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VOICE & DATA
NETWORKS

Banking on IT

Verteks Consulting helps Alarion Bank sustain its rapid growth.

Just because your business is small doesn't mean your IT needs are. Ocala, Fla.-based Alarion Bank needed a technology provider that could support its rapid growth in Alachua and Marion counties, and provide expertise specific to the financial services industry.

"When we first organized the bank in July 2004, we were using a technology company that didn't have the manpower to support our strategy," said Brett Higginbotham, Financial Reporting and Technology Officer, Alarion Bank. "I was familiar with Verteks Consulting and called them in for an interview. It turns out they support other banks serving multiple markets so we decided to give them a shot."

Verteks' technology expertise became apparent quickly. Verteks engineers reviewed Alarion Bank's voice and data network infrastructure and resolved numerous configuration problems.

"I felt that our fundamental architecture was not the best it could be, and they confirmed that. They came in and cleaned up a number of hardware and software configuration issues in a pretty short time frame," Higginbotham said. "They were also able to improve the quality and reliability of our voice over IP system, even though it's competitive of the brand they typically support."

From Desktop to Data Center

Today, Verteks Consulting provides outsourced IT support for Alarion Bank. Higginbotham spends about 30 percent to 35 percent of his time on IT functions, relying on Verteks when his other responsibilities take priority.

"I wear multiple hats and can't always get to things right away. Verteks has a help desk that our end-users can call to get problems resolved quickly," he said. "I also call Verteks to handle

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the more technical issues that are outside my skill set."

In addition to day-to-day support, Verteks provides Alarion Bank with comprehensive design and implementation services that have helped the bank sustain its growth strategy. Regulatory constraints within the banking industry don't always allow Alarion Bank the luxury of planning phased rollouts far in advance. When regulators give the green light for the bank to move into a new market it must act quickly.

"The regulators allowed us to open a lending production office in Alachua County then about two months later said we could open a full-fledged branch. Of course we wanted it open immediately," Higginbotham said. "Verteks did everything from the network cabling to deploying all the PCs and servers — they preconfigured some of the equipment off site so it was ready to plug it in and play. You think of a support company as just being technical but the physical things they do, like cabling, are pretty handy. It takes a lot off my shoulders.

"I don't have to give them a floor plan. I just give them a conceptual idea and off they go. They can pretty much design anything and do it efficiently."

On the Money

Verteks' depth of experience in the banking industry complements its broad knowledge of voice and data technology. Alarion Bank benefits from the expertise Verteks has gained working with other financial institutions.

"When you first open a bank, you're working to get security policies in place that support your technology infrastructure, and Verteks brings a lot of great ideas to the table," Higginbotham said. "One of the hot button issues with bank examiners right now is e-mail encryption. When we asked the Verteks engineers about it they said, 'We've deployed this particular product for other banks and it works great.' That's what sets Verteks apart."

Verteks has helped Alarion Bank maintain its security posture by implementing and managing firewalls and providing proactive desktop maintenance to reduce endpoint security threats. But more than anything, Higginbotham views Verteks Consulting as a true partner that always works in the best interests of the bank.

"If I had to rate them on what I like best about them, I'd have to say it's their responsiveness and their creativity," Higginbotham said. "If a permanent solution isn't immediately available they can always provide an alternative to keep the business model going. They're not just mechanics. They're always coming up with fresh ideas to help us serve our customers better."

With about 50 employees in three locations, Alarion Bank is considered a small business. But thanks to Verteks Consulting, it has the IT support it needs to think big.

When the Lights Go Out

Backup power keeps data centers running, but organizations should ensure they have the right UPS system for the job.

In April 2006, a heat wave caused electricity consumption in Texas to soar, prompting the Electric Reliability Council of Texas (ERCOT) to order rolling blackouts to curtail the load on the electric grid. ERCOT also asked Texas electric consumers to voluntarily curtail power usage by turning up their thermostats a few degrees and avoiding the use of any non-essential appliances or lighting during the critical peak hours of 3 p.m. to 7 p.m.

"The good news is that we kept the lights on region-wide, as our plan is designed to do," said ERCOT Chief Operations Officer Sam Jones. "The bad news is that some customers were inconvenienced."

Consumers might be inconvenienced by power problems, but data centers can be devastated by them. Every IT infrastructure relies on electricity for its continuous operation, and the absence of clean, reliable power brings the potential for downtime and damage to sensitive equipment.

Amid growing concern over the reliability of the U.S. electric grid, organizations are increasing their investments in uninterruptible power supply (UPS) systems to ensure network uptime as well as protect against power-related damage. According to research firm Frost & Sullivan, the world UPS market earned revenues of $5.76 billion in 2005, translating to 7 percent growth year over year. The market is estimated to reach $8.55 billion in 2012.

Growing Demand

Regulatory compliance also helped drive demand for backup power solutions between 2004 and 2005. A growing number of regulations require that organizations ensure the integrity and availability of their data. Although these regulations may not specifically require backup power, UPS systems help prevent breaks in the "chain of integrity" caused by power problems.

Demand for backup power is not expected to halt in the following years either, as the growing adoption of next-generation technologies — particularly blade servers — puts a strain on the power infrastructure and the overall data center environment. In a blade server environment, power consumption often exceeds 3,000 watts per server rack, creating thermal hot spots in the data center that require new approaches to cooling. Industry research firm IDC anticipates that blade server shipments will grow at a compound annual rate of 54 percent per year from 2005 to 2009.

An inadequate power infrastructure often leads to network problems that are difficult to pin down. Power problems can manifest themselves in many different ways, from subtle computer lockups to burnt hardware components and, ultimately, to damaged data integrity.

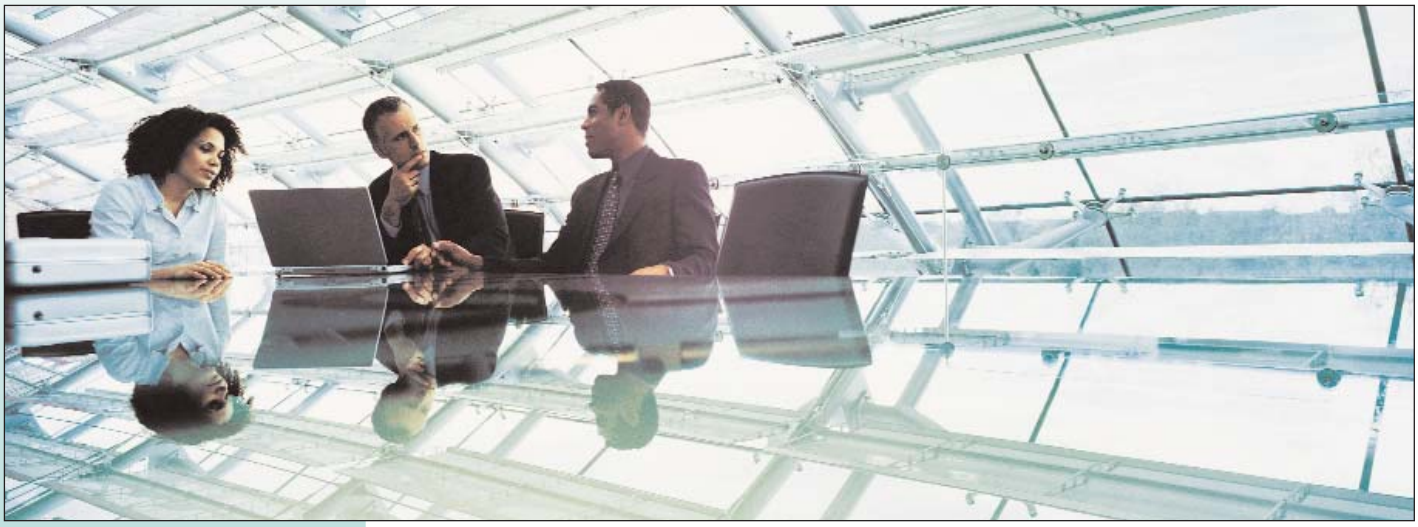
"The number one reason for investing in UPS systems is to protect digital equipment and processes against the damages from power abnormalities. In fact, an end-user survey conducted by Frost & Sullivan identifies protection against power outage to be the second-biggest concern for most medium-sized organizations," says Farah Saeed of Frost & Sullivan's Energy & Power Systems group.

Misunderstood Technology

However, organizations often take UPS systems for granted and are unaware of the risks associated with sudden battery failure or non-availability. In some cases, a UPS is considered a generic product that requires little consideration of specific features. The purchase is often entirely based on price and not on advanced features such battery management, automatic shutdown, scalability, etc.

"The Frost & Sullivan end-user survey reveals that many businesses are underestimating their power requirements and therefore under-deploy UPS systems. Similarly, many end-users still deploy the inexpensive standby UPS systems despite their shortcomings," Saeed said.

Clearly, organizations should take steps to ensure that their IT equipment is adequately protected by backup power. Without a properly scaled and reliable UPS system, a Texas heat wave could cause a data center meltdown.



Remote Access Made Easy

Simplicity is a key benefit of SSL VPNs.

With SSL VPNs, the remote user's interface is a standard Web browser. There's no learning curve because almost all users are familiar with browsers, and the IT department doesn't have to install and maintain any client software.

You can't blame IT managers for wanting to lock down access to the network, given the endless barrage of increasingly sophisticated security threats they must attempt to thwart. However, mobile users are demanding easy access to the network from anywhere — a dilemma that's spurring the dramatic growth of the SSL VPN market.

Virtual private networks (VPNs) based upon Secure Sockets Layer (SSL) technology make secure remote access easier for both end-users and network administrators. They combine SSL — the encryption and authentication technology built into every Web browser — with access control, security policy enforcement and other tools to create secure connections to the corporate network via the public Internet.

Although they are more limited than other remote access solutions, SSL VPNs come with fewer headaches. They make it feasible for organizations to say "yes" to road warriors' remote access demands without increasing security risks or IT support woes.

Out of the Tunnel

Traditionally, companies have provided secure remote access through VPNs based upon the IP Security (IPsec) suite of protocols. IPsec VPNs establish secure "tunnels" for private communications over the public Internet, providing end-users with highly secure access to network resources as if they were physically connected to the corporate LAN.

However, IPSec VPNs require that client software be installed on the end-user's

machine — software that is notoriously difficult for the IT department to manage and the end-user to operate. In addition, IPsec VPNs often require special firewall configuration to allow public IP addresses through the firewall.

With SSL VPNs, the remote user's interface is a standard Web browser. There's no learning curve because almost all users are familiar with browsers, and the IT department doesn't have to install and maintain any client software. What's more, the end-user can access the network from any Internet-connected device, including public kiosks.

Dealing with Drawbacks

That fact points to one of the drawbacks of SSL VPNs. A public machine used to access the corporate network could harbor usernames, passwords and downloaded data long after the session has ended. The caching function of the Web browser might allow the next kiosk user to read a sensitive e-mail simply by hitting the "back" button. Forgetful users might neglect to log off, leaving an open connection to the network for the next person to come along.

SSL VPN vendors have developed techniques to eliminate these concerns — from cache "scrubbers" to automatic session timeouts — but they vary in their thoroughness. For example, not all SSL VPNs handle the caches stored by the newest search tools, such as Google Desktop Search.

Untrusted remote machines can also be the source of viruses and other malicious code. Some SSL VPNs include policy-based mechanisms to check the remote machine for up-to-date antivirus software and security patches. A public kiosk-based system might be denied access to an application because it lacks proper security measures.

Know Your Limits

SSL VPNs don't allow the deep network access enabled by IPSec VPNs — many products only support browser-friendly applications. However, this curse can be a blessing because it enables IT managers to limit the resources an end-user can access via an SSL VPN. And many organizations have found that mobile users only need access to e-mail and a few other Web-based applications.

SSL VPNs allow IT departments to provide that level of access to road warriors without the hassle of assigning and maintaining laptops. They also make it simpler to set up secure connections with business partners, suppliers and customers because there is no need to add gear to their networks.

SSL is not expected to eliminate IPsec anytime soon. Both are effective, standards-based technologies, each with its own strengths and weaknesses. An organization's choice depends upon who will be using the VPN and what they need to access.

IP Telephony Goes Mainstream

Research shows steady uptake of the technology.

While IP telephony is still in the early phase of adoption, it's starting to go mainstream, according to a new study by Infonetics Research. The number of small, midsize and large organizations that plan to deploy or at least evaluate the technology is rising steadily. At the same time, awareness of available products and services is increasing, and while awareness doesn't necessarily translate into deployments, it is one of the first obstacles any new technology must overcome.

"By our estimates, almost half of small and two-thirds of large organizations in North America will be using VoIP products and services by 2010," said Matthias Machowinski, directing analyst at Infonetics Research.

Other research supports this view. Migrating to IP telephony is a critical priority in 2006 for 17 percent of enterprises and for 10 percent of small to midsize businesses (SMBs), according to Forrester. Three times as many enterprises are trialing or evaluating IP telephony in 2006 compared with 2005. Fourteen percent of enterprises have fully deployed IP-PBXs with another 32 percent rolling out or in partial development.

SMB adoption is progressing with 15 percent already using IP telephony as a replacement for traditional PBX and another 35 percent reporting interest. Adoption of IP telephony for interoffice voice communications is taking hold, with midsize companies leading adoption at 25 percent, followed by enterprises at 16 percent.

Cost Savings and More

Cost savings remains a key driver in IP telephony implementations, particularly among SMBs. With 45 percent of SMB telecom budgets consumed by landline services, many firms are looking to IP telephony to reduce those costs as well as long-distance toll charges. As a result, Infonetics expects IP telephony adoption to triple by 2010 among small organizations in North America.

However, organizations are not ignoring the other benefits of IP telephony, including ease of administration and productivity-enhancing features. Infonetics found that many organizations are deploying IP telephony to create an integrated phone system across multiple locations. Scalability, operational cost savings and converging voice and data networks were other important considerations.

Gaining control over wireless environments is also a high priority for North American firms, according to Forrester. Enterprises and SMBs ranked setting wireless policy and centralizing management of mobile devices as their top

two telecom initiatives for 2006. Budgets reflect these priorities: In 2006, SMBs plan to spend close to one-third more on both mobile voice and mobile data services than in 2005. Fifty-six percent of enterprises expect spending on mobile voice to increase.

Infonetics expects the percentage of users accessing IP telephony over wireless LANs to grow from 5 percent in 2006 to 20 percent in 2008.

The Time Is Now

IP telephony adoption is already widespread. Thirty-six percent of large, 23 percent of midsize and 14 percent of small North American organizations interviewed by Infonetics were already using IP telephony products and services in 2005.

A number of companies that are moving voice network investments aggressively from legacy PBXs to IP telephony are actually decommissioning their legacy systems, the ultimate show of confidence that IP telephony has become enterprise-grade. In the past, more firms had moved cautiously toward IP telephony, opting for hybrid solutions or limited deployments.

In the three years that Infonetics has conducted IP telephony adoption surveys as part of its larger study of voice over IP (VoIP) usage, one trend has become clear: IP telephony will soon replace traditional voice systems in organizations of all sizes.

"Our forecasts show a continued steady uptake of VoIP over the next few years, with adoption following a relatively straight line, not the S-shaped curve typically seen in the adoption of emerging technologies," Machowinski said. "That's because VoIP uptake is largely tied to an organization needing a new phone system, and when companies buy a new phone system, they generally invest in the latest technology, which happens to be VoIP-based now."

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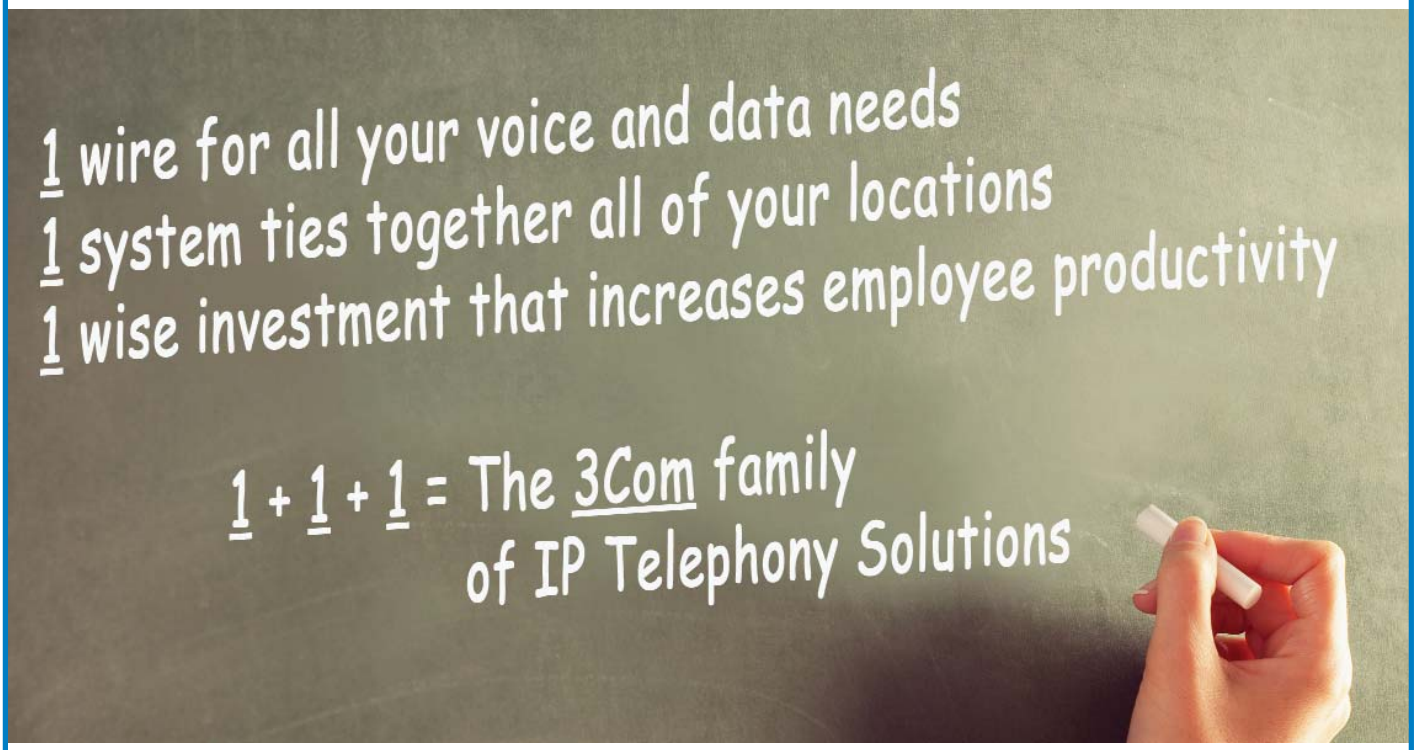

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