DOMINION® KX III
Features and Benefits

Features	Benefits
Hardware Features	
Third-Generation High Performance Hardware Architecture	Featuring the industry's best KVM-over-IP performance, the Dominion KX III provides high performance, anytime/anywhere, Java-free remote access and control for IT administration, lab management, and even the most demanding broadcast applications. The KX III's third-generation architecture sets a new standard for performance, reliability, security, usability and compatibility. With the new Dominion Serial Access Modules (DSAM), the KX III can now manage up to 8 serial devices.
"Plug and Play" Appliance — Quick and Easy Setup	Dominion KX III is a secure, Linux®-based hardware appliance. All Dominion KX III features, including authentication and Java-free Web access, are built into the unit and do not require the use of an additional server.
3rd Generation Video Processing for Streaming HD Video and Audio	The KX III's third generation video processing engine supports traditional IT applications to the most dynamic broadcast applications requiring 30 frames-per-second 1920x1200 video, 24 bit color, digital audio and DVI, HDMI, DisplayPort and VGA video.
New KX III User Station Appliance	The KX III User Station is a self-contained user appliance that provides users with high-performance IP access to remote servers. Connecting via TCP/IP to the Dominion KX III switches, the User Station has blazing video performance, supporting two 1080p (1920x1080) streaming video sessions at up to 30 frames-per-second with as little as 50 millisecond latency. Use standalone or with Raritan's CommandCenter Secure Gateway. The KX III User Station is similar in concept to the Paragon User Station, with enhancements such as simultaneous access and control of eight or more servers, dual monitors, audio and virtual media. The User Station supports government and military customers through SmartCard / CAC authentication and a FIPS 140-2 encryption module.
Dual Power Supplies with Failover	For increased reliability and redundancy, all Dominion KX III models have dual AC inputs, dual power supplies and automatic failover to support redundant power distribution. If a power supply fails, the customer will be notified via front panel LED, SNMP TRAP, log message or via the administrative manager.
Four USB Ports for Keyboard, Mouse and USB Media	The Dominion KX III has four USB 2.0 ports, three on the back panel and one on the front panel, for keyboard, mouse, smart card, cellular modem, and serial-over-IP access via Raritan's new DSAM modules.
Dual Gigabit Ethernet Ports for Failover or Dual Network Connections	Dominion KX III provides high availability with dual gigabit Ethernet LAN ports for redundancy. Should one Ethernet switch or interface card fail, Dominion KX III will automatically failover to the other port and continue operating. Can also be configured for simultaneous connection to two different networks.
Multiple Hardware Models	Multiple hardware models enable simultaneous access by one, two, four or eight remote users to 8, 16, 32 or 64 servers. Raritan is the first and only vendor to provide four and eight user, 64-port, digital KVM switches.

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Digital Local Port	The Dominion KX III digital local port provides fast, at-the-rack access via DVI and USB for administration and server access.
1U or 2U Form Factor	The Dominion KX3-464 and KX3-864 are 2U solutions. Other Dominion KX III models are only 1U in height. Dominion KX III is extremely rack-efficient.
Cat5 Cabling	Dominion KX III interconnects with each server via standard, economical Cat5 (UTP) cabling. Servers may be located up to 150 cable feet from the Dominion KX III unit.
Multiplatform Computer Interface Modules (CIMs)	Dominion KX III supports multiplatform CIMs to connect to PS/2, USB, Sun® and serially controlled servers. Analog VGA video and new DVI, HDMI and DisplayPort digital video standards are supported. Dominion CIMs operate at distances of up to 150 feet from the Dominion KX III switch, depending on server resolution.
Tiering Port	Each Dominion KX III contains a tiering port so that you can tier (cascade) KX III switches.
Cellular and Telephone Modem Options for Emergency Access	All Dominion KX III models can connect to an external Sierra Wireless cellular modem via USB or to a telephone modem via modem port for emergency remote access if the data network is not available. Security option to only enable the cellular modem when LAN access is not operational.

KVM (and Serial)-over-IP Connectivity

One, Two, Four or Eight Concurrent Remote IP Users	Dominion KX III provides KVM-over-IP access to one, two, four or eight simultaneous, remote users depending on the model purchased. Raritan provides a wide variety of Dominion KX III models to meet most customer needs and budgets. This is achieved while allowing full, unblocked local port access. True serial-over-IP access for up to 8 devices is also available with the new DSAM modules.
8, 16, 32 or 64 Server Ports	Users can connect up to 8, 16, 32 or 64 servers to each Dominion KX III via Cat5 cabling. Raritan is the first KVM-over-IP vendor with one, two, four and eight channel, 32-port models. And we are the only vendor with four and eight channel, 64-port digital KVM switches — the industry's highest density — consolidating up to four standard KVM switches to reduce cost and administration.
Non-Blocking 8x8 Model — now with Ultra-Fast Switching	With the 8-port, 8-channel DKX3-808 model, connected servers are always accessible, with no blocking. Use this model for critical infrastructure that needs to be always available. This model also supports sub-second switching and ultra-fast connections for broadcast and other real-time applications.

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Java-free KVM over IP Access	Dominion KX III has the industry's highest performing and most flexible KVM-over-IP technology. Users can access Dominion KX III from anywhere on the network (LAN, WAN, Internet, mobile and dial-up), allowing administrators to troubleshoot, reconfigure, reboot and even power cycle servers remotely. The KX III now has two Java-free KVM Clients: (1) the Windows-based Active KVM Client (AKC) for Windows, and (2) the HTML KVM Client (HKC) for basic Java-free KVM-over-IP access on Linux and Mac. HKC now supports virtual media and audio output.
True Serial-over-IP Access for up to Eight Serial Devices	With the new Dominion Serial Access Modules (DSAM), users can connect to up to 8 serial devices with Java-free serial access. The 2 and 4 port DSAM modules connect to the KX III switch's USB ports. They provide "true serial access" with copy and paste capability for up to 8 simultaneous connections to serial devices like LAN switches, routers and Linux/Unix servers. The DSAMs are simple and easy to deploy. They do not require power from devices, do not use KVM ports or sessions and do not require rollover cables, power adapters or rack space. They are a perfect solution when Serial-over-IP access is needed for up to 8 network switches or Unix/Linux servers near a KX III switch.
Apple® iPhone® and iPad® Mobile Access	Users can remotely access and control servers through Apple iPhone and iPad devices through CC-SG with the same level of security that they now enjoy via their laptops.
Flexible Tiering (Cascading) of up to 1024 Servers	Customers can connect (e.g., tier) multiple Dominion KX III switches together and access the attached servers in the data center or from a remote PC. Up to 1024 servers can be accessed via a consolidated port list, or via search (with wildcards).
Industry's First DVI-based Digital Local Port	The Dominion KX III set the standard with the first browser-based local port, providing a single user interface for local and remote administration. The Dominion KX III provides new levels of productivity and performance with a DVI-based local port. Raritan's T1700-LED and T1900-LED keyboard trays can be used for convenient at-the-rack access.
Asian Languages — Japanese and Simplified/Traditional Chinese	The Dominion KX III's remote HTML User Interface and the KVM Clients now support the Japanese, Simplified Chinese and Traditional Chinese languages. This is available stand-alone as well as through CC-SG.
Blade Server Access and Control	Dominion KX III supports popular blade server models from the leading blade server manufacturers: HP®, IBM®, Dell® and Cisco®. It provides simple, automated and secure KVM-over-IP access: (1) at the rack, (2) remotely over IP, (3) via CommandCenter® and (4) by modem. Blade servers are displayed by chassis, with simple one-click access. Advanced security via per-blade access permissions and hot-key blocking eliminates unauthorized access. Unlike other vendors, the Dominion KX III's blade features are available to SMB customers with no management system required. For enterprise customers, seamless blade server integration with CommandCenter Secure Gateway provides centralized policy and security management for diverse data center environments.

Integrated, Remote Power Control — Up to Eight Power Strips per Dominion KX III	Users can power up, power down or power cycle servers connected to optional Raritan remote power control units. A system administrator can not only troubleshoot a server remotely, but also power cycle that server with a click of the mouse. This user-friendly, remote power control is available for up to eight power strips per Dominion KX III unit. Strip-level power statistics are now displayed to the user. Users can also power on/off outlets not associated with a server.
Dual Stack IP Networking – IPv4 and IPv6	The Dominion KX III provides dual stack IP networking with simultaneous support of IPv4 and IPv6.

Universal Virtual Media™ Features

All Dominion KX III Models Have Virtual Media	The benefits of virtual media — mounting of remote drives/media on the target server to support software installation, remote booting and diagnostics — are now available in all the Dominion KX III models.
Wide Variety of Supported Virtual Media Drives and Devices	Each Dominion KX III comes equipped with virtual media to enable remote tasks using the widest variety of CD, DVD, USB, internal and remote drives and images. Unlike other solutions, the Dominion KX III supports virtual media access of PC hard drives and remotely-mounted disks for added flexibility and productivity.
Digital Audio over Virtual Media	Remotely access audio applications on remote servers during a virtual media connection with digital USB audio over IP. This includes both playback and recording. Useful for IT administrators, software developers, broadcast/entertainment customers, audio content creators and for remote monitoring. Features USB digital audio, CD quality audio, playback/record buffer settings and use of analog and USB speakers/microphones.
Secure Virtual Media with 128/256-Bit Encryption	Virtual media sessions are secured using 128- or 256-bit AES encryption. Also available is 128-bit RC4 encryption.
Dual-USB Virtual Media CIMs and USB Profiles	The dual-USB virtual media CIMs (D2CIM-DVUSB-xxx) and USB profile feature enable expanded BIOS use of virtual media drives to the broadest range of servers and BIOS versions. The dual-USB virtual media CIMs supports DVI, HDMI, DisplayPort and VGA video with advanced features: digital audio, smart card/CAC authentication and tiering.
USB CIM with Virtual Media, Absolute Mouse Synchronization™ and Firmware Update	The D2CIM-VUSB CIMs supports virtual media sessions to target servers supporting the USB 2.0 interface. Available in economical 32 and 64 quantity CIM packages, these CIMs supports Absolute Mouse Synchronization as well as remote firmware updates.
Java-Free Virtual Media	Both the Windows-based and HTML-based KVM Clients support virtual media.

Java Free KVM (and Serial) Client Access and Control

Java-free KVM and Serial Client Access — Anytime, Anywhere	The Dominion KX III provides KVM access through the industry's broadest and most flexible range of operating systems, platforms and browsers. Java-free access for both KVM and Serial devices is available from Windows, Linux and Mac

	desktops.
Next-Generation Common User Interface	The Dominion KX III has a browser-based user interface for enhanced usability and productivity. This interface is common across the local port, remote access, management software as well as other Dominion products. This reduces training time and increases productivity.
Web Accessible KVM Clients	Users can access Dominion KX III via Web browser for anytime, anywhere access. Raritan's KVM client software is automatically downloaded; this eliminates the need to install "client" software on each user desktop.
Non-Java HTML KVM Client for Linux and Mac Platforms	A new HTML KVM Client (HKC) is available for Linux and Mac platforms. For customers looking to minimize their use of Java, this HTML-based KVM Client runs in the browser and does not utilize Java or .NET. The HTML KVM Client supports virtual media as well as audio output from connected servers. Consult the Release Notes and documentation for more information.
Non-Java KVM Client for Windows Platforms	For customers looking to minimize the use of Java, the Raritan Active KVM Client (AKC), based on the Microsoft .NET framework, does not utilize Java. AKC is now the default KVM Client on Windows platforms.
Non-Java, HTML Serial Client for Linux and Mac Users	Raritan's new DSAM modules provide Serial-over-IP access for KX III users. The new HTML Serial Client (HSC) provides true serial access without the use of Java.
Mobile KVM Access for iPhone and IPad	Users can now access and control servers connected to the Dominion KX III via their Apple iPhones and iPads. This provides emergency 24/7 out-of-hours access, as well as convenient everyday access for iPad enthusiasts. CC-SG required.
PC Share Mode	Up to eight users can connect and remotely access each connected server. This feature is very useful for administrator collaboration for teamed troubleshooting of servers.

Remote Video Features

High Definition (HD) Remote Video Resolution — 1920x1200	The Dominion KX III is the first and only KVM-over-IP switch to support full High Definition (HD), 1080p remote video resolution. In addition, popular widescreen formats are supported, including 1920x1200, 1600x1200, 1680x1050 and 1440x900, so remote users can work with today's higher resolution monitors.
Ultra-Fast Connections and Sub-Second Switching	With the 8-port, 8-channel DKX3-808 model, connected servers are always accessible. This model supports sub-second switching and ultra-fast connections for broadcast and real-time applications where time is of the essence.
Fast 50 msec Latency with the KX III User Station	When used with the Dominion KX III User Station, a KVM-over-IP connection with 50 millisecond latency is supported for superior response for broadcast and other dynamic video applications.

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Full-Screen Video Display	With the Dominion KX III's full-screen video display, users appear to be directly connected to the target server. The user views the full video display from the target server without window borders or toolbars. With the new "pop-up" menu bar, users can run KVM client functions while in full-screen mode.
Port Scanning and Thumbnail Views	View selected servers as a slide show and/or real-time thumbnail views. The user can select a list of servers, set the scan interval and quickly access a given server. Works remotely and locally and within the KX III User Station.
Dual Monitor KVM Client Support	For customers wishing to enhance productivity by using multiple LCD monitors, the Dominion KX III can launch KVM sessions to multiple monitors, either in full-screen or standard modes. In this mode, users can view the list of servers on one screen and launch full-screen KVM sessions in another. Or use a secondary, desktop monitor exclusively for KVM.
Dual Video Cards	Servers with dual video cards can be remotely accessed with an extended desktop configuration available to the remote user.
Flexible Video Scaling	In many instances, the user would like to "scale," i.e., stretch or compress the target server's video display to fit the display window on the client. With the Dominion KX III's flexible scaling, the user is not restricted to fixed-size windows, but can drag the window border to the desired size, including small thumbnail views.
Automatic Color Calibration	The Dominion KX III provides automatic and manual color calibration that optimizes the screen display, producing vivid, lifelike colors to enhance productivity and reduce bandwidth.
24-Bit Color Support	Dominion KX III's 24-bit color support enables high video quality over the network. Multiple color modes, as well as gray scale, are available to connect via modem or low bandwidth link.
Flexible Performance & Bandwidth Settings for any Environment	Video performance and bandwidth can be configured to match application needs and available bandwidth. With high-speed LAN access, 1920x1200 streaming video at 30 frames per second can be supported. When accessing via a limited bandwidth connection such as the Internet, Dominion KX III can be configured to the limited bandwidth available.
Fast Video Switching	Once the Dominion KX III's advanced video resolution detection has calculated a target server's video characteristics, connections to the server occur almost instantaneously. This gives the Dominion KX III user immediate access in most cases to all connected servers.

Mouse and Keyboard Features

Absolute Mouse Synchronization	The Absolute Mouse Synchronization feature is the ultimate mouse synchronization solution. For Windows and Mac® servers with a compatible USB mouse port, there is no need to adjust the mouse settings on the target server. This reduces installation time and enhances the Dominion KX III's plug-and-play nature. In addition, the remote and target server mouse pointers never go out of synchronization. This feature is enabled by the D2CIM-VUSB and D2CIM-DVUSB virtual media CIMs.
Intelligent Mouse Synchronization™	Most KVM switches require the customer to manually adjust the mouse motion and mouse acceleration settings for all connected target servers for each KVM user. With the Intelligent Mouse option, no such manual configuration is required for many servers. The system can automatically adjust to the server's mouse settings. This further enhances the Dominion KX III's plug-and-play operation.
Speedy Single Mouse Mode	Many Dominion KX III customers prefer a dual-mouse configuration; however the KX III's single mouse mode provides speedy performance and does not require server changes for any type of server or OS.
Transparent Keyboard Handling	Transparent keyboard handling means that virtually all user keystrokes are sent to the target server and not processed by the desktop client. This key feature obviates the need for most keyboard macros and allows the user to directly interact with the target server with a higher level of connectivity.

Security Features

Validated FIPS 140-2 Cryptographic Module	For government, military and other high security applications, the Dominion KX III utilizes a validated FIPS 140-2 Cryptographic Module for enhanced encryption. Modules tested and validated as conforming to FIPS 140-2 are accepted by federal agencies of the U.S. and Canada for the protection of sensitive information.
AES Encryption	The Dominion KX III utilizes the Advanced Encryption Standard (AES) encryption for added security. 128- and 256-bit AES encryption is available. AES is a U.S. government-approved cryptographic algorithm that is recommended by the National Institute of Standards and Technology (NIST) in the FIPS Standard 197.
Smart Card and CAC Authentication	The Dominion KX III supports smart card and DoD Common Access Card (CAC) authentication at the rack, stand-alone over IP and through CC-SG. It meets U.S. government HSPD-12, PIV and CAC directives and ISO 7816, PC/SC and CCID standards. All Dominion KX III models support smart cards using the D2CIM-DVUSB CIMs.
Video, Virtual Media and Smart Card Encryption	Dominion KX III securely encrypts the video stream, keyboard and mouse data, virtual media and smart card transmissions.
RADIUS, LDAP and Active Directory® Authentication	Dominion KX III integrates with industry-standard directory servers, such as Microsoft Active Directory, using either the LDAP or RADIUS protocols. This allows Dominion KX III to use pre-existing username/password databases for security.

Configurable Strong Password Checking	The Dominion KX III has administrator-configurable, strong password checking to ensure that user-created passwords meet corporate and/or government standards and are resistant to brute force hacking.
Two Factor Authentication	RSA SecureID is supported via RADIUS for two-factor authentication security to log into the KX II.
SSL & TLS Security Options	SSLv1, SSLv2 and SSLv3 are disabled for security reasons. The more secure TLS protocol is used. Furthermore, the KX III administrator has control over which TLS versions can be used. StartTLS encryption is now available for more secure LDAPS authentication.
Configurable Security Banner	For government, military and other security-conscious customers requiring a security message before user login, the KX III can display a user-configurable banner message and require acceptance before user login.
Upload Customer-Provided SSL Certificates	Customers can upload to the Dominion KX III digital certificates (self-signed or certificate authority provided) for enhanced authentication and secure communication. Raritan recommends this for added security and to reduce browser warning messages
Local Authentication with Users, Groups and Permissions	In addition to external authentication, the Dominion KX III supports local authentication. Administrators can define users and groups with customizable administration and port access permissions.

Management Features

Remote and Local Management and Administration	Administrators can perform all management, administration and configuration operations remotely via a simple graphical user interface, accessible from their desktops, the data center or lab.
Raritan's CommandCenter Integration	Like the rest of the Dominion series, Dominion KX III features complete CommandCenter Secure Gateway integration, allowing enterprise users to consolidate all Dominion KX II and III devices into a single logical system, accessible from a single IP address and under a single remote management interface. CommandCenter login and server access is now available from the KX III User Station. Login to the User Station with your CommandCenter credentials and access servers you are authorized for. Customers can also access servers connected to the Dominion KX III via the iPhone and iPad.
Dominion KX III Software Development Kit and API	An optional Dominion KX III Software Development Kit (SDK) and Application Programming Interface (API) is available for customers wanting integration with their internal systems, customized KVM-over-IP access or want an automated KVM Client session. The KX III SDK/API is available for purchase under separate agreement to approved customers.
Event Logging via SNMP, Syslog and Email	System and user events are logged and recorded in a log file on each device. For permanent logging, the Dominion KX III can send SNMP TRAPs for these events to SNMP management system(s). SNMP TRAPs are fully configurable by the administrator. SNMP v2 and v3 supported. Syslog logging and email notifications are also available.

Java-Free Administration	For KX III administration without the use of Java, launch the KX III with <IP Address>/admin
Dominion KX II Compatibility	Customers who have purchased Raritan's second-generation Dominion KX II switches can continue to use these switches together with the Dominion KX III. Both CommandCenter Secure Gateway and Raritan's Virtual KVM Client and the Active KVM Client support seamless access and control of target servers connected to the Dominion KX II and Dominion KX III digital appliances. To help customer's transitioning from KX II to KX III, KXIII can import a KX II backup file.
Paragon and Dominion CIM Compatibility	For existing Raritan customers, select Paragon II CIMs as well as the Dominion KX I & II DCIMs are supported by the Dominion KX III. Paragon and Dominion customers wanting to upgrade to Dominion KX III can reuse many of their CIMs, reducing the cost of migration.