

Release Notes for Dominion® KX II Software Version 2.0.5/2.0.6

Version: DKX II 2.0.5/2.0.6 Release Notes, Revision 1.2

Date: October 25, 2007

Effective: Immediately.

Applicability:

New Dominion KX II models:

- DKX2-116, DKX2-132, DKX2-216, DKX2-232, DKX2-416, DKX2-432, DKX2-464.

Note: the previous Dominion KX models will be referred to as Dominion KX I.

KX II Release 2.0.6 is **not** applicable to the existing Dominion KX I models:

- DKX101, DKX116, DKX132, DKX216, DKX232, DKX416, DKX432 and DKX464

Release Status: General Availability.

Dominion KX II Overview:

Dominion KX II is Raritan's new family of next-generation, digital KVM switches with dual power supplies and dual gigabit Ethernet ports. KX II has a new user interface supporting advanced features such as virtual media, absolute mouse synchronization and 1600x1200 remote video resolution.

Release 2.0.5/2.0.6 Overview:

Release 2.0.6 provides an important update to Release 2.0.5 for customers using the D2CIM-VUSB.

Release 2.0.6 consists of the KX 2.0.5 features plus new CIM firmware for the D2CIM-VUSB. Raritan recommends all D2CIM-VUSB customers upgrade for increased reliability and maintainability.

Upon upgrade to KX2.0.6, the firmware in the D2CIM-VUSB will be upgraded.

Release 2.0.6 is a new firmware release for all Dominion KX II switches, consisting of improvements and enhancements. The Release 2.0.6 firmware does **not** run on the existing KX I switches.

Dominion KX II Documentation:

The following user documentation is available for the Dominion KX II:

- **Dominion KX II User Guide** – user guide to the KX II's local and remote browser based user interfaces and general KX II usage.



- **MPC/RRC User Guide** – see this user guide for MPC usage for KX II.
- **Dominion KX II Quick Setup Guide** –reference for the initial setup of the KX II.

The Dominion KX II documentation is contained on the CDROM included in the Dominion KX II package, available from the KX II web based user interface and on the Raritan.com website.

The most current version of the User Guide is available from the KX II web-based user interface. Click on **Help – User Guide** in the left hand information panel.

The latest documentation is on the Raritan website: www.raritan.com. Please go to the **Support** section, click on **Product Documentation** and then **Dominion KX II** in the left navigation panel or go directly to:

<http://www.raritan.com/support/productdocumentation/dominion-kxii/>

Computer Interface Module (CIM) Overview:

Dominion KX II can use the following CIMs:

- **KX I DCIMs:** DCIM-PS2, DCIM-USBG2, DCIM-USB, DCIM-SUSB and DCIM-SUN.
- **New DCIM-USBG2:** the DCIM-USBG2 is now recommended for KX II instead of the DCIM-USB and DCIM-SUSB. The DCIM-USBG2 has a new architecture with increased reliability and performance. There is a small switch on the DCIM-USBG2, which should be set to the “S” position for use with SUN Solaris servers with USB ports.
- **New D2CIM-VUSB:** high speed, USB virtual media CIM, required for the virtual media and absolute mouse synchronization features.
- **New D2CIM-PWR:** required to connect a remote power strip to the KX II.
- **Select Paragon CIMS:** P2CIM-AUSB, P2CIM-PS2, P2CIM-USB, P2CIM-SUSB, P2CIM-SUN, UKVMPD, UUSBPD, UKVMC and USKVMPD.
- **P2CIM-SER,** which can be connected to serial devices. When loaded with firmware V2.63, it is certified for use with KX II switches.



Release 2.0.6 Compatibility Information:

1. All Dominion KX II models (including KX2-464) and Release 2.0.6 have been certified for use with CommandCenter[®] Secure Gateway (CC-SG) 3.1.1. CC-SG Release 3.1.1 is the first release to support the new KX II models. Customers running previous CC-SG Releases (e.g. 2.3, 3.0 and 3.1) must upgrade to CC-SG 3.1.1 or subsequent release (when available).
2. KX II devices can be remotely accessed by two Java-based remote clients:

REMOTE CLIENT	DESCRIPTION	VERSION
Virtual KVM Client (VKC)	New Java-based client invoked from the browser-based remote user interface. KX II switches only.	Version 2.0.6
Multi-Platform Client (MPC)	Upgraded Java-based MPC with traditional Raritan user interface. KX I and KX II switches.	Version 5.0.2
Raritan Remote Client (RRC)	RRC does not support KX II devices.	N/A

3. CC-SG customers with KX I switches should upgrade CC-SG with MPC version 5.0.2 for the new MPC features and improvements, including full screen mode under CC-SG. See the “Dominion KX Release 2.0.6 Enhancements” section below for more details.
4. If using CC-SG in Proxy mode, change the default in the Default Application tab in Application manager to Virtual KVM Client. MPC is not supported in Proxy mode. Please note that Virtual Media is not supported in proxy mode.
5. SUN Java[™] Runtime Environment (JRE) versions 1.4.2, 1.5 and 1.6.0_01 are supported. SUN Java Runtime Environment (JRE) 1.4.2_05 or higher build number (e.g. 1.4.2_06 or 1.4.2_07, etc.) is required. SUN Java Runtime Environment JRE 1.5 is recommended for Windows platforms and 1.4.2_x is recommended for Solaris and Linux platforms. JRE version 1.5.0_02 is explicitly not supported. The only JRE 1.6 build certified at this time is JRE 1.6.0_01. For best results, we recommend that Java Plug-in Caching is not enabled.
6. If the client does not have a JRE associated with the Browser or if the JRE version is below 1.4.2_05, then a message will be displayed, and the user will be directed to install the latest version from the SUN Java website.
7. The JRE installation requires the multi language option to be enabled for Korean and other non-English language support. For a "Custom" JRE installation, must ensure that "Support for Additional Languages" is included during the installation process.
8. An SNMP MIB is available for KX 2.0, KX2.0.1 and KX 2.0.6 on the Raritan website in the firmware upgrade section. This should be loaded into your SNMP management system if you are enabling SNMP traps from your KX II switch.



Dominion KX Release 2.0.6:

Release 2.0.6 consists of the KX 2.0.5 features plus new CIM firmware for the D2CIM-VUSB. Raritan recommends all D2CIM-VUSB customers upgrade for increased reliability and maintainability. Upon upgrade to KX2.0.6, the firmware in the D2CIM-VUSB will be upgraded.

Dominion KX Release 2.0.5 Enhancements:

Dominion KX II Release 2.0.5 includes the following enhancements and improvements:

1. The DCIM-USBG2 is now recommended for KX II instead of the DCIM-USB and DCIM-SUSB. The DCIM-USBG2 has a new architecture with increased reliability and performance. There is a small switch on the DCIM-USBG2, which should be set to the “S” position for use with SUN Solaris servers.
2. “Target resolution” (full screen) mode is now available in MPC and the VKC remote clients when used from CC-SG. “Target resolution” (full screen) mode has been enhanced when the server and client resolutions are the same.
3. A new “Connected Server Toolbar” in MPC provides buttons to quickly switch from one KVM session to another. The toolbar can be disabled if desired. In full screen mode, this tool bar is hidden, but when the mouse cursor is brought to the top of the screen, the toolbar appears and can be used to switch between the existing full screen KVM sessions.
4. Support for the following European keyboards in MPC, VKC and the local port:
 - Norwegian, Swedish, Danish, and Belgian

For MPC and VKC, use the “Keyboard Type “ control on the “Options” panel from the “Tools” Menu to set the keyboard type. For the local port, use the “Local Port Settings” page from the “Device Settings” menu.

5. The firmware upgrade history report, available from the Maintenance menu now contains the date and time of the firmware upgrades made to the KX II.
6. When creating a keyboard macro in the VKC, you can now assign a “hotkey” key sequence to execute the macro.
7. Enhancements and improvements have been made to the Virtual Media Setup Page used to enter ISO images to be used with the virtual media feature.
8. The following special key combinations for Sun Microsystems server’s special keys now operate on the local port:



SUN KEY	LOCAL PORT KEY COMBINATION
Again	Ctrl+ ALT +F2
Props	Ctrl + ALT +F3
Undo	Ctrl + ALT +F4
Front	CTRL + ALT + F5
Copy	CTRL + ALT + F6
Open	CTRL + ALT + F7
Find	CTRL + ALT + F9
Cut	CTRL + ALT + F10
Paste	CTRL + ALT + F8
Mute	CTRL + ALT + F12
Compose	CTRL+ ALT + KPAD *
Vol +	CTRL + ALT + KPAD +
Vol -	CTRL + ALT + KPAD -
Stop A	Pause/Break + A
Stop	No key combination
Power	No key combination

9. Hotkeys have been added for the virtual media functions on MPC's pop-up menu.
10. When attempting to directly connect to a KX II that is under CC-SG management, MPC now informs the user that they must connect through CC-SG.
11. Can now establish KVM sessions to KX II connected target servers from the CC-SG HTML Access Client using a DNS name. Previously the HTML Access Client could only be accessed via an IP address.
12. The KX II User Guide has been updated. The Release 2.0.6 version of the manual is available from the "Help – User Guide" link in the left panel of the KX II web based user interface.

Consult the Dominion KX II Documentation for more information on the KX II features.

Important Notes and Information:

1. Both power supplies are enabled by default. If only one power input is plugged in, then the front panel LED will light red. Configure it for a single power input using the "Power Supply Setup" function on the "Device Settings" menu.
2. For reliable network communication, configure the KX II and LAN Switch to the same LAN Interface Speed and Duplex. For example, configure both the KX II and LAN Switch to Autodetect (recommended) or set both to a fixed speed/duplex such as 100Mbps/Full.
3. There are several prerequisites for Virtual Media: (1) the D2CIM-VUSB must be connected to the server's USB port, (2) the operating system (OS) must support USB connected drives, and (3) the user must have the required administrator permissions on the client, target and the KX II.



4. Not all servers and operating systems support all virtual media options. In general, modern Windows® OS' do, including Windows Vista™, 2003 Server, XP and Windows 2000 with the latest patches. Target Servers running Linux and Mac OS', when accessed from a Windows client, will generally mount CD/DVD drives, USB drives and ISO images. Mac®, Linux and Solaris™ clients can only mount ISO images from a local or remote drive. Other UNIX based OS' generally do not support virtual media.
5. When connecting to the BIOS with a virtual media drive mapped, should the BIOS not support high speed USB, then you should enable the "Use Full Speed for Virtual Media CIM" option on the Port Configuration page for that particular port and reboot the target server.
6. In general, due to varying BIOS implementations of the USB 2.0 standard, it is not always possible to boot from a virtual media drive at the BIOS level.
7. For Windows OS', do not use the "Safely Remove Hardware" function in the system tray on the target server to disconnect a mounted virtual media drive. Disconnect using the "Disconnect" command on the virtual media menu.
8. Absolute Mouse Synchronization requires support from the OS. Windows and Mac OS' generally support it. Linux and Unix based OS' (AIX, HP-UX, Solaris) generally do not.
9. When a panel is opened in the Virtual KVM Client (VKC), the client, as well as related browser tabs and windows, will wait for user input until the panel is closed.
10. Be careful of the web browser refresh or reload function/button, which has the side-effect of closing VKC sessions.
11. D2CIM-PWR must be separately ordered. It is not included with the powerstrip.
12. To use AES encryption, first ensure that your web browser supports this stronger encryption – not all browsers do. For AES, set the "Encryption mode" on the "Security Settings" panel to "AES," not "Auto" which generally results in RC4 encryption.
13. For the best possible video quality, adhere to these distance guidelines from the CIM to the KX II:

Server Video Resolution	Distance
1024x768 (and below)	150 feet
1280x1024	100 feet
1600x1200	50 feet

14. To further minimize network bandwidth for lower bandwidth situations, set the "Noise Filter" on the "Video Settings" panel in the remote clients above the default value of 2 - values of 3 or 4 are recommended.



15. Modem access is not supported in KX Release 2.0.6. It will be available via firmware upgrade in the near future.
16. In general, most administrative functions are available on the remote and local consoles. But some functions, by their nature, are only available on one console. For example, “Factory Reset” and the “Local Port Settings” are available on the local port. Firmware Update, Backup and Restore, and the KX Diagnostics are available from the remote client.
17. When changing the various user management, device and security settings, please remember to click the “OK” button at the end of the page to save and activate your changes.
18. A subset of the KX II administration functions is available from CC-SG. To access all functions, use the Pause Management feature in CC-SG to remove the KX II device temporarily from CC-SG management. Then you can access the additional administrative functions via the KX II local or remote consoles.
19. SUN Backgrounds: Some of the SUN background screens may not center precisely on certain SUN servers, i.e. those backgrounds with dark borders (e.g. NoBackDrop). Use another background or place a light colored icon in the upper left hand corner.
20. An apostrophe (‘) is no longer an allowed character for port (CIM) names.
21. For Mac OS, the Safari™ browser is certified for use in KX Release 2.0.6. Absolute Mouse Synchronization is required for Mac servers. The “Absolute mouse scaling for MAC server” option must be enabled for the specific port on the Port Configurations page.

Release Package Details:

The Release 2.0.6 package for the Dominion KX series has the following components:

“DominionKXIIReleaseNotes2.0.6.pdf” – this file

“DominionKXIIFirmware2.0.6.rfp” – Raritan firmware distribution file for this upgrade

Firmware Upgrade Prerequisites:

If you have any questions, or do not meet the pre-requisites listed below, please STOP and contact Raritan Technical Support for further instructions. Please read the entire instructions (this document) before proceeding.



General Upgrade Instructions (standalone upgrade from the browser based user interface):

1. **Note: for best results, the KX II device should be re-booted before the firmware upgrade is applied.** This will ensure no users are logged in or sessions active.
2. The user upgrading the KX II device must be a member of the default Admin Group to have sufficient administrator-level privileges to update the Dominion KX II unit.
3. Twenty minutes or more are required for the complete update procedure. The update and subsequent reboot time will vary according to the number and type of CIMs connected to the KX II.
4. The system provides an estimated time for the firmware upgrade to complete. It may possibly take more time to do the update based on networking conditions and other factors.
5. We recommend backing up the KX II using the “Backup / Restore” function on the Maintenance menu on the Remote Console.
6. Close any remote or local KX II sessions to all devices connected to the Dominion KX II unit – servers, power strips, and serial devices.
7. If doing the firmware upgrade over a VPN, ensure that the connection is stable and that no inactivity timeouts have been set.
8. The detailed, step-by-step instructions to perform the upgrade are given below.
9. The software upgrades are written to flash memory, and this takes time to complete. Please do not power-off the unit, or disconnect the Ethernet connection while the upgrade is going on.
10. The KX II firmware can be upgraded by CC-SG; consult the CC-SG documentation for more information.
11. Should you experience any difficulties with the upgrade, call Raritan Technical Support for assistance.



Step-by-Step Upgrade Instructions:

1. **Note: for best results, the KX II device should be re-booted before the firmware upgrade is applied.** This will ensure no users are logged in or sessions active.
2. In Internet Explorer (or other supported web browser), type in the IP Address of your Dominion KX II unit, and wait as the web based interface loads.
3. Logon as an administrative user “admin” (or other member of the Admin Group).
4. Click on the “Firmware Upgrade” command on the “Maintenance” menu.
5. Browse to locate the .rfp file containing the update: “DominionKXIIFirmware2.0.6.rfp”. Click the “Upload” button.

The current and future versions will be displayed. Click the “Upgrade” button to start the upgrade.

6. The firmware upgrade will then proceed:
 - a. You cannot operate the KX II during the upgrade.
 - b. The upgrade panel will inform you of the progress of the upgrade. This upgrade step will take up to 15 minutes or more.
DO NOT REBOOT OR POWER CYCLE THE KX II DURING THE UPGRADE OR THE REBOOT!
 - c. You will see a completion message when the upgrade completes.
7. The device will now reboot and reset, which may take up to 5 minutes.
8. Close your web browser session and log back in after the reboot completes.
9. The KX II will beep when the upgrade is complete and the login screen will appear on the local console port.
10. Log back in via web browser or the local port. Use the “Upgrade Report” on the “Maintenance” menu to check the upgrade status.



11. Any KX II CIMs (D2CIM-VUSB and D2CIM-PWR) connected to the KX II at the time of the upgrade will be upgraded also.

12. Use the “CIM Firmware Upgrade” menu on the “Maintenance” menu to check the CIM version(s) and to upgrade any additional KX II CIMs connected to the KX after the upgrade.

13. Due to improvements in KX 2.0.6, you cannot downgrade from Release 2.0.6 to Release 2.0.

14. If you have any questions or issues during the update, call Raritan Technical Support for assistance.

DKX 2.0.6 Release Notes, Revision 1.2

October 25, 2007

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