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Branch on Wheels

BY DAVID BAUM

People's Federal Credit Union finds an innovative way to get closer to its members by creating a mobile branch.

IN THE HIGHLY commoditized financial-services industry, an organization's astute use of technology can create a competitive edge. Despite a high threshold of automation, true innovation is still possible—sometimes in unexpected places. Take, for example, the case of People's Federal Credit Union (PFCU), a small business with a large amount of innovative spirit.

Based in Nitro, West Virginia, PFCU is using mobile Internet Protocol (IP) Communications across a satellite network to turn a recreational vehicle into a full-service branch on wheels.

"Credit unions are sometimes seen as the underdogs of the banking community, and yet we are using technology in an entirely new way to demonstrate how to better serve customers," declares Jeff Snider,

JEFF SNIDER, VICE PRESIDENT OF INFORMATION TECHNOLOGY AND MARKETING, PEOPLE'S FEDERAL CREDIT UNION

PHOTOGRAPHS BY
ROGER MASTROIANNI

PFCU's vice president of IT and marketing.

The goal was to find a better way to reach customers in remote areas and small communities in the mountains surrounding PFCU's headquarters. Snider envisioned a mobile branch office. "In the mountains of West Virginia, it is not always easy to find a spot where you can build a regular branch," he says. "Now, with our mobile facility, we can deliver a full range of banking services to members everywhere."

Founded in 1965, PFCU is a not-for-profit financial cooperative with 26 employees serving more than 11,000 members. With $56 million in assets, it offers a variety of consumer and business banking services, from checking accounts to business loans.

CREATING A MOBILE VISION

A couple of decisive business factors fueled the mobile-banking initiative. The first was obvious: convenience. PFCU wanted to make the credit union's services available to people who need them. Second, the credit union recently converted its business to a community charter, which means it no longer relies on select employee groups for membership. Under this new charter, anybody who lives, works, worships, or attends school in West Virginia's Kanawha, Putnam, or Mason counties can join the credit union. This change alone dramatically boosted PFCU's sphere of operation.

"These counties are fairly vast and our potential customer base has expanded quickly," says Snider. "Some of the companies we serve have large payrolls. We thought it would be nice to be able to drive out to a business on payday, for instance, so the members could transact business in the parking lot, rather than forcing them to come all the way to a regular branch."

To bring the concept of the mobile branch to reality, PFCU turned to Advanced Technical Solutions (ATS) of Scott Depot, West Virginia, a Cisco Premier Certified Partner and SMB Select Partner with a long history of serving small businesses. ATS has experience in helping companies combine their voice and data communications on a single IP network. PFCU had previously worked with ATS during a network expansion project.

"ATS had a vision for pulling it all together," Snider says. "They had not only the expertise, but also the willingness to push technology into new areas. We told them we wanted a complete communications solution for the mobile branch that could support voice, video, and data from any location. They figured out how to make it a reality."

IDENTIFYING A NEW SOLUTION

In early 2005, Snider and Chaz Ervin, an IT professional at PFCU, met with ATS to explain their vision for the mobile branch.

"After my initial consultation with the credit union, I told them they were completely on the edge of what you can do with IP Communications," recalls Brian Sims, ATS's vice president of Network Operations. "The mobile facility had to be every bit as functional as a bricks-and-mortar

THE MOBILE BRANCH REQUIRED CREATIVE TECHNOLOGY SOLUTIONS, INCLUDING SATELLITE COMMUNICATIONS.

THE MOBILE UNIT'S NETWORK SPEED, SECURITY, AND RELIABILITY ARE COMPARABLE TO PFCU'S BRICKS-AND-MORTAR BRANCHES.

branch, and it had to support voice, video, and data applications in a completely secure fashion. Quite frankly, we initially had no idea how to make that happen, or even if it was possible."

In the end, what made it all possible was the power and flexibility of IP Communications. The challenge came with envisioning how the technology could be applied to this specific set of business goals. PFCU purchased an existing recreational vehicle that had been equipped with an automated teller machine (ATM) for conducting basic banking transactions. The vehicle's existing communications equipment was based around cellular technology, which was too unreliable in the region's mountainous terrain, so Sims and his team worked with Virginia-based Carolina Satellite Networks to completely redesign the vehicle and equip it for satellite communications:

- They mounted a satellite dish on the vehicle's roof that is automatically tuned and positioned using global positioning satellite (GPS) technology.
- Inside, they installed a local-area network (LAN) with four PCs, four Cisco IP phones, plus assorted printers, fax machines, and other essential office equipment.
- They deployed a Cisco Catalyst Express switch and a Cisco Integrated Services Router to manage the LAN's communications and connect securely with headquarters.

"WITH OUR MOBILE FACILITY, WE CAN DELIVER A FULL RANGE OF BANKING SERVICES TO MEMBERS EVERYWHERE."

— Jeff Snider, People's Federal Credit Union

"After passing through a modem, the satellite signal is handed off to the Cisco router," Ervin says. "From there, it behaves just like any Ethernet network. Cisco has pulled together all the necessary technologies to make something like this work."

Today, PFCU uses Cisco CallManager Express and Cisco Unity Express to process calls and voice mail for the IP phones. As part of the Cisco Business Communications Solution, these products deliver affordable, converged data and voice services to credit-union employees working in the mobile branch (read "Smart Communications for Small

Businesses" on page 58). Thanks to integrated voice and data services, these employees can now make phone calls and log in to the corporate intranet just as if they were working at headquarters. The mobile network provides connectivity to the credit union's financial systems and ATM network. It supports all phone traffic and carries live video feeds that can be monitored from PFCU headquarters.

"The remote network offers Internet access, supports Microsoft Outlook for e-mail, and delivers fast access to the back-end financial system for executing transactions on our mainframe systems," says Ervin. "Response time is virtually identical to that at the other branches. Tellers can perform all the usual banking transactions such as crediting and debiting accounts, transferring funds, cashing checks, and so forth. And they are constantly in touch with their colleagues throughout the organization."

ENSURING SECURITY AND PERFORMANCE

Security is always a major concern in the financial-services industry, even more so when you are sending sensitive financial data over a mobile network. To secure these mobile communications facilities, ATS installed Cisco PIX firewalls at PFCU's corporate office, in the mobile branch, and within the network operations center. According to Sims, these devices enable secure end-to-end connections over the satellite uplink via a virtual private network (VPN). Additional security comes from isolation and encryption of the satellite signal.

"RESPONSE TIME [IN THE MOBILE BRANCH] IS NEARLY IDENTICAL TO THAT AT THE OTHER BRANCHES."

— Chaz Ervin, People's Federal Credit Union

To allow dialing from within the vehicle using simple telephone extension numbers, ATS extended the credit union's telephone dial plan through the firewalls, in conjunction with another Cisco router at the main facility, to act as a voice gateway.

Another big technical challenge concerned the performance of the network. The credit union requires communications that are free from delays, jitter, or other performance issues, especially for accurate video surveillance and high-quality telephone calls.

BRANDY ROGERS ASSISTS A PFCU MEMBER WITH A TRANSACTION.

"All of the communications have to be real-time," says Sims. "That's the big challenge. Phone calls, video transmissions, and financial transactions depend on bandwidth-intensive applications that stretch network capabilities and resources, yet they are essential for conducting business."

The Quality of Service (QoS) standards built into the Cisco networking equipment to manage delay, bandwidth, and other quality parameters significantly improve line quality and overall performance.

"On a corporate network, QoS is the secret to a successful end-to-end business solution," Sims says. "The network equipment we selected uses QoS techniques to ensure excellent voice, data, and image quality for the phones, video cameras, and computers."

Ervin is impressed with the QoS on the IP phones. "There is no delay and no reverb—the voice quality is crisp and clean," he says.

ADDRESSING CHALLENGES

The biggest challenges the development team encountered involved establishing fast, reliable communications services over the satellite uplink, according to Sims. "It took some ingenuity to establish quality of service using satellite transmissions," he admits. "We had to get creative with some of our ports and how we set up individual phone lines, as well as how we tied into the phone system at the main office. To my knowledge, we are the first company to create a system of this type."

Snider concurs. "We were pretty far along with the project before it occurred to me that no one had ever put together a mobile communications solution in quite this way. We were very happy with the services ATS and Carolina Satellite Networks provided."

BUILDING ON THE NETWORK FOUNDATION

The mobile branch went from concept to completion in approximately five months. Now that it is fully operational, Snider and his team continue to come up with ideas for how to use it. In addition to serving members in out-of-the-way locations, they can drive it to fairs and festivals to supply ATM services.

They also plan to use it as a teaching facility in conjunction with the National Endowment for Financial Education (NEFE), which offers classes in financial responsibility for K–12 students. "We are talking with two different high schools about bringing the mobile branch to campus once or twice a month," Snider says. "We will give students guest privileges so they can conduct routine bank transactions and gain hands-on experience with financial matters."

The mobile branch also makes an ideal backup site in case anything happens to the main data center. "We have contracted with our service provider to be fully operational and serving members from the mobile branch within four

INDUSTRY APPLICATIONS OF MOBILE TELEPHONY

Organizations in a variety of industries can use mobile-communications facilities such as the one created by People's Federal Credit Union to address many different business challenges, from disaster recovery to command-and-control.

For example, Cisco partner Advanced Technical Solutions (ATS) recently completed a similar project to create a mobile command center in the Public Safety Communications Unit at the Office of Homeland Security in Prince George's County, Maryland. In addition to satellite technology for core communications, the county's mobile network includes wireless communications to support roving personnel deployed near the vehicle.

"In the event of an emergency, if the county loses its 911 call center, it can rely on the mobile command center to reroute calls via satellite to another facility," explains Brian Sims, vice president of Network Operations at ATS.

Sims says the return on this type of investment does not always become immediately obvious until the mobile unit is required. "During a disaster such as we have seen with 2005's hurricanes in the Southeast, you can quickly lose the vital infrastructure on which you depend," he adds. "You hope this never happens, but if it does, the value of what you have created is immediately obvious."

ATS is in discussion with companies in other industries as well. For example, in West Virginia, the coal-services industry has mining operations in rural areas that don't have voice or data communications facilities. Some of these firms have expressed interest in a mobile facility.

Transportation companies are another likely user of satellite-based IP technology. "We were approached by a railroad operator that needs a way to transmit data about track condition back to its main office," Sims says. "The possibilities are endless with IP Communications over a satellite connection. Just about any type of business that has remote operations can benefit."—D.B.

"THIS TYPE OF MOBILE COMMUNICATIONS FACILITY HAS MANY POTENTIAL USES—NOT JUST IN FINANCIAL SERVICES, BUT IN OTHER INDUSTRIES AS WELL." — Jeff Snider, People's Federal Credit Union

hours of a disaster," Snider adds. "After the devastation wrought by Hurricanes Katrina and Wilma, more people see the need for this type of emergency backup facility."

Eventually, PFCU would like to extend its IP Communications deployment throughout the organization. Consolidating data, voice, and video communications into an integrated solution will provide an infrastructure for growth while reducing the number of devices the credit union needs to purchase, manage, and maintain.

ATTRACTING ATTENTION

As the mobile branch gains momentum, other businesses are starting to take notice. "I have had calls from people in three states who want to know more about how they can do something similar," Snider says. "This type of mobile communications facility has many potential uses—not just in financial services, but in other industries as well."

Sims foresees a viable return on investment from the mobile office simply from being able to test new markets. For example, a bank could use it to gauge customer interest in a particular location, or station it at the construction site where a new branch is being built.

"Especially in the financial-services industry, a company needs a certain threshold of deposits before reaching a break-even point," he explains. "Wouldn't it be great to be able to start building up pedestrian traffic and market share before you even opened your doors?"

In the meantime, the mobile branch is paying dividends where it matters most: satisfying customers. "Customer satisfaction and retention are hard to measure, but being able to offer on-site services is one of the things that makes our company unique," Snider concludes. "In many situations, we're demonstrating how the effective use of new technology can lead to happier customers." iQ

FREELANCE WRITER DAVID BAUM HAS COVERED THE COMPUTER AND TELECOMMUNICATIONS INDUSTRIES FOR MORE THAN 20 YEARS.

NEXT STEPS

Learn more about the Cisco Business Communications Solution at **cisco.com/go/iq-businesscommunications.**

Go to **cisco.com/go/iq-smbselect** to learn more about Cisco certified resellers that specialize in the needs of smaller organizations.

FROM CISCO

SMART COMMUNICATIONS FOR SMALL BUSINESSES

SMBs are simplifying their communications infrastructures by deploying the Cisco Business Communications Solution, products designed explicitly for small and medium-sized businesses (SMBs). This integrated solution combines IP Communications, switching, security, wireless, and routing products, and offers service, support, and financing options that can together create an ideal communications solution.

For organizations with fewer than 250 employees, the Cisco Business Communications Solution uses a Cisco Catalyst Express 500 Series switch in conjunction with the Cisco CallManager Express Solution. This product bundle provides software-based call processing, voice mail, and auto-attendant features as part of a Cisco Integrated Services Router.

Organizations with more than 250 employees can purchase additional elements to build in messaging, contact-center operations, collaboration tools, and system management to unify communications and business processes.

Both solutions offer managed IP voice and data services along with Web-based configuration tools. They also include special technical-support programs such as Cisco SMB Support Assistant. Designed for organizations with fewer than 250 employees, this program features a support Web portal, technical support, and next-day equipment replacement options. Larger organizations can take advantage of Cisco SMARTnet support, which includes 24-hour phone support, multiple equipment-replacement options, and Cisco Lifecycle Services to help managers prepare, plan, design, implement, operate, and optimize their IP Communications solutions.

SMBs need holistic solutions that simplify network management, allowing them to focus on running their business. Having a tailored family of products, along with the necessary support and financing options, helps these businesses control costs, improve operations, and build a platform for sustainable growth.—D.B.