

Commissioner Dan Watermeier, Chairman
Nebraska Public Service Commission
1200 N Street, Suite #300
Lincoln, NE 68508

Dear Commissioner Watermeier,

We are writing as representatives of the Nebraska Internet and Television Association, the Nebraska Telecommunications Association, and Wireless Internet service providers to comment on speed testing questions proposed by the Nebraska Public Service Commission in Docket No. C-5272. We are not appearing in a formal capacity representing our organizations, but rather as commentators representing companies who may or may not participate in applications for funding or in challenges to proposed applications for funding.

Speed-testing Principles

Speed testing should be consistent for any technology proposed or challenged.

Speed testing should be considered and evaluated if inconsistent with public Form 477 data.

Speed testing should be consistent with FCC processes and procedures, to the extent possible.

Narrative

LB 388, which was passed by the Legislature and signed by the Governor earlier this year, creates the Nebraska Broadband Bridge Program. The legislation provides \$20 million per year in state General Funds for additional broadband deployment in unserved and underserved areas. In order to qualify for grants, applicants are required to provide broadband internet service scalable to one hundred megabits per second for downloading and one hundred megabits per second for uploading.

In addition, proposed applications may be challenged if the current provider provides or has begun construction in the proposed project area with broadband speeds equal to or greater than 100/20 Mbps, or provides broadband service proximate to a proposed project area and plans to complete construction in that area of 100/20 Mbps service within 18 months of the application being challenged.

“Speed test” is defined in Section 1(10) of LB 388 to mean “a measurement of download and upload speeds for access to broadband Internet service between a specific consumer location and a specific remote server location that meets the specifications of the commission.”

Speed tests done preapplication are generally not a good proxy for availability but could be considered by the commission if the applicant specifies the manner of testing and provides evidence that the tests are accurate and verifiable within a project area. In most cases, tests are unable to detect with precision if an area is served or underserved. It would be better to rely on actual advertised availability by a provider in the area.

Speed tests may be required to determine whether a proposed project is in an area where speeds are already attainable at 100/20 Mbps for purposes of a challenge to a proposed project.

Speed tests would be required to determine if a completed project meets the 100/100 Mbps standard for completed new projects, or whether a challenge buildout meets the 100/20 Mbps standard.

Responses to Commission Queries in Application No. C-5272 Relating to Speed Testing

In Application No. C-5272, the Commission posed questions on speed testing in Sections relating to Speed Data (p.4); Eligibility and Priority Determination (p.7); Minimum Broadband Speeds (p.11); Challenge Process (p.14); Challenge Responses by Applicants (p.15); Post-Award Testing (p.16); and Repayment of Grant (p.17). Following are responses from our subcommittee relating to some, but not all, of the questions posed.

Speed Data

We believe advertised speeds delivered in other areas could be, but are not necessarily, relevant. The potential of a project applicant applying with technology not able to meet the 100/100 Mbps or 100/20 Mbps standards are low, because of the claw back provisions relating to the grant that may be awarded. LB 388 is technology-neutral, and advances in certain technologies, whether it be fiber, cable, or WISP, could potentially meet the required standards. However, an applicant must have certainty that its technology would be successful, or the provisions of LB 388 will require the grant to be completely paid back.

Eligibility and Priority Determination

For all of its limitations, the Form 477 data is the best information available to determine if a proposed project area is unserved or underserved. The challenge process can be used to dispute the 477 data. There are limitations to current customers performing their own speed tests, such as service elections, limitations with certain customer devices, bad Wi-Fi locations, and distance to routers. However, if an applicant pulls data regarding a project application, it should be considered and evaluated. That testing should be done pursuant to FCC requirements relating to speed testing. We are attaching Exhibit A to this response, which is consistent with FCC speed testing requirements for federal universal service programs.

Minimum Broadband Speeds

We believe LB 388 is technologically neutral. Again, the risk of certain technologies not being able to reach speeds scalable to 100/100 Mbps would be a substantial risk to an applicant. As long as speed tests of the completed project meet the standard, that should be sufficient. An attestation that the grant project will provide speeds scalable to 100/100 from an officer of the company should be sufficient. The testing should be done pursuant to FCC requirements.

Challenge Process

While we understand that LB 388 does not include an extension provision for the 18-month buildout requirement for challenging providers, it would be reasonable to include a similar provision to the six-month extension provided to project applicants for good cause shown.

Post-Award Testing

We believe speed testing should be conducted using FCC CAF procedures. We modeled our recommended Exhibit A from the order released July 6, 2018 (DA 18-710, WC Docket 10-90) from the Chiefs of the Wireline Competition Bureau, the Wireless Telecommunications Bureau, and the Office of Engineering and Technology. This order established a uniform framework for measuring the speed performance for recipients of high-cost universal service support to serve fixed locations.

Repayment of Grant

We have no comment on the grant repayment process.

Thank you for your consideration of our comments.

Sincerely,

Sean Kelley

Sean Kelley, Co-Executive Director, Nebraska Internet & Television Association

Thomas O'Neill

Thomas O'Neill, Jr., President, Nebraska Telecommunications Association

DAS

Dan Spray, Representative of the Wireless Internet Service Providers

Attachment: Appendix A

CC Commissioner Mary Ridder
 Commissioner Tim Schram
 Commissioner Rod Johnson
 Commissioner Crystal Rhoades
 Mike Hybl, Executive Director
 Cullen Robbins, Director of Telecom/NUSF
 Shanna Knutson, Legal Counsel

Testing Requirements for Applicants and Challengers

Appendix A

Summary of Testing Requirements

- This framework applies to all applicants for grant funding pursuant to Application No. C-5272 and all challengers to applications submitted pursuant to Application No. C-5272.
- Three testing options will be permitted: use of MBA testing; off-the-shelf testing; and provider-developed self-testing or self-testing. The commission shall provide a list of approved speed testing devices that are approved.
- A test is defined to be a single, discrete observation or measurement of speed conducted from the customer premises of an active subscriber at a location within a project area to a remote test server or servers designated by the PSC.
- Testing in proposed project areas, completed project areas, or in areas of challenged applications must be conducted and performed between the hours of 6:00 pm to 12:00 am local time each day, including weekends (testing hours).
- For speed testing, an applicant in a proposed project area, an applicant with a completed project or a challenger to a project application must conduct a minimum of one test per testing hour in each direction (download and upload) and start at the beginning of each test hour. If the consumer load is greater than 64 Kbps downstream for download tests or 32 Kbps upstream for upload tests, the applicant with a completed project or a challenger to a project applicant may defer the affected test for one minute and reevaluate whether the load exceeds the relevant 64 Kbps or 32 Kbps threshold before retrying the test. This load check-and-retry must continue at one-minute intervals until the speed test can be run or the one-hour test window ends and the test for that hour is canceled.
- Test subjects for speed testing must be randomly selected from among the project location active subscribers.
- The number of consumers to be tested will be based on the number of subscribers at locations within the project area, as determined by the commission, but shall not exceed 10 percent of the subscribers in an awarded area.
- To comply with the speed standard in a completed project or in a challenged application project area, an applicant or challenger's certified test results, for each project area, must show that 80 percent of the upload measurements are at or above 80 percent of the required upload speed and 80 percent of the download measurements are at or above 80 percent of the required download speed.
- All test results must be submitted for a completed project or challenge to a proposed project. In other words, project applicants or challengers cannot delete, trim, edit or otherwise exclude any test measurements. However, if a project applicant or challenger knows or suspects that the testing infrastructure has failed or has negatively impacted test results, the project applicant or challenger may submit evidence of the test infrastructure failure with sufficiently detailed information for the Commission to understand its cause and determine the extent to which any test results should be discarded or adjusted when calculating compliance. Providers must still submit such test results.