Philips Medical Systems Cuts Costs, Enhances Satisfaction with Remote Service Solutions

Executive Summary

CUSTOMER NAME
Philips Medical Systems

INDUSTRY
Manufacturing and Services

BUSINESS CHALLENGES
- Improve customer service and equipment uptime by advancing remote servicing capabilities
- Ensure the chosen solution is financially and technically viable in the short and long terms

SOLUTION
Cisco helped develop the service model enabled by secure, high-speed, reliable connections over the Internet that link hospital medical equipment globally to the Philips remote service centers.

BUSINESS RESULTS
- Rapid uptake of remote services with 3,150 customers and 20,000 devices already connected
- Dramatic increase in remote fixes—23,000 recorded in 2005—increasing equipment uptime for the customer and boosting the productivity of the Philips Customer Services workforce
- Higher customer satisfaction and customer loyalty: customers ranked Philips tied for No. 1 in overall service performance (IMV ServiceTrak™ Survey, 2005)

Working with Cisco®, Philips Medical Systems developed a high-speed, secure, Internet-based network to connect its medical equipment to global service centers, allowing equipment to be supported remotely. Hospital adoption of the service has been rapid, and remote repairs have increased dramatically, contributing to reduced operating costs, faster service, and enhanced customer satisfaction.

BUSINESS CHALLENGES

Philips Medical Systems, a division of Royal Philips Electronics, with headquarters in the Netherlands and the United States, is one of the world's largest healthcare companies, supplying diagnostic imaging equipment, including X-ray, magnetic resonance, computed tomography, nuclear medicine, positron emission tomography, and ultrasound systems. Philips also offers information technology products, related healthcare services, and cardiac and monitoring systems. Since the late 1990s, the medical division has grown rapidly, more than doubling its sales between 2000 and 2005, largely through strategic acquisitions that have given Philips a much broader portfolio of products with which to serve the global healthcare market. Philips Medical Systems now employs 30,000 people and distributes products in over 100 countries.

Philips sought to ensure consistently high-quality support for its medical equipment, crucial for healthcare providers that increasingly rely on imaging systems to help them achieve faster and more accurate diagnosis and treatment. Traditionally, this support was provided through onsite

Cisco Systems

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visits by field service engineers, although in the 1990s, remote servicing began to emerge as a preferred method of service delivery by both equipment manufacturers and users.

For Philips, remote servicing offered the prospect of enhanced customer satisfaction, lower operational costs, and more efficient use of highly skilled service engineers. For customers, it also meant faster service. In response to this opportunity, Philips began to develop connectivity solutions for some of its product lines that would link the systems to its worldwide service centers. Philips originally chose modem-based solutions, but quickly realized they were insecure and not in line with future developments in the industry.

Philips Medical Systems needed to rethink its remote customer service development in order to fulfill its No. 1 priority—achieving high levels of customer satisfaction—and to differentiate itself from the competition. To help achieve these goals, Philips Medical Systems approached the Cisco Internet Business Solutions Group (IBSG) that had previously helped the division formulate its e-business strategy.

"Philips has a strategic partnership with Cisco and, for a project like this, where we were looking at using Internet technologies, we knew that they would have people with expertise to help and advise us," explains Reinhold Grellmann, director, research and development, Global Services Engineering, Philips Medical Systems.

SOLUTIONS

Initially, Philips was interested in examining the business case for replacing modems with high-speed, reliable, secure, broadband connections over the Internet to all Philips Medical Systems products. They wanted both to determine the costs versus benefits of remote services and to address technical challenges such as network security that would be a major issue for Philips and its customers. Starting in 2003, IBSG consultants organized several workshops with Philips Medical Systems at which they shared best practices, particularly Cisco internal experience in creating a virtual supply chain over the Internet that includes remote quality control of its products. By automating the testing process and making the results available online to Cisco test engineers, Cisco has saved tens of millions of dollars. Similar opportunities were open to Philips Medical Systems if its service engineers could monitor equipment remotely via the Internet instead of using modem dial-up. This would enable them to detect possible problems in real time and repair them without visiting the customer's site.

"Hospitals are increasingly seeing remote service as a differentiating feature when purchasing a medical system. Philips CUSTOMerCARE remote services network offers a secure, high-speed, and reliable connection that ensures our products are running optimally in the field, increasing system uptime while decreasing our service costs."

Greg Sebasky, CEO, Global Customer Services
Philips Medical Systems

As a first step, IBSG consultants worked with Philips Medical Systems customer service executives to determine the required investment and potential savings. For customers, the major value is the increased uptime of the Philips Medical Systems equipment by implementing fixes remotely—in many cases without the customer noticing the fix being implemented. As a next

step (still in progress), IBSG consultants also noted the possibility of generating new revenue from a reliable, secure network connection with customers. One option was to offer value-added applications such as patient data processing, which is still being considered for the future. Systems engineers from Cisco focused on the architecture and security of the network, and on ways of increasing standardization of user interfaces and connectivity across many different product lines. They also supported a number of European pilot projects to test proposed architectures.

The solution that finally emerged in 2005—Philips Remote Services Network (RSN)—is an Internet-based virtual private network (VPN) linking Philips Medical Systems' equipment globally to the service engineers via a single Philips data center. Based in the Netherlands, the data center was deployed and managed by networking partner Atos Origin. It uses a Cisco Internet gateway at the data center to provide secure VPN connectivity and effectively protect Philips' internal network from any threats associated with remote customer access. Hospitals have different options for connecting to the Internet: they can use either a Cisco 1700 Series router or a router of their own choice.

"Cisco was instrumental in laying a world-class foundation for RSN," says Reinhold Grellmann. "They have a true understanding of the technology and how to make the best use of it, as well as being very aware of future trends."

Customers with equipment problems call a regional service center. A service engineer then uses the RSN to access the equipment, diagnose the problem, and, if possible, fix it remotely. The next step, now being implemented, is proactive, real-time equipment monitoring that triggers an alarm in Philips' service center when there is a problem. A service engineer can then try to fix the problem remotely. With this proactive service, it will also be possible to provide other services such as automatic software updates via the RSN.

"Responding remotely to system issues discovered by our customers is only the beginning. With an always-on broadband connection to our devices in the field, Philips is now able to start offering value-added services such as proactive monitoring, remote software updates and upgrades, and 'look-over-the-shoulder' application support."

Greg Sebasky, CEO, Global Customer Services
Philips Medical Systems

BUSINESS RESULTS

Since the RSN was launched worldwide in early 2004, more than 3,150 customers have taken advantage of the service, connecting over 20,000 medical systems. Philips' goal is to have all of its customers connected via the RSN by the end of 2007. This rapid rate of acceptance is an indication of success not only in meeting customers' needs for fast, high-quality support, but also in overcoming concerns about connecting vital medical equipment over the Internet.

Over the past year, Philips has recorded a dramatic increase in the number of remote fixes (now over 23,000), helping customers increase the uptime of their equipment and enabling Philips to reduce operating costs. Even if a service engineer has to visit a site, use of the RSN often provides sufficient information about a problem to allow it to be rectified more quickly and efficiently. Industry members, helping to differentiate Philips from the competition, regard

Philips' CUSTOMerCARE Remote Services Network as one of the most secure remote services networks in the medical field. The network has several levels of user authentication that include the use of RSA SecurID tokens as well as user profile-based IDs for service engineers. VPN encryption is used for the broadband network connections. Customers use IP filtering to ensure Philips communicates only with specified equipment. In addition, Philips has set up a Website where customers can see who has accessed their equipment, and when and what action was taken. The RSN is also contributing to enhanced customer satisfaction. According to surveys by independent healthcare research companies, Philips Medical Systems scores highly in the areas most important to customers such as service performance and service quality.[1] The average remote fix is anywhere from five minutes to one hour, as compared to an onsite visit that typically takes between four and eight hours.

"In 2006, Philips Medical Systems will drive increased value for its customers by adding proactive service capabilities to our remote services network. We'll be able to further reduce resolution time and, in many cases, prevent system failures—resulting in increased system uptime for our customers."

Greg Sebasky, CEO, Global Customer Services
Philips Medical Systems

NEXT STEPS

As Philips Medical Systems' RSN continues to grow, the division is again involving Cisco in its planning, recognizing it as one of the few companies in the world with experience in a network of this type and size. Last year, Cisco took part in a Philips technology summit, and it will participate in further events this year. "Cisco is helping us with immediate issues like scalability, as well as with setting a technology roadmap for the future. Because we now have this high-bandwidth and reliable full-time connection, there are many more services we can offer our customers," says Reinhold Grellmann.

[1] IMV ServiceTrak™ Survey, 2005

MORE INFORMATION

The Cisco Internet Business Solutions Group (IBSG), the global strategic consulting arm of Cisco, helps Global Fortune 500 companies and public organizations transform the way they do business—first designing innovative business processes and then by integrating advanced technologies into visionary roadmaps that improve customer experience and revenue growth.

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