

## Let's Talk Tech Podcast #3 transcript – Into the Storm: Life Lessons from Hurricane Katrina

**Preview: Tony Kent:** *“Our people, our C Spire teammates, took this so seriously. They understood that they were not just doing their jobs, but that they were literally saving the lives of their neighbors, their families and friends and that made all the difference. We had a good plan, but we had much better people. That was the key to our response.”*

**Introduction: Stacey Kirkland:** Hello and welcome to Let's Talk Tech, a monthly podcast that explores the latest emerging technologies, the people behind them and how these trends will affect the way we work, live and play. I'm Stacey Kirkland of C Spire and in today's episode, show host Dave Miller interviews some of the key players for C Spire as they take a retrospective look at technology changes in the last decade after Hurricane Katrina. Join them as they recall first-hand accounts of death, destruction and the resiliency of the human spirit in the aftermath of the worst natural disaster in U.S. history. Learn how the Mississippi-based mobile service provider helped Gulf Coast storm victims, about the heroic efforts of technicians to maintain and restore critical communications and how the company is better prepared today for the next storm of the century.

**Dave Miller:** Welcome to the C Spire "Let's Talk Tech" podcast. I'm Dave Miller, show host, and today we're taking a retrospective look at technology changes over the past decade in aftermath of Hurricane Katrina, the worst natural disaster in the nation's history. Joining us today is Tony Kent, former Chief Technology Officer, Richard Reynolds, director of Retail Operations, and Terrell Knight, vice president of Government and Economic Development. All of them work for C Spire, a Mississippi-based telecommunications and technology services provider that was at the epicenter of efforts to restore critical wireless communications in the hours and days after the storm of the century. Welcome, gentlemen.

**Tony Kent, Richard Reynolds and Terrell Knight:** Thanks, we appreciate the opportunity to come on the program.

**Dave Miller:** We're really pleased that you've joined us on the program today. We just celebrated the 10th anniversary of Hurricane Katrina and I've been looking forward to talking with you about the lessons we've learned from the storm and how we are better prepared today should another event like this impact our region. First, though, I'd like to share a few facts about the storm. Katrina produced an unprecedented and catastrophic levee failure in New Orleans and an equally biblical storm surge inundation all along the Mississippi Gulf Coast. Entire towns like Waveland were wiped out. Not a single structure was left standing. When it passed, the storm caused \$108 billion in damage, killed 1,836 people, including 238 people in Mississippi, destroyed 60,000 homes and left over 100,000 people in Mississippi homeless. 80 percent of the state lost commercial power and was plunged into darkness. And, if you recall, gas prices spiked overnight, to almost \$5 a gallon and long lines formed around gas stations all around the state due to the disruption of almost one fifth of the nation's oil production. Even today, it's almost incomprehensible, but the storm surge along the entire Mississippi Gulf Coast averaged 28 feet. In many areas it peaked at 38 feet. Buffeted by hurricane-force winds, storm surge wiped out everything in its path as far as 2 miles inland. Storm victims started using terms like "I've been slabbed" or "I got hit by a tsunami" to describe the devastation. I remember a comment former Mississippi Governor Haley Barbour made in describing the scene as he flew over the Gulf Coast the day after the storm hit and surveyed the death and destruction left in the wake of Hurricane Katrina.

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"Everything was gray." Why? Because there were millions of tons of debris caused by massive storm surge that covered roads, homes, commercial buildings, cars, yards, bridges, driveways – just about everything. In all, Katrina left 46 million cubic yards of debris in its wake, more than twice as much as any previous storm on record. It took 11 months just to remove all of the debris from the area. All of this - widespread loss of commercial power, significant damage to the public switch telephone network, extended fuel shortages and serious damage to roads and bridges - really threatened to block or hamper restoration efforts. But C Spire, which then was known as Cellular South, somehow found a way to maintain and restore critical wireless communications for survivors that were still in the area and first responders in the hours and days immediately after that storm.

Tony, I know that you have since retired from the company and are now a contract consultant, but you served as the lead senior manager for C Spire's network at that time. Tell our listeners how you developed and implemented a game plan to respond to this disaster, overcoming obstacles that blocked efforts by other providers to repair their facilities and restore service to their customers.

**Tony Kent:** First of all, our C Spire teammates made all the difference in the world. They took the recovery personally and were working to help their neighbors, their families, and their friends, to be able to survive and recover from this massive storm. We managed the restoration efforts like a military operation. As the storm neared landfall, we pre-positioned people and other company assets out of the path of the storm to the east in Alabama and the Florida panhandle. Once the storm came on shore, we came in behind it with three waves of response. The first wave was a triage operation. We came in, assessed the damage, made repairs to infrastructure that could be fixed quickly and noted what would require a more comprehensive response. Then a second wave followed where we identified low-hanging fruit, if you will, for portions of our network that we could get back on the air right away. Our third wave focused on teams and efforts that would be long-term and take days or weeks to repair and get back on the air. Always in the forefront of our thoughts was the reality that lives were at stake and what we were doing was helping save lives. We knew that the ability for storm victims and first responders to communicate at this time was not just comforting, but it was critical to survival. As I mentioned earlier, our C Spire people were our greatest strength. That was never more evident than during this time of recovery following Hurricane Katrina.

**Dave Miller:** I know, in many cases, you and others have told me that a lot of those employees and technicians actually lived in the area and suffered damage to their homes and displacement of their families. They were dealing with personal issues as well as trying to do their jobs. Yet everyone came together and realized that they needed to be able to respond in this way to be effective in this crisis.

**Tony Kent:** That's correct. I recall one of our technicians on the Coast whose house was split in half by a fallen tree. He gathered his family – none of them were seriously injured - and relocated them to a shelter. The shelter would not take the family pet, their dog, so the technician brought the dog along and worked around the clock for almost 10 days restoring service for not only his family, but for his neighbors and other victims on the Gulf Coast.

**Dave Miller:** That really focuses attention on the company's value system and how that really shaped and influenced the response to this disaster. Several people also told me that you popularized a credo that went something like, "In a true disaster when time is of the essence and lives are on the line, there can be no excuses." Can you explain how that helped C Spire not only respond to the storm, but completely restore its network in only 11 days following the widespread devastation?

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**Tony Kent:** Our people, our C Spire teammates, took this so seriously. They understood that they were not just doing their jobs, but that they were literally saving the lives of their neighbors, their families and friends and that made all the difference. We had a good plan, but we had much better people. That was the key to our response.

**Dave Miller:** Like everyone else, C Spire had a number of facilities on the Gulf Coast - retail stores, operations centers, other buildings - that were damaged or destroyed by the storm. Richard, I know that you were in the middle of efforts to assess the damage to the company's retail stores and actually develop and implement a plan to reopen temporary locations to the hardest hit areas. How did you continue to provide service and assistance to consumers who were impacted by the storm? Explain a little about what you did and how you did it.

**Richard Reynolds:** Like Tony said, the key was teamwork. We pulled together and made it happen. The day after the storm, my team visited all 14 retail stores we have along the Mississippi and Alabama Gulf Coast and assessed the damage and whether they had commercial power. In most cases, they didn't – so we implemented our plan that we developed before the storm. Two days following the storm, we set up temporary stores at all of our locations. Many times these temporary stores were in tents. We set up tents and generators at each location, and were ready to serve our customers. We soon discovered that we were not only serving our customers but those of many of our competitors whose facilities were severely damaged and their retail locations closed. It made us feel proud that we were able to be there for everyone on the Gulf Coast at their time of greatest need.

In addition to pitching tents in front of our stores, we brought in temporary trailers and operated them as full-fledged retail establishments just two days after the storm. This was despite the fact that many of our stores had extensive damage and it would be weeks until we could re-establish our traditional business model out of those stores.

With commercial power out all along the Gulf Coast, simply being at a location where someone could come and charge up their cell phone was a big deal. Customers who didn't have generators came to our stores since we had generators running with charging stations and they were able to charge their phones. In many cases, we kept a presence there to give people without working phones access to our phones. In many cases, residents would come by our stores just to ask, "can I use your phone to call a loved one to let them know that I'm okay because I have not been able to get in touch with them with my service provider?" We allowed them to use our phones. It was really nice to see smiles on people's faces after they were able to complete a simple phone call. And it felt really good to know that C Spire could be there for them in their time of need so they could let their family know that they were alive and safe.

We also were there for many other reasons, including the replacement of phones. Many people lost their phones or they were damaged or got moisture in them during the storm. We were able to replace those phones on the spot, on that day, which again was just two days after the storm. We're really proud of that. People were thanking us left and right that they had a working phone two days after the storm.

In many cases, we were there just to provide support, such as distribution of water, snacks and food. We had those set up at our retail stations. A lot of people who lived on the coast didn't have any water or food and we put a smile on their face just by being able to provide a bottle of water.

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**Dave Miller:** Storm victims were not the only ones who struggled with essential communications in the hours and days after Hurricane Katrina. Emergency response personnel and first responders were hampered by a severely damaged landline communications network as well as widespread loss of commercial power, extended fuel shortages, and serious damage to roads and bridges that threatened to block rescue, relief and restoration efforts. This was further complicated by the reality that most mobile service providers, with the exception of C Spire, had lost major portions or all of their networks. With no means of reliable landline or mobile communications, many emergency response and first responders turned to your company for help in managing critical voice and data communications. Can you describe, Terrell, what type of requests you received and how your company responded?

**Terrell Knight:** The first stop that I made with phones was to the Harrison County Emergency Command Center. At that time we went to each one of those city and county agencies, including Gulfport, and asked if they needed working phones for their staffs. It was a huge proactive move on our part because we were providing cell phones to those employees and emergency responders that did not have communications because 1) either they were with another provider, or 2) they didn't have a cell phone. It worked out really well.

The city of Biloxi is a unique story. I stopped by the command center down, which was managed through the Fire Department and asked if they needed mobile communications. They said "absolutely" and we wound up proactively distributing about 50 to 60 phones. Later that day, we got a similar request from the Biloxi Police Department and we brought them phones.

We did the same for the city of Pascagoula's emergency response team along with the cities of Ocean Springs and Moss Point. It absolutely blew their mind that we were offering them free, working phones to use as part of the emergency response.

During our time in Pascagoula, we touched base with Chevron, one of our larger customers with about 400 cell phones, to see if they needed any additional help. Our contact declined, indicating they were going to supplement their communications with satellite phones, but he called me the next day and asked for the phones when the satellite service did not work properly. Before the end of the first week, we had already distributed over 700 cell phones.

One of the big requests for communications help came from the American Red Cross, a national disaster-relief organization. None of their phones with larger national carriers worked – so we wound up loaning the Red Cross over 900 cell phones with our service, which they used for over two months during the restoration and cleanup process.

We even had a repair technician for AllTel, which is now owned by Verizon, stop and ask to use one of our phones since his company's network was out of service. We chuckled about the request, but it put into perspective how our network was up and operational and being used by everyone.

**Dave Miller:** That's actually a great segue. Let's shift the discussion a bit and discuss what lessons you've learned and what changes you've implemented that better prepare C Spire for the next killer storm. I know you've built an extensive microwave network and now you have super switches that help relieve network congestion and improve reliability. Describe some of those changes, Tony, that C Spire has made to be even better prepared for loss of commercial power and rolling power outages.

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**Tony Kent:** About 18 months after the storm, I participated on a Federal Communications Commission panel examining the industry's response to Hurricane Katrina and what we could do differently to be more prepared for the next storm. As you indicated, we have implemented many of the suggestions in that final report. Now, just about every cell site within Katrina's footprint has its own, permanent back-up generator. We've built and operate a new super switch to help manage capacity and we've deployed 4G LTE service that gives consumers access to broadband data as well as voice and text during an emergency. We're also made other improvements in network management and monitoring that help ensure the quality and robustness of the network during high-usage, high-demand times.

**Dave Miller:** Well, it sounds like we are much better prepared than we were before. Richard, retail has made a lot of changes in the last 10 years. Can you share, from a consumer's perspective, what might be different at C Spire today?

**Richard Reynolds:** We learned a lot during Katrina and feel like we're better prepared today when we have another storm. Now, each year, prior to the start of the hurricane season, we review and update our emergency response plans. We begin by making sure we're prepared with staffing and alternate power supplies (generators) for all of our retail locations. We periodically test those generators and keep them in storage for easy staging and distribution.

We also put a list together of volunteer support staff. This support staff comes from throughout the company. We use a list of employees who have volunteered to come to the Mississippi Gulf Coast or Alabama Gulf Coast in case of need. Then we put together a list of contacts for our employees who live on the coast. One of our first priorities is to make sure they are safe and that their families are taken care of. We get a list of our employees and their emergency contact names and numbers so we can contact their family members in case of emergency.

Hurricane Katrina was a good teacher. Our preparation begins earlier and we're more comprehensive than we were before in our response. We're ready for another storm just in case we do have one.

**Dave Miller:** I know the proactive efforts C Spire made to get devices in the hands of emergency responders and the Red Cross were really appreciated. There's been a lot of technology changes and improvements since Katrina. I know that your company has installed new super switches, you've got major microwave rings in place now, you've got permanent generators at a lot of your cell sites, you've implemented and updated priority distribution and supply chain system so you can continue to provide essential communications without any interruption, but you've also made significant progress in improving communications with local city, county, and state officials to help you gain quicker access to impacted areas and to better coordinate restoration activities. Describe the changes and what you see now on that front.

**Terrell Knight:** While technology changes are extremely important, you can't discount the human factor. Good old common sense works. That's especially true from a communications standpoint. Since Hurricane Katrina, we have worked very closely with MEMA. We have excellent communications with them. As a matter of fact, C Spire and one other company that provides fuel to the state of Mississippi are the only two vendors allowed during a disaster or a crisis on the command floor of MEMA. What that means is that we are providing MEMA updates on an hourly basis on our network restoration, how our network is performing, whether we block calls, if a cell site is down. They, in turn, inform the local entities that are in that affected area. That is huge because they are the central point of command.

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**Dave Miller:** I really appreciate all of the time you've spend with us today. It's been eye opening to gain even deeper insights into how C Spire successfully navigated through the worst natural disaster in the history of the state and the nation and how you're better prepared today for the next disaster. If you'd like to learn more about C Spire's network, go to [CSpire.com/network](http://CSpire.com/network). Thanks again for coming on the program, gentlemen. I look forward to catching up with you in the future.

**Tony Kent, Richard Reynolds and Terrell Knight:** Thank you. Enjoyed it very much.

**Episode #4 Preview: Stacey Kirkland:** Thanks for listening to today's podcast. You can follow C Spire's network team on Twitter @CSpire. If you like the show, subscribe through SoundCloud, iTunes, Stitcher or Tune In. Join us next time as we learn how a small private Christian liberal arts university in the Deep South is redefining on-campus housing perks by offering students ultrafast gigabit Internet access that's 100 times faster than national average broadband speeds and super HD TV services.