

Hearing Voices: How One Manufacturer Protected Their IP PBX with the Xyportal VoxSafe Gateway

A Fictional Case Study
from
Case Mountain Communications, LLC

Summary

Is the prospect of having your IP telephony system compromised by hackers keeping you awake at night? That is exactly what happened to the IT director at one of the country's top office equipment manufacturers. Learn how he convinced his management that Xyportal's VoxSafe Gateway was the right choice to protect the company's voice and video system from intruders.

Challenge

When Ron Bouchard's managers decided it was time to replace the company's legacy PBX with one based on Internet Protocol (IP) telephony, he could scarcely keep from conjuring up images of a telephone system overwhelmed by armies of Trojans, worms, and bots. Wallington Manufacturing, a maker of high-end office equipment in upstate New York, relies on a ten-year old phone system to maintain 24/7 contact with customers, suppliers, and a worldwide sales and distribution channel. Concierge-style customer service is Wallington's hallmark, so even a momentary glitch in communications can adversely impact the bottom line.

"That old Meridian PBX was a workhorse, but our headcount is growing at almost five percent a year and we have long-term plans to integrate video into our system and extend PBX access to our distributors, so going to IP telephony was the logical step," says Bouchard, Wallington's IT director and chief of network security.

Protecting the new PBX from the list of usual network threats was essential, but so was extending the four-digit dialing capability beyond the firewall to branch offices and sales channel partners. Bouchard also wanted to integrate voice security into Wallington's centralized network monitoring system. "We concluded that we needed an extra layer of security beyond what came inside the PBX," adds Bouchard. "That way we could fortify the phones, extend dialing service outside the firewall, and integrate system monitoring into our overall network control framework."

Bouchard did his research and calculated that unscheduled PBX downtime would cost the company upwards to \$5,000 per hour with additional losses due to a negative impact on customer satisfaction. And creating a separate security monitoring system solely for the PBX would add \$350,000 per year to his capital and salary budget.

Convincing management to approve an unforeseen expense for additional security proved challenging. Ann Swanson, Wallington's CFO, was skeptical. "The PBX has security features built in and the vendor assured us that they were working to integrate their monitoring capability with several of the leading network management systems, including ours," says Swanson. "It wasn't clear we needed to incur a further expense. Besides, we already have firewalls and an intrusion prevention system with anti-virus capability and I figured it was a case of overkill."

Bouchard bought himself a three-week window in which to gather additional data and report his findings back to management. Next, he and his team developed an extensive requirements list and set out to see what the market had to offer. The team needed to quickly determine whether or not the solution they had in mind was available at an acceptable cost.

Evaluating the Options

After creating an A-list of security vendors with Voice-over IP capabilities, Bouchard's team launched a two-pronged course of action to gather the data they needed to present to management. The team began evaluating the available technology by conducting a series of meetings with vendors and industry analysts. They also researched the state of the technology using available whitepapers and published articles and even brought in their PBX supplier for further discussions. Secondly, the team revised their risk analysis to model the network's evolution five years into the future.

"It was 'all hands on deck' for three weeks," says Bouchard. "We had to really press some of the vendors to meet with us on short notice, but we were fortunate to get a close look at a cross-section of alternatives. Our biggest challenge was to determine if we could simply upgrade our current security software to handle the new voice and video applications, or if we needed specialized equipment."

One of the solutions Wallington reviewed was the VoxSafe product line from Xyportal Corporation. VoxSafe starts with a standard firewall and adds key security elements that specifically protect real-time applications such as video and Voice-over-IP. VoxSafe defends a business's voice and video infrastructure against threats such as call hijacking, directory harvesting, and eavesdropping.

Bouchard's team compared the technical feature sets of each solution against the set of requirements they had developed. "It turns out that an IP telephony system is open to many attacks specific to the application level, just like Web and email," observes Bouchard. "When we laid the solutions side by side, we found that the firewall, intrusion, and anti-virus products solved parts of the problem, but couldn't protect us from certain types of attacks."

One aspect of the VoxSafe product that especially pleased Bouchard's team is its capability to provide off-premises extension-dialing to business partners without the need to install special equipment or extend Virtual Private Network (VPN) access into Wallington's network. VoxSafe provides its own VPN end-point and handles Network Address Translation (NAT) traversal, which hides internal network addresses behind both the Wallington and remote firewalls. Additionally, it supports the Secure Real Time Protocol (SRTP), strong authentication and digital certificates for remote extensions over public networks.

The last major criterion the team defined was the solution's ability to merge the voice monitoring into Wallington's network control center. VoxSafe offers a flexible set of alternatives for control and monitoring:

- VoxSafe's own Web-based monitoring and control
- Media-specific alerts in SNMP and XML formats
- Pre-integrated with three major management frameworks
- A script-based API useful for integrating into proprietary or other management systems

"VoxSafe met all of our technical requirements and was head-and-shoulders above the other solutions in terms of features and its ability to protect the voice system," says Bouchard. "With that part done, our next step was to pull together the business justification and our five-year usage model along with Xyportal's roadmap for future products."

Results

Ron Bouchard proposed and received approval to purchase two VoxSafe 2400 Gateways. The management team learned of the security exposures that are unique to IP telephony systems and the cost of recovering from an intrusion, even if disruption could be minimized. They also agreed that when compared to the alternatives, Xyportal offered a cost-effective solution providing more safeguards than standard firewall and intrusion prevention systems.

"The risk to our phone system convinced the folks at the top, especially when we demonstrated how the appliances can be upgraded to keep pace with our plans going forward," explains Bouchard. "It took just a couple of weeks to integrate VoxSafe into our network and monitoring center. We already have four sales rep offices tied in to extension dialing and we are in the planning stages right now to test the video conferencing."

And what of CFO Ann Swanson's skepticism? She says with a wry smile, "It turned out that Xyportal could do what none of our current security vendors could, even with upgrades for VoIP. And mitigating the risk of having our voice and video compromised is certainly worth the investment. It was the right way to go."

About This Case Study

Many B2B customer case studies read like advertisements, with a brief summary of decision making process and a few quotes of praise from the customer to the vendor. But technology buyers know that vendor selection and purchase decisions are full of incomplete data, complex tradeoffs, and include participants in the process with differing opinions and perspectives.

A case study is one of the most important ways in which vendors can connect with prospective customers. By offering a “feature story” format that uses the customer’s own words to describe the process in detail, vendors can demonstrate how effectively they work with customers throughout the buying cycle and just how well they stack up against the competition.

About Case Mountain Communications

Case Mountain Communications helps companies identify and convey the strengths of their technology and vision through clear and concise writing.

We reach beyond the ordinary and create a point of view that speaks to the technical, business and market needs of each audience.

Visit us at www.casemountain.com

