



Power Measurement Relies on IP Communications to Improve Global Connections, Reduce Costs

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Bradford Forth, President and CEO,
Power Measurement.

Background

Power Measurement is a leading provider of enterprise energy management systems. For nearly 20 years, the company's advanced energy-management products have helped businesses reduce energy costs and maximize uptime. It has more than 250 employees worldwide, representation in over 50 countries, and \$70 million in annual revenue (2001).

Located just north of Victoria, British Columbia on Vancouver Island's Saanich Peninsula, Power Measurement's state-of-the-art headquarters is situated amidst a blend of light industry and rural farmland. From this location, Power Measurement's team of high-tech professionals design, manufacture and market the company's line of ION® energy management software and intelligent metering and control devices for energy suppliers and consumers worldwide.

By offering a state-of-the-art and comfortable work environment the company continues to value and recognize its employees as its most valuable asset. In

fact, in October 2002, Maclean's Magazine named Power Measurement one of “Canada's Top 100 Employers.”

Challenge

In late 1999, Power Measurement's operations were expanding at a rapid pace. To accommodate its growth, the company needed to maximize space within its Victoria head office, forcing it to relocate over 100 employees within a year.

“Every time someone changed offices, the Information Services department had to undertake a series of time-consuming processes that would stall the work of the person who was moving,” recalls John Tarter, Manager of Information Services (IS) at Power Measurement. “From simple tasks such as finding additional telephone cables, and constant trips to the telephone room; to more complex jobs such as patching telephone lines over to the new location and activating the new local numbers, IS would spend about half a day for every new phone we installed.”

Power Measurement's remote offices were faced with an even worse scenario. As they had no local, in-house IS support, they had to call the local phone company to arrange any office moves or additions.

During that same time, Power Measurement was looking at finding ways of saving costs for its increasingly expensive long-distance telephone charges. With offices in the U.S., Europe and Asia/Pacific, plus a distributed global sales force, the company spent thousands of dollars every month on long distance calls.

“We spent a lot on things like setting up conference calls,” says Tarter. “We have at least five voice conferences per month with



our global sales staff. We incurred significant costs setting up conference calls with an outside company.”

On top of these challenges, Power Measurement was faced with the ongoing operational expansions, which created capacity problems for its traditional, or Private Branch Exchange (PBX), telephone system. “We soon realized it would be too expensive to expand our legacy PBX system. So this capacity problem, coupled with the long distance charges and the expense of ‘adds, moves and changes,’ made it clear that it was time to begin looking into other options,” says Tarter.

Solution

Internet Protocol (IP) telephony came to the rescue. The technology, which transmits speech traffic over a data network, delivered the flexibility, scalability, manageability and long-term savings that Power Measurement needed to support the expansion of its distributed global sales force. It also provided a foundation for improving employee productivity and enhancing customer service capabilities.

After reviewing the IP options on the market, Power Measurement chose the Cisco AVVID (Architecture for Voice, Video and Data) solution. It installed a Cisco AVVID network at its Victoria-based head office and at regional sales offices in Detroit and Nashville to provide voice and data services. The company then used a virtual private network (VPN) over its corporate wide area network (WAN) to ensure secure inter-office communications.

Power Measurement now has a total of 250 Cisco IP phones. In addition, it uses Cisco SoftPhone technology to enable its distributed global sales team to check voicemail, and place calls anywhere, anytime from their PCs. With more than 20 SoftPhones now in use, employees can effectively remain in contact with head office while on the road.

But it wasn’t just the sales force that benefited from the adoption of IP telephony, explains Tarter. “Technical Services, the group that supports our customers, is also using the converged Cisco network to their advantage. We have implemented queues for the different business groups within technical service, so the system automatically routes customers to the right place, saving time and resolving issues quicker.”

For the district sales managers and other remote Power Measurement staff with access to DSL or cable connections, Power Measurement can provide a Cisco IP phone for their home office. A VPN connection is established by a Cisco 3002 Hardware VPN Client, and the phone connects to the Call Manager, providing remote workers with the same physical phone and telephone services as the employees at head office

The regional and district sales managers also enjoy the benefits of the integrated fax services. All managers have direct fax numbers that deliver messages to their e-mail inboxes. When they phone in for voicemail messages, they are notified of any new faxes, and are given the option to re-direct the fax to a local fax machine or read it along with their e-mail. Order Management also uses the integrated fax services for processing Power Measurement’s customer purchase orders more quickly and efficiently along with their e-mail. Order Management also uses the integrated fax services for processing Power Measurement’s customer purchase orders more quickly and

efficiently.

Information Systems Help Desk uses the recorded message on the phone queue to announce major system changes or outages to people phoning into them. “They change the message on the queue, from their desks, on the fly, as situations arise. This lets people know what is happening in real time,” reports Tarter.

Results

“IP telephony is not only reducing costs, it’s strengthening our corporate culture by empowering all members of our global workforce to work more closely and efficiently as a team, regardless of time or distance,” says Bradford Forth, President and CEO at Power Measurement.

The IT staff conserves resources by only having to manage a single converged network, instead of separate, dedicated networks for voice and data.

Adding lines or changing extensions, which used to be time consuming and expensive, are now dramatically simplified. At head office, there is no longer a need to get the IS department involved when one person switches from one office to another. “Now people can simply pick up their phone and computer, plug them into the new location and they are up and running within minutes,” points out Tarter.

At the branch offices, the impact is even more significant. Power Measurement no longer has to rely on the phone supplier to make ‘adds, moves and changes’ to the system. “This amounts to savings of approximately \$5,000 per year. In addition, we avoid the delay for booking them in. Ultimately, our IP communications system is allowing us to save money and reduce extra hassles.”

Power Measurement is also benefiting from the convenience of Unified Messaging, which allows employees to manage e-mail, voice, and fax messages from their phone or e-mail inbox. “Users can access email and voicemail all through one interface. This has really boosted employee efficiency, especially when they’re on the road,” says Tarter.

Reduced long distance costs between offices has also been a key benefit. Since conference calls can be set up in-house, Power Measurement now saves an average of \$600 per conference call. “Now, on-the-fly calls can be set up and up to 20 people around the world can be easily connected.”

Finally, the system is proving to be extremely resilient. The company has arranged fail over services between regional offices and the head office. This safeguard means that if there is a problem with the Internet connection, calls are routed over the traditional Public Switched Telephone Network (PSTN).

Next Steps

With the network running smoothly, Tarter is looking to take advantages of new capabilities.

“We are looking to introduce further services to the Cisco IP phone’s browser screen in the next few months,” says Tarter, noting that demand for this type of service actually comes from the staff themselves.

Timely information such as production volumes, or corporate news and events can be pushed to every phone on the network using

XML-based applications. "Today we have tied our employee database to the directory service so staff can quickly find the number of any co-worker. We also tied into the telephone company's directory service for external phone numbers," add Tarter.

"The technology is excellent. Our Cisco AVVID infrastructure was originally an investment in 'a new phone system,' but it has actually provided the platform to improve communications between our staff and our customers," adds Tarter

"Our business is about driving the convergence of computer, communications and power technologies," points out Bradford Forth, President and CEO at Power Measurement. "We're putting this vision of technology leadership into practice by leveraging advanced network technologies to improve our communications capabilities."



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