



Above and Beyond

Velocita's Crisis-Proven Engineering Teams Go Above and Beyond to Keep Company's Data Network Operational during Hurricane Katrina

Living in Trucks...Getting Hepatitis Shots...Sleeping Three Hours a Night!

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“Through Hell and High Water.” Photo of typical environment Velocita Wireless field engineers had to deal with to maintain network operations in New Orleans.

About 20 million telephone calls didn't go through the day after Katrina struck. The hurricane knocked out about 1,600 cell phone towers, 2.8 million landlines and more than 420,000 cable television connections.

Despite the challenges of wind speeds of 145 miles per hour and storm surges of 10 to 30 feet, Velocita's dedicated data-only network withstood the wrath of Katrina far better than many converged networks and remained operational throughout the storm thanks to the efforts of a crisis-proven team with over a decade of experience in handling all types of disasters.

Hurricane Katrina first hit the Florida coast on August 25, with the path of the storm taking it across Miami and Southern Florida. By August 28, Katrina had reformed in the Gulf of Mexico and gained additional strength, reaching Category 5 status. On August 29, it made landfall in the Gulf region between Louisiana and Mississippi as a Category 4 hurricane.

By Tuesday, August 23, Velocita Wireless had already begun preparing for the storm's onslaught on Florida. Network Operations Center (NOC) Engineers located in both the Woodbridge and Richardson, Texas facilities tested all secondary base station

telecommunications in Miami for connectivity to Emergency Restoration switches in the NOCs. Velocita Wireless maintains three emergency restoration switches in each of its fully redundant network operations centers as well as an existing inventory of redundant, line-powered back-up circuits to all base stations and switches from strategically located Telco central offices positioned outside main hurricane belts.

On Thursday, August 25, additional field engineers (FEs) from Georgia and Alabama were mobilized, and along with generators and spare equipment staged from Atlanta, sent to South Florida to help local field engineers with the restoration effort in that state after the storm made landfall at approximately 7:00 P.M. Led by Alabama-based Area Field Manager, Ron Wojtylko, Atlanta-based FE Kevin Knox joined local Florida field engineers, Yale Dampier, Jamie Futch, and Senior FE, Dennis Hoffman, in quickly assessing network operations in Florida and initiating work to restore service to 17 base stations which were rendered inoperable by Katrina.

The Velocita Wireless network began losing connectivity to base stations within the Florida region on Friday, August 26 at 4:53 AM as a result of a power loss to circuits at the Miami switch location. However, Velocita field service engineers, already deployed to the area, began restoration efforts in conjunction with the Network Operations Center and managed to complete a total restoration to the emergency back-up switch within 60 minutes, thereby mitigating more extensive and sustained service outages.

Additionally, thanks to the efforts of Velocita NOC engineer Craig Dowdy, Velocita was able to keep BellSouth's field technicians up and running when circuits connecting BellSouth technical centers to the Velocita Wireless Miami switch failed.

Working with BellSouth technical support, Dowdy was able to reroute the BellSouth connections to BellSouth's Charlotte North Carolina data center. This change allowed their field force to continue receiving work orders from their technical centers to expedite network troubleshooting in the impacted area.

“Velocita Wireless responsiveness to BellSouth during Hurricane Katrina has been outstanding. During the first few weeks after the hurricane, Velocita provided updates three times each day on the status of their towers. BellSouth requested to receive more detail on the reports so the technicians could more effectively perform their jobs and Velocita provided that additional information to assist in BellSouth's restoration efforts. Many of Velocita's towers remained in service during the hurricane and immediate restoration efforts took place to get those towers not in service back in service. Velocita Wireless has also been very responsive to BellSouth in obtaining pagers and establishing service in a short turnaround time. Velocita Wireless allowed BellSouth to bypass the process and work closely with the single point of contact for BellSouth to quickly resolve issues and provide service. This emergency service was and continues to be provided seven days a week and extended hours each day. BellSouth appreciates the continued support Velocita has and continues to provide throughout the recovery efforts.”

BellSouth's Natalie Gray

Area Field Manager, Ron Wojtylko added, “We did what I thought was impossible in restoring service to BellSouth. As a result of flooding, we couldn’t get to their connections; however it was critical that we restored their service, as their field technicians count on our network to restore their facilities. Being able to reroute their connections over our backbone speaks volumes about the ingenuity of our network team as well as the design of our network.”

Three days before Katrina made landfall in the Louisiana, Mississippi and Alabama areas, the network operations team repeated the same testing procedures utilized in Miami to ensure back-up telecommunications line connectivity in New Orleans to emergency restoration switches in the NOCs. Additionally, cell sites on wheels (COWs), portable base stations and generators, and field engineering teams from Texas, Alabama, Tennessee, Wisconsin and Ohio were mobilized and sent to New Orleans and Mississippi on August 28 to assist with the restoration effort.

The field engineering team, lead by Texas-based Area Field Manager James Wilson, included Texas-based FEs Joel Newman, Travis Coe and Network Technical Support (TNS) engineers Scott Smith and Humberto Martinez. Additional support was provided by Kevin Knox, who traveled directly from Katrina’s first strike area in Miami; Dennis Hoffman who towed the Orlando COW to Kevin Knox for subsequent transport to the impacted Gulf area; Atlanta-based FE Cliff Segar, who traveled to Alabama for base station site restorations and building unique, Velocita-designed, extended-fill fuel tanks to power generators; Atlanta-based Construction Engineer Ben Bishop who provided base station restoration support within the gulf region; Tennessee-based FE Bobby James, who performed site restorations in Memphis, Huntsville Alabama and New Orleans and Minneapolis-based FE Paul Ramey, who drove his own recreation vehicle (RV) from Minneapolis to the New Orleans area to establish an on-site field operations/communications center and provide sleeping quarters for FEs within the impacted area.

Other field engineers supporting the gulf restoration efforts included: Jamie Futch, who performed site restorations throughout the Gulf area as well as delivering fuel and working on the company’s new mini-satellite equipment; Ron Wojtylko, who oversaw base station restoration activities in Alabama and Ohio-based Senior FE John Biggins, who departed Cleveland on September 6 to relieve Cliff Segar. Local-area FE, Brian Myers, who had taken shelter from the storm along with his family, rejoined the restoration effort on September 12 while personally recovering from the damage Katrina did to his residence. As an additional precaution and for on-going support within the gulf area, all Velocita field engineering personnel were notified and put on alert of possible deployment to the region.

An existing real-time alarm and restoration reporting system was utilized by Velocita personnel throughout the duration of the storm to provide up-to-the-minute intelligence on base stations reporting alarms and their location for more rapid diagnosis and restoration of outages. In addition to this real-time reporting system, special, Velocita-

designed extended-fill fuel tanks, which facilitate longer back-up generator power, were deployed to the impacted areas along with new, higher-speed mini-satellite equipment. Members of Velocita's Engineering and Network Technical Support teams, Maged Aziz, Issam Abdallah and Joe Olivencia, had completed verification testing of the new satellite equipment the day of the storm

For customer and partner reference, Velocita's engineering team provided network coverage maps throughout the storm, updated twice daily, depicting the latest network coverage status along with any base station outages. These network coverage status updates were well received by many customers and partners:

"Thanks again for all the info in the past week - your information was more specific and more frequently updated than anything the other carriers provided. You guys rock!"

"The frequency and specificity of the network updates that Velocita provided by far surpassed that of anything I saw from the other carriers. We've had many customers contact us asking us to turn their Mobitex devices back on, since the Mobitex network seemed to be the least effected by Hurricane Katrina."

Carol Feeley, TCS

During the period of August 30 through September 2, efforts to restore inoperable base stations were well on their way with significant restoration work performed by Velocita personnel over the Labor Day holiday weekend, despite the extensive flooding. As a precaution, many field personnel were given hepatitis shots to deal with potential contamination and bacterial hazards in the flood waters.

As of September 2, service had been restored to all but 13 sites in the immediate coastal impact area with nine sites on generator power. Other sites along the Mississippi Gulf coast, including Biloxi, Gulfport and Hattiesburg, and sites on the northern inland storm track were back in service, some on generator power and line-powered emergency backup telecommunications. Additionally, new satellite equipment that allows base station connectivity and routing to a Velocita Wireless network switch, was deployed to the area along with two COWs for subsequent installation to restore coverage to those base stations that were severely damaged.

Restoration efforts continued during the period of September 3 through September 8. As a result of Velocita's field engineering team averaging about 3 hours of sleep per night, at the end of the day on September 8, the company reported more than 95% of network coverage in the Gulf area had been restored and was operational with only four sites down in the immediate coastal impact area from New Orleans to Mobile. The four sites out of service were in the immediate flood zone of New Orleans and were inaccessible. To augment coverage and restoration efforts within the severely impacted downtown New Orleans area, two COWs were installed along with new portable satellite equipment.



Photo of “Camp Ramey” with new mini-satellite equipment. This RV, configured with new mini-satellite equipment installed by Scott Smith and Humberto Martinez, served as an operations/communications center as well as sleeping quarters for the FE team in the New Orleans area. A welcome change from sleeping in a truck!

While Katrina delivered a knockout punch to the gulf coast region that brought many carriers to their knees in trying to maintain and restore their networks, the commitment to excellence and service exhibited by Velocita’s field engineering, NOC and NTS teams enabled the Velocita network to remain operable during and immediately after the storm. It is this level of commitment that continues to make Velocita the network of choice for critical communications during times of crises.