

PHENOMENAL NETWORKS LOWERS COST, IMPROVES QUALITY OF INTERNATIONAL VIDEOCONFERENCING WITH CISCO IP COMMUNICATIONS



Phenomenal Networks Inc., headquartered in Edina, Minnesota, is a Cisco® Premier Certified Partner with specializations in IP Telephony and Wireless. Phenomenal Networks is, and has built a reputation as, a leader in leading edge data communication systems, both on a local, national and international basis.

Central to the company's business model is the belief that customers should be regarded as business partners, says Dave Shepherdson, CEO and President of Phenomenal Networks. "We like to see our customers' businesses grow as a result of what we can do," Shepherdson says. "We want to be an extension of the company and find new ways to reduce costs or streamline the business processes."

Phenomenal Networks recently deployed a Cisco IP Communications solution for manufacturing company Minnesota Rubber to help the company unify geographically dispersed plants and offices, and reduce phone and videoconferencing costs.

MANUFACTURER SEEKS TO LOWER VIDEOCONFERENCING COSTS TO OVERSEAS PLANTS

Minnesota Rubber/QMR Plastics, is a worldwide provider of design and manufacturing services of specialty rubber and plastic components for the OEM (original equipment manufacturer) market. Their services include engineering assistance and design review; material development including specialty compounds; and injection, compression, transfer and liquid silicone rubber manufacturing. In addition to the automotive, off-road, marine, plumbing, and fluid power markets, the company also serves the

EXECUTIVE SUMMARY

Technology/Vertical

Voice, Video Networking/Manufacturing

Partner

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Customer

Minnesota Rubber/QMR Plastics, is a worldwide provider of design and manufacturing services of specialty

rubber and plastic components for the OEM (original equipment manufacturer) market. Some of the largest and most successful companies in the world, including General Motors, Caterpillar, Honeywell, Moen, Delta, Black & Decker and Rockwell depend on Minnesota Rubber/QMR Plastics custom molding experience to meet their specialized needs.

Challenge

The company's design and manufacturing business demands a great deal of collaboration among US and overseas operations. It wanted a video-conferencing solution that was more cost-effective while better unifying geographically dispersed offices.

Return on Investment

Because its previous video conference solution depended on costly ISDN lines, the company was always trying to curtail meeting times, and the image was not always sharp. With its new data and video network, Minnesota Rubber is enjoying improved user experience and rapid ROI.

PARTNER SUCCESS STORY

PHENOMENAL NETWORKS INC.

appliance, agricultural, computer and food/beverage industries. Some of the largest and most successful companies in the world, including General Motors, Caterpillar, Honeywell, Moen, Delta, Black & Decker and Rockwell depend on Minnesota Rubber/QMR Plastics custom molding experience to meet their specialized needs.

The company's Engineering and R&D headquarters is located in Minneapolis, Minnesota, and it has manufacturing operations throughout the United States—in Watertown, South Dakota; Litchfield, Minnesota; Mason City, Iowa; and River Falls, Wisconsin—as well as in Mexico, France, and Singapore.

“The design process entails a great deal of discussion and collaboration between our designers and our customer's engineers,” says Steve Paskach, vice president of information technology for Minnesota Rubber. “We installed a Polycom videoconferencing system a number of years ago to facilitate meetings between locations in the U.S. and France, and the annual cost of just these links was around US\$60,000. While that's not an enormous expense for us, I knew there had to be another way to approach it.” Paskach started investigating IP telephony solutions, but came to the conclusion that going outside of the company's WAN would be challenging.



Steve Paskach, VP of Information Technology for Minnesota Rubber

“Once we switched to an IP communications system, how would we interface with the outside world?” asked Paskach. “We have several customers that we teleconference with on a regular basis, and I needed assurance that we could continue to communicate with them over a converged network that would give me the right quality-of-service [QoS] levels.”

Paskach contacted several vendors to get input on how to improve the company's communications—including adding videoconferencing to the system.

“We had been looking at IP telephony solutions and had talked to David Shepherdson about videoconferencing,” says Paskach. “What struck me about the Phenomenal group was their approach. They weren't trying to sell me something as much as they wanted to understand what our business was about and how we could reduce costs. That was the differentiator for me.”

The Phenomenal team investigated some of the business processes at Minnesota Rubber.

“We found that by changing the way things are done from a technical perspective, we could reduce the company's overall cost of doing business,” says Shepherdson. “Steve and his IT team are very technically savvy

“Videoconferencing was an area that we depended upon as a company for a number of years, but just hadn't spent the time to keep up on advancements in the technology,” says Paskach. “The Phenomenal team calculated a ROI (return on investment) of six months or so. In terms of the future direction of the company and what we could be doing in the next phase of operation, I could see some real additional value in IP communications. By going with IP communications, I could reduce costs and improve my users' experience. It was not a difficult decision to make.”

THOROUGH NETWORK ANALYSIS ASSURES QOS FOR DATA AND VIDEO

Phenomenal Networks suggested to Paskach and his team that the first step was to analyze the network. They set up protocol analyzers at the end of the month—typically the busiest period for Minnesota Rubber's network, and analyzed a week's worth of traffic.

“ANYTIME YOU IMPROVE COMMUNICATION WITHIN AN ORGANIZATION, YOU’VE REMOVED A SIGNIFICANT BARRIER TO SUCCESS.”

“We wanted to make sure we could get the latency required for video over IP,” Shepherdson explains. “It turns out Steve had gone with a carrier that has excellent latency and the data itself wouldn’t impact the video. We were confident that if Minnesota Rubber went this route, it would have the same quality of service it had with its ISDN lines.” Once the analysis was completed, the Phenomenal Network team put together the necessary equipment including the videoconferencing gateway from Cisco Systems,[®] the Cisco Multimedia Conference Manager and the Cisco IP/VC 3511 multipoint Control Unit (MCU).

The actual deployment took place over the course of just a few days. Minnesota Rubber was already using T1 lines to move data between plants so when video was added to the system, the network was still able to stream video data at rates of up to 348K per second without adversely affecting the data network. This provided a significant improvement over previous video transmission rates, which ranged from 128 to 256K per second. In addition, Minnesota Rubber originally had to pay for nine channels of video on ISDN lines in addition to connect charges; but thanks to the new network, this cost has been virtually eliminated while the video quality had improved greatly.

“Another real benefit from the user perspective is that there’s no difference in the network operation, thus no new knowledge of the equipment is necessary,” notes Shepherdson. “It’s more a function of how Cisco equipment interfaces with the videoconferencing gear.” Steve specifically requested that Cisco equipment be deployed because he wanted to keep training and disruption to a minimum for the users of the video equipment. “Because we have international sites, we made sure that the videoconferencing use is as seamless to users in France as it is to users in Minnesota,” says Paskach.

IP COMMUNICATIONS ENABLES MORE PRODUCTIVE VIDEOCONFERENCING

Paskach identifies improved user experience and the rapid ROI of the Cisco IP Communications system to be the two biggest benefits of the new data and video network.

“Prior to running video over IP telephony equipment, the cost issue was always there,” says Paskach. “Because using the ISDN lines was costly,” he says, “we were always trying to curtail meeting times. And with the video running at a lower throughput, the picture could sometimes be very poor. Running at 384K makes the videoconferencing experience terrific. You can actually look someone in the eye.”

As a result, Minnesota Rubber is using videoconferencing more frequently with more productive results. “Anytime you improve communication within an organization, you’ve removed a significant barrier to success,” says Paskach.

CISCO PARTNER BUILDS ‘PHENOMENAL’ INTERNATIONAL BUSINESS

Phenomenal Networks has built its business on improving processes and communications for organizations like Minnesota Rubber and other manufacturing entities with overseas locations, and has identified Cisco technology as central to its success in international markets. Shepherdson is finding that many companies are recognizing the value of a converged network, and companies that haven’t invested in capital equipment in some time are looking at Cisco IP Communications solutions.

“From a cost and coordination perspective, these companies need to be in communication with remote locations across the globe,” Shepherdson says. “We can run video over IP network from Minneapolis to Australia, because of the Cisco core backbone technology.” It’s important for us to work with Cisco and keep our Cisco partnership in good standing because its protocols are the standards in large, intercontinental organizations. With an end-to-end Cisco solution, we can make international solutions that are seamless.”



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