



Nine Reasons Rural Healthcare Providers Seek to Improve Fiber Connectivity

Internet access, large file transmission and patient satisfaction cited in HIMSS Analytics survey

Digitization has transformed healthcare in the United States. Every aspect of healthcare delivery — from patient communications to the diagnostic process to revenue cycle management — has been touched by healthcare’s embrace of the electronic era. As a consequence of healthcare’s reliance on electronic processes and data, robust connectivity has become a necessity.

Rural providers are particularly sensitive to the impact of connectivity on healthcare delivery, since they cannot take connectivity for granted. As the Federal Communications Commission (FCC) has noted, 39 percent of Americans living in rural areas lack access to advanced telecommunications capability, compared to 4 percent of Americans living in urban areas.¹

The urban/rural connectivity gap impacts healthcare providers. A recent survey of rural providers, conducted

by HIMSS Analytics on behalf of Spectrum Enterprise, found only 10 percent of respondents are “extremely satisfied” with their current network connectivity. A number of rural providers are turning to fiber-based networks to provide the secure, stable connectivity they require. In the HIMSS Analytics study titled *Rural Healthcare IT Connectivity and Telecommunication Research*, October 27, 2017, rural providers identified nine reasons they are seeking to improve fiber connectivity for their organizations (Figure 1):

1. Internet access

The majority of respondents (87 percent) identified internet access as a key driver of current plans for improving fiber connectivity. An additional 14 percent said internet access will drive future plans to improve fiber connectivity. One of the trends behind the demand for internet access is the increasing adoption of internet-based technology resources, such as cloud-based EMR/EHR systems.

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IT Director | Healthcare provider

“In the past couple of years, we’ve shifted significant resources to cloud-based and/or hosted environments, including the electronic medical records system for our hospital and our clinics,” said one IT director. “So many things are migrating from on-premise servers to high-speed internet and cloud-based solutions. High-speed fiber connectivity is crucial.”

2. Large file transmission

Eighty percent of respondents said the ability to transmit large files, such as image files, is an important driver of current plans to improve fiber connectivity. One of five (22 percent) said large file transmission will drive future plans to improve fiber connectivity.

The CIO of a provider in Kansas cited the need to transmit large imaging files as one of the technical drivers that led his organization to pursue fiber connectivity. “We do not have a radiologist on staff. We send all of our studies to an outside radiology group to be read. A lot of those are very large files. And we’ve been very blessed to have a 3D mammography machine this year. ... That exponentially increases the size of those files. [We needed] to make sure we had the proper [speed and] bandwidth, so we could manage those studies so that we’re not just waiting for an hour to send a study off and get a study back. ... That was a big driver.”

3. Exchange of electronic health records

Four of five (80 percent) respondents said the exchange of electronic health records is an important driver for improved fiber connectivity. The CIO of the same provider in Kansas said his organization originally had fiber connectivity to a

single facility, but ended up expanding the fiber connectivity to all three of the organization’s facilities over the past two years. He said, “Our providers feel more connected now, to other facilities, to the outside world and to their peers ... If somebody stops in our ER, our providers can log onto the Kansas Health Information Network (KHIN) and see if that patient has been seen elsewhere, and pull that data out of the system. That has been good from a clinical standpoint and from a provider’s standpoint.”

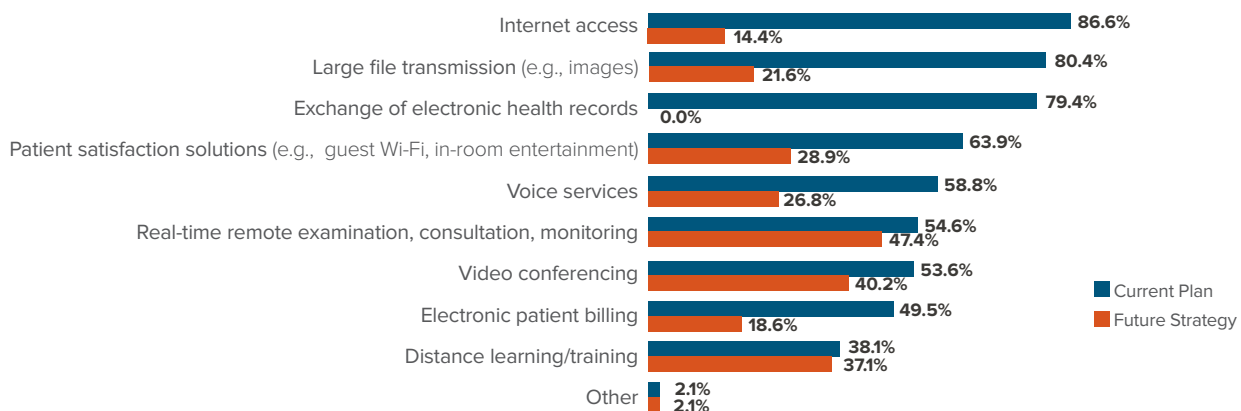
4. Patient satisfaction solutions

Sixty-four percent of respondents said support for patient satisfaction solutions is an important driver for current plans to improve fiber connectivity. An additional one of three (29 percent) said patient satisfaction solutions will drive future plans for improved fiber connectivity. Providers named a number of different patient satisfaction technologies that rely on robust connectivity to deploy effectively. Providers specifically identified a list of connected patient satisfaction technologies comprising patient portal implementation, online health education, social media options, seamless connectivity within the hospital facility, entertainment options for patients and the deployment of mobile applications from the bedside.

Beyond specific technologies, basic network speed impacts the patient experience, according to one IT director. “One of the key points of patient satisfaction is going to be speed or turnaround. How long does it take to get an answer to a question? Or, how long does it take for the care provider to access information to assist in their decision-making in regards to patient care? It always comes down to more network speed means quicker response times, and therefore less wait for the patient,” he said.

Figure 1. Nine key drivers of fiber connectivity for rural providers.

Please indicate whether the following categories are driving your current plan or future strategies.



“[Telemedicine] allows us to get out into the greater community and work on wellness and preventative measures.”

Administrator | Louisiana healthcare provider

5. Voice services

Fifty-nine percent of respondents named voice services as a key current driver for improved fiber connectivity. More than one of four (27 percent) said voice services will drive future plans for improved fiber connectivity. The COO/CIO of a provider in Louisiana said, “Our plan, moving forward, is to replace all of our digital phones with VoIP phones. We are trying to integrate our fiber footprint and bring all of our regional health centers and all of our clinics onto one network. Centralizing our phone system will provide better reporting and more efficient management, since it will all be on a single platform.”

6. Real-time remote examination, consultation and monitoring

More than half (55 percent) of respondents said real-time remote examination, consultation and monitoring drive current plans for improved fiber connectivity. Nearly half (47 percent) said these capacities will drive future plans for improved fiber connectivity. Many rural providers struggle with providing specialty services or consultations with specialists to patients in remote, rural areas. Telemedicine technologies have begun to fill this gap.

Rural providers identified two-way video/webcams (37 percent) and physician consults (26 percent) as the two most common telemedicine technologies currently in use (Figure 2). In the future, providers plan to focus on remote patient monitoring via consumer devices (19 percent) and mobile applications (17 percent).

Survey respondents described using telemedicine services and applications across the continuum of care. Rural providers have used telemedicine technologies to provide

both scheduled and on-demand consultations with physician specialists in topics ranging from trauma to stroke to pediatric ER to behavioral health.

An administrator at a provider in Louisiana said, “We put telemedicine services in a couple of different areas where patients can come in and be seen remotely. This is primarily in mental and behavioral health. So, with those particular individuals, while we can’t necessarily get to them in their homes, we do set up more convenient locations for them to receive services. [Telemedicine] allows us to get out into the greater community and work on wellness and preventative measures.”

7. Video conferencing

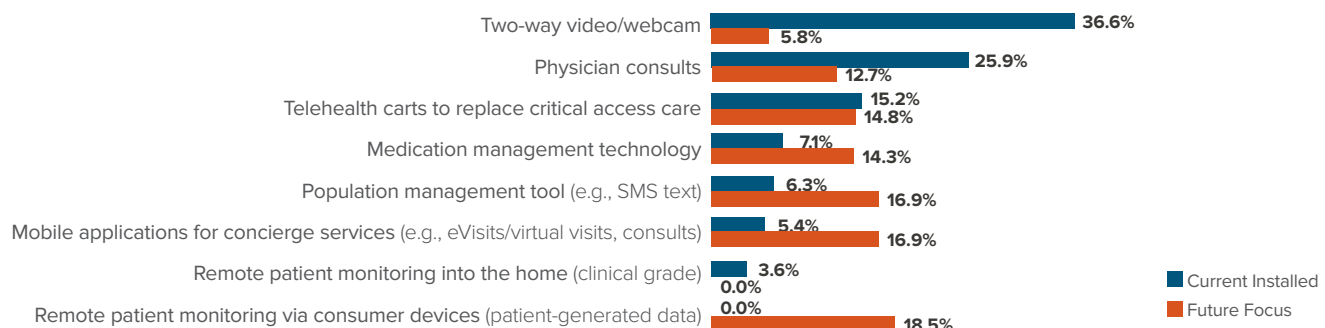
A little more than half (54 percent) of respondents said video conferencing is an important current driver for improved fiber connectivity. Forty percent said video conferencing will drive future plans for improved connectivity. The CIO of a provider in Pennsylvania said video conferencing “gives doctors more tools to do what they need to do more efficiently and with better access to industry best practices.”

8. Electronic patient billing

Almost half (50 percent) said electronic patient billing is currently an important driver for improved fiber connectivity. One in five (19 percent) said electronic patient billing will drive plans for improved connectivity in the future. The director of IT at a provider in New Mexico explained patient billing for the organization is handled by a third party located on the East Coast. “They connect into our system and do all of our billing for us,” he said. “The only way we can support that is through fiber connectivity.”

Figure 2. Current and future telemedicine technologies adopted by rural providers.

Which of the following telemedicine technologies are currently installed or a future focus for your organization?



“As critical as [connectivity] was 10 years ago, the importance has increased tenfold since then.”

IT Director | Kansas healthcare provider

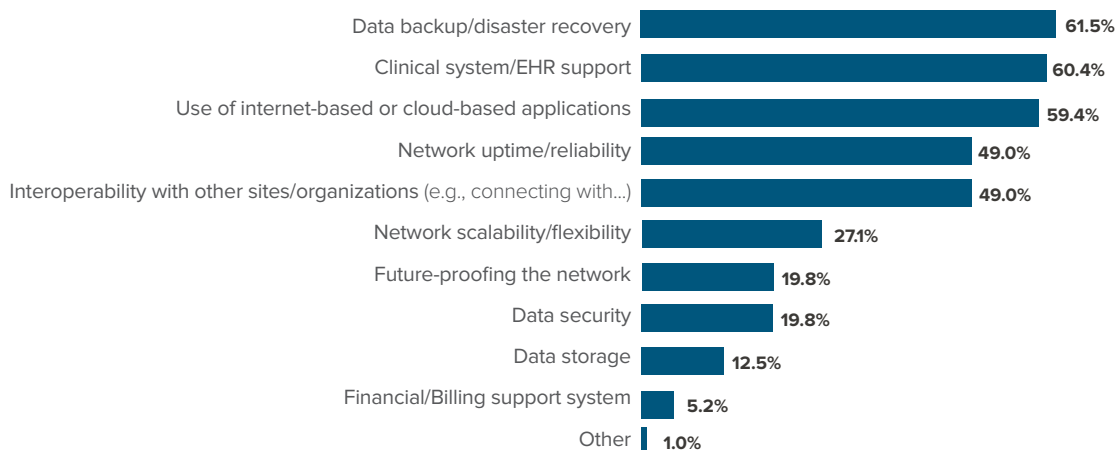
9. Distance learning/training

Thirty-nine percent of respondents said distance learning/training is an important, current driver for improved fiber connectivity. In a similar vein, 37 percent said distance learning/training will drive plans for improved fiber connectivity in the future. Distance learning opportunities can benefit both clinical staff and nonclinical staff by providing opportunities for relevant professional development without the need to drive long distances to receive it.

Though respondents identified these nine areas as particularly important, in fact, every aspect of healthcare delivery can be impacted by a lack of adequate connectivity. As one provider said, “There isn’t a single area of our organization that isn’t impacted by connectivity issues. Connectivity impacts all areas, including but not limited to radiology, lab, pharmacy, dental and optometry. We utilize electronic health records for every avenue of care we provide.”

In response to a separate survey question, respondents identified specific technical drivers leading their respective organizations to improve fiber connectivity (Figure 3).

Figure 3. Technical drivers for increased fiber connectivity.



The top five technical drivers were data backup/disaster recovery (62 percent), clinical system/EHR support (60 percent), use of internet-based or cloud-based applications (60 percent), network uptime/reliability (49 percent) and interoperability with other sites/organizations (49 percent).

The bottom line is that reliable, stable and secure connectivity is non-negotiable for rural healthcare providers. Whether an organization is looking at healthcare delivery from a clinical perspective or from a business perspective, connectivity is essential to supporting healthcare delivery processes and services. The IT director of a provider in Kansas said, “As critical as [connectivity] was 10 years ago, the importance has increased tenfold since then.”

For actionable insights and prescriptive guidance into how rural healthcare organizations can gain the connectivity needed to help advance key clinical initiatives, view the webinar, [The Impact of Connectivity on Rural Hospitals and the Promise it Holds](#).

¹ 2016 Broadband Progress Report, Federal Communications Commission, January 2016. Retrieved from https://apps.fcc.gov/edocs_public/attachmatch/FCC-16-6A1.pdf

² “Rural Healthcare IT Connectivity and Telecommunication Research,” conducted by HIMSS Analytics on behalf of Spectrum Enterprise, October 2017.



About Spectrum Enterprise:

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