



MARS on earth to benefit utilities and their customers in times of crisis

U.S. utilities at their very best

ONE OF THE MOST IMPRESSIVE AND HEART-warming sights during the aftermath of Hurricane Katrina barreling into New Orleans and parts of Mississippi was seen moving north to south along Interstate 75 and other highways across Tennessee, Georgia, Mississippi and other states. Convoy after convoy of utility service trucks bearing logos such as AEP, Pepco, PECO, Delmarva, ConEdison and other North-eastern and Midwestern state utilities were lined up in the southbound lanes heading for the crisis areas. A northbound traveler would see 15, 20 or more trucks in a convoy, with a gap of perhaps a mile or two, and then another convoy all determined to lend aid.

Though motorists in those northbound lanes may not know much about the utility industry, they could see dramatic evidence that help was on the way to the hard-hit areas. This is not something entirely new. Utilities have had mutual-assistance pacts since the 1990s, mostly along the north-south East Coast axis subject to hurricanes. The trucks also have rolled north and south during ice storms and other disasters that overwhelm utilities' ability to get the

lights back on with existing crews.

What a driver on a northbound lane back in 2005, during Katrina, might not have known is that the crews of those vehicles all are volunteers who spend long hours in difficult conditions helping a sister utility get back on line. The utilities themselves provide the service at cost, paying the crews for supplies. There is no profit involved.

"The concept of mutual assistance for utilities is something that has been going on for years," says Al Osterling, general supervisor - project development, PEPCO, Washington, D.C. "A utility just can't have enough crews to respond to big emergencies. We all have service crews, construction crews and maintenance crews. During an event, all get reassigned to outage restoration. But when you have a hurricane and run out of crews and contractors, you have to borrow from other utilities on a revenue-neutral basis. We all reimburse each other the actual cost of the crew."

What utility customers in disaster-hit areas haven't had, until now, is a similar way to communicate with the hard-hit utility itself. Utilities have long had interactive voice response technology, which can be configured to take outage reports during a disaster-caused blackout. However, in situations



like Katrina, sometimes that isn't sufficient for an extended period. Customers were stuck, sometimes for a number of days, without the ability to talk to a live person at the utility. After an extended period of time, customers want to talk to a live person, not just a machine.

An electrical worker makes repairs after a hurricane.



"If there is a severe weather disaster, it may be impossible for a utility to staff the call center," says Jim Kennedy, CEO of Twenty First Century Communications, Columbus, Ohio. "It may be a level 3 emergency with roads closed. Utilities can't get employees in to work, or they may have family concerns and may not want to come in." Until now, there just wasn't any way around this problem.

Help is on the way

Osterling is a participant in several regional

utility cooperative organizations, including the Southeastern Electric Exchange (SEE). It was at an SEE meeting that he and Barbara (Barb) Powers, director of customer service, Tampa Electric, Tampa, Fla., got their heads together to discuss the issue of call center staffing during emergencies.

"We (the Southeastern Exchange) have yearly meetings where we get together and share information," Osterling says. "About three years ago, the state of Florida was hit by four hurricanes. We started talking about doing mutual assistance for the call center. We thought about flying some of our CSRs down to take calls during an emergency. But it really didn't make sense to do that because in disaster areas hotels may not be available and a lot of CSRs may not even want to go into areas where things aren't working. It didn't make a lot of sense to do that. Then we started discussions of 'virtual call center support' where, 'You get your calls to my center and I'll get my CSRs to answer your calls.'"

This approach presented a number of problems. There are security concerns, utilities can't open their information technology (IT) firewalls to just anyone. There also was the issue that different utilities are on different telephone carriers and different internal software platforms. Added to that, common carriers such as AT&T, Sprint, Verizon, etc., as Osterling puts it, "don't play very well with each other. If you're on the same platform, they will work with you. But they have problems when a call is transferred from a utility on one carrier to another utility with a different carrier. It mainly revolves around compatibility of systems and billing methods."

With those issues to deal with, the utilities began looking at options and that is where Twenty First Century Communications came in. Twenty First Century has the largest call answering platform in the industry serving some 80 utilities. "We all have 800 numbers pointing to them," Osterling notes. "They have firewalls and programming into our backend systems. We thought it would be a good idea for Twenty First Century to leverage their technology to implement a virtual call center."

"There were a couple of major challenges," Twenty First Century's Kennedy says. "If I'm a utility and have an AT&T call center, I can't take a call from a utility using a different carrier. Fortunately, Twenty First Century has the ability to translate a call. We can take an AT&T call and make it a Sprint call by running it through our IVR switches. If you ask AT&T to forward calls to a Sprint customer, they

can't figure out how to charge for it, among other problems.

"Another challenge is custom database access," Kennedy continues. "Some utilities use SAP, some use Oracle, and some use other internal systems. Accessing another company's database presents challenges. We're fortunate that we provide services to 80 utilities and in more than half of those, we connect directly to their databases. So we can actually access a utility's customer database, just like their own CSRs would, and we do that on a daily basis."

Access to databases is essential for a "virtual call center" concept because CSRs taking calls have to be able to access an individual customer's records to provide meaningful answers to questions, especially during an emergency. Another challenge is that if multiple utilities are going to support each other, they don't want to have to train a responding utility's CSRs to handle all of the different customer information screens they would see at every other utility.

At Pepco and Tampa Electric's request, Twenty First Century began looking into the issues. The solution resulting from Twenty First Century's collaboration with the two utilities was the Mutual Assistance Routing System or "MARS."

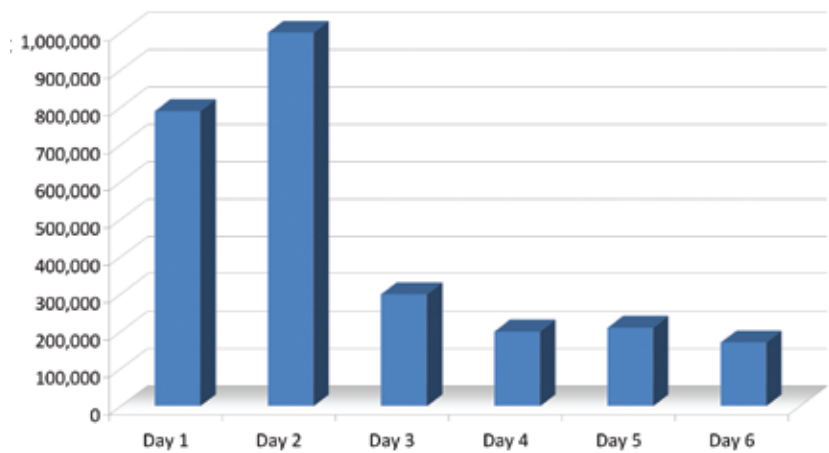
To solve these problems, Twenty First Century used its internal access capabilities and developed new standardized outage screens for use in emergencies. This screen looks the same when a CSR from Pepco, for example, is accessing the customer information system at Tampa Electric, or Florida Power & Light, or the other way, if the disaster happens to be in the north.

Another challenge solved by Twenty First Century is that if a utility is in crisis and has a need for significant CSR support, another single utility couldn't pick up all the slack. However, using MARS, multiple utilities can share the load of fulfilling that utility's need for CSRs. For example, if FP&L had the problem, they would notify utilities with which they have mutual assistance agreements and might pick up 25 agents from Southern Company, 10 at Delmarva, 15 at American Electric Power, etc.

"MARS can be activated and CSR support provided at any time, it's an automatic function," Kennedy says. "Any utility can initiate it, all they have to do is reach an agreement with a responding utility. They both log in at the same



Storm Outage Call Traffic By Day



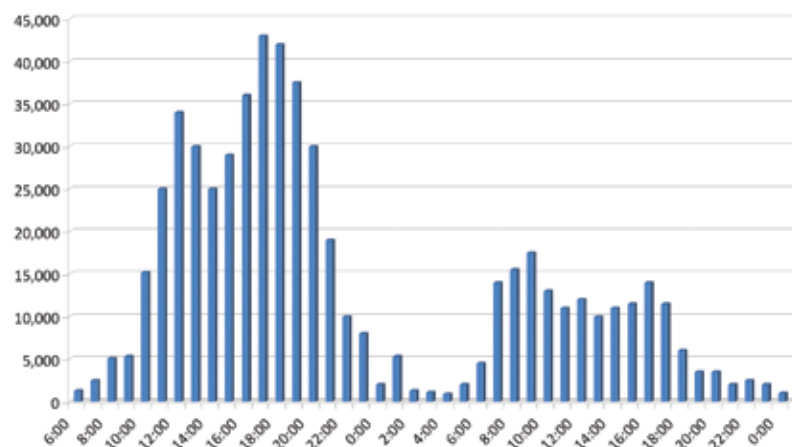
time and confirm the phone numbers used to transfer calls. As soon as both reach that agreement, both sides type in the information and both sides go active. From a carrier's standpoint, they don't even know it's going on. We're not making the carrier do anything, the call is just transferred, even across carriers, using our standard proprietary technology.

"The conceptual part of all this was done in an evening," Kennedy says. "Getting the agreement as to what the universal screen should look like took about six months. After a utility signs up for the service, it takes about 30 to 60 days to modify programs and put the necessary hooks into a requesting utility's database. For the responding utility, it's very minor; as we have no need to access their database, only the requestor's database."

The MARS system went online in the fall of 2008.



Storm Outage Call Traffic By Hour





Participating utilities can choose whether they will be “responders and requesters,” or just one or the other. Responders will provide CSRs as needed. Requesters obviously are those with the problem. As of mid-January 2009, PEPCO, ACE/Delmarva, AEP and TECO have signed on as full-participants. Southern Co. and Entergy have signed on as “responders only.”

“We in the utility business always have been and always will be in the mutual assistance business,” says Rob Cheripko, managing director of customer services for AEP. “If someone has a catastrophe, we generally rise to the occasion. We do that in the belief that other utilities will do the same for us. We had struggled with the issue in the customer service business. We had never done it because of the logistics of getting someone to a location and then they would have to be trained on their (customer information) system.

“With the Twenty First Century MARS system, very little training is involved, it’s a browser-based system,” Cheripko continues. “The CSRs just follow a script, enter data, answer questions and move on. Those were the main selling points for us. For me, from a strategic standpoint, it’s just another part of our insurance program.”

To this point, although it has been volume tested, the

system has not had to be activated in a genuine event, as there haven’t been any large-scale disasters since it went live. It’s there for the next major disaster that could strike anywhere up and down the East Coast. In 2009, it will expand to other parts of the country.

Now, when a customer calls in after several days without power, he or she can speak to a utility-trained CSR about the issues and that CSR will be looking at that customer’s account, with the latest updates, and a briefing on what to say in each circumstance. The CSR may be many hundreds of miles away, but it will be good to have a friendly voice on the phone for people living in trying circumstances. It’s another impressive and potentially heartwarming example of utilities working together to solve problems.



Twenty First Century
communications