Business & Technology Advisory

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America's Electric Cooperatives

Strategic Sourcing Case Study:

Golden Spread Electric Cooperative's Member-Designed Information Technology Resource Program

The Sourcing Need

Keeping up with the rapidly growing dependency on computers and digital communications is a challenge for the distribution cooperative members of Golden Spread Electric Cooperative, a generation and transmission company (G&T) based in Amarillo, Texas (see cooperative profile at the end of this advisory). The smaller cooperatives in remote locations face challenges in attracting and retaining full-time information technology (IT) professionals. The IT staff at the co-ops are stretched thin trying to cover a range of tasks, and some have expressed feeling isolated from industry peers. Awareness of cybersecurity threats for all businesses adds urgency to the need to strengthen the group's IT capabilities.

The Sourcing Solution

Five years ago, Golden Spread launched its "IT Community" – a collaborative, member-driven approach to technology and service needs. The initiative evolved in a deliberative fashion, beginning with the G&T hosting an open forum where cooperatives discussed IT needs and issues on a regular basis. The forum broke down information sharing barriers and allowed for the development of trust and peer learning. It led to the introduction of optional services from the G&T that are available to the distribution members on an as-needed basis, including technical assistance in upgrading operating systems and group purchasing of software. Golden Spread's IT Community continues to grow, helping bring robust, secure, and affordable information technology services options to its members. The initiative not only strengthens the operations of the individual cooperatives, but the G&T as a whole.

Project Background

In 2009, Golden Spread received a $17 million smart grid grant from the U.S. Department of Energy, which the G&T matched with a $24 million investment. These funds proved integral in helping Golden Spread's distribution members find cost-effective means to upgrade the reliability of service in their rural territories, through investment in advanced metering infrastructure and the deployment of other communications and control technologies.

The $17 million DOE smart grid grant, together with ensuing investments by Golden Spread in advanced metering infrastructure and control hardware, brought into sharper focus Golden Spread's 'information technology gap.' Specifically, Golden Spread quickly became aware of the need for further (and significant) investment in information technology resources, including both software programs and personnel.

The challenge of an IT gap is shared by smaller cooperatives across the country. For Golden Spread's members, which as a group averages only four consumers per mile of line, this challenge is particularly daunting. IT is a high demand profession, and smaller cooperatives in remote regions of the Southwest are hard-pressed to match the salaries and amenities offered by companies in urban locations.

Contracting IT services from a third-party provider is an option. But, contracted services can also be expensive and a smaller cooperative with limited experience in IT can benefit from trusted counsel providing educational information to assist a distribution cooperative in making its choices in vendor and services.

In interviews for this case study, key themes emerged regarding the benefits of a G&T-wide IT solution:

- IT professionals, particularly at the smaller cooperatives, had few peer relationships within the G&T family prior to the launch of the IT Community.

- Until relationships developed within the community, there was no forum for IT professionals to discuss problems or ask for help.

- Even as smaller cooperatives added mobile computing and other digital technologies, there was a need for increased attention to security risks and operating constraints tied to the use of outdated operating system software.

- Larger cooperatives in Golden Spread saw advantages in participation through the sharing of successful practices and the potential for cost savings through group purchasing.

How Golden Spread Built Its IT Community

Peg Rupert became the Chief Strategy and Information Officer at Golden Spread in 2013, which was her first electric cooperative job in a utility industry career that began in 1992. One of the unique strengths she found in the cooperative model was the sharing of information, a practice she did not experience while working with investor-owned utilities. Tasked to establish a technology foundation for Golden Spread, she built upon the principle of 'cooperation among cooperatives' in launching the Golden Spread IT Community.

"The IT Community group was not designed to promote services from the G&T, but to serve as a forum for members," says Rupert. Meeting as a community, distribution member system staff with

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IT responsibilities discussed technology issues, and Golden Spread staff shared useful articles, common experiences, and reports on G&T activities.

Over time, the information exchange has grown indispensable. "At first, it was hard to get people to admit to problems they might be experiencing," says Erik Badillo, manager of information technology at Rita Blanca Electric Cooperative of Dalhart, Texas, a Golden Spread member with 1,674 members, 8,325 meters and 2.5 meters per mile of line. "In fact, it took a couple years before people began opening up more and really sharing."

Moving the IT Community from Skype and WebEx conference lines to in-person meetings was a significant and invaluable step. According to Badillo, the interaction and exchanges "became more relaxed, and friendships and accountability began to form." In other words, the move resulted in an alignment with cooperative principles – (1) a concern for community and (2) cooperation among cooperatives.

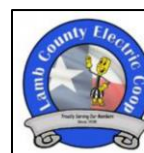At Golden Spread's strategic planning meeting in October 2016, discussion turned to opportunities for shared services. According to Rupert, the G&T asked its members if they were interested in identifying services Golden Spread could provide. The result was a program to help members who needed upgrades of network software to bring them up-to-date in security and functionality. Golden Spread's IT initiative has allowed its member-cooperatives to access IT resources which would otherwise be challenging, if not impossible, to find or financially prohibitive.

Business Drivers Behind Golden Spread's Initiative

1. Rapid pace of change in the role of technology.

2. Workforce issues, which include a shortage of IT staff and staff capabilities.

3. Outdated networks and software systems.

4. Increasing threat relating to cybersecurity.

Golden Spread's Initiative in Cloud Migration and Cybersecurity

Lamb County Electric Cooperative (LCEC) of Littlefield, Texas, a Golden Spread member system with 2,400 members and 13,000 meters, most of those on irrigation pumps, faces some very specific IT challenges. Nigel Purdon, LCEC's IT superintendent, has seen "a huge evolution in the use of technology" since he was hired in 2009. The cooperative recently worked collaboratively with Golden Spread in migrating from Microsoft Exchange 2010 to Office 365, which moved the cooperative's server to the cloud and significantly improved mobile communications and disaster response.

Peg Rupert says that "for the co-ops [like LCEC] that have IT staff, we serve more as a coach. For a member without an IT person, we can be more hands-on."

The latter was the case with Coleman County Electric Cooperative (CCEC). CCEC does not have any electrical engineering, IT, or member services staff. According to its General Manager Clint Gardner, the network software was "so old, it wasn't even being serviced anymore." Golden Spread partnered and worked with CCEC to install Office 365Thanks to the cooperative business model of providing service at cost, CCEC's costs of service provided by the G&T were significantly lower than the average cost of hiring personnel or paying a vendor – and, unlike vendors generally, Golden Spread had a vested interest in the long-term success of a member-owner like CCEC.

According to Golden Spread, helping some of the smaller members transition to Office 365 was the starting point of the shared services evolving out of the IT Community. A cybersecurity pilot is the newest initiative. "When the Community meets, the number one topic that keeps them up at night is cybersecurity," notes Golden Spread's Rupert.

The grid is more interconnected today than ever, and this has brought inherent cyber vulnerabilities. There are frequent news reports about malicious actors that are continually probing electricity networks across the globe. Staying up-to-date with the ongoing cyber vulnerabilities and implementing solutions is a full-time job for which many distribution cooperatives should consider securing the resources to tackle. Golden Spread can be a resource with its distribution cooperative members for shared services in cybersecurity, in part, due to its experience and compliance with federal requirements.

Golden Spread's cybersecurity pilot offers a catalog of services, including cybersecurity training, security event monitoring, vulnerability and compliance assessments, security testing and consulting. Golden Spread's members understand the necessity of being "cyber-smart" and recognize that assistance in cybersecurity is needed both now and going forward. As CCEC's Gardner says, "We've got to protect our systems and we rely on Golden Spread to help us with that."

Metrics of Success

The metrics of success for Golden Spread and its distribution cooperatives include:

1. Improvements in software and systems installed and in use

2. Cost savings through group purchases or subscriptions

3. Peer-to-peer sharing through the community

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The benefits of Golden Spread's shared services platform are both tangible and non-tangible. Badillo of Rita Blanca notes that "on my side of the business, the value of Golden Spread has definitely grown as a result of the [IT] Community." The Office 365 upgrade for Rita Blanca was smooth and seamless, and would have been more expensive for the co-op without the G&T. According to Badillo, Rita Blanca would have had to hire consultants to get the job done. By purchasing the software through Golden Spread, the cooperative realized a 20 percent cost savings.

Less tangible in monetary terms, but equally valuable, is the peer-to-peer sharing that has resulted. Rita Blanca has become much more aware of the issues other co-ops are facing, and the access to this sharing community has given Rita Blanca information on things such as cyber attacks and other IT concerns and solutions. Golden Spread's IT Community has allowed its members to build a community of practitioners that they are able to rely on, outside of the G&T support.

Purdon at Lamb County agrees. "Golden Spread has helped us communicate better, to be more mindful of security risks." The IT Community has also fostered successful practices that can be shared through the network, so that valuable time and resources do not have to be used to reinvent the wheel. As the types of issues continue to evolve, the cooperatives through the IT community know they are not alone.

Surprises and Challenges

Two main insights gained through the cooperatives' efforts have been:

1. Change does not happen overnight.

2. Care must be taken to respect the independence and unique needs of each distribution member.

While Golden Spread's IT Community has proven to be invaluable, participation by Golden Spread's members took time. Erik Badillo of Rita Blanca notes that it took a couple of years for the members of the IT community to really open up about their respective issues. Part of that was likely a desire to maintain each cooperative's unique identity, independence and autonomy. This trend was also noted during NRECA's six RC3 cybersecurity summits last year; information sharing was listed as one of the top challenges for cooperatives.[1]

"We all do things a little differently – we're not all cut from the same mold," says Badillo. "Our territory, the nature of our load, and my thoughts on how to do some things are going to be different from the next co-op."

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[1] For more information about the RC3 Program, please visit: https://www.cooperative.com/programs-services/bts/rc3/Pages/default.aspx.

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Zac Perkins, CEO of Tri-County Electric Cooperative (TCEC) of Hooker, Oklahoma, and chairman of the G&T board services committee, is not surprised. He observes that the peer-to-peer information sharing that Golden Spread hosts is similar in structure to interest groups hosted by electric cooperative statewide organizations. "It is very slow going to get a level of trust built up," he says. But, he believes that it is logical for the G&T to offer to provide its members with new services. "We simply want to leverage the assets we already pay for." He adds that Peg Rupert and CEO Mark Schwirtz "take care to emphasize that if Golden Spread moves forward with [a new service], it is just providing another resource available to members and each local distribution cooperative continues to make its own independent business decisions."

Clint Gardner, general manager of Coleman County and a member of the Golden Spread board says "we don't want to get into someone's area if they don't want us in there. The G&T is very careful to not cross that line."

What's Next For Golden Spread's Shared Services

Mark Schwirtz, Golden Spread's CEO, believes that "in the future the sourcing of more resources may come from G&T. We have remote towns in west Texas that can't attract the technology professionals they need." But, with its headquarters in Amarillo, an urban area of 220,000, Golden Spread can generally offer more competitive employment opportunities. "Some of our rural young people, once they've gone away for an education, they may not go back to work on the farm. But, they would love to come back to the area. We've been fortunate to get high quality people to join our staff."

Schwirtz and TCEC's Perkins see potential shared services opportunities for Golden Spread in the areas of engineering and human resources, as well as ever expanding needs in IT.

"We're trying to be a proactive community in a business that has historically been reactive," says Perkins. "We need to constantly work to position ourselves to take advantage of the digital age to do everything we can to keep our system more robust and reliable for our members, to keep our rates down, and to integrate new resources. We're starting to use data to be proactive and predict problems, but not as quickly as I'd like."

To service the operations of the 23,000 member cooperative's large industrial base, TCEC employs an IT staff of seven. The cooperative has a relationship with a local college that offers a strong IT program that helps supply professional talent. "But, it may be difficult to hire for high level analytics in Hooker, Oklahoma," says Perkins. "Golden Spread offers a vehicle to do that. To be able to leverage that is vital to what our cooperative needs."

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Cooperative Profile

Golden Spread Electric Cooperative, Inc.
A Touchstone Energy® Cooperative

Golden Spread Electric Cooperative is a generation and transmission (G&T) cooperative headquartered in Amarillo, Texas, and owned by 16 distribution cooperatives (15 in Texas and one in Oklahoma). Together, these cooperatives serve more than 280,000 member-consumers in a territory that starts in the south in the Rio Grande River country, reaches up through West Texas and the Edwards Plateau, and across the panhandle of Oklahoma and into Kansas, Colorado, and New Mexico.

Golden Spread was organized in 1984 as a "paper" G&T – initially procuring generation and transmission services without building or owning assets. In 2011, Golden Spread bought full ownership of its first cooperative-owned generation with Mustang Station, a 464MW combined cycle resource. It has grown the portfolio to 1,669 MW of gas-fired generation, along with 284 MW of wind. Golden Spread enjoys the unique position of operating in two markets – both the Southwest Power Pool and the Electric Reliability Council of Texas. This provides the G&T the advantage of being able to switch its generation between the two regional transmission grids within one hour's notice.

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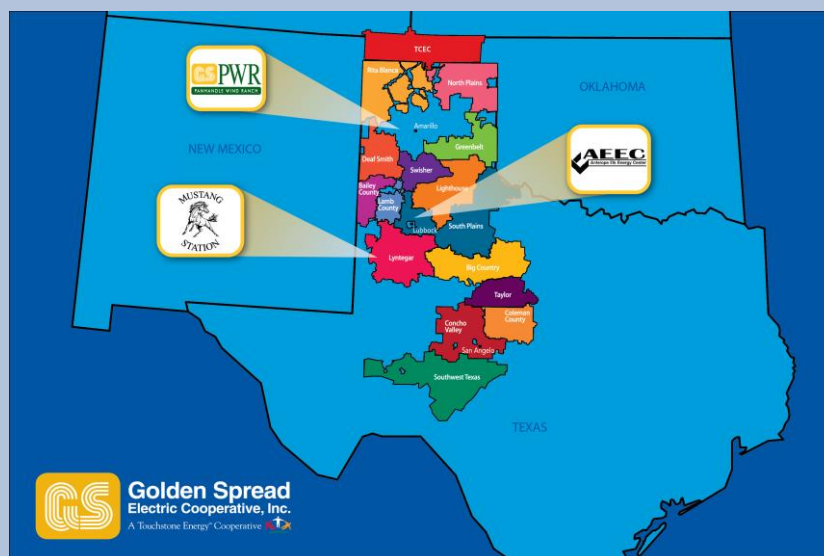
Before offering shared services, cooperatives are encouraged to work with local counsel regarding legal and tax considerations to providing non-electric services.

For additional information, contact:

Margaret (Peg) Rupert
Chief Strategy and Information Officer
Golden Spread Electric Cooperative
MRupert@gsec.coop
Ph: 806.349.5225

Paul Breakman
Sr. Director, Cooperative Systems
NRECA
Business and Technology Strategies
paul.breakman@nreca.coop
Ph: 703.907.5844

Lauren Khair
Regional Economic Analyst
Cooperative Systems
NRECA
Business and Technology Strategies
Lauren.khair@nreca.coop
Ph: 703.907.6845

About the Author

This case was researched and written by Bob Gibson of Gibson Energy Insights. Formerly with NRECA's Cooperative Research Network and the Smart Electric Power Alliance, Gibson has been writing about the intersection of emerging technologies and the electric utility industry for more than 20 years.

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