Telemedicine Must Overcome Bad Network Connections – Here Are 4 Reasons Why

The market for telemedicine technology is growing fast.
A report last year by WebsterResearch found that telemedicine and telehealth markets accounted for $16 billion in 2016, and were expected to grow to $81 billion by 2021. Other analysts such as Nancy Fadatoli at Frost & Sullivan agree.

"The monetisation for telehealth is building rapidly as the public of providers remote clinical services becomes interested in every aspect of healthcare from heart to America,” Fadatoli said.

Videoconferencing will emerge as both a primary and specialty healthcare service delivery application, according to Fadatoli. But for telemedicine to succeed with videoconferencing, reliable network connectivity must be addressed. Healthcare facilities might have fast and reliable internet connections, but patients and remote clinics often do not.

We in Alegis believe that unreliable connectivity is the biggest barrier for telemedicine, which is why many healthcare providers now are looking to communications solutions that work in low-bandwidth situations.

There are at least 4 reasons why telemedicine must overcome the low bandwidth constraints that come from poor network connectivity.

1. Rural Coverage
Since 2015, more than 48 rural hospitals have closed and another 203 are in danger, according to the National Rural Health Association. Random populations, a higher percentage of uninsured and elderly patients, unemployment and an influx of young nurses specialty services have hit rural healthcare hard.

Telemedicine can help. According to the Institute for the National Academies, telemedicine streams volumes, improves quality of care and reduces costs by reducing admissions and unnecessary emergency department visits for common illnesses, among other benefits.

The problem is that rural areas typically have poor internet connectivity.

"The ability for physicians to connect with those in rural areas—the don't have much of a window connection in the bigger problem when trying to treat these patients," said Alex Stedman, President of National Telehealth Network.

"With weak connections, video streams for telehealth are choppy, choppy or just won't work. Implementing technology that doesn't rely on the general internet which means an infrastructure that strengthens signals in the most remote areas is crucial."

2. Crisis Support
Because it’s not always easier and faster to connect with the right care, healthcare providers are looking for reliable telemedicine services. In fact, during the pandemic, critical care and other medical providers have turned to telemedicine to connect with their patients.

One way that all levels are dealing with the shortage of doctors is through innovative telemedicine initiatives that let healthcare workers outside the country remotely assist local patients in the war zone.

Making this work requires good video quality, too.

"Medical network connectivity is a huge issue for war-torn areas that need telemedicine," said an NBC and WSJ story. "Overcoming low bandwidth is essential for such initiatives."

3. Surgery Situations
Telemedicine brings surgical expertise where it is needed and makes better use of specialized knowledge. Many feel that telemedicine has a bright future, and it allows virtual connections to be made in the middle of an operation.

Despite its benefits, telemedicine has its limitations. In 2011, the Nicholson Center in Florida has had a $42 million study funded by the Department of Defense as to how much reliability is needed.

"Up to two minutes of a secondary delay, there was no effect, no indication of any delay," said Roger Smith, PhD, and Medical director at the Nicholson Center.

"At three- and four-minute mark, doctors said they could tell within a delay, but they could compensate. From the network to the patient, some [Telemedicine] could, some couldn't. At five-minutes, almost all the subjects failed."%0A

4. Millennial Expectations
Those born between 1980 and 2000, also known as the "Millennial generation," account for 68.7 million people in the U.S. today, according to the U.S. Census Bureau. They are the fourth of the seven major bulges in U.S. fertility. Millennials represent more than a quarter of the U.S. population, and they want telemedicine.

A recent study by Sandvine.com, State of the Connected Patient, found that roughly 52 percent of Millennials are interested in videoconferencing with their doctors from home. At the same time, though, the large demographic expects quality.

"Millennials want choppy or scrambled video from the healthcare provider like they have with Skype," noted Zhao. "They expect reliability from any services when they are paying a significant amount of money.

If healthcare facilities want to reach this large demographic, they'll have to provide reliable video even when network connections are poor.

These are just some of the reasons why telemedicine must overcome poor network connectivity in the years ahead. Of course, Alegis is hoping to improve its technology which will be a part of the solution.

Click here to see more Alegis in discussions about telemedicine’s approach and challenges to integrated real-time communications. Click here to see how we’ve onboarded our 400th and our 800th clients, respectively. And if you’re a Telemedicine app developer, you can download and experiment with our SDKs for free — just click the ‘Get the App’ link at the top of the page.

---

Share this Post

About the Author

Peter Kowalewski

Senior Solutions Consultant for Alegis and a journalist and editor who has been covering business, technology and lifestyle trends for more than 15 years.

Recent Posts

Logistics in Alegis Welcome the Mining Mine for Language Learners

The Internet is Today’s Real Time News Network

Introducing The Agos SDK 3.5 & 4

August 8, 2018

Popular Posts

Logistics in Alegis Welcome the Mining Mine for Language Learners

Logistics in Alegis Welcome the Mining Mine for Language Learners

Listening New Languages with Realistic Communication

Accessing the Global Market to Media Communications Challenge

October 10, 2015

Leave a Comment

You must be logged in to post a comment.