

Phone service in Rural Mendocino, Sonoma Counties Under Scrutiny



Comptche Volunteer Fire Department Assistant Chief Randy MacDonald traveled to Washington D.C. to talk about the problems with older copper phone lines and low hanging fiber optic lines necessary for calling 911. (JOHN BURGESS / The Press Democrat)

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In the quest for faster telecommunications, the most basic, crucial phone service that people rely on in emergencies — 911 — is facing a potentially dangerous erosion in reliability, especially in rural areas across the North Coast where telephone services already are tenuous.

Faults in the newer fiber and wireless networks are being revealed as those networks become more prevalent and telephone companies phase out the copper wires that have carried telephone conversations in the United States for more than 130 years.

Recent power and phone outages caused by storms and vehicle crashes in Mendocino and Sonoma counties have cut off telephone communications for

days at a time, in some cases preventing people with medical emergencies from calling 911. The problem is raising concerns among emergency responders, regulators and legislators on the North Coast.

“This is a national issue,” said Randy MacDonald, an assistant chief with the Comptche Volunteer Fire Department in rural Mendocino County and chairman of the Mendocino County Fire Chief Officers Association’s communications committee. Out of grave concern, MacDonald also has made presentations about telecommunication network vulnerabilities to congressional and regulatory staff in Washington, D.C.

“We’ve built a second-to-none 911 system,” MacDonald said. But “we’re almost by default allowing it to become degraded as technology changes.”

Legislators including Rep. Jared Huffman, D-San Rafael, and regulators at the Federal Communications Commission also are concerned. In a letter this month to the FCC, Huffman said his constituents on the North Coast “have had their health, safety and livelihood compromised by the neglect of copper networks.” He urged the agency to take action to protect consumers as copper networks are retired and replaced by next-generation networks.

The FCC approved new rules this month requiring telecom companies to notify customers in advance before they retire copper networks. The rules also require telecom companies to offer customers the option to purchase backup batteries that would enable their phones to run on new fiber networks during power outages.

“Carriers may not let their legacy networks silently ‘die on the vine,’” FCC Chairman Tom Wheeler said in a statement after the Aug. 6 vote.

The transition from copper wire networks to newer systems is creating multiple problems in need of solutions.

One problem involves electricity. When power lines go down, the old-fashioned copper lines can continue to function — albeit with older touch-tone or rotary phones — because those wires carry an electrical charge of their own.

“When the power goes out, you can still call to see if Grandma’s OK or report a 911 emergency,” MacDonald said.

“It’s the only technology that can do that,” said Dane Jasper, CEO of Sonoma County-based Sonic.net, who also has some concerns about changes in telecommunications operations.

The newer, fiber lines won’t function during an electrical outage unless there’s an electrical backup source. So when the power goes down, so do most phone and Internet services that depend on the fiber lines.

Programs that provide wireless home services — like Voice Link — also require a steady source of electricity to operate, while cellphones require somewhere to periodically plug in.

That’s not to say copper lines don’t have problems. People dependent on landlines strung along the ground in remote rural areas know too well that they’re subject to corrosion, water intrusion, being chewed on by rodents or cut by a neighbor’s backhoe. Fiber holds an advantage when it comes to corrosion and water damage, Jasper said.

Another problem lies with the lack of redundancy in the newer system, MacDonald said. In part because they’ve been around so long, multiple copper lines are just about everywhere. But it’s not always the case with fiber systems, so if one line breaks, it can mean no service for a longer period of time.

Wireless and Internet-based phones have additional shortcomings, including poor or no reception in rural areas and lack of a fixed location to help responders find 911 callers.

Landlines automatically transmit their address to 911, but an estimated 70 percent of all 911 calls nationwide are now placed from wireless phones and the number is growing as people abandon landlines in favor of cellphones, according to the FCC.

Despite the problems carried by new technology, few people want to halt progress, which includes the ever-faster Internet services demanded by telecommunications customers.

“Copper can’t provide the bandwidth people need anymore,” said Jim Persky, founder of Ukiah-based Pacific Internet.

The FCC is trying to make the technological upgrades as safe and smooth as possible by creating new rules dealing with problems that arise.

They include requiring telecommunications providers to create better ways to track wireless 911 calls. The FCC also has adopted rules aimed at promoting competition for the big providers, like AT&T and Verizon, and maintaining copper lines to some degree.

Verizon's biggest union, the Communication Workers of America, has accused the company of refusing to fix broken copper lines and pushing customers to move to fiber or wireless systems. Verizon has flatly denied the charges.

Some, like MacDonald, believe other telecommunications corporations are attempting to abandon their copper systems through neglect.

"There is a lot of concern the telecom giants are basically allowing the copper infrastructure to just deteriorate," Mendocino County Supervisor John McCowen said.

AT&T officials said they have not neglected or abandoned copper lines on the North Coast and do not intend to do so.

Copper phone lines may be headed toward eventual extinction, but they'll be needed in rural areas for some time to come, Persky said.

He said telecommunications giants have shown little interest in laying down fiber in the North Coast's more remote reaches and those typically are places where wireless service is sketchy, at best.

"Copper has to be maintained until there's a replacement" that is reliable, Persky said. In rural areas, "it could be decades," he said.

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