Law Firm Mitigates Risk, Goes Green with Data Center Refresh

Executive Summary

Customer Name: Paul Hastings  
Industry: Legal  
Location: Los Angeles, CA  
Number of Employees: 2500

Challenge:
- Consolidate 16 major data centers down to 4 to achieve greater efficiency
- Mitigate risk of system outages to protect corporate revenue streams
- Reduce carbon footprint and related utility costs

Solution:
- Cisco Nexus Switches provide foundation for high performance
- Cisco Nexus Switches help enable rapid replication of critical data for disaster recovery
- Cisco solutions employed for all Layer 2 and Layer 3 components of global network

Results:
- Achieved 85 percent server virtualization, reducing energy consumption by 57 percent
- Decreased utility costs by US$200,000 annually by lowering energy consumption
- Implemented sophisticated disaster recovery (DR) program

Paul Hastings consolidates global data centers with Cisco solutions to achieve high performance and sustainability goals.

Challenge

Founded in 1951, Paul Hastings is a leading international law firm that provides innovative legal solutions to the world’s top financial institutions and Fortune Global 500 companies. Administratively headquartered in Los Angeles, Paul Hastings has 18 additional offices across Asia, Europe, and the United States. The Financial Times recently named Paul Hastings as one of the most innovative law firms in the United States.

With more than 60 million active documents, Paul Hastings manages one of the largest legal document repositories on the planet. Providing quick any-to-any access from one Paul Hastings office to another requires a reliable, ultrafast network and data center infrastructure.

Complicating this challenge, Paul Hastings is consolidating its data centers with the goal of reducing its carbon footprint with a simplified, highly dense, and energy efficient infrastructure design. “Until recently, each one of our city sites had its own data center,” says Searl Tate, the firm’s director of engineering. “We came to the realization that having too many data centers was not only inefficient, but a waste of resources.”

To address these issues, Tate and his team developed a plan to consolidate the firm’s data center resources in four centralized “hubs” located in Los Angeles, New York, Paris, and Hong Kong. “As we began to put our plan into effect and aggressively shrink our data center footprint from 16 down to 4, we realized it was the perfect opportunity to do a technology refresh as well,” Tate says.
“Cisco is an enabler for high-density computing environments that help us save money and pursue our green initiatives. To date, we’ve been able to reduce our energy consumption by 57 percent in two major domestic hubs alone, which means we’ve been able to decrease our total utility costs by at least $200,000 per year.”

– Searl Tate
Director of Engineering
Paul Hastings

Solution
Cisco solutions were at the top of Tate’s list for helping his team meet these goals, especially given the fact that Paul Hastings was already a longtime Cisco customer. After carefully evaluating and considering all of the options, Tate and his team chose to go with Cisco to cover both the data link layer (Layer 2) and the network layer (Layer 3), where the switching and routing technologies reside. “Cisco solutions offer great value, they’re highly reliable, and of course Cisco is the gold standard from a support perspective,” says Tate.

In Paul Hastings’ big domestic data center hubs, in Los Angeles and New York, the firm completed a round of enhancements using Cisco Nexus® 7000 Series, Nexus 5000 Series, and Nexus 2000 Series switches for its distributed network. In addition, Paul Hastings utilizes Cisco Catalyst® 6500 Series and Cisco® Catalyst 4900 Series Switches throughout its infrastructure.

“This is really all about high-density computing and cost-effective green computing,” says Tate, who says that he recognized a number of vendors might have been able to handle his immediate needs from a performance perspective. But he required more. “We needed supportability, sustainability, and reliability in addition to performance. Those are the reasons we’ve stayed with Cisco, and that’s a decision we do not regret,” he says.

Most importantly, however, Cisco solutions allow Paul Hastings to keep all of its solutions running on the same fabric. “We run HP C7000 blade servers, and the Nexus solution allows us to keep everything together,” he says. “When we had the idea of using top-of-rack switches as opposed to the core and distributive access layers of classic switches, keeping our solutions on the same fabric was critical.”

Results
As Tate says, Cisco switching solutions have allowed Paul Hastings to realize a range of benefits. “Cisco is an enabler for high-density computing environments that help us save money and pursue our green initiatives,” he says. “To date, we’ve been able to reduce our energy consumption by 57 percent in two major domestic hubs alone, which means we’ve been able to decrease our total utility costs by at least $200,000 per year.”

Ultimately, however, for a large prestigious law firm such as Paul Hastings, mitigating the risk of system interruptions or failure is just as important as the return from an infrastructure investment. “If the network is down, our attorneys can’t do their jobs, and that has the potential to affect revenue generation,” he says. “When it comes to network availability, Cisco gives us peace of mind.”

The firm has also put into place a sophisticated disaster recovery (DR) program built on Nexus solutions, where each data center has a failover facility in a “sister city.” For example, the Los Angeles and New York data centers are synchronized, as are the facilities in Paris and Hong Kong. “By using replication, we can leverage our existing setup costs with data centers to use one city’s hub as a failover site for another.”

The Nexus solutions help with the firm’s rapid replication of document data, metadata, and any other type of data that Paul Hastings needs to safeguard. “Our goal is to have a recovery point objective of less than an hour’s worth of data loss,” says Tate. “Our network design based on Cisco Nexus switches will be key to keeping our operations running smoothly.”
Next Steps

Having designed a data center and network template in Los Angeles, Paul Hastings is planning to use it in the three other major data center hubs: New York, Paris, and Hong Kong. “We’ll leverage the strategy of having a colocation partner and follow the successful formula of deploying the Nexus solutions with peripheral devices,” he says.

In addition, Paul Hastings recently deployed Cisco Catalyst 3750-X Series Switches into its environment to support a Cisco Unified Communications pilot, which Tate describes as going “very well.” If Tate had a personal mission statement, it would be “create and sustain a high-performance computing environment,” he says. “It’s no small thing to say that Cisco is a big reason I’m able to achieve that mission.”

For More Information

To find out more about Cisco Nexus Switches, visit: www.cisco.com/go/nexus.