

Regional Hospital Analyzes Networking Needs for Long-term Expansion

Palomar Pomerado Health Turns to Cisco Advisory Services to Define Strategy for Comprehensive Architecture Upgrading

EXECUTIVE SUMMARY
<p>PALOMAR POMERADO HEALTH</p> <ul style="list-style-type: none"> Healthcare San Diego County, California, USA
<p>BUSINESS CHALLENGE</p> <ul style="list-style-type: none"> Develop a comprehensive networking roadmap for enabling Unified Communications and automated medical records management Define a strategy to better leverage IT in support of new medical facilities and to modernize existing systems
<p>NETWORK SOLUTION</p> <ul style="list-style-type: none"> Created an enterprise architecture roadmap, defining phased networking upgrades and expansion over next five years Designed a system that accommodated and leveraged needs of stakeholders across the healthcare system
<p>BUSINESS RESULTS</p> <ul style="list-style-type: none"> Agreement from Executive Management on the role of IT in supporting a major Palomar Pomerado Health transition First steps toward implementing a realistic plan that accommodates current realities and future requirements

Business Challenge

Palomar Pomerado Health (PPH) is at the forefront of healthcare in southern California. With services stretching across northern San Diego County, and a strong focus on a high-quality caring environment, Palomar hospitals and medical facilities have long been highly valued by both the community and the medical professionals employed there.

In preparing for a significant new growth phase, PPH knew that IT would have a leading role in extending that quality of service. In late 2006, PPH moved to assess its current networking environment and to develop a foundational enterprise architecture roadmap that would carry it through a multiyear period of expansion. Over that time, Palomar will open several new facilities, including the first new hospital in San Diego County in 30 years, being designed as the “Hospital of the Future.”

According to Palomar’s Director of Technical Services Paul Engberg, “With all of the construction,

we needed to be very clear on what it is that we want to put in place. Are we making the right decisions? Do we really understand user needs? What architecture do we need to allow us to grow and be dynamic in the future?” Because these issues will have a long-term, strategic impact on the entire organization, PPH decided that a thorough assessment was needed.

Although an initial design had been completed two years earlier by an outside vendor, PPH had not done a major new implementation, and wanted to revalidate the approach. Engberg turned to Cisco® Advisory Services for help, after learning about Cisco’s enterprise-level healthcare model known as the Medical Grade Network. He says, “Medical Grade is enticing, because when you go to ‘everything online,’ you have to make sure everything is available to whomever needs it, at the time they need it.”

PPH had several specific requirements that their architecture would need to address:

- Identifying and eliminating all potential single points of failure, a frequent weakness in automated medical records management, by designing in system redundancy to enable high availability

- Incorporating a Unified Communications platform to improve the organizational capability and capacity to communicate, while converging distinct networks (data, voice, videoconferencing) for better performance and manageability
- Helping ensure adequate network bandwidth to accommodate large image files integral to modern medicine
- Designing an infrastructure based on input from, and meeting the needs of, stakeholders across the PPH system, from physicians, nurses, and clinicians to back-office staff



Rendering of New Pomerado Health

Network Solution

Cisco Advisory Services applied a best practice approach to helping PPH with its assessment, bringing a mix of architecture and healthcare domain expertise to the project.

The business analysis began with extensive interviews with more than two dozen stakeholders from across PPH's operations: ER, OR, ICU, Nursing, Radiology, Telemetry, Home Health, Bed Tracking, Health Information, and even the Security Officer responsible for disaster readiness planning. Each was able to express his or her own current and future needs, which were considered in the overall plan. Among the Cisco Advisory team members conducting the research was a certified Registered Nurse, who brought deep understanding of the realities of a health system environment—providing good validation for much of the practitioner staff.

After initial data gathering and summation, Cisco Advisory met with all respondents to verify accuracy and completeness of the findings, and to help ensure everyone's concurrence in the recommendations. In this way, commonalities in needs were identified, and ideas for innovative approaches shared. Stakeholders were able to clearly see the importance of network security and integrity. They also received new insights into where and how information technology could be applied in their daily operations—such as stronger integration of communications from mobile devices like personal digital assistants (PDAs) or cell phones, or things as basic as finding carts or wheelchairs through radio frequency identification (RFID) tagging. Because of this thorough vetting process, Cisco Advisory was able to develop an architectural roadmap for PPH that was focused on real user needs, not just technology.

Business Results

Cisco Advisory's work helped Paul Engberg and the PPH IT team to effectively present their requirements in the context of the overall Palomar Pomerado go-forward plan. Although IT is just one aspect of the diverse and critical needs in a medical environment, it is a key enabler of much of the clinical mission and operations. Cisco Advisory presented the findings and the suggested plan to PPH's Executive Management, thereby providing external validation that the recommended approach would be the right foundational infrastructure for the Hospital of the Future from a cross-

functional point of view.

This kind of Business Value Justification is one of Cisco Advisory's core services. As Engberg says, "It was added value and credibility for us with the Executive Team as to what we're trying to accomplish. When you have someone from the outside, particularly with Cisco's expertise, you can bring ideas to Management and say here's what your user bases are saying; here's their burning platform. It makes a big difference."

Of further value was the vendor-neutral approach that Cisco Advisory incorporated into the architecture design. This approach was particularly important to Engberg, because although PPH uses predominantly Cisco networking equipment, the company had made a fairly recent investment in another vendor's telephony switches, and those systems would not be replaced anytime soon. Engberg says, "These switches are only two years old, and they're staying for awhile. I applaud Cisco Advisory for recognizing that, being willing to work with it, and looking at this as an investment in a longer-term relationship with us."

Next Steps

As of mid-summer 2007, PPH was in the process of moving forward with Unified Communications / Voice over IP implementations at several new facilities. The immediate installations include a back office warehouse facility, a behavioral health unit, and a new outpatient treatment pavilion, supporting 20 to 200 workers. Engberg's team, using feedback from Cisco Advisory, is deploying a converged network, replacing what were separate voice and data networks for the new locations. More deployments will follow with additional women's health and nursing facilities slated for the next few years.

These pilot implementations help set direction for a broader Unified Communications platform and provide guidance for the biggest challenge—networking the new hospital set for opening in 2011. As the work continues, Paul Engberg is looking forward to a strengthening relationship with Cisco Advisory Services as a partner in PPH's transition to the next level of healthcare excellence.

Frank Grant, Cisco's director of US and Canada Healthcare Sales, summarized his satisfaction with the growing PPH relationship—"I couldn't be more pleased with the results of our initial Advisory work at Palomar Pomerado Health; the customer's commitment is the ultimate testimonial to a job well done. We look forward to a continued partnership."



Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
www.cisco.com
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Asia Pacific Headquarters
Cisco Systems, Inc.
168 Robinson Road
#28-01 Capital Tower
Singapore 068912
www.cisco.com
Tel: +65 6317 7777
Fax: +65 6317 7799

Europe Headquarters
Cisco Systems International BV
Haarlerbergpark
Haarlerbergweg 13-19
1101 CH Amsterdam
The Netherlands
www-europe.cisco.com
Tel: +31 0 800 020 0791
Fax: +31 0 20 357 1100

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