ Gateway IP Address.

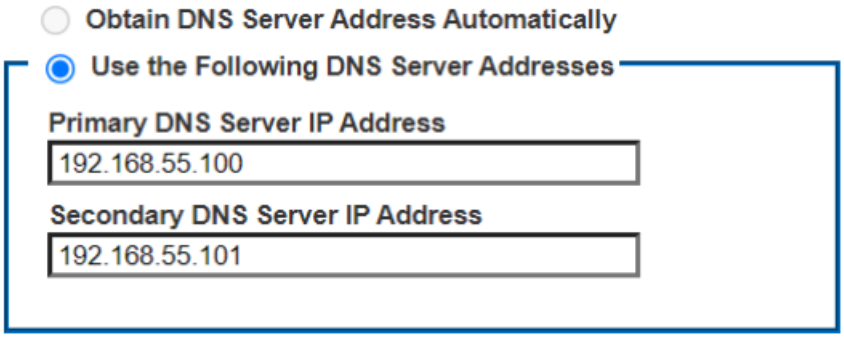
    Select Router Discovery to locate a Global or Unique IPv6 address instead of a Link-Local subnet. Once located, the address is automatically applied.

    Note that the following additional, read-only information appears in this section –

    ▪ Link-Local IP Address – this address is automatically assigned to the device. It is used for neighbor discovery or when no routers are present.

    ▪ Zone ID – Identifies the device the address is associated with. Read-Only
12. Select “Use the Following DNS Server Addresses” and enter the Primary DNS Server IP Address and Secondary DNS Server IP Address. The secondary address is used if the primary DNS server connection is lost due to an outage.

    Note: “Obtain DNS Server Address Automatically” and “Preferred DHCP Host Name” are only enabled when KX III is configured in DHCP mode

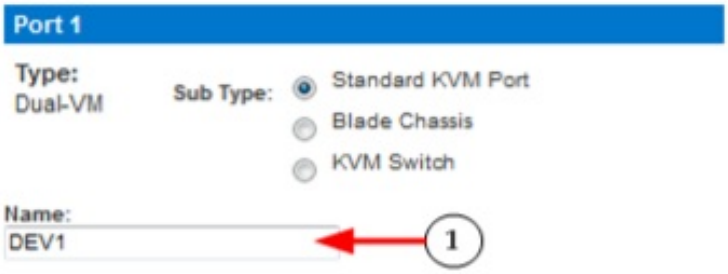


13. Set the LAN 1/LAN 2 Interface Speed and Duplex, and the LAN 1/LAN 2 MTU.
    - Valid range for MTU is 576 – 1500.
14. When finished, click OK.

    Your XK III device is now accessible via the LAN1 IP address and the LAN2 IP address.

Name Your Target Servers

Connect all of the target servers if you have not already done so. Select Device Settings > Port Configuration, then click the Port Name of the target server you want to name.



1. Enter a name for the server up to 32 alphanumeric and special characters. Click OK.

Specify Power Supply Autodetection

XK III provides dual power supplies.
When both power supplies are used, XK 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.
When only one power input is connected, the Power LED on the front of the XK III device is Red when the checkbox is selected for an unconnected power supply, and Blue when the checkbox is not selected for an unconnected power supply.

- To enable automatic detection for the power supply in use:

1. Select Device Settings > Power Supply Setup.
   - Select the PowerIn1 Auto Detect option if you are plugging power input into power supply number one. (The leftmost power supply at the back of the device when you are facing the rear of the device.)

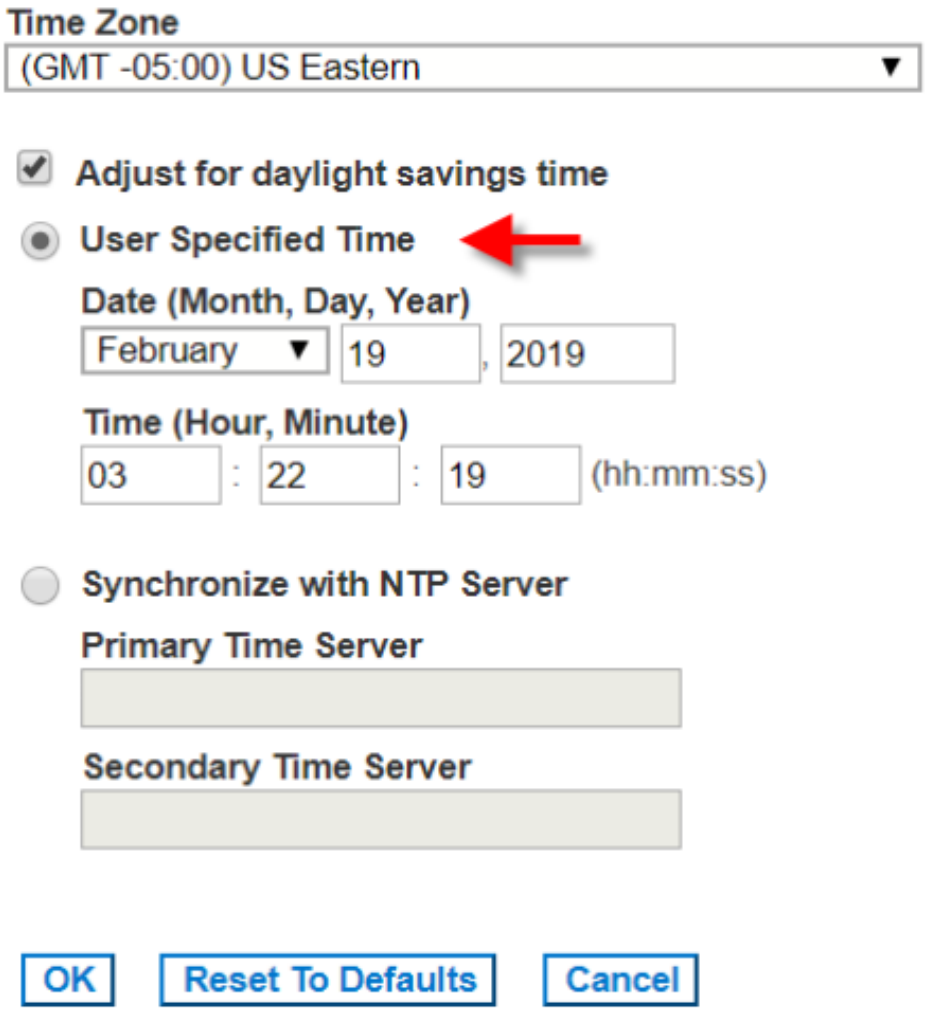
   - Select the PowerIn2 Auto Detect option if you are plugging power input into power supply number two. (The right-most power supply at the back of the device when you are facing the rear of the device.)
2. **Click OK.**

Configure Date/Time Settings

The date and time settings impact SSL certificate validation if LDAPS is enabled. Configuring the date and time also ensures your audit logs will be timestamped correctly.
There are two ways to do this:

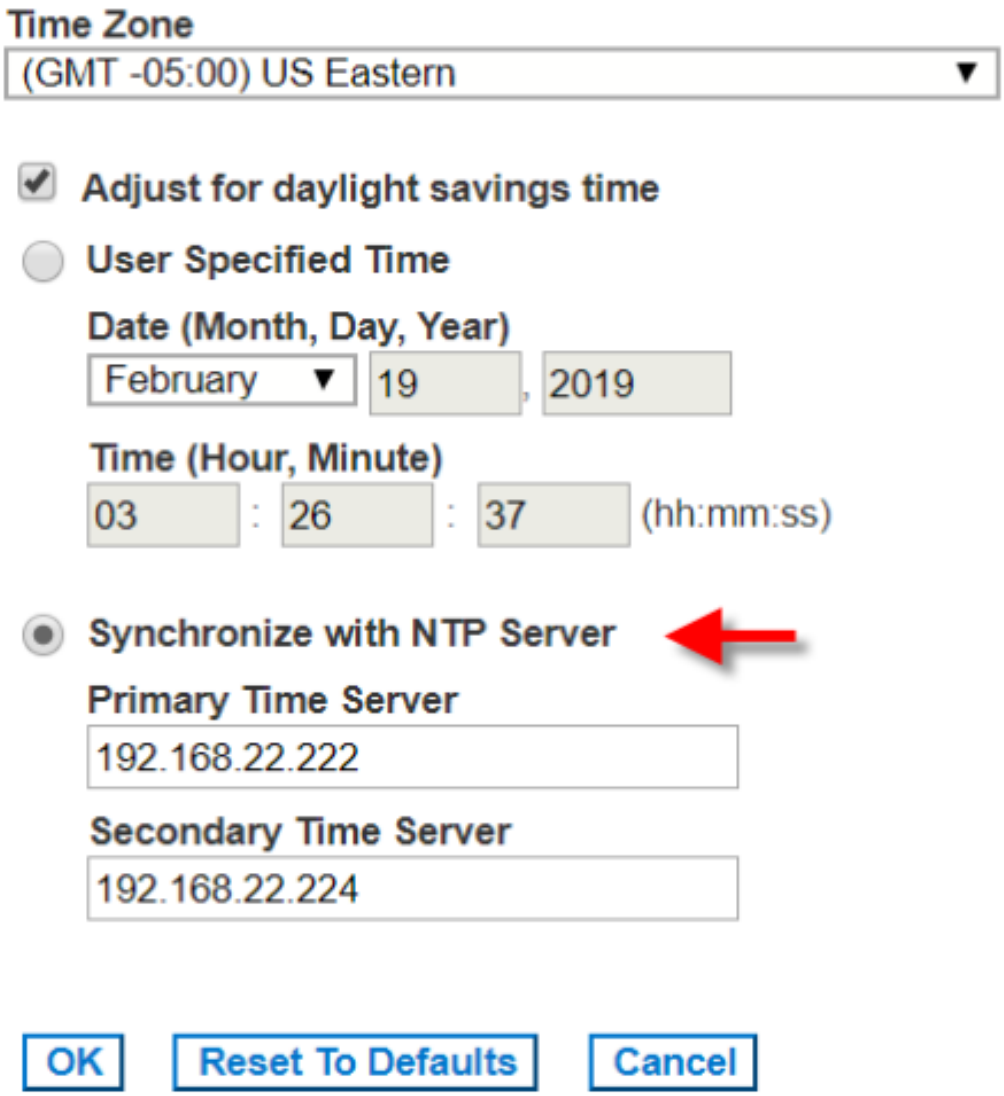
- Manually set the date and time.

  Date/Time Settings



- Synchronize the date and time with a Network Time Protocol (NTP) server.

Date/Time Settings



To configure date/time settings:

1. Choose Device Settings > Date/Time to open the Date/Time Settings page.
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.

   For the Synchronize with NTP Server option:

   ▪ Enter the IP address or hostname of the Primary Time server.

   ▪ Enter the IP address or hostname 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. anually enter the NTP server IP address by selecting the Override DHCP checkbox.
5. **Click OK.**

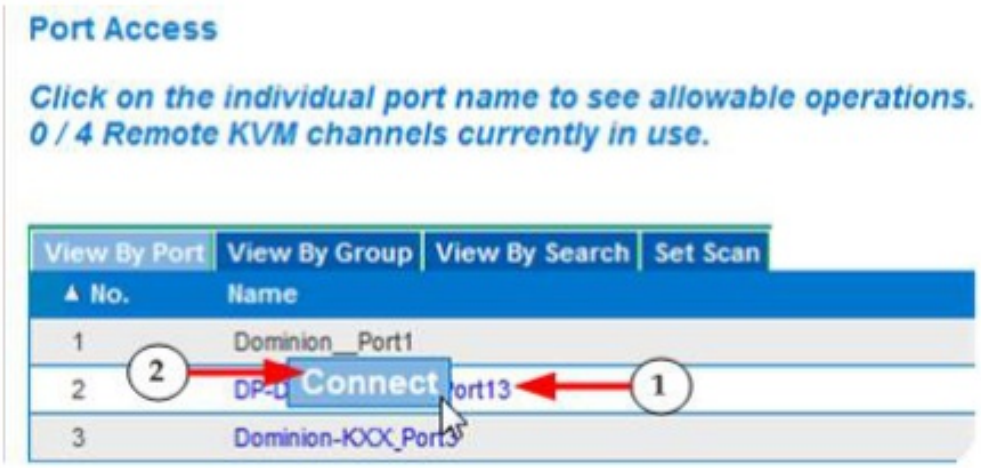
Step 5: Launching the KX III Remote Console

1. Launch a supported web browser, and enter the IP address assigned to the XK III. A default client is launched based on your pc and browser settings. See the online help for details about clients.
2. Enter your username and password, then click Login.
3. Accept the user agreement (if applicable).
4. If security warnings appear, click to accept.

   Tip: If you have a Dominion XK III User Station, you can use it to remotely access the XK III target servers. See Dominion User Station (on page 8).

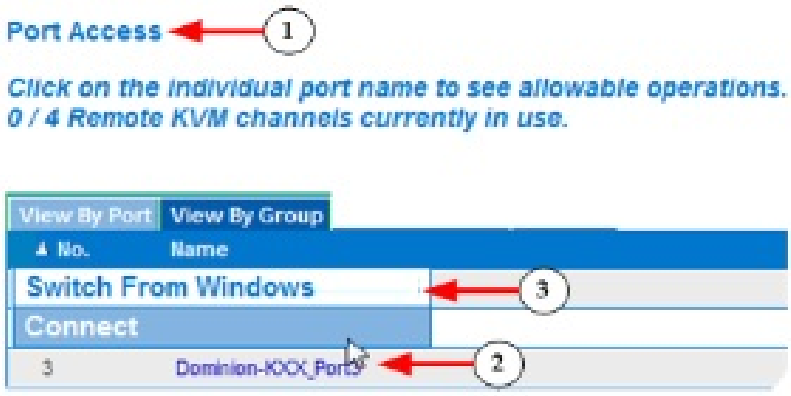
Access and Control Target Servers Remotely

The XK III Port Access page provides a list of all XK III ports. The page also lists all of the target servers connected to the XK III along with their status and availability. **Access a Target Server from the XK III**



1. On the Port Access page, click the Port Name of the target you want to access. The Port Action Menu is displayed.
2. Choose Connect from the Port Action menu. A KVM window opens with a connection to the target.

Switch between Target Servers



1. While already using a target server, access the XK 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. The new target server you selected is displayed.

Disconnect from a Target Server

To disconnect a target:

- On the Port Access page, click the port name of the target you want to disconnect from, then click Disconnect on the Port Action menu when it appears.

  Or
- Close the KVM client window.

Step 6: Configuring the Keyboard Language (Optional)

If you are using a non-US language, the keyboard must be configured for the appropriate language. Also, the keyboard language for the client machine and the KVM target servers must match. Consult your operating system documentation for information about changing the keyboard layout.

Step 7: Create and Install an SSL Certificate

It is strongly recommended to install your own SSL Certificate in each XK III device. This security best practice reduces the number of browser and Java™ warning messages and avoids man-in-the-middle attacks. It also prevents future Java versions and browser versions from blocking access to your XK III device.

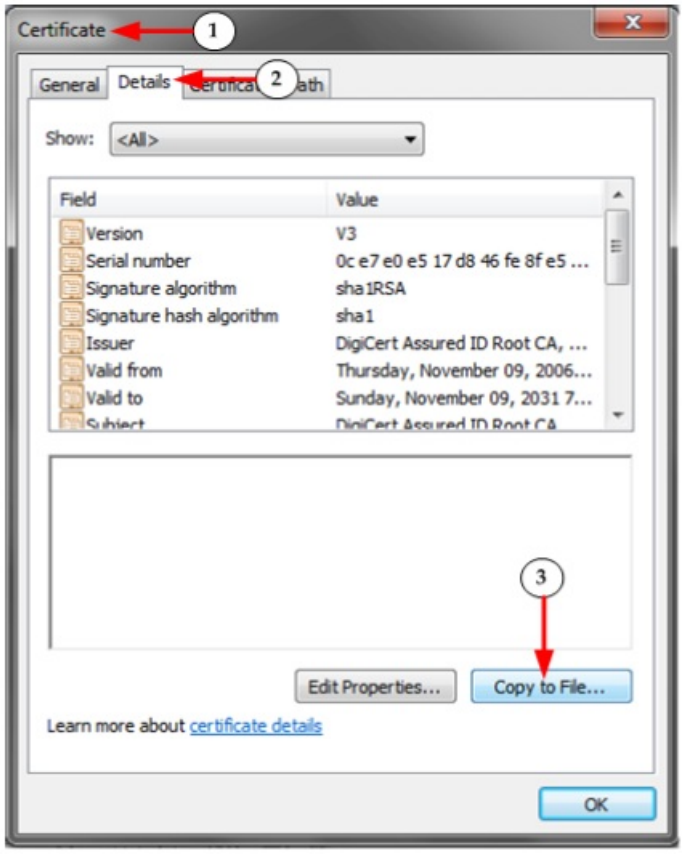
For information on creating and installing SSL certificates, see XK III Online Help.

Converting a Binary Certificate to a Base64-Encoded DER Certificate (Optional)

XK III requires an SSL certificate in either Base64-Encoded DER format or PEM format.

If you are using an SSL certificate in binary format, you cannot install it.

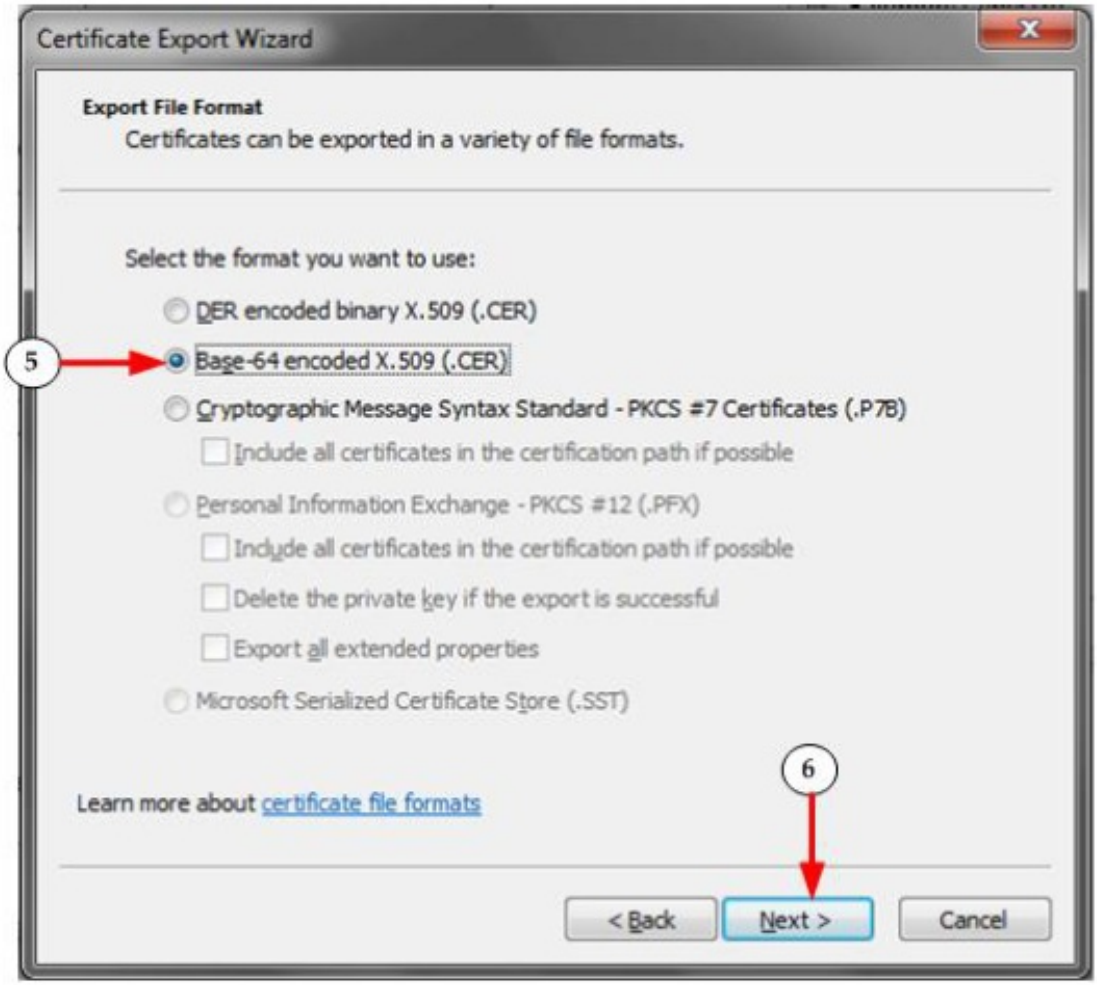
However, you can convert your binary SSL certificate.



1. Locate the DEGHKVM0001.cer binary file on your Windows machine.

   Double-click on the DEGHKVM0001.cer file to open its Certificate dialog.
2. Click the Detail tab.
3. Click “Copy to File…”.

4. The Certificate Export Wizard opens. Click Next to start the Wizard.



5. Select “Base-64 encoded X.509” in the second Wizard dialog.
6. Click Next to save the file as a Base-64 encoded X.509. You can now install the certificate on your XK III.

Dominion User Station

To use a standalone appliance instead of the XK III Remote Console to access servers and computing devices connected to the XK IIIs, you can purchase the Dominion User Station from Raritan.
One User Station can access servers connected to multiple XK IIIs for easy access and fast switching over your LAN/WAN networks. For detailed information, refer to the user documentation from the User Station’s section on the Raritan website’s Support page (**www.raritan.com/support**).

Additional Information

For more information about XK III and the entire Raritan product line, see Raritan’s website (**www.raritan.com**). 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.
Raritan’s products use code licensed under the GPL and LGPL. You can request a copy of the open source code. For details, see the Open Source Software Statement at (**http://www.raritan.com/about/legal-statements/open-source-software-statement/**) on Raritan’s website.

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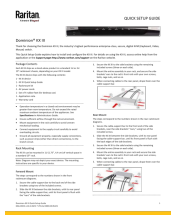
QSG-DKX3-v3.8.2-0M-E 255-62-0003-00-RoHS

Documents / Resources

	**Raritan Dominion KX III 1 Local User Digital KVM 16 Port KVM Switch** [pdf] User Guide Dominion KX III, 1 Local User Digital KVM 16 Port KVM Switch, KVM 16 Port KVM Switch, 1 Local User Digital KVM Switch, KVM Switch, Switch

References

- Data Center Power Management, DCIM Software, and KVM-over-IP - Raritan
- Legal - About Us - Raritan
- Data Center Product Support - Data Center Solutions - Raritan
- Dominion KX III Online Help