

Rural Calling Challenges

Rural Cellular Communications delivers **cutting edge wireless service** to Alabama's countryside, while maintaining relationships with some of the nation's largest carriers.

By Russell Richey • Photo by Dennis Keim



Unicel South Territory Sales Director Jill Riley believes Rural Cellular's improvements with site-specific, back-up generators will help customers retain service during some of the area's hurricanes and tornados.

IF YOU WANTED TO CREATE AN ELITE

team of wireless industry experts, a "special forces" unit assembled to deftly navigate the violent turns and twists of the information-technology revolution's frenetic rollercoaster ride, you might start by tapping the pool of professional talent that works to provide wireless voice and data services to rural America.

From big-picture strategic planning to engineering, network management to marketing, the essential business functions of a rural cellular-communications company are administered by ultimate generalists who can draw upon diverse expertise and experience bases to continuously provide adaptive solutions for new market challenges and opportunities.

"We have some very well-rounded, intelligent individuals within the company that have worked on just about everything, because we operate just about everything," says Rural Cellular Communications Senior Network Operations Director Gary Williams.

RCC has been providing wireless services to selected Alabama markets since 2000 under the trade name Unicel, and is one of a handful of wireless service

providers creating high-speed conduits to the global information membrane for America's rural markets. These rural wireless carriers target populations that aren't, and may never be, directly served by the national wireless-service giants or by companies offering competing delivery-technology platforms, such as DSL and broadband cable.

"If you look at an individual who is on the road and who works across the state, for example, through wireless air cards, you now have data availability in places where DSL may never be," Williams explains.

Launched in 1990 to provide wireless communications service to rural Minnesota markets, Alexandria, Minnesota-based RCC went public in 1996, and has grown its far-flung footprint to include market territories in 15 states across the country, from Oregon to Maine, from North Dakota to south Alabama.

The company entered Alabama and Mississippi when they purchased a bundle of territories from Triton PCS, then expanded their Deep South presence again in 2004 through the acquisition of additional service-area licenses from AT&T Wireless.

Driven by Customers' Need

RCC's business is grounded in a pragmatic philosophy that drives the company's every move. "We are a technology company that provides technology for the betterment of our shareholders and our customers," Williams says. "We don't just role out the latest and greatest technology just for the sake of rolling it out. The reality of it is that the big carriers have much deeper pockets, and it's my own personal opinion that they deploy to simply deploy technology before there is actually a business case there."

Despite the prudent modesty of its competitive business strategies, Rural Cellular is committed to delivering cutting edge services to its customer base, and its recent infrastructure improvements in Alabama service areas demonstrate that the core technology backbones for supporting the latest data throughput speeds, the newest handset features and user applications are not only being appreciated in major markets and big cities.

Rural Cellular just completed a \$20 million capital investment to improve

coverage in its Alabama territories, an effort that allows UniceL customers, as well as roaming users, to fully benefit from the current generation of handset technologies and applications.

The company made a strategic decision to build a GSM-standard network, a 2.5G solution that complements roaming partner Cingular's transmission standard, while giving Alabama's UniceL customers access to the latest in data-transmission services.

"GSM essentially brings data

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technology to rural America," says UniceL South Territory Sales Director Jill Riley. "It gives consumers the ability to access data and receive data on a cell phone. GSM is what lets them download those ringtones and access the Internet and send those pictures. That's all possible with the GSM network. Our previous network, which was TDMA, could handle making a call or sending a text-message, but now everything is data, data, data."

Williams agrees, "We took a cutting-edge approach to deploying the amount of additional capacity, the additional cell sites that we put into Alabama. All of the sites that we have deployed in the state of Alabama are EDGE-capable. They are up and operating EDGE resources as we speak. It's very exciting. There are

new opportunities now that simply didn't exist in rural America because of higher throughput speeds and the technology that follows with them."

A Risk for Rural Providers

But even a seemingly obvious move to upgrade network, service and performance capabilities can be a double-edged sword for a rural wireless provider. While capital investment in cutting-edge network infrastructures makes the Cingulars and Verizons happier roaming partners, in the short-run

of the network transition and integration process, RCC and other rural wireless companies risk seeing their own customers, annoyed by the temporary lapses in coverage quality and reliability, abandon ship and balloon churn rates.

Rural Cellular has many other challenges, as well. The diversity of its customer segments is stretched at both ends, from the youth and young adults who are as tech-savvy as their major-market counterparts, to man-of-the-earth farmers who might still be using brick-sized handsets.

And it's not necessarily that rural markets are dense with late adapters,

but often because the old analog "bag phones" are sometimes the only handset solution with enough battery power to reach tower sites that serve tens of miles of rural expanse in every direction. This is a performance requirement not addressed by the latest mass-market, credit card-sized cell phones, which are designed to operate in highly populated areas where cell sites are engineered to provide coverage for city blocks, not wide-open land tracts in remote rural counties.

"There are still quite a few people out in rural America that are still running around with those three-watt bag phones, and they like them because they can use them 30 miles out in the woods, but the problem is that that technology is no longer there," Williams explains.

"If you are out in your duck-blind and

you want to be able to make a phone call, the RF capability of the handset is what we are talking about," Williams says. "It all boils back to it's a radio, and it's got to be able to get back to a cell site, so the unique challenge that rural carriers face is that we can power out from the cell site to the mobile, but the mobile phone needs to be able to get back to the cell site as well."

Another challenge RCC regularly faces is the rolling out of next-generation network infrastructure to meet the evolving expectations of their major roaming partners, which may mean deploying completely different technologies according to local market environment, while simultaneously maintaining older network technologies from which its own customers must slowly be weaned.

"It's very important in the rural carriers environment to match up with those roaming partners, as far as from a technology perspective," Williams says. "But we are running a TDMA legacy network, and we are still in the process of migrating customers from our legacy to our next generation, the GSM/GPRS EDGE. So in that sense, we are essentially running two networks with two layers of complexity and that means additional cost."

"You can't simply just shut off the technology because your customers are still using that TDMA handset and it's incompatible with GSM, so those transition periods have been a challenge so far."

Minimizing Storm Blackouts

Rural Cellular also has been beefing up its ability to weather the surge in frequency of hurricane events that have devastated the Gulf Coast states in recent years. Here, RCC's improvements have largely been in the deployment of site-specific, back-up generators and stockpiling of mobile generators to eliminate, or at least minimize, network downtime in the aftermath of the next Katrina.

The unpredictability and potential impact of weather events endemic to RCC's southern markets not only drives network planning, but shapes consumer demand for handset applications, as well. Here, the ability to view local weather

radar imaging and receive severe weather alerts is a valuable resource for customers in regions where killer storms can come out of nowhere. "We live in Mississippi and Alabama and both are either tornado-central or hurricane-central," Riley says. "So, being able to have that instant weather-alert access is huge."

While RCC's engineers and network planners always must bring their best thinking to solving the technology challenges of competing in rural Alabama and Mississippi markets, the company's marketers have equally diverse combinations of competitive factors to address. The market dynamics cannot only vary widely from state-to-state, but also can generate unique profiles within neighboring service areas that require micro-tailored marketing strategies and tactics.

"The [competitive environment] actually varies across our market," Riley explains. "You wouldn't think there would be a huge difference between Mississippi and Alabama, but there really is a huge difference, and even Dothan is different from Enterprise. You wouldn't think that 35 miles apart would be a big difference, but it is."

In Dothan, RCC shares the market with Verizon and T-Mobile, while in Enterprise the company butts heads with Southern Linc. In Mississippi, Rural Cellular competes with Cellular South, a situation where the non-compatibility of the two rivals' network-technology standards presents a special task for Unicef marketers out to steal the competition's business.

"Our major competitor in Mississippi is Cellular South, a CDMA carrier," Riley says. "Because Cellular South is a completely different technology than we are, it gives you a unique challenge in the markets where you are trying to woo competitor customers off of their network."

Keeping Up With the Giants

There are a myriad of hurdles rural wireless providers must continually leap to survive and prosper in an industry mad with exponential growth, continual technological innovation and highly volatile risk factors.

But Williams and Riley, each



Rural Cellular Communications Senior Network Operations Director Gary Williams stands in one of the company's switch rooms.

admitted career "lifers" in the rural cellular business, are both excited about the job RCC is doing to serve Alabama's rural markets and populations, and the long-term potential of their company's thoughtful approach to making new technologies relevant to customers and profitable to the bottom line.

When it comes to deploying cutting edge network infrastructure, Williams is proud of Rural Cellular's ability to keep pace with the giants in the wireless communications industry. "Rural America is getting the attention it deserves," he declares. "I have been in the rural markets my entire career in wireless communication, and our technology deployments happen as quick and as wholesale as those of a Cingular. It's done in a more strategic rollout, but the

small, wireless carriers throughout rural America build very solid and reliable networks."

For Riley, the rural wireless business, and the technologies driving it, fires the imagination. "The technology aspect of wireless – you come at it from two directions," she asserts. "You have the technology that goes into building our network and the technology side of sales, which is really limitless. It's never going to stop and it's only going to get bigger. And that's the fun of it for us because it's a never-ending world."

A regular contributor to Technology Alabama, Russell Richey is a marketing researcher and planner for EBSCO subsidiary Web Services, and can be reached at rrichey@ebSCO.com.