IP address management is streamlined so the task is faster and can be shared — rather than being a full-time job

A growing medical center had a growing problem: keeping track of IP addresses with an antiquated manual system. Ken Rudolph was supposed to design and build the network, but in 2006 he was also handed what might become another full-time job.

Would he now spend all of his working days adding and deleting IP addresses in a crazy-quilt of spreadsheets?

IPControl™ from Cygna Diamond IP was Ken's answer. The interface is so easy to use, that IP management is now distributed across several departments, saving Ken's sanity as well as giving the other departments faster and greater control

> Diamond IP allows me to get back to the business of networking. I don't have to spend my whole work life on the care and feeding of IP address management.

Ken Rudolph, Network Engineering – Infrastructure, Penn State Milton S. Hershey Medical Center

Switching to Cygna Diamond IP has greatly simplified IP address management for Penn State Milton S. Hershey Medical Center

Challenge

With more than 8,800 part-time and full-time staff members, Penn State Milton S. Hershey Medical Center and the College of Medicine have many thousands of IP addresses to track. Plus, with over 850,000 visits per year to the clinic and trauma center, critical telephone discussions are taking place around the clock.

As the Medical Center rapidly expanded, tracking IP addresses manually with spreadsheets had become increasing cumbersome, and by 2006 was a full-time job. Ken Rudolph, Network Engineering-Infrastructure, recalls: "I was given this task, which had the potential to completely monopolize my working day and take me away from my networking responsibilities."

Making this challenge even more daunting was the vendor of the old IP management system: the equipment and software were not kept up-to-date, the service was substandard, and licensing was per address — so that each year the Medical Center was relentlessly getting less for more.

Solution

The Medical Center switched to Cygna Diamond IP for its IP management. Reports Ken Rudolph: "The Cygna Labs installation technician was absolutely amazing. The application understands and synchronizes with our network—such as handling address block assignments. It reframed my understanding of IP Address Management Systems." The Medical Center switched to Cygna Diamond IP for its IP management. Reports Ken Rudolph: "The Cygna Las installation technician was absolutely amazing.

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The Cygna Diamond IP management system has been regularly upgraded with new features and functionality. Back in 2006, many routines required manual, command-line driven execution. Now, those command-line functions are replaced with a simple point and click interface. Ken Rudolph reports: "This is absolutely the most flexible IP address management system that I have found to categorize and profile a network."

Recently, the most important changes to Hershey Medical Center's IP Control system has been the switch from running IP Control on a UNIX platform to running IPControl on Cygna Diamond IP Sapphire appliances. "It's an easier and more efficient deployment and scaling of the system because the appliance code and application code are optimized to one another. The Cygna IPControl™ system automates and centralizes control over all IPAM, DNS, and DHCP configuration and function requirements through one intuitive web user interface.

The IPControl application runs on LINUX and Windows platforms, as well as Cygna Diamond IP hardware, virtual and cloud appliances. "We chose to migrate the application onto dedicated appliances because of application efficiency, reduced costs over a more scalable deployment, and ease of maintenance. Hershey Medical Center has already gained meaningful ROI as a result of this migration. The Cygna Diamond IP developers and engineers are always looking for ways to improve and evolve the system. Ken Rudolph says: "Cygna Labs is very knowledgeable about what's going on in the industry and the IETF. Many of their developers are on IETF committees. They've got my back for what's coming down the pike. That gives you a good feeling."

Value

The Cygna Diamond IP appliances and software have brought the Medical Center new power and flexibility. What had been a full-time task for one person can now easily be split up among multiple groups with different administrator levels, to create individual areas of responsibility. For example, Operations can now assign static IP addresses, assign DNS resource records, run reports, and tracks operations. In the meantime, the Networking team has higher administrative privileges, so they can control system access, create and assign DHCP scopes for specialized applications, manage DNS configurations, and tightly control IP address management across the campus network.

Open innovation is another invaluable aspect of dealing with Cygna Labs. Ken Rudolph attends the Cygna Labs user group meetings. "The technical people at Cygna Labs really listen," he says. "They use the feedback from customers to evaluate new features and functions and design them into the application. That's kind of cool. You go to a user conference and say 'Wouldn't something be nice to have'. Then, based on their evaluations, a couple of revisions later there it is. It makes you feel good. You say, 'Wow, that was my idea!'"

Most management tasks can now be completed with the click of a few buttons. The administration is easier because it's mostly controlled through a GUI interface. The system now includes multiple appliances for better redundancy, better failover, and better load balancing — and it's also easier for one person to adminis- ter all of the components.

Ken Rudolph concludes: "This all gets back to ROI, because it makes people's lives easier. What was a daunting task for one person is now a part-time job for me. Since we got the Sapphire appliances, I really don't have to touch it because this thing just hums along."

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Core services

- IPControl™ software and Sapphire DNS and DHCP servers from Diamond IP