

# Success Stories



## Security, Efficiency, Network Independence Built Into New "Lights-Out" Data Center

### Duane Morris LLP Major National Law Firm

Duane Morris LLP is one of the 100 largest law firms in the U.S., with more than 550 attorneys in 16 domestic offices and one in London. The Duane Morris IT department, located in its new Philadelphia headquarters, supports 1,400 users with a staff of more than 50.

The firm took up residence at its new address in August 2005. For IT, the move included packing up the firm's 200 Hewlett-Packard servers running Windows® 2003 and applications critical to any modern business and to law firms in particular: These included MS Exchange and MS Office, as well as CRM, time entry, billing and document management applications, Citrix, and Blackberry Enterprise Server for mobile e-mail.

The move was a short hop – literally across the street – but one that opened up important opportunities for the IT department.

### Designing a New Data Center

"It was an opportunity to implement a whole new data center design," said Michael Carpinella, Technical Services Director. "It was a chance to improve security; to streamline operations, administration and maintenance; to lower TCO; and maximize application availability for an international, round-the-clock operation."

### Lights-out, Locked-down Security

The first step in improving data center security was keeping people physically outside of it, to the extent possible. "The goal was to go from an installation in which the network administrators had to be in the server room in order to do anything, to a lights-out data center that administrators only had to enter when they needed to perform hardware upgrades and repairs," said Carpinella.

#### Customer:

Duane Morris LLP, Philadelphia, PA  
Major Nationwide Law Firm

#### A company relocation offered these opportunities:

Moving to secure, lights-out data center operation, with fault-tolerant, Web-based secure remote access

Replacing and consolidating legacy KVM equipment

Being able to work on servers during scheduled network downtimes

#### Solution Components:

CommandCenter® Secure Gateway

Dominion® KX216

Dominion KX101

Paragon® II UMT442

### Streamlined Operations

Carpinella also wanted to take advantage of advances in KVM technology that would put administrators at the rack without leaving their chairs. This was a major shift from the old site, where each of approximately 35 racks had its own KVM drawer. "We did a lot of walking in order to access those machines," said Carpinella.

In the new data center, administrators replaced their 35 legacy KVM drawers with 14 Dominion KX216 KVM-over-IP switches, connecting up to 16 servers to each. The Dominion KX switches, in turn, were integrated through a CommandCenter Secure Gateway, which provides BIOS-level access to over 200 servers through a single sign-on to a single IP-address via a Web browser.

## Success Stories - Duane Morris LLP

"The Raritan solution provided a great way for us to simplify and accelerate many of our data center work processes, as well as to reduce our incident response times," said Carpinella. "Software installation, troubleshooting problems, reconfiguring network cards, server installation - all these things are done more quickly now through CommandCenter Secure Gateway. Being able to see every server from one console is the ideal situation."

### Lower TCO

Consolidation and centralization saves Duane Morris in hardware, rack space, and cooling costs as well as time. "We could have bought a mouse, keyboard and monitor for every rack, but we decided not to do that," added Carpinella. "Instead, CommandCenter Secure Gateway saved us a ton of money."

Carpinella also centralized authentication and authorization by integrating the CommandCenter Secure Gateway with Duane Morris' Active Directory® authentication servers, leveraging the existing Active Directory user profiles. Because security policies are centrally administered through the CommandCenter Secure Gateway, the system costs less to run. Carpinella observed, "Now, when I log in to CommandCenter Secure Gateway with my network ID, it pulls my rights to the servers I need to see from the Active Directory server."

### Faster Response through Anytime, Anywhere Access

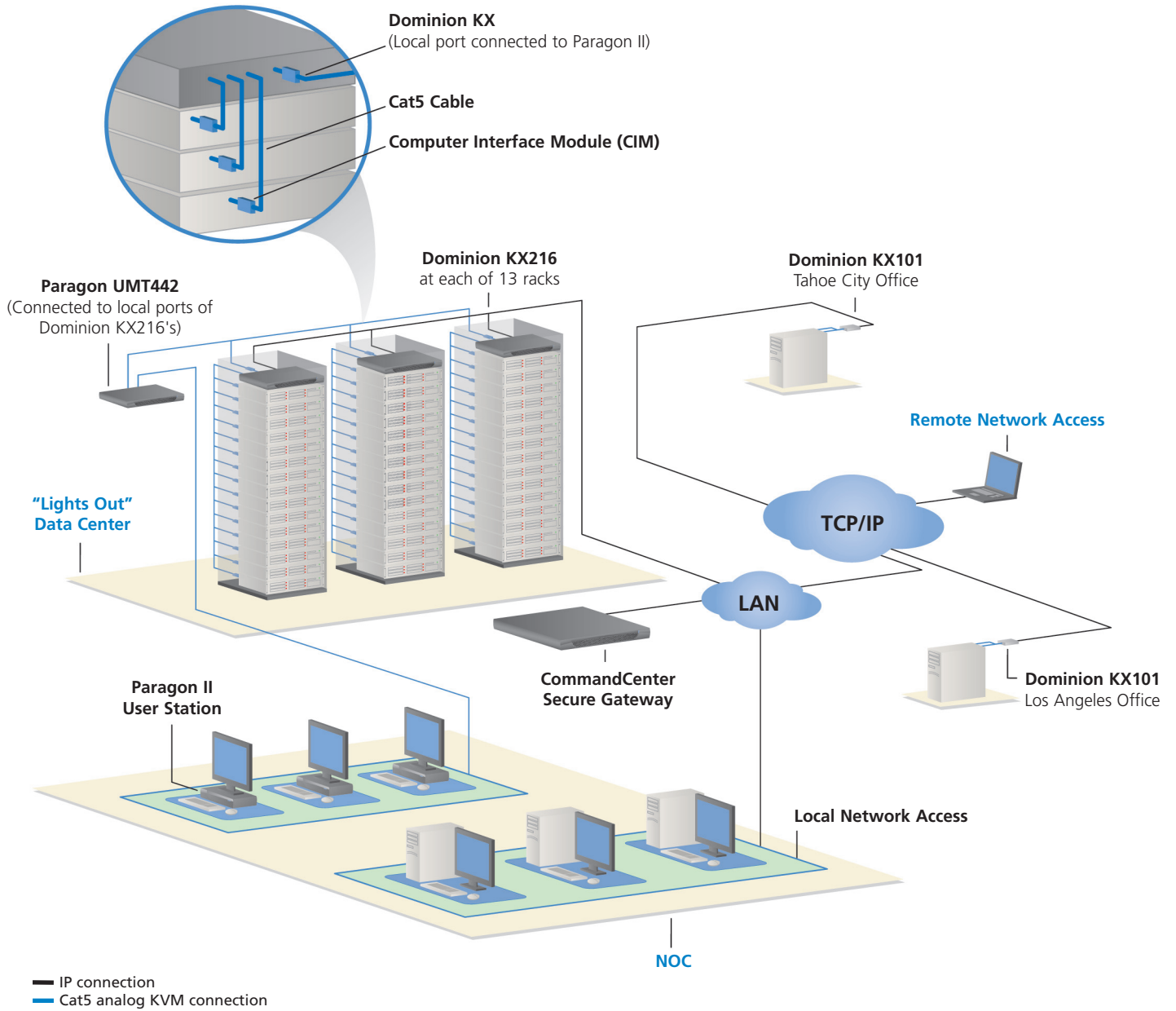
CommandCenter Secure Gateway also lowers Duane Morris IT staff's incident response times, by eliminating multiple sign-ons to multiple devices, and by providing user-defined, logical views of servers and anytime, anywhere access via the Web. "I can log in with a single sign-on to our entire IT infrastructure anywhere - from home or from the office, and with the logical views, quickly find any device I need," Carpinella said.

Duane Morris has gone a step further in order to ensure centralized access and preserve the lights-out nature of the data center - even if the network fails or when it's deliberately brought down in off hours for routine maintenance. The firm did this by creating a multi-user analog KVM connection from the local ports of the Dominion KX switches in the data center to their network operation center (NOC) down the hall. Users access this through a Paragon II UMT442 KVM switch and four Paragon user stations.

This configuration gives IT admins centralized, "remote," and out-of-band server access that can - and has - survived network outages. "This actually happened when we performed maintenance on our core switches," said Carpinella. With out-of-band, analog KVM access, his administrators are able to quickly and easily close files and shut down servers during network outages, avoiding the risk of file or OS corruption that comes with simply hitting the server's power button. "This way, I know that when I power back up, nothing is corrupted and the OS will load."

### Reduced Planned Downtime

Equally important, the analog connection from the NOC lets administrators work on servers while the network is down for routine maintenance during off hours. "For example, tonight we're doing some maintenance on our core switches and adding memory to some of the servers," said Carpinella on a recent October weeknight. "Because I'm coming into the server on the KVM ports, I can do things like re-configure network card settings. That's something you can't do with Terminal Services. In that case, you're coming in through the network card, and of course, as soon as you change network card settings, you're literally blown off the server and you lose network connectivity in the process. But with the Raritan device, I can make changes to the network card, and I'm still on the server the whole time, because I'm coming in through the KVM ports. When I'm done, I just log off."



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The new data center design was the work of Raritan Authorized Reseller Syscom Technologies. For Syscom Sales Account Manager Rick Tashman, the moving project proved to be a great opportunity to expand his relationship with the law firm.

"We've been using Rick for a couple years now, for our data center's AC, infrastructure, racks and power," said Carpinella. "When we started talking about the move, I didn't realize there was much more to Syscom than that. I didn't know about the security cameras, network storage and Raritan solutions. I never knew that they were into all that. Rick is a great guy to work with. He coordinated equipment and resources, he kept in touch at all hours, and he was tremendous throughout our data center design."

### Fast, Painless Implementation

Thanks to Syscom and the Duane Morris IT staff's careful planning and pre-configuring, server installation at the new site took two days, instead of the three projected. "Before the move, Rick's team showed us how to sketch out each rack, planning what servers were going into each location," Carpinella said. "We pre-programmed and labeled all the computer interface modules (CIM) with each server's information, and connected them to servers as we put the servers into the racks. Once we were all done, we just went right into the CommandCenter Secure Gateway and everything was automatically discovered and populated, rack by rack."

Syscom Technologies' Tashman also introduced Carpinella to Raritan's new Dominion KX101 solution for managing remote offices. Installed first in a new Los Angeles office, the palm-sized KX101 provides Web-based, BIOS-level access to one server, via a dedicated IP address.

It incorporates all the performance and security features of multi-port Dominion switches, including centralized management through CommandCenter Secure Gateway. With it, Carpinella leverages his system administrators' expertise across all 17 Duane Morris offices.

The price of the Dominion KX101 also made sense. Much less costly than a multi-port KVM switch, it cost-justifies incorporating sites with one or a few servers into an enterprise-wide command and control network. Equally important, it saves the cost of dispatching IT staff to branch offices.

"Being able to troubleshoot, to see the BIOS and the setup is critical, because we in Philadelphia are the eyes for all the locations," said Carpinella. "When I go into the CommandCenter Secure Gateway, I'll see not only my servers here in the data center, but also any servers out at branch locations. Moving forward, this is a solution we'll provide to any office we open up."

And as Duane Morris opens offices in different time zones, applications will have to be available to users for more hours out of 24. "Our people need access to documents and e-mail to meet court deadlines," said Carpinella. "It's mission-critical that we get to all of our equipment all of the time. With Raritan's devices, when I do network upgrades, I shrink the downtime window to between 11 p.m. and 2 a.m. Without it, I might have to extend it to 4 a.m., which would impact my London users. Raritan allows me to narrow that window." Once users' workday begins, the Raritan devices help the data center staff assure system availability, streamlining and simplifying their work processes.

Raritan, Inc. is a leading supplier of solutions for managing IT infrastructure equipment and the mission-critical applications and services that run on it. Raritan was founded in 1985, and since then has been making products that are used to manage IT infrastructures at more than 75,000 network data centers, computer test labs and multi-workstation environments around the world. From the small business to the enterprise, Raritan's complete line of compatible and scalable IT management solutions offers IT professionals the most reliable, flexible and secure in-band and out-of-band solutions to manage data center equipment applications and services, while improving operational productivity. More information on the company is available at [Raritan.com](http://Raritan.com).

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