Statement by

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On behalf of

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Telemedicine: A Prescription for Small Medical Practices?

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INTRODUCTION

Good morning, my name is Maggie Basgall and I serve as the Community Development Specialist for Nex-Tech in Lenora, KS. Thank you for inviting me to join the panel this morning – it's an honor to testify on behalf of NTCA–The Rural Broadband Association and its nearly 900 small, rural telecom provider members who deliver high-speed broadband and other advanced telecom services to rural America that form the essential foundation of telemedicine and other innovative applications.

Among its 25,000 plus customers spread across 9,300 square miles of rural northwest Kansas, Nex-Tech serves 11 hospitals, 14 health clinics, and numerous small physician practices. Ten of those hospitals have already adopted telemedicine, and all plan to use it more extensively in the future. Thanks to Nex-Tech's ambitious broadband-capable network deployment efforts through the years, many of these healthcare providers can access up to 100 Mbps broadband. Depending on size, these entities purchase a range of services from 20 Mbps to 100 Mbps – the same speed recommended by the Federal Communications Commission's (FCC) 2010 National Broadband Plan (NBP) for achieving full functionality of real-time diagnostic imaging.[1]

Broadband is proving to be a great equalizer for rural America. This is especially true for health care needs in rural areas, as high-speed broadband helps healthcare providers serve patients more efficiently and effectively. One of Nex-Tech's goals is to provide doctors with the resources to fully realize what broadband capabilities generally and telemedicine more specifically can offer patients, especially through technology that helps overcome the distance between rural health centers and patients.

To be clear upfront, broadband isn't only used and useful for telemedicine. It has become essential to the very provision of healthcare in any form or fashion, as doctors' offices, clinics, and hospitals need broadband to: backup systems at offsite data centers; connect with insurance companies to check eligibility; offer electronic billing; conduct research; and host educational webinars. Further, some hospitals provide IT services to other facilities and thereby reduce hardware and software costs.

But even with these many benefits for the provision of healthcare generally, it is clear that broadband can play a special role in rural areas by enabling greater telemedicine functionality and helping residents overcome the challenges of distance that make so many tasks more expensive and time consuming. Telemedicine means a patient in need of an immediate mental health consultation who lives hours from the nearest facility can have an instant connection to their psychologist through a telemedicine platform at their local hospital. Another patient may need digital x-ray scans sent to a far-away physician who can assess how their fracture is progressing. These are only a few of examples of the telemedicine possibilities that robust broadband enables.

To help promote greater adoption of advanced telemedicine capabilities, Nex-Tech recently assembled a pilot project with the goal of helping a large local hospital offer in-home treatment for

[1] Federal Communications Commission. National Broadband Plan: Healthcare Broadband in America. 2004. Retrieved from www.broadband.gov

patients through telemedicine. We assembled a team of technology and business experts to serve as advisers to our customer, and we offered to cover some technology costs for a couple of years to help get the project off the ground. Unfortunately, we had to suspend the project because, due to lack of health insurance reimbursement for care through in-home telemedicine, our customer couldn't make the service work financially over the long-term. The interest was there from all parties, but reimbursement was essential to make it work financially.

Healthcare professionals generally need three significant barriers removed before they can adopt and implement telemedicine: 1) robust broadband capability, 2) money for hardware and software, and 3) staff who know how to use the technology. Insurance reimbursement may present a major barrier to in-home telemedicine, but availability and adoption of technology present other obstacles, not only in rural Kansas but in rural areas across the US.

While barriers to in-home telemedicine remain, healthcare providers are still able to use numerous other exciting and innovative applications that help them provide better care to patients. For example, thanks to robust, wired broadband that enables high-speed Wi-Fi at the rural health clinics in our service territory, soon hospitals will be able to deploy robots that can effectively transport a doctor stationed at a hospital to a far-away rural area. Patients who visit the clinic are able to interact with the doctor through the robot, which is equipped to conduct diagnostic testing. The same Wi-Fi is helpful to doctors who travel to clinics and need to use their mobile devices while on the premises to communicate with other health care professionals.

Currently, licensing of doctors is handled at the state level and, as such, oftentimes providers cannot serve patients across state lines, which greatly limits the use and/or implementation of virtual telemedicine visits. The TELE-MED Act (H.R. 3077), introduced by Representatives Devin Nunes (R-CA) and Frank Pallone (D-NJ), improves seniors' access to care by permitting Medicare providers who are licensed to practice physically in one state, to treat patients electronically across state lines in any U.S. jurisdiction, without having to obtain additional state licensing or authorization. The bill builds upon recent congressional efforts that have expanded virtual care for military personnel and veterans. I applaud the efforts of Representative Nunes and Pallone for their leadership on this matter.

Government programs provide some assistance. For example, the American Recovery and Reinvestment Act sought to promote use of electronic health records (EHRs) through Medicare and Medicaid and regional extension centers such as the Kansas Foundation for Medical Care, which provides ongoing technical assistance to practices. The NBP also recognized the potential of telemedicine over four years ago and recommended that the federal government further incentivize and promote widespread adoption.[2] This is accomplished in part through the FCC's Universal Service Fund (USF) and the rural telecom lending and grant portfolio of the USDA's Rural Utilities Service (RUS). However, many rural health centers – especially family practice physicians – still lack the resources to fully use telemedicine capabilities.

USF can help fill telemedicine deployment and adoption gaps through two of its four components. The USF High Cost fund supports the actual rural networks that Nex-Tech and about 1,000 other

[2] *Id.*

small, rural telecom providers deploy all over the country. These networks deliver the broadband data and other traffic that make telemedicine possible; all of the efforts we're discussing would not be possible in the absence of those networks that high-cost USF support enables and sustains in the first instance. The USF Rural Health Care (RHC) fund can further help healthcare providers pay for services, thereby stimulating adoption and use. Most hospitals and doctors' offices operate on very tight budgets, such that telemedicine often has to take a back seat to other vital priorities, such as ensuring the facility is staffed with the best available doctors, physician assistants, and nurses. USF can help bridge this financial gap through RHC, which is available to non-profit and public healthcare providers located in an FCC-approved rural location.

Finally, Nex-Tech couldn't have delivered broadband to rural western Kansas without the help of RUS's rural telecom portfolio and the seasoned experts that staff the department. Not only does RUS lend for broadband-capable plant in rural territory, it also offers a telehealth program that helps healthcare providers purchase the hardware necessary to use telemedicine. The critical role that USF and RUS play in telemedicine deployment and adoption are discussed further below.

USDA RURAL UTILITIES SERVICE

RUS Role in Telemedicine and Rural Telecom Deployment

USDA's Rural Utilities Service's Distance Learning & Telemedicine (DLT) Grant Program helps healthcare providers adopt telemedicine through grants for capital assets such as computer hardware and software, audio and video equipment, and other network components. Traditionally, approximately 40% of program funds support telemedicine. Eligible entities include corporations, partnerships, and state or local units of government providing education and medical care via telecommunications. With funds for telemedicine in short supply at so many doctors' offices, clinics and hospitals, DLT has played a key role in establishing hundreds of telemedicine systems in rural areas across the U.S. USDA Community Facilities Loans and Grants are also available to help rural towns construct healthcare facilities and purchase equipment.

RUS also plays a crucial role in rural broadband deployment through its telecom loan portfolio that finances network upgrades and deployments in rural areas. RUS has been lending for broadband-capable plant since the early 1990s. RUS lending and Universal Service Fund (USF) support are inextricably linked as 99.2% of RUS Telecommunications Infrastructure borrowers receive High-Cost USF support. The presence of high-cost recovery is crucial to the RUS telecom and broadband loan calculus. RUS programs have helped rural providers deploy modern networks in many rural areas where the market would otherwise not support investment. Reliable access to capital helps rural carriers meet the broadband needs of rural consumers at affordable rates.

Nex-Tech began providing broadband in Western Kansas in 1998 with the help of RUS financing. The company later acquired 10 exchanges from another carrier and then used an RUS loan to build fiber to the premise (FTTP) on those communities. This type of financing is not readily available from the private sector due to the challenges of operating in rural areas and the long-term payback in doing do, and this RUS financing comes in the form of loans that must be paid back with interest, creating a win/win situation for taxpayers and the rural broadband consumers who need the technology now.

Unfortunately, the success, momentum, and economic development achieved from the RUS's telecommunication programs were put at risk as a result of the regulatory uncertainty arising out of USF reforms that are discussed in greater detail below. It will be all the more important to continue providing RUS with the resources it needs to lend to the rural telecom industry as demand for financing will inevitably increase when reforms are improved and regulatory certainty is restored. Once again, telemedicine efforts will be for naught if robust broadband-capable networks aren't there in rural areas to support those efforts or if the broadband services offered on those networks are not affordable and upgraded over time.

THE USF HIGH COST FUND AND RURAL HEALTH CARE PROGRAM

USF Rural Health Care Program

The High Cost and Rural Health Care components of USF have a symbiotic relationship – the High Cost Fund supports the rural networks that carry telehealth and other data all over the world, and the Rural Health Care Fund can help healthcare providers purchase telecom services so they can send and receive data over the network. Both components are essential to telemedicine adoption.

The RHC is available to non-profit and public healthcare providers located in an FCC-approved rural location. Within RHC, the Telecommunications Program provides discounts for telecommunications services and, as of last month, broadband. Funding for broadband is now available through the new Healthcare Connect Fund (HCF). HCF provides a 65 percent discount on eligible expenses related to broadband connectivity to rural health care providers. Finally, the new HCF is also serving participants in what was formerly known as RHC's Pilot Program, which provided funding for construction or implementation of state and regional broadband networks. Hundreds of health care providers are participating in the program through 50 active projects.

Pilot Program participants include The University of Kansas Center for Telemedicine & Telehealth (KUCTT), whose telehealth network has over 100 sites throughout the state – including Nex-Tech customer Hays Medical Center. KUCTT uses the network to conduct clinical consultations and host educational events.

The FCC's High Cost Fund Reforms

As I have noted earlier, telemedicine simply cannot be implemented without an underlying robust, wired broadband network. Though demand for faster broadband is expected to increase dramatically in the near future, RUS received only 29 broadband loan program applications for rural network loans in fiscal years 2011-2013, compared to 130 in the first three full years of the program.[3] Why would an experienced lender such as RUS want for customers when demand for networks is high? Look no further than the state of rural telecom cost recovery mechanisms.

[3] U.S. Government Accountability Office. (2014). *Telecommunications: USDA Should Evaluate the Performance of the Rural Broadband Loan Program*. (GAO Publication No. GAO-14-471). Retrieved from http://www.gao.gov/assets/670/663578.pdf

For example, the FCC's 2011 "Quantile Regression Analysis" (or "QRA") model to cap USF support for small carriers created rampant uncertainty in the rural telecom marketplace. In short, the QRA model took data from the investments and operations of hundreds of small carriers in the United States from two years in the past and then, on the basis of over a dozen different variables, ran those costs through a formula that created new caps each year to govern each carrier's USF support. This was an unsustainable approach to universal service that ran directly contrary to the congressional mandate that USF be predictable; the errors in capturing actual costs used and useful in providing universal service also meant the QRA model did not satisfy the congressional mandate that USF be sufficient.

Despite the fact that the FCC ultimately eliminated the troubling QRA caps after a few years, the question of what comes next creates its own lingering regulatory uncertainty. Updates to legacy USF support rules are still very much-needed. For example, in rural areas served by smaller companies such as Nex-Tech, FCC rules still require customers to purchase landline voice service in order for their line to receive USF support. The customer is effectively denied the option of cutting the landline-voice cord and purchasing only broadband. Such outdated rules that undermine consumer freedom and inhibit technological evolution present an obstacle to the technology transition that consumers and industry are making and the FCC is working to expedite and facilitate in other contexts. Universal Service support should not be tied to a limited service, but available instead to advanced networks that provide consumers with access to a variety of essential, high-quality services from which each consumer may choose.

Nearly three years after a "Transformation" order, small, rate-of-return providers still await an updated cost recovery mechanism that will provide sufficient and predictable support for the simple act of responding to consumer demand for better broadband. Meanwhile, the Connect America Fund set up for larger companies in that 2011 order is in year four of development – a good indication that, if this is how long it takes to create and implement such changes, greater emphasis should be placed on creating a similar fund for smaller carriers as soon as possible. The FCC should move forward immediately to adopt and implement a carefully tailored update of USF that will provide sufficient and predictable support for broadband-capable networks in areas served by smaller rural carriers. Over 130 members of Congress – including Chairman Graves and other Small Business Committee leaders – along with dozens of organizations that serve rural America encouraged the FCC to act through a series of letters earlier this year.[4]

The broadband revolution presents major opportunities for small businesses to innovate and grow, but the business (or entrepreneur with an idea) must have broadband access to take full advantage. Markets will ensure many consumers realize the full benefits of innovation at the lowest possible prices, but in rural areas there are often no such markets to speak of. Though small, rural providers have been leaders in broadband investment even under the current statutory and regulatory regime, further law and policy changes will be necessary to ensure high cost rural areas *both* become *and* remain served even as providers also edge broadband out into unserved areas. We cannot hope to realize the full benefits of broadband for the provision of healthcare generally, and telemedicine

[4] *See* US House letter led by Representative Gardner and US Senate letter led by Senators Thune and Klobuchar, both sent to FCC Chairman Wheeler on May 6, 2014. *See also* rural organizations letter sent to Chairman Wheeler on March 5, 2014.

more specifically in rural areas, if outdated rules deny support for broadband-capable network investments or the threat of adverse changes to these USF rules create uncertainty in making the decisions to undertake such long-term investments. Sufficient and predictable USF support that provides recovery for *both* the initial costs of installing a rural broadband network *and* the ongoing costs of operating and upgrading that network over time must be seen as a prerequisite to any successful efforts in telemedicine.

CONCLUSION

Telemedicine already offers health care providers numerous ways to better serve patients, and many more exciting innovations are on the horizon. The desire for advanced telemedicine already exists, but now we must supply – and then sustain – the robust broadband capability, funding, and education to spur increased adoption of the services across the country.

Nex-Tech and its counterparts in the rural telecom industry are thrilled to play a key role in this process by delivering the networks that carry the data, and we look forward to greater collaboration with the healthcare industry to work through any barriers to adoption.

Rural America will not realize the promise of telemedicine without a broadband-oriented USF that offers carriers the regulatory certainty needed to make network investments. Support through the USF Rural Health Care Fund and RUS Distance Learning and Telemedicine Grant Program for doctors and nurses who need to purchase hardware, software, and telecom services will continue to be helpful in the advancement of telemedicine. We look forward to working with Congress and the appropriate agencies to ensure these programs work as efficiently and effectively as possible.