

**LEGISLATIVE COUNCIL
IT Committee**

NORTHERN TIER NETWORK – NORTH DAKOTA

Update

October 14, 2010

Mr. Chairman and members of the Committee. For the record, I am Bonnie Neas, Vice President for Information Technology at North Dakota State University (NDSU). On behalf of the Northern Tier Network-North Dakota (NTN-ND) members from ND Information Technology Department (ITD), University of North Dakota (UND) and NDSU, I thank you for giving us this opportunity to update you on the Northern Tier Network as well as respond to questions you may have.

This past June, I briefed you on the progress we had made up to that point. Today, I will brief you on what has taken place in the past four months and plans for moving forward.

June: National Telecommunications and Information Administration (NTIA) awarded \$62.5M to Internet2 and its partners – including the Northern Tier Network Consortium member states of Washington, Montana, North Dakota, Minnesota and Wisconsin who provide primary connectivity between Seattle and Chicago along the I94 corridor. The award is to install new fiber in states where needed and connect the nation's regional research and education networks – touching all 50 states -- and upgrading those networks to 100Gbps with new technology. As a result of this award, the Northern Tier Network now at 10/10GBps fiber waves will be supplemented in about a year with additional 40/10Gbps or 100 Gbps waves. As of today, the Department of Defense (DoD), who provided \$3.2 million of initial funding, still owns the equipment that operates NTN-ND. We are working with DoD to determine what their relationship will be to this new federal grant.

August: NSF ARI (Recovery and Reinvestment) awarded NDSU (Bonnie Neas, PI) and SD Board of Regents (Claude Garelik, Co-PI) with \$751,244 to light fiber between the NTN-ND in Fargo and the SD Research Education and Economic Development (REED) network at Northern State University, Aberdeen, SD. This will include multiple 10Gbps waves between Fargo and Aberdeen.

September: NSF ARI awarded NDSU (Bonnie Neas, PI) and Pacific Northwest Gigapop, UW-Seattle (Amy Philipson, Co-PI) with \$1,157,498 to add layer two services along the NTN path between Seattle and Chicago. This award will allow optical waves to be divided into multiple Gbps connections versus dedicating a

full wave for all applications and/or connections. For example, it would permit Montana and ND universities to share a 1Gbps connection for a smaller research application rather than dedicate an entire wave that will be used for long-haul transit. This award will also permit those states that have the capability to allow education institutions to connect to the NTN at slower speeds and at less cost – such as connecting at 1Gbps. This last example will not affect services in ND, even though we will have the capability at Dickinson, Bismarck, Fargo and Grand Forks.

Because of these awards, the biennial budget we are requesting for continued operating funds has been revised from \$1,691,399 (845,700/year (current costs)) down to \$1,572,200 (\$786,100/year). You will note there is a slight decline even though we are adding considerable functionality with the SD and Internet2 awards. This decline is because Internet2, via the NTIA award, will be sharing some operating costs across the east/west NTN span; therefore, total operating costs will be divided between the two partners – NTN primary members and Internet2. The Internet2 award does not affect the north/south NTN-ND route.

We are very proud of the collaborative opportunities the Northern Tier Network has brought to our ND universities and with your support, we see this only growing well into the future.

I want to close with including some of my comments from my June testimony:

We understand that there is still some concern about competition from our North Dakota telecommunications carriers. We remain true to the legislation passed in the 2007 session and will continue to do so. The NTN is a 13-state regional network...and soon to be part of the national R&E broadband network that will allow large amounts of data to be available to our State's research and educational programs. This has motivated our K-12 schools and our other colleges and universities to upgrade their connectivity within the past two years to take advantage of the new services and the large amounts of data the network provides to UND and NDSU. Those mid-level and last-mile connectivity upgrades are, and will continue to be, provided by the local telecommunication carriers creating new business opportunities to them. As an example, our last mile connections to our universities continue to be made by local carriers. In Fargo, IdeaOne provides the broadband connectivity between NDSU and the NTN point-of-presence (POP) in downtown Fargo

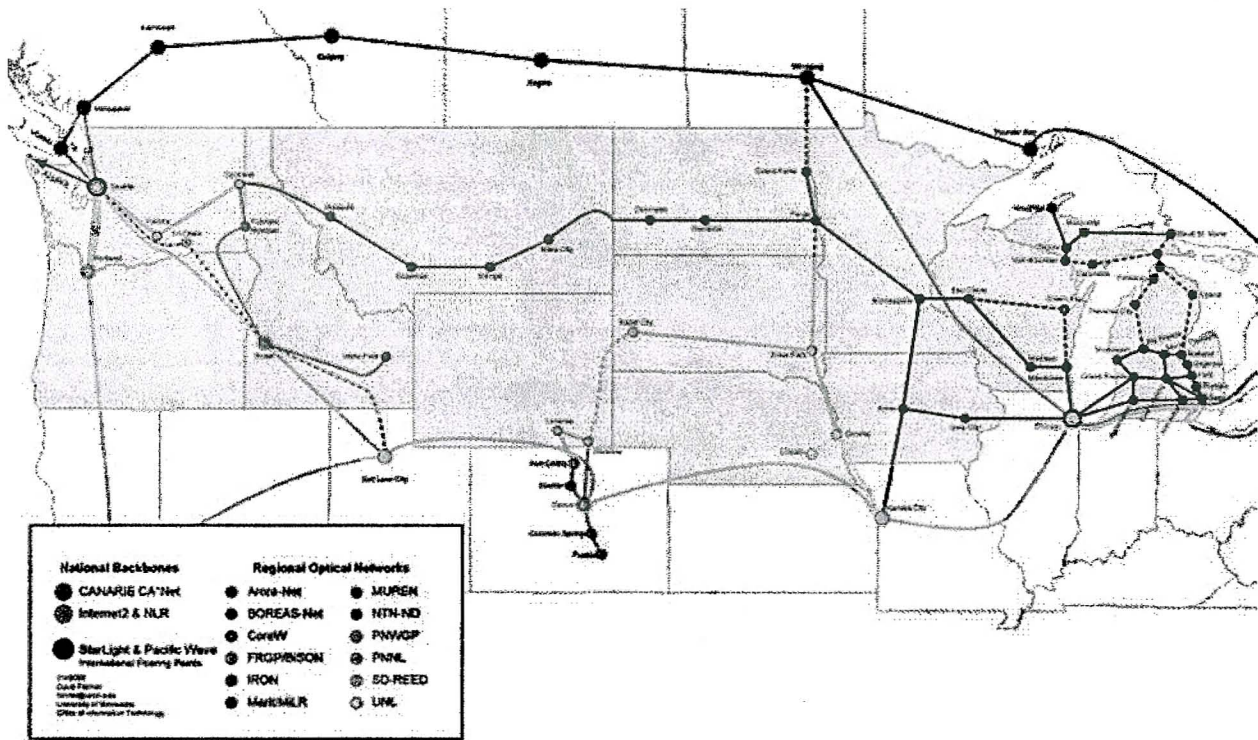
We continue to believe the NTN is a good investment for North Dakota. As I've worked with colleagues from leading research universities throughout the country during the devastating economic downturn of the past 2 to 4 years – experiencing 10% to 20% cuts each year — they all are consistent in stating that it is the income from their successful research programs that has allowed their institutions to survive, with some programs growing while others are eliminated. UND and NDSU both have growing and successful research programs – as attested to in a recent report by the National Research Council -- and the potential of new research programs that need the nurturing of infrastructure such as the NTN to attract talent and resources that will support some of North Dakota's continued economic growth.

I want to congratulate all the carriers in ND who have also received stimulus fund support. The addition of added or upgraded network connections throughout the State will only bring opportunities for economic and educational success of all.

I want to share with you an opportunity that could demonstrate how working cooperatively will bring additional growth opportunities for those of us providing network services to the citizens of our state. On Monday, the Bill and Melinda Gates Foundation announced a \$20 million program to support IT enabled education. As you may know, the Gates Foundation is historically known for serving underserved populations. We see this as an opportunity to serve our Tribal Colleges in North Dakota. The Tribal Colleges are interested in becoming Internet2 members in order to grow their academic programs. Together, NDSU and UND can facilitate their participation. However, we need to partner with local carriers in order to provide the Tribal Colleges with the appropriate bandwidth. My challenge to you is for us to find a way to work together to meet the IT needs of this population.

Thank you.

The Northern Tier Network – 2010



U.S. UCAN Fiber Routes

