

Solving Connectivity Challenges for Rural Hospitals

How to give medical staff reliable access to critical resources wherever they are.



The Takeaway:

Reliable connectivity is no longer just an IT issue — it's foundational to delivering safe, accessible healthcare in rural communities.



As rural hospitals and critical care medical centers face budget cuts, staff constraints and other challenges, network connectivity can fall by the wayside. But it's an issue these facilities cannot afford to overlook.

"Nearly 80% of rural America is medically underserved," says Paula Moore, senior marketing manager at Verizon, citing statistics from the National Institute for Healthcare Management.

Robust, reliable voice and data connections are central to the mission of rural and critical care hospitals. Modern technologies can help them meet current and future connectivity needs.

The Connectivity Challenge

Medical staff must stay connected to work effectively. But there are roadblocks, especially in rural areas and at facilities that rely on outdated systems. "Traditional Wi-Fi architectures simply can't penetrate the heavily shielded walls of a hospital, which creates frustrating dead zones," Moore says.

That means staff can't always access electronic health records when and where they need to. Mobile workstations lose connection as medical personnel go from room to room, and vital information becomes inaccessible.

At the same time, there's also a push in many communities to increase remote care through mobile clinics and community-based care.¹ Telehealth visits and virtual nursing are standard operating procedures, especially in rural areas where it can be harder for patients to access in-person care.² And remote patient monitoring with wearable devices has expanded significantly.³ When connection problems prevent access to medical information in the field, "that continuum of care is impacted," Moore says.

Rethinking Hospital Connectivity

To deliver care effectively, rural hospitals need a new approach to connectivity that ensures information and resources are available whenever and wherever they're needed.

Start with these steps:

- **Conduct an honest assessment:** Leaders need to understand their current connectivity challenges and how they impact patient care and hospital operations. "Clinical teams are incredibly resilient. They naturally build manual workarounds to bypass dead zones," Moore says. "But those workarounds steal valuable time from patient care and accelerate staff burnout."
- **Move forward incrementally:** Improving connectivity doesn't require a complete replacement of existing equipment. "A solution provider can conduct a site survey to assess where dead zones are," Moore says. Hospitals can target upgrades where they're needed most.
- **Partner with the right vendor:** Rural hospitals need service providers with strong technical capabilities and the flexibility to meet their needs. "Partners should be able to provide layered connectivity options based on each hospital's unique environment — this isn't a one-size-fits-all solution," Moore says.

Hospital leaders must also consider future connectivity needs associated with robotic surgeries, AI-powered records and diagnostic tools, and the increasing use of remote video technologies.

Choosing a Connectivity Solution

Not every connectivity solution is built for the unique demands of rural and critical care hospitals. As organizations evaluate options, leaders should look for platforms that can address today's challenges while providing flexibility for future needs.

Comprehensive connectivity. Hospitals need reliable connectivity wherever care happens — inside the facility, across campuses, in ambulances and mobile clinics, and in remote settings. Solutions should support multiple connectivity options, including wireless technologies, so clinicians can remain connected even where traditional Wi-Fi coverage falls short.

Support for mobility. Care teams increasingly rely on smartphones, tablets, laptops and other mobile devices to access clinical applications and communicate with colleagues. Connectivity solutions should enable seamless movement throughout the facility without dropped connections or disruptions to patient care.

Scalability for emerging technologies. As hospitals adopt AI, connected medical devices, advanced imaging and other data-intensive applications, network infrastructure must be able to accommodate growing bandwidth and performance requirements without requiring a complete redesign.

Built-in security. Connectivity and security should go hand in hand. Hospitals should prioritize solutions that help protect sensitive patient information, support HIPAA compliance and reduce cyber risk through integrated security capabilities rather than using separate add-on products.

Managed services and ongoing support. Many rural hospitals operate with small IT teams that have limited time and resources. Providers who offer managed services, proactive monitoring and technical expertise can help organizations maintain reliable performance while reducing operational burden.

How to Pay for It

Improving connectivity doesn't have to happen all at once. But the timing may be especially favorable for rural hospitals looking to modernize their networks.

The Rural Health Transformation Program, created by Congress in 2025 and administered by the Centers for Medicare & Medicaid Services, provides a historic opportunity for states to invest in stronger, more sustainable rural health systems. The \$50 billion initiative supports projects that improve access to care, strengthen the healthcare workforce and expand the use of technology and digital health tools.⁴

For rural hospitals, now is an ideal time to evaluate existing connectivity challenges and develop a roadmap for modernization. By identifying coverage gaps, prioritizing investments and aligning technology plans with available funding opportunities, hospital leaders can build the resilient connectivity foundation needed to support today's care delivery — and tomorrow's innovations.

Verizon can help rural hospitals and critical care centers uncover hidden operational deficiencies and align infrastructure blueprints directly with state funding parameters. "We work with you to assess what's really going on before we make any recommendations," Moore says. "Sometimes you're so close to it that you may have blind spots."

The Bottom Line:

By modernizing connectivity today, rural hospitals can improve care delivery, support emerging technologies and build a stronger foundation for the future.



1. <https://chir.georgetown.edu/from-clinics-to-communities-mobile-health-in-state-rural-health-transformation-plans/>
2. <https://www.ruralhealth.us/blogs/2025/02/telehealth-s-impact-on-rural-hospitals-a-literature-review>
3. <https://www.healthcareitnews.com/news/remote-patient-monitoring-faces-reality-check>
4. <https://www.cms.gov/priorities/rural-health-transformation-rht-program/overview>

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