

# Katrina outages reveal phone system quirks

Some cell users can make calls, but not receive them

**AP** Associated Press

updated 8/31/2005 9:15:05 PM ET

Telephone outages persisted across Katrina's havoc-strewn path on Wednesday, frustrating people's efforts to locate family and friends and complicating rescue and relief operations. Local lines and cellular service remained knocked out in the worst-hit areas, making it difficult or impossible for thousands of storm refugees to communicate with the outside world.

Outside the hurricane zone, some people resorted to posting messages on Web forums in a stab at contacting loved ones or finding out about damage to homes.

The central telephone building for New Orleans, built to withstand floods and hostile attacks, has remained operational throughout the storm and ensuing ordeal, capable of receiving calls and Internet traffic from outside the region.

The problem is that there's nowhere for most of those calls and bits of data to be sent once they arrive because local lines have been cut off by flooding and power failures.

BellSouth Corp., the dominant local phone provider for much of the region, estimated Wednesday that about 750,000 lines "in the most heavily damaged areas" may be out of service and that 180 central offices were running on back-up generators due to power outages.

Anecdotal reports from long-distance carriers who exchange traffic with local operators indicated that scores of network terminals responsible for routing calls to their final destinations were out of commission in areas served by BellSouth, Alltel Corp. and smaller independent phone companies.

The storm also revealed some quirks of how the telephone system works: Some Gulf Coast residents who had fled far away before the storm hit were finding that their cell phones could make calls but not receive them.

The problem affected only those whose cell phone numbers came with area codes from the affected region such as 504 for New Orleans.

Gary Morgenstern has been unable to dial the cell phones of his daughter or her boyfriend, both students at Tulane University, since Monday even though they evacuated from New Orleans late Saturday and have been driving west through Texas and Arizona.

As a result, Morgenstern's been sending text messages to her phone when he wants her to call so he can find out how they're doing.

"My daughter could be sitting next to me in New Jersey and I could be having the same problem," said Morgenstern, a public relations executive for AT&T Corp., noting that his daughter and boyfriend have different national providers.

Wireless industry experts said the problem revolves around basic network architecture.

Usually, when cell users take their phones outside their local area code, the wireless network checks back with a network computer in the home market to verify account information and let the service provider know where to route calls.

With communications to the home switch in New Orleans and nearby area codes cut off by the storm, cellular operators quickly made arrangements on their networks and with one another to automatically connect any calls dialed from one of those phones.

Incoming calls, however, can present a problem because the phone network can't determine where to route those calls without first checking in with the New Orleans switch to find out where the cell user is located.