

**ASSURANCES - NON-CONSTRUCTION PROGRAMS**

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**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE Chief Information Officer	
APPLICANT ORGANIZATION State of North Dakota, Information Technology Department		DATE SUBMITTED July 1, 2010

# North Dakota SBDD Grant Supplemental Application – Budget Narrative

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The State has developed the following narrative and spreadsheet after collaborating with GIS and information technology experts from within the state and the vendor performing our current mapping activities. The State is requesting a broadband mapping grant of \$2,494,799 to complete the project as identified in our Project Narrative. This amount consists of \$1,972,201 in Federal funding and \$522,598 in state matching funds.

The budget is organized into four categories: Development, Data Collection, Program Management/Reporting, and Planning. Personnel, fringe benefits, travel, equipment, supplies, and contractual costs are calculated over a 3-year time span unless otherwise noted in spreadsheet and project narrative. The supplemental request breakout can be found at the end of this document.

More details regarding the individual efforts can be found in the project narrative. Details on individual project costs and the transformation of the costs into the categories and the estimated annual spend rate can be found on the Budget tab.

## Contracted Work

The state intends to contract for a significant amount of the work. Once funding is secured, the state will begin procuring services and/or modifying our current vendor's contract for these activities.

One key project is the shared development with the state of Montana on a web application that allows providers to directly enter and modify their data. A more detailed breakout of costs on that project can be found below.

<b>Activity</b>	<b>Total Cost</b>	<b>ND Share</b>
<b>Shared Costs (total that can be split if States team)</b>		
Requirements Definition	\$30,000	\$15,000
Database design	\$16,000	\$8,000
Application Administration Design\Build	\$32,000	\$16,000
Application Design\Build	\$128,000	\$64,000
Training Materials Development	\$12,000	\$6,000
<b>Subtotal</b>	<b>\$218,000</b>	<b>\$109,000</b>
<b>Individual State Costs</b>		
User Acceptance Testing (UAT)	\$12,000	\$12,000
Training Workshops	\$16,000	\$16,000
Application Installation and Support	\$24,000	\$24,000
<b>Subtotal</b>	<b>\$52,000</b>	<b>\$52,000</b>
<b>Project Total</b>		<b>\$161,000</b>

State Matching Funds

The State intends to provide several sources of in-kind match for this grant: A number of staff provide support for the K-12 portion of the statewide network. This network is a key component to the state's strategy of using "anchor institutions" to drive technology to most areas of the state. We are taking only 15% of their cost over a 3-year period to form a part of our matching strategy. We used the same percentage to calculate our equipment investment over a 3-year period. Last summer we upgraded over 180 K-12 locations moving them from ATM (T1) technology to Ethernet technology increasing bandwidth available significantly. We will continue to leverage our GIS infrastructure to support the map. Finally, the state will use our own funding for 25% of the Program Director position. Details of our calculations can be found on the Matching Principles tab of the spreadsheet.

Description			Total	Personnel	Fringe Ben	Travel	Equip
K12 Broadband Staffing			\$157,500	\$110,250	\$47,250		
K12 Equipment			\$270,000				\$270,000
GIS Infrastructure			\$59,098				\$59,098
Program Director	1000	36	\$36,000	\$25,200	\$10,800		
<b>Sub Total</b>			<b>\$522,598</b>	<b>\$135,450</b>	<b>\$58,050</b>	<b>\$0</b>	<b>\$329,098</b>

Broadband Mapping Budget Estimate

Description		Total	Personnel	Fringe Ben	Travel	Equip	Supplies	Contractual	Other	Indirect
<b>Development</b>		<b>\$695,836</b>	<b>\$105,336</b>	<b>\$45,144</b>	<b>\$0</b>	<b>\$23,520</b>	<b>\$0</b>	<b>\$501,736</b>	<b>\$0</b>	<b>\$20,100</b>
Y3-5	Fed	\$221,100	\$0	\$0	\$0	\$0	\$0	\$201,000	\$0	\$20,100
	In-Kind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Data Collection</b>		<b>\$2,726,616</b>	<b>\$110,250</b>	<b>\$47,250</b>	<b>\$0</b>	<b>\$329,098</b>	<b>\$0</b>	<b>\$1,968,718</b>	<b>\$153,410</b>	<b>\$117,891</b>
Y3-5	Fed	\$1,296,801	\$0	\$0	\$0	\$0	\$0	\$1,025,500	\$153,410	\$117,891
	In-Kind	\$486,598	\$110,250	\$47,250	\$0	\$329,098	\$0	\$0	\$0	\$0
<b>Program Mgmt / Reporting</b>		<b>\$525,599</b>	<b>\$272,071</b>	<b>\$114,968</b>	<b>\$46,012</b>	<b>\$22,845</b>	<b>\$1,503</b>	<b>\$45,900</b>	<b>\$7,500</b>	<b>\$14,800</b>
Y3-5	Fed	\$162,800	\$75,600	\$32,400	\$40,000	\$0	\$0	\$0	\$0	\$14,800
	In-Kind	\$36,000	\$25,200	\$10,800	\$0	\$0	\$0	\$0	\$0	\$0
<b>Planning</b>		<b>\$599,900</b>	<b>\$141,562</b>	<b>\$60,670</b>	<b>\$100,000</b>	<b>\$6,168</b>	<b>\$0</b>	<b>\$115,000</b>	<b>\$150,000</b>	<b>\$26,500</b>
Y3-5	Fed	\$291,500	\$0	\$0	\$0	\$0	\$0	\$115,000	\$150,000	\$26,500
	In-Kind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>		<b>\$2,494,799</b>	<b>\$211,050</b>	<b>\$90,450</b>	<b>\$40,000</b>	<b>\$329,098</b>	<b>\$0</b>	<b>\$1,341,500</b>	<b>\$303,410</b>	<b>\$179,291</b>
Y3-5	Fed	\$1,972,201	\$75,600	\$32,400	\$40,000	\$0	\$0	\$1,341,500	\$303,410	\$179,291
	In-Kind	\$522,598	\$135,450	\$58,050	\$0	\$329,098	\$0	\$0	\$0	\$0

# North Dakota SBDD Grant Supplemental Application – Project Abstract

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The state of North Dakota would like to request funding to add the following projects to the grant.

- The state would like to continue updating the maps on a biannual basis.  
Estimated cost = \$596,500
- The state would like improve the data by targeting specific providers and data sets such as the ones listed below.  
Estimated cost = \$297, 000
  - Gathering a complete cell tower database with specific ownership/equipment on multiple tower sites.
  - Moving our top 10 providers who delivered a partial dataset to providing a complete dataset.
  - Enhancement of typical speed reporting and subscriber weighted nominal speeds
  - free public Wi-Fi
  - pricing data
  - Cellular direct measurement
  - Improved Anchor Institution data
  - New providers
  - Major tech updates (i.e. AT&T coming into the state)
- Develop a web application that allows providers to update their own data. The state of North Dakota is interested in sharing this application with the state of Montana. We are both using the same vendor.  
Estimated cost = \$161,000
- The state would like to have the ability to change which commercially or publicly available address files we use as we find more accurate data for our state  
Estimated cost = \$15,000
- The state feels continuing to support a speed test site is an important part of our data validation efforts.  
Estimated cost = \$8,000
- The state would like to make some general enhancements to the map application.  
Estimated cost = \$40,000
- Future Leading Practices to be determined by NTIA.  
Estimated cost = \$152,949
- The state has strong project management requirements for IT projects.  
Estimated cost = \$183,000
- The state believes that a program director is necessary to guide, coordinate and report on this effort.  
Estimated cost = \$233,189
- Technical Assistance to ND Communities via K12 and adult education programs  
Estimated cost = \$225,000
- The state would like to provide consulting, analysis, reporting, and map development services to State agencies against the data collected that exceed what is available from basic web queries.  
Estimated cost = \$40,000

North Dakota would like to continue to improve the data and how that data is displayed over the rest of the grant life. We will continue to work hard towards making the effort sustainable after federal funding expires.

# North Dakota SBDD Grant Supplemental Application – Project Narrative

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## **Currently Funded Activities**

The state of North Dakota received a State Broadband Data and Development grant in December of 2009. The grant award was to accomplish the following objectives:

- Gather broadband availability data from the providers and public sources and transform the data to meet the requirements of the Notice of Funds Availability (NOFA) issued by the National Telecommunications and Information Administration (NTIA)
- Gather other data requirements (such as anchor institution data) as required by the NOFA and grant award
- Develop an interactive map of broadband availability available to the public
- The state's STAGEnet organization will work with public safety institutions, healthcare, and medical institutions to determine the feasibility of leveraging the organizational structure, relationships with anchor institutions and providers and the network itself in providing both of those service areas with broadband services.

The state of North Dakota would like to request funding to add the following efforts to the grant.

## PROGRAM NARRATIVE

### Data Collection, Integration, Verification and Display

The state recognizes the need to maintain and improve the underlying data of the map and how the state presents that data to the public. The following is a description of the efforts the state would like funding to perform.

#### Data Collection & Analysis

##### *Updates*

The state would like to continue updating the maps on a biannual basis as described below.

Current Amount Funded:	\$66,500
New Funding Requested:	<u>\$530,000</u>
Total:	\$596,500

##### **Data Gathering Methodology**

The state would like to continue updating the maps on a biannual basis. The current process is to send to each provider the current dataset requesting him or her to provide any updates. Then process all returned data. We would like to utilize our current vendor and contract to perform this work.

During the first round of mapping, we accepted any provider submissions as is and adapted to scores of different formats and iterative processes. Keeping the maintenance process simple, standardized and repeatable will be the key to success in maintaining quality and maintenance costs in the future. Given the reluctance of most providers to submit infrastructure, we propose focusing our interactions with existing providers primarily on standardized census block map and spreadsheet updates for year 2-3 updates - we are proposing switching to a web based update methodology in years 4 and 5 which is described in a subsequent section.

The state will accomplish the infrastructure acquisition and modeling, a major focus of our year 1 mapping, through additional public resources and independent measurements (detailed in other sections). We will continue to request and work with infrastructure requests in selective situations with willing providers who submitted this type of data in year 1.

##### **Processes for Data Integration**

The state will maintain the data integration during maintenance and future development cycles in the operational geodatabase structure we developed in year 1 mapping and propose continuing to maintain in years 2-5. A feature class labeled "Last point of aggregation" (LPA) in the operational database was created to hold point locations of broadband infrastructure (examples include central offices, remote terminals, head ends, etc.). Addresses purchased or obtained at any level of geography will be processed, including geocoding a street address (using ESRI Business Analyst and TeleAtlas data), or locating a point in a town (snapped to the USGS Geographic Names Information System location), and all mobile wireless locations obtained from public sources or commercial sources with validity checks using NAIP aerial imagery and Google Street View, and Bing 3D where coverage exists.

##### **Verification Methodology**

Our contractor developed a robust reliability and validity methodology that was integral to the broadband mapping efforts in the state in year 1. We propose continuing and building on this base in subsequent maintenance cycles. The lists below incorporate the currently used and proposed public and private data sources that we have used in the past and propose using during verification steps.



We propose to further develop spatial analysis procedures to integrate speed tests, and independent direct measurements with provider submitted coverages. The state used speed test clusters in year 1 mapping to validate provider presence for providers not participating in the process. We anticipate further refinement of these procedures can also assist in verification of provider coverage that they submitted. Converting speed test points to raster surfaces and using zonal statistics within existing dissolved coverage polygons would standardize the use of the speed tests for validation or provider submissions.

The state assigned a reliability code indicating the source and geographic scale of infrastructure data identified from public sources or submitted by providers, represented as an integer from 1 (low) to 10 (high), to all points in the operational data model in year 1 mapping. We propose continuing to assign this reliability code to all new infrastructure data collected in future maintenance cycles. The state used a persistent unique identifier to track each point and each instance of a point as they moved through the system and improved in quality, with old points retired instead of deleted. In maintenance cycles, this will also provide the advantage of temporal tracking of data and the basis for creating a historical tracking record and version history if required for maintenance cycles.

During our year 1 mapping we performed an independent survey and statistical analysis of broadband coverage. We propose doing a similar independent survey in year 3 of the project.

### ***Active Updates***

The state would like the opportunity to make the process defined above more active. That means targeting specific providers and data sets such as the ones listed below.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$297,000</u>
Total:	\$297,000

- Gathering a more complete cell tower database with specific ownership/equipment on multiple tower sites
- Moving our top 10 providers who delivered a partial dataset to providing a complete dataset, primarily through increased efforts by the state, direct meetings and web and GIS enabled GIS conference calls.
- Enhancement of typical speed reporting and subscriber weighted nominal speeds is proposed to better determine the speed information at a census block or provider coverage (for wireless coverage) level of geography.
- We do not anticipate extensive efforts to identify and process reseller data in the state. We consistently tried to distinguish between resellers not meeting the provider definition in year 1 mapping effort to avoid confusion in the data modeling results. We did, however, identify a number of resellers during year 1. We recognize the value and convenience of this data for customers, and plan a limited development of reseller data, which we propose to map as a standalone feature class of point address locations.
- Integration of public data sources has been an integral part of our methodology for broadband mapping throughout year 1 mapping effort. In maintenance periods in years 2-5 we propose continuing this effort and associated verification through reliability and validity codes and work flow as described in the methods above. We will apply lessons learned in the initial mapping effort.
- We did not identify free public Wi-Fi in the first year mapping effort but see promise in this given the return on investment for this technology in portions of urban areas, such as downtown development districts, business parks, university campuses and in small rural communities prevalent in all geographic regions of the state. We propose identifying these community efforts.

- We collected some pricing data during year 1 mapping, but it was non-systematic and opportunistic. We propose a standardized and systematic research of public data sources, including web research, advertisements through local media sources, provider interviews, and purchasing of MediaMark consumer expenditure data from ESRI consumer segmentation data for price points per tier, required bundles, equipment rebates or costs and incentive offers.
- When new providers enter the state, the initial data gathering, modeling and provider interaction is significant and consumes much more resources than maintaining an existing provider. We anticipate starting new provider processing in year 2.
- Major tech updates: As funding becomes available from things like BTOP grants and acquisitions, major technology changes could occur with current vendors. The state would like the ability to incorporate those significant changes into our mapping data.
- During year 1 mapping we conducted a direct measurement mapping effort using GPS enabled cell phones and driving over 4000 miles of Interstates and highways in the state. We plan on conducting a revised direct measurement exercise in year 3. However, the state will modify routes and measurement methodologies to focus on areas where the state believes the most changes occurred or where testing was not as dense as needed from the year 1 effort.
- Collecting all data elements for Anchor institutions has proved difficult due to the number of institutions and their understanding of their Internet connectivity. We feel a proactive effort of contacting both individual institutions and the umbrella organizations they are part of can increase the completeness and accuracy of this data set.

### ***Address File Development***

The state has determined that it will not ask for funding for any address file development initiatives. However, the state would like to have the ability to change which commercially or publicly available address files we use as we find more accurate data for our state. The map the state is currently developing uses Google's geocoding. We have found that data less than perfect for our state. In addition, we recognize that as time passes different data sources become better. So we anticipate that we will want to change the geocoding address source once in year two and two additional times during the grant period.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$15,000</u> + geocoding service charges
Total:	\$15,000

### ***Continued support of the speed test***

The state of North Dakota feels continuing to support a speed test site is an important part of our data validation efforts as we collect additional information not collected on the FCC speed test site. Maintenance, hosting, storage and licensing costs are estimated below.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$8000</u>
Total:	\$8000

## **Development**

### ***Develop a web application that allows providers to update their own data***

#### **Overview**

The State will build a web based data application for maintaining and creating broadband data. The application will allow for Providers and Anchor Institutions to update both spatial and attribute data directly using a simple web interface. The application will also allow for the State to use administrative level staff for broadband updates if the Providers do not wish to use the web application to maintain their own data.

Developing a web based maintenance application will provide many benefits including: increase data integrity through use of structured input, allow for cost effective data maintenance beyond the 5-year NTIA funding cycle, and provide for continuous update cycle as opposed to every 6 months.

The application will incorporate full authentication for each Provider to insure protection of proprietary information. It will also include tools that provide direct value to the Providers such as data export and PDF map generation to encourage their use of the application. The development team will create training materials and they will provide workshops at several locations around the State to increase Provider participation and acceptance of the application.

The state of North Dakota is interested in coordinating with Montana on the development of this application and sharing costs. The states will split some costs incurred and some will be State specific.

Shared Costs (Application Development) estimated total is \$218,000 for a cost per State of \$109,000.

Individual Costs (Application Installation, support, training) estimated cost is 68k.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$161,000</u>
Total:	\$161,000

**Cost Estimate** – Some application costs can be split between the States and some cannot.

#### ***Broadband Map Application Enhancements and Maintenance***

There are typically a number of enhancements that are desired after the initial rollout of an application as well as standard application maintenance. This funding would help the state of North Dakota make needed changes to make the site a more effective tool for its citizens. This funding could be necessary in year 2 of the project. Since the mapping application is not scheduled to roll out until August, no specific list of enhancements is available. Expected maintenance activities include insuring compatibility with future browser releases, updating web, GIS, and database servers, modifying application to address revisions to NTIA data model, etc.

Estimated cost \$40,000.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$40,000</u>
Total:	\$40,000

#### ***Future Leading Practices***

As the program matures, NTIA will identify leading practices that they will want all states to adopt. This request is to ensure the state will be able to comply with those requests. This funding is listed as "Other" in the SF424a form submitted with this document.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$152,949</u>
Total:	\$152,949

#### **Project Management**

The state requires project management and Large Project Oversight for any projects over \$250,000. (Note: vendor project management will be included in each of the above projects and not included in this section.) This includes a part-time project manager (50%) plus LPO fees.

Current Amount Funded:	\$128,250
New Funding Requested:	<u>\$183,000</u>
Total:	\$311,250

## Technology Planning

### Program Management and Reporting

The state requires the program to have staff dedicated to managing the overall direction of the Broadband Mapping & Planning efforts.

Current Amount Funded:	\$120,750
New Funding Requested:	<u>\$233,189</u>
Total:	\$353,939

This would be a program manager full-time with 75% federal funding and 25% state matching funding.

### Technical Assistance to ND Communities

EduTech has successfully delivered professional development to ND's K-12 educators for nearly twenty years. We will extend that professional development to adult/community education programs in ND communities via teacher/administrator teams who will be prepared by participating in EduTech's workshops. The sole purpose of the local school team is to increase community members' knowledge and use of Internet and other broadband resources through instruction and technical assistance.

Sub grants will be awarded to local teams of three teachers and one administrator per school district (TA teams) who will deliver workshops and technical assistance to community members through their adult education program. Each TA team will participate in four EduTech workshops (16 hours) to prepare for their service. The TA team is also responsible for workshop materials, marketing, lab space and any additional items that will ensure a successful experience for participants.

Workshop topics include Internet Safety, Social Networking, Google Applications and Microsoft Office. Each of the 4 sessions is 4 hours in length and will adequately prepare the team to deliver service in their community.

EduTech will issue a RFP for subgrants and will evaluate the grants based on an eight-point rubric. Grants will be awarded and schools will have 12 months to complete their education and technical assistance sessions. This program could begin in year 2 of the grant period.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$225,000</u>
Total:	\$225,000

### *Develop other reporting using data*

The state recognizes that both the NTIA formatted data and many data elements used to produce it could be of significant value to other state agencies such as the Department of Commerce and the Public Service Commission. The State is proposing to provide consulting, analysis, reporting, and map development services to State agencies that exceed what is available from basic web queries. This funding is to pay for development of those reports (using non-confidential or aggregate information).

Examples of possible products include –

- Create a report of underserved areas summarized by County or Zip Code.
- Create a map or areas with a population density above 100 people per square mile that does not have wireless broadband access.
- Create a map and a list of anchor institutions with broadband connections that are less than or equal to 2 Mbps.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$40,000</u>
Total:	\$40,000

## **ND Comprehensive Approach towards Leadership in a Digital Economy**

Governor John Hoeven has Technology as one of his six Pillars of Growth for North Dakota.

Specifically:

### **Technology - Working Together...Moving Forward**

Technology is an integral part of the lives of those who live, work and go to school in North Dakota. That's why it is important that we keep pace with rapid technology changes and incorporate advances that benefit North Dakotans. Technology is vital to the continued growth and success of our state because it creates the careers of the future, attracts and retains youth, and holds the promise of higher paying jobs.

We're building our information technology infrastructure to help businesses and government become more profitable and efficient. Measures include:

- Enhancing the Criminal Justice Information System's Hub, which helps law enforcement agencies better protect the public by providing criminal information to our law enforcement officials via a secure information hub.
- Funding for the Medicaid Management Information System (MMIS).
- Funding for the GIS Hub, which benefits education, economic development, agriculture, energy, and technology.
- Creation of a central database to manage animal tracking and disease containment.

### **Technology in Education**

Driving an agenda for growth in North Dakota must include education. In today's world, the link between education and commerce is crucial. Assisted by technology resources, student learning and research are integral to economic development in our state and to preparing our young people for the careers of the future.

The State is working with K-12 schools and the North Dakota University System to continue to promote educational opportunities that bring new knowledge to North Dakota and to develop and expand statewide educational technology initiatives to enhance learning and outcome for students.<sup>1</sup>

North Dakota's response to providing internet connectivity to government and education entities began with the North Dakota Statewide Technology Access for Government and Education Network (STAGEnet). Created from the 1999 Legislative Session, STAGEnet provides internet and networking services to government and education entities. It provides broadband connectivity, internet access, video conferencing, and other networking services. All state agencies, colleges and universities, local governments, and K-12 public schools are required to participate in STAGEnet.

The vision of STAGEnet is to provide a secure, reliable, and cost-effective network with the scale and flexibility to support the convergence of data, voice, and video to meet and surpass the business objectives of government and education. This implementation of e-government and e-education brings a wealth of new opportunities to city and rural residents alike by providing a win-win situation to the State, schools, and citizens.

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The success of STAGEnet remains contingent upon and has been a result of many private sector business partnerships developed through the anchor tenant model. ITD, which manages and operates STAGEnet, believes this model maximizes the balance of government investment and private sector opportunities to meet the needs of citizens. Working together, partners will seek ways to deliver broadband internet access throughout North Dakota so that citizens in rural and metro communities have the same opportunities available to them. This model has allowed the State and private sector businesses to successfully deliver affordable high-speed internet access to schools and citizens in rural communities that would otherwise not have this type of access. The State of North Dakota strives to keep pace with the industry's technological advances to address the business requirements of STAGEnet's consumers.

We believe the projects proposed in this request align directly with the strategic vision of the Governor and STAGEnet.

### **EVIDENCE OF SUPPORT:**

For our initial evidence of support, we would like to reference the North Dakota Governor's letter of designation submitted in our original application. In addition, we have the following letters of support.

#### **To Whom it May Concern:**

As a member of the Executive Steering Committee, our trade association has worked closely with North Dakota's Information Technology Department and numerous State agencies to fulfill the requirements of the Broadband Mapping initiative. The Committee has done a tremendous job of their monitoring of the "mapping" efforts and provided continuous guidance to ensure that a quality product is produced.

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David Crothers  
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Lisa Feldner

--

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# North Dakota SBDD Grant Supplemental Application – Project Abstract

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The state of North Dakota would like to request funding to add the following projects to the grant.

- The state would like to continue updating the maps on a biannual basis.  
Estimated cost = \$596,500
- The state would like improve the data by targeting specific providers and data sets such as the ones listed below.  
Estimated cost = \$297, 000
  - Gathering a complete cell tower database with specific ownership/equipment on multiple tower sites.
  - Moving our top 10 providers who delivered a partial dataset to providing a complete dataset.
  - Enhancement of typical speed reporting and subscriber weighted nominal speeds
  - free public Wi-Fi
  - pricing data
  - Cellular direct measurement
  - Improved Anchor Institution data
  - New providers
  - Major tech updates (i.e. AT&T coming into the state)
- Develop a web application that allows providers to update their own data. The state of North Dakota is interested in sharing this application with the state of Montana. We are both using the same vendor.  
Estimated cost = \$161,000
- The state would like to have the ability to change which commercially or publicly available address files we use as we find more accurate data for our state  
Estimated cost = \$15,000
- The state feels continuing to support a speed test site is an important part of our data validation efforts.  
Estimated cost = \$8,000
- The state would like to make some general enhancements to the map application.  
Estimated cost = \$40,000
- Future Leading Practices to be determined by NTIA.  
Estimated cost = \$152,949
- The state has strong project management requirements for IT projects.  
Estimated cost = \$183,000
- The state believes that a program director is necessary to guide, coordinate and report on this effort.  
Estimated cost = \$233,189
- Technical Assistance to ND Communities via K12 and adult education programs  
Estimated cost = \$225,000
- The state would like to provide consulting, analysis, reporting, and map development services to State agencies against the data collected that exceed what is available from basic web queries.  
Estimated cost = \$40,000

North Dakota would like to continue to improve the data and how that data is displayed over the rest of the grant life. We will continue to work hard towards making the effort sustainable after federal funding expires.



# North Dakota SBDD Grant Supplemental Application – Project Narrative

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## **Currently Funded Activities**

The state of North Dakota received a State Broadband Data and Development grant in December of 2009. The grant award was to accomplish the following objectives:

- Gather broadband availability data from the providers and public sources and transform the data to meet the requirements of the Notice of Funds Availability (NOFA) issued by the National Telecommunications and Information Administration (NTIA)
- Gather other data requirements (such as anchor institution data) as required by the NOFA and grant award
- Develop an interactive map of broadband availability available to the public
- The state's STAGEnet organization will work with public safety institutions, healthcare, and medical institutions to determine the feasibility of leveraging the organizational structure, relationships with anchor institutions and providers and the network itself in providing both of those service areas with broadband services.

The state of North Dakota would like to request funding to add the following efforts to the grant.

## PROGRAM NARRATIVE

### **Data Collection, Integration, Verification and Display**

The state recognizes the need to maintain and improve the underlying data of the map and how the state presents that data to the public. The following is a description of the efforts the state would like funding to perform.

#### **Data Collection & Analysis**

##### *Updates*

The state would like to continue updating the maps on a biannual basis as described below.

Current Amount Funded:	\$66,500
New Funding Requested:	<u>\$530,000</u>
Total:	\$596,500

##### **Data Gathering Methodology**

The state would like to continue updating the maps on a biannual basis. The current process is to send to each provider the current dataset requesting him or her to provide any updates. Then process all returned data. We would like to utilize our current vendor and contract to perform this work.

During the first round of mapping, we accepted any provider submissions as is and adapted to scores of different formats and iterative processes. Keeping the maintenance process simple, standardized and repeatable will be the key to success in maintaining quality and maintenance costs in the future. Given the reluctance of most providers to submit infrastructure, we propose focusing our interactions with existing providers primarily on standardized census block map and spreadsheet updates for year 2-3 updates - we are proposing switching to a web based update methodology in years 4 and 5 which is described in a subsequent section.

The state will accomplish the infrastructure acquisition and modeling, a major focus of our year 1 mapping, through additional public resources and independent measurements (detailed in other sections). We will continue to request and work with infrastructure requests in selective situations with willing providers who submitted this type of data in year 1.

##### **Processes for Data Integration**

The state will maintain the data integration during maintenance and future development cycles in the operational geodatabase structure we developed in year 1 mapping and propose continuing to maintain in years 2-5. A feature class labeled "Last point of aggregation" (LPA) in the operational database was created to hold point locations of broadband infrastructure (examples include central offices, remote terminals, head ends, etc.). Addresses purchased or obtained at any level of geography will be processed, including geocoding a street address (using ESRI Business Analyst and TeleAtlas data), or locating a point in a town (snapped to the USGS Geographic Names Information System location), and all mobile wireless locations obtained from public sources or commercial sources with validity checks using NAIP aerial imagery and Google Street View, and Bing 3D where coverage exists.

##### **Verification Methodology**

Our contractor developed a robust reliability and validity methodology that was integral to the broadband mapping efforts in the state in year 1. We propose continuing and building on this base in subsequent maintenance cycles. The lists below incorporate the currently used and proposed public and private data sources that we have used in the past and propose using during verification steps.

We propose to further develop spatial analysis procedures to integrate speed tests, and independent direct measurements with provider submitted coverages. The state used speed test clusters in year 1 mapping to validate provider presence for providers not participating in the process. We anticipate further refinement of these procedures can also assist in verification of provider coverage that they submitted. Converting speed test points to raster surfaces and using zonal statistics within existing dissolved coverage polygons would standardize the use of the speed tests for validation or provider submissions.

The state assigned a reliability code indicating the source and geographic scale of infrastructure data identified from public sources or submitted by providers, represented as an integer from 1 (low) to 10 (high), to all points in the operational data model in year 1 mapping. We propose continuing to assign this reliability code to all new infrastructure data collected in future maintenance cycles. The state used a persistent unique identifier to track each point and each instance of a point as they moved through the system and improved in quality, with old points retired instead of deleted. In maintenance cycles, this will also provide the advantage of temporal tracking of data and the basis for creating a historical tracking record and version history if required for maintenance cycles.

During our year 1 mapping we performed an independent survey and statistical analysis of broadband coverage. We propose doing a similar independent survey in year 3 of the project.

### *Active Updates*

The state would like the opportunity to make the process defined above more active. That means targeting specific providers and data sets such as the ones listed below.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$297,000</u>
Total:	\$297,000

- Gathering a more complete cell tower database with specific ownership/equipment on multiple tower sites
- Moving our top 10 providers who delivered a partial dataset to providing a complete dataset, primarily through increased efforts by the state, direct meetings and web and GIS enabled GIS conference calls.
- Enhancement of typical speed reporting and subscriber weighted nominal speeds is proposed to better determine the speed information at a census block or provider coverage (for wireless coverage) level of geography.
- We do not anticipate extensive efforts to identify and process reseller data in the state. We consistently tried to distinguish between resellers not meeting the provider definition in year 1 mapping effort to avoid confusion in the data modeling results. We did, however, identify a number of resellers during year 1. We recognize the value and convenience of this data for customers, and plan a limited development of reseller data, which we propose to map as a standalone feature class of point address locations.
- Integration of public data sources has been an integral part of our methodology for broadband mapping throughout year 1 mapping effort. In maintenance periods in years 2-5 we propose continuing this effort and associated verification through reliability and validity codes and work flow as described in the methods above. We will apply lessons learned in the initial mapping effort.
- We did not identify free public Wi-Fi in the first year mapping effort but see promise in this given the return on investment for this technology in portions of urban areas, such as downtown development districts, business parks, university campuses and in small rural communities prevalent in all geographic regions of the state. We propose identifying these community efforts.

- We collected some pricing data during year 1 mapping, but it was non-systematic and opportunistic. We propose a standardized and systematic research of public data sources, including web research, advertisements through local media sources, provider interviews, and purchasing of MediaMark consumer expenditure data from ESRI consumer segmentation data for price points per tier, required bundles, equipment rebates or costs and incentive offers.
- When new providers enter the state, the initial data gathering, modeling and provider interaction is significant and consumes much more resources than maintaining an existing provider. We anticipate starting new provider processing in year 2.
- Major tech updates: As funding becomes available from things like BTOP grants and acquisitions, major technology changes could occur with current vendors. The state would like the ability to incorporate those significant changes into our mapping data.
- During year 1 mapping we conducted a direct measurement mapping effort using GPS enabled cell phones and driving over 4000 miles of Interstates and highways in the state. We plan on conducting a revised direct measurement exercise in year 3. However, the state will modify routes and measurement methodologies to focus on areas where the state believes the most changes occurred or where testing was not as dense as needed from the year 1 effort.
- Collecting all data elements for Anchor institutions has proved difficult due to the number of institutions and their understanding of their Internet connectivity. We feel a proactive effort of contacting both individual institutions and the umbrella organizations they are part of can increase the completeness and accuracy of this data set.

***Address File Development***

The state has determined that it will not ask for funding for any address file development initiatives. However, the state would like to have the ability to change which commercially or publicly available address files we use as we find more accurate data for our state. The map the state is currently developing uses Google’s geocoding. We have found that data less than perfect for our state. In addition, we recognize that as time passes different data sources become better. So we anticipate that we will want to change the geocoding address source once in year two and two additional times during the grant period.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$15,000</u> + geocoding service charges
Total:	\$15,000

***Continued support of the speed test***

The state of North Dakota feels continuing to support a speed test site is an important part of our data validation efforts as we collect additional information not collected on the FCC speed test site. Maintenance, hosting, storage and licensing costs are estimated below.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$8000</u>
Total:	\$8000

**Development**

***Develop a web application that allows providers to update their own data***

**Overview**

The State will build a web based data application for maintaining and creating broadband data. The application will allow for Providers and Anchor Institutions to update both spatial and attribute data directly using a simple web interface. The application will also allow for the State to use administrative level staff for broadband updates if the Providers do not wish to use the web application to maintain their own data.

Developing a web based maintenance application will provide many benefits including: increase data integrity through use of structured input, allow for cost effective data maintenance beyond the 5-year NTIA funding cycle, and provide for continuous update cycle as opposed to every 6 months.

The application will incorporate full authentication for each Provider to insure protection of proprietary information. It will also include tools that provide direct value to the Providers such as data export and PDF map generation to encourage their use of the application. The development team will create training materials and they will provide workshops at several locations around the State to increase Provider participation and acceptance of the application.

The state of North Dakota is interested in coordinating with Montana on the development of this application and sharing costs. The states will split some costs incurred and some will be State specific.

Shared Costs (Application Development) estimated total is \$218,000 for a cost per State of \$109,000.

Individual Costs (Application Installation, support, training) estimated cost is 68k.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$161,000</u>
Total:	\$161,000

**Cost Estimate** – Some application costs can be split between the States and some cannot.

***Broadband Map Application Enhancements and Maintenance***

There are typically a number of enhancements that are desired after the initial rollout of an application as well as standard application maintenance. This funding would help the state of North Dakota make needed changes to make the site a more effective tool for its citizens. This funding could be necessary in year 2 of the project. Since the mapping application is not scheduled to roll out until August, no specific list of enhancements is available. Expected maintenance activities include insuring compatibility with future browser releases, updating web, GIS, and database servers, modifying application to address revisions to NTIA data model, etc.

Estimated cost \$40,000.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$40,000</u>
Total:	\$40,000

***Future Leading Practices***

As the program matures, NTIA will identify leading practices that they will want all states to adopt. This request is to ensure the state will be able to comply with those requests. This funding is listed as "Other" in the SF424a form submitted with this document.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$152,949</u>
Total:	\$152,949

**Project Management**

The state requires project management and Large Project Oversight for any projects over \$250,000. (Note: vendor project management will be included in each of the above projects and not included in this section.) This includes a part-time project manager (50%) plus LPO fees.

Current Amount Funded:	\$128,250
New Funding Requested:	<u>\$183,000</u>
Total:	\$311,250

## Technology Planning

### Program Management and Reporting

The state requires the program to have staff dedicated to managing the overall direction of the Broadband Mapping & Planning efforts.

Current Amount Funded:	\$120,750
New Funding Requested:	<u>\$233,189</u>
Total:	\$353,939

This would be a program manager full-time with 75% federal funding and 25% state matching funding.

### Technical Assistance to ND Communities

EduTech has successfully delivered professional development to ND's K-12 educators for nearly twenty years. We will extend that professional development to adult/community education programs in ND communities via teacher/administrator teams who will be prepared by participating in EduTech's workshops. The sole purpose of the local school team is to increase community members' knowledge and use of Internet and other broadband resources through instruction and technical assistance.

Sub grants will be awarded to local teams of three teachers and one administrator per school district (TA teams) who will deliver workshops and technical assistance to community members through their adult education program. Each TA team will participate in four EduTech workshops (16 hours) to prepare for their service. The TA team is also responsible for workshop materials, marketing, lab space and any additional items that will ensure a successful experience for participants.

Workshop topics include Internet Safety, Social Networking, Google Applications and Microsoft Office. Each of the 4 sessions is 4 hours in length and will adequately prepare the team to deliver service in their community.

EduTech will issue a RFP for subgrants and will evaluate the grants based on an eight-point rubric. Grants will be awarded and schools will have 12 months to complete their education and technical assistance sessions. This program could begin in year 2 of the grant period.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$225,000</u>
Total:	\$225,000

### *Develop other reporting using data*

The state recognizes that both the NTIA formatted data and many data elements used to produce it could be of significant value to other state agencies such as the Department of Commerce and the Public Service Commission. The State is proposing to provide consulting, analysis, reporting, and map development services to State agencies that exceed what is available from basic web queries. This funding is to pay for development of those reports (using non-confidential or aggregate information).

Examples of possible products include –

- Create a report of underserved areas summarized by County or Zip Code.
- Create a map or areas with a population density above 100 people per square mile that does not have wireless broadband access.
- Create a map and a list of anchor institutions with broadband connections that are less than or equal to 2 Mbps.

Current Amount Funded:	\$0
New Funding Requested:	<u>\$40,000</u>
Total:	\$40,000

## **ND Comprehensive Approach towards Leadership in a Digital Economy**

Governor John Hoeven has Technology as one of his six Pillars of Growth for North Dakota.

Specifically:

### **Technology - Working Together...Moving Forward**

Technology is an integral part of the lives of those who live, work and go to school in North Dakota. That's why it is important that we keep pace with rapid technology changes and incorporate advances that benefit North Dakotans. Technology is vital to the continued growth and success of our state because it creates the careers of the future, attracts and retains youth, and holds the promise of higher paying jobs.

We're building our information technology infrastructure to help businesses and government become more profitable and efficient. Measures include:

- Enhancing the Criminal Justice Information System's Hub, which helps law enforcement agencies better protect the public by providing criminal information to our law enforcement officials via a secure information hub.
- Funding for the Medicaid Management Information System (MMIS).
- Funding for the GIS Hub, which benefits education, economic development, agriculture, energy, and technology.
- Creation of a central database to manage animal tracking and disease containment.

### **Technology in Education**

Driving an agenda for growth in North Dakota must include education. In today's world, the link between education and commerce is crucial. Assisted by technology resources, student learning and research are integral to economic development in our state and to preparing our young people for the careers of the future.

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# North Dakota SBDD Grant Supplemental Application – Budget Narrative

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The State has developed the following narrative and spreadsheet after collaborating with GIS and information technology experts from within the state and the vendor performing our current mapping activities. The State is requesting a broadband mapping grant of \$2,494,799 to complete the project as identified in our Project Narrative. This amount consists of \$1,972,201 in Federal funding and \$522,598 in state matching funds.

The budget is organized into four categories: Development, Data Collection, Program Management/Reporting, and Planning. Personnel, fringe benefits, travel, equipment, supplies, and contractual costs are calculated over a 3-year time span unless otherwise noted in spreadsheet and project narrative. The supplemental request breakout can be found at the end of this document.

More details regarding the individual efforts can be found in the project narrative. Details on individual project costs and the transformation of the costs into the categories and the estimated annual spend rate can be found on the Budget tab.

## Contracted Work

The state intends to contract for a significant amount of the work. Once funding is secured, the state will begin procuring services and/or modifying our current vendor's contract for these activities.

One key project is the shared development with the state of Montana on a web application that allows providers to directly enter and modify their data. A more detailed breakout of costs on that project can be found below.

Activity	Total Cost	ND Share
<b>Shared Costs (total that can be split if States team)</b>		
Requirements Definition	\$30,000	\$15,000
Database design	\$16,000	\$8,000
Application Administration Design\Build	\$32,000	\$16,000
Application Design\Build	\$128,000	\$64,000
Training Materials Development	\$12,000	\$6,000
<b>Subtotal</b>	<b>\$218,000</b>	<b>\$109,000</b>
<b>Individual State Costs</b>		
User Acceptance Testing (UAT)	\$12,000	\$12,000
Training Workshops	\$16,000	\$16,000
Application Installation and Support	\$24,000	\$24,000
<b>Subtotal</b>	<b>\$52,000</b>	<b>\$52,000</b>
<b>Project Total</b>		<b>\$161,000</b>

State Matching Funds

The State intends to provide several sources of in-kind match for this grant: A number of staff provide support for the K-12 portion of the statewide network. This network is a key component to the state's strategy of using "anchor institutions" to drive technology to most areas of the state. We are taking only 15% of their cost over a 3-year period to form a part of our matching strategy. We used the same percentage to calculate our equipment investment over a 3-year period. Last summer we upgraded over 180 K-12 locations moving them from ATM (T1) technology to Ethernet technology increasing bandwidth available significantly. We will continue to leverage our GIS infrastructure to support the map. Finally, the state will use our own funding for 25% of the Program Director position. Details of our calculations can be found on the Matching Principles tab of the spreadsheet.

Description			Total	Personnel	Fringe Ben	Travel	Equip
K12 Broadband Staffing			\$157,500	\$110,250	\$47,250		
K12 Equipment			\$270,000				\$270,000
GIS Infrastructure			\$59,098				\$59,098
Program Director	1000	36	\$36,000	\$25,200	\$10,800		
<b>Sub Total</b>			<b>\$522,598</b>	<b>\$135,450</b>	<b>\$58,050</b>	<b>\$0</b>	<b>\$329,098</b>

Broadband Mapping Budget Estimate

Description		Total	Personnel	Fringe Ben	Travel	Equip	Supplies	Contractual	Other	Indirect
<b>Development</b>		<b>\$695,836</b>	<b>\$105,336</b>	<b>\$45,144</b>	<b>\$0</b>	<b>\$23,520</b>	<b>\$0</b>	<b>\$501,736</b>	<b>\$0</b>	<b>\$20,100</b>
Y3-5	Fed	\$221,100	\$0	\$0	\$0	\$0	\$0	\$201,000	\$0	\$20,100
	In-Kind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Data Collection</b>		<b>\$2,726,616</b>	<b>\$110,250</b>	<b>\$47,250</b>	<b>\$0</b>	<b>\$329,098</b>	<b>\$0</b>	<b>\$1,968,718</b>	<b>\$153,410</b>	<b>\$117,891</b>
Y3-5	Fed	\$1,296,801	\$0	\$0	\$0	\$0	\$0	\$1,025,500	\$153,410	\$117,891
	In-Kind	\$486,598	\$110,250	\$47,250	\$0	\$329,098	\$0	\$0	\$0	\$0
<b>Program Mgmt / Reporting</b>		<b>\$525,599</b>	<b>\$272,071</b>	<b>\$114,968</b>	<b>\$46,012</b>	<b>\$22,845</b>	<b>\$1,503</b>	<b>\$45,900</b>	<b>\$7,500</b>	<b>\$14,800</b>
Y3-5	Fed	\$162,800	\$75,600	\$32,400	\$40,000	\$0	\$0	\$0	\$0	\$14,800
	In-Kind	\$36,000	\$25,200	\$10,800	\$0	\$0	\$0	\$0	\$0	\$0
<b>Planning</b>		<b>\$599,900</b>	<b>\$141,562</b>	<b>\$60,670</b>	<b>\$100,000</b>	<b>\$6,168</b>	<b>\$0</b>	<b>\$115,000</b>	<b>\$150,000</b>	<b>\$26,500</b>
Y3-5	Fed	\$291,500	\$0	\$0	\$0	\$0	\$0	\$115,000	\$150,000	\$26,500
	In-Kind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>		<b>\$2,494,799</b>	<b>\$211,050</b>	<b>\$90,450</b>	<b>\$40,000</b>	<b>\$329,098</b>	<b>\$0</b>	<b>\$1,341,500</b>	<b>\$303,410</b>	<b>\$179,291</b>
Y3-5	Fed	\$1,972,201	\$75,600	\$32,400	\$40,000	\$0	\$0	\$1,341,500	\$303,410	\$179,291
	In-Kind	\$522,598	\$135,450	\$58,050	\$0	\$329,098	\$0	\$0	\$0	\$0

<b>Application for Federal Assistance SF-424</b>		Version 02
<b>*1. Type of Submission</b> <input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	<b>*2. Type of Application</b> <input type="checkbox"/> New <input type="checkbox"/> Continuation <input checked="" type="checkbox"/> Revision	<b>*If Revision, select appropriate letter(s):</b> A, C  * Other (Specify) A, C
<b>*3. Date Received:</b>		<b>4. Application Identifier:</b>
<b>5a. Federal Entity Identifier:</b>		<b>*5b. Federal Award Identifier:</b> 38-50-M09050
<b>State Use Only:</b>		
<b>6. Date Received by State:</b>		<b>7. State Application Identifier:</b>
<b>8. APPLICANT INFORMATION:</b>		
<b>* a. Legal Name: State of North Dakota, Information Technology Department</b>		
<b>* b. Employer/Taxpayer Identification Number (EIN/TIN):</b> 45-0309764		<b>*c. Organizational DUNS:</b> 073131823
<b>d. Address:</b>		
<b>*Street1: 600 East Boulevard Ave</b> Street 2: <b>*City: Bismarck</b> <b>County: Burleigh</b> <b>*State: ND</b> Province: <b>Country: USA</b>		
<b>*Zip/ Postal Code: 58505-0100</b>		
<b>e. Organizational Unit:</b>		
<b>Department Name:</b> Information Technology Dept		<b>Division Name:</b>
<b>f. Name and contact information of person to be contacted on matters involving this application:</b>		
<b>Prefix: Dr.</b> Middle Name:		<b>First Name: Lisa</b>
<b>*Last Name: Feldner</b> Suffix:		
<b>Title: Chief Information Officer</b>		
<b>Organizational Affiliation:</b>		
<b>*Telephone Number: 701-328-3190</b>		<b>Fax Number: 701-328-0301</b>
<b>*Email: lfeldner@nd.gov</b>		

**Application for Federal Assistance SF-424**

Version 02

9. Type of Applicant 1: Select Applicant Type: **A. State Government**

Type of Applicant 2: Select Applicant Type:  
- Select One -

Type of Applicant 3: Select Applicant Type:  
- Select One -

\*Other (specify):

\*10. Name of Federal Agency:  
**Department of Commerce**

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

\*12. Funding Opportunity Number: **0660-ZA29**

\*Title: **Recovery Act - State Broadband Data and Development Grant Program**

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

**All cities, counties, and tribal entities in the State will be included in the creation of a comprehensive statewide broadband map.**

\*15. Descriptive Title of Applicant's Project:

**North Dakota Broadband Mapping Project**

**Attach supporting documents as specified in agency instructions.**



**Application for Federal Assistance SF-424**

Version 02

**\*Applicant Federal Debt Delinquency Explanation**

The following field should contain an explanation if the Applicant organization is delinquent on any Federal Debt. Maximum number of characters that can be entered is 4,000. Try and avoid extra spaces and carriage returns to maximize the availability of space.



**BUDGET INFORMATION - Non-Construction Programs**

OMB Approval No. 0348-0044

<b>SECTION A - BUDGET SUMMARY</b>						
Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. SBDD	11.558	\$	\$	\$ 2,050,333.00	\$ 543,928.00	\$ 2,594,261.00
2.						0.00
3.						0.00
4.						0.00
5. Totals		\$ 0.00	\$ 0.00	\$ 2,050,333.00	\$ 543,928.00	\$ 2,594,261.00
<b>SECTION B - BUDGET CATEGORIES</b>						
6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY					Total (5)
	(1)	(2)	(3)			
a. Personnel	\$ 120,393.00	\$ 150,381.00	\$	\$	\$ 270,774.00	
b. Fringe Benefits	51,597.00	64,449.00			116,046.00	
c. Travel	40,000.00				40,000.00	
d. Equipment					0.00	
e. Supplies					0.00	
f. Contractual	1,341,500.00				1,341,500.00	
g. Construction					0.00	
h. Other	310,449.00	329,098.00			639,547.00	
i. Total Direct Charges (sum of 6a-6h)	1,863,939.00	543,928.00	0.00	0.00	2,407,867.00	
j. Indirect Charges	186,394.00				186,394.00	
k. TOTALS (sum of 6i and 6j)	\$ 2,050,333.00	\$ 543,928.00	\$ 0.00	\$ 0.00	\$ 2,594,261.00	
7. Program Income	\$	\$	\$	\$	\$ 0.00	

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SECTION C - NON-FEDERAL RESOURCES					
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS	
8. SBDD	\$	\$ 543,928.00	\$	\$ 543,928.00	
9.				0.00	
10.				0.00	
11.				0.00	
12. TOTAL (sum of lines 8-11)	\$ 0.00	\$ 543,928.00	\$ 0.00	\$ 543,928.00	
SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 0.00	\$	\$	\$	\$
14. Non-Federal	0.00				
15. TOTAL (sum of lines 13 and 14)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT					
(a) Grant Program	FUTURE FUNDING PERIODS (Years)				
	(b) First	(c) Second	(d) Third	(e) Fourth	
16. SBDD	\$	\$	\$	\$	
17.					
18.					
19.					
20. TOTAL (sum of lines 16-19)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00	
SECTION F - OTHER BUDGET INFORMATION					
21. Direct Charges: \$1,863,939		22. Indirect Charges: \$186,394			
23. Remarks:					

**ASSURANCES - NON-CONSTRUCTION PROGRAMS**

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

**PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET.  
SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.**

**NOTE:** Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE Chief Information Officer
APPLICANT ORGANIZATION State of North Dakota, Information Technology Department	DATE SUBMITTED July 1, 2010

**BUDGET INFORMATION - Non-Construction Programs**

OMB Approval No. 0348-0044

**SECTION A - BUDGET SUMMARY**

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	
1 SBDD	11.558			\$ 2,050,333	\$ 543,928	\$ 2,594,261
2						\$ -
3						\$ -
4						\$ -
5 Totals						\$ 2,594,261

**SECTION B - BUDGET CATEGORIES**

6 Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY		Total (5)
	(1) Federal	(2) Non-Federal	
a. Personnel	\$ 120,393	\$ 150,381	\$ 270,774
b. Fringe Benefits	\$ 51,597	\$ 64,449	\$ 116,046
c. Travel	\$ 40,000	\$ -	\$ 40,000
d. Equipment	\$ -	\$ -	\$ -
e. Supplies	\$ -	\$ -	\$ -
f. Contractual	\$ 1,341,500	\$ -	\$ 1,341,501
g. Construction	\$ -	\$ -	\$ -
h. Other	\$ 310,449	\$ 329,098	\$ 639,547
i. Total Direct Charges (sum of 6a-6h)	\$ 1,863,939	\$ 543,928	\$ 2,407,868
j. Indirect Charges	\$ 186,394	\$ -	\$ 186,394
k. TOTALS (sum of 6i and 6j)	\$ 2,050,333	\$ 543,928	\$ 2,594,262

7 Program Income \$ -

**SECTION C - NON-FEDERAL RESOURCES**

(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8 SBDD	\$ -	\$ -	\$ 543,928	\$ 543,928
9				\$ -
10				\$ -
11				\$ -
12 TOTAL (sum of lines 8-11)	\$ -	\$ -	\$ 543,928	\$ 543,928

**SECTION D - FORECASTED CASH NEEDS**

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13 Federal	\$ -				
14 Non-Federal	\$ -				
15 TOTAL (sum of lines 13 and 14)	\$ -				

**SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT**

(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16				
17				
18				
19				
20 TOTAL (sum of lines 16-19)				

**SECTION F - OTHER BUDGET INFORMATION**

21 Direct Charges:	\$1,863,939	22. Indirect Charges:	\$186,394
--------------------	-------------	-----------------------	-----------

23 Remarks:

**GRANTEE NAME:** (ND) Information Technology Department

**Directions:** For each sheet, please edit the cells that are empty, not the cells with the grey background.

**PLEASE ENTER YOUR EXISTING, APPROVED BUDGET BELOW.** It should match your current SF 424.

EXISTING BUDGET	Federal	Match	Total
Personnel Salaries	\$410,698	\$28,723	\$439,421
Fringe Benefits	\$176,014	\$10,677	\$186,691
Travel	\$100,000	\$0	\$100,000
Equipment	\$29,688	\$0	\$29,688
Supplies	\$0	\$0	\$0
Subcontracts	\$889,853	\$400,000	\$1,289,853
Construction	\$0	\$0	\$0
Other	\$7,500	\$0	\$7,500
<b>Total Direct Costs</b>	<b>\$1,613,753</b>	<b>\$439,400</b>	<b>\$2,053,153</b>
<b>Total Indirect Costs</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Total Costs</b>	<b>\$1,613,753</b>	<b>\$439,400</b>	<b>\$2,053,153</b>
<b>% Federal Share</b>	<b>78.60%</b>		
<b>% Applicant Share</b>		<b>21.40%</b>	

**PLEASE DO NOT ENTER TEXT BELOW.** It will populate automatically after you complete the other sheets.

REQUESTED BUDGET	Federal	Match	Total
Personnel Salaries	\$120,393	150,381	\$270,774
Fringe Benefits	\$51,597	64449	\$116,046
Travel	40,000	0	\$40,000
Equipment	0	0	\$0
Supplies	0	0	\$0
Subcontracts	1,341,500	0	\$1,341,500
Construction	0	0	\$0
Other	310,449	329097.96	\$639,547
<b>Total Direct Costs</b>	<b>\$1,863,939</b>	<b>\$543,928</b>	<b>\$2,407,867</b>
<b>Total Indirect Costs</b>	<b>186,394</b>	<b>\$0</b>	<b>\$186,394</b>
<b>Total Costs</b>	<b>\$2,050,333</b>	<b>\$543,928</b>	<b>\$2,594,261</b>
<b>% Federal Share</b>			
<b>% Applicant Share</b>			

(ND) Information Technology Department		Per Request as % of total project costs				2018
NEW FEDERAL REQUEST ONLY	Project Yr 2	Project Yr 3	Project Yr 4	Project Yr 5	Total	
<b>Personnel Salaries</b>						
Program Director	0	40,131	40,131	40,131	\$120,393	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
<b>Total</b>	<b>0</b>	<b>40,131</b>	<b>40,131</b>	<b>40,131</b>	<b>\$120,393</b>	<b>120,393</b>
<b>Fringe Benefits</b>						
Program Director	0	17,199	17,199	17,199	\$51,597	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
<b>Total</b>	<b>0</b>	<b>17,199</b>	<b>17,199</b>	<b>17,199</b>	<b>\$51,597</b>	<b>51,597</b>
<b>Travel</b>						
In-State	5,000	5,000	5,000	5,000	\$20,000	
Out-of-State	5,000	5,000	5,000	5,000	\$20,000	
<b>Total</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>	<b>\$40,000</b>	<b>40,000</b>
<b>Equipment</b>						
					\$0	
					\$0	
					\$0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>
<b>Supplies</b>						
					\$0	
					\$0	
					\$0	
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>
<b>Subcontracts</b>						
Contractor for data collection, analysis	40,750	460,417	460,417	379,917	\$1,341,500	
					\$0	
					\$0	
<b>Total</b>	<b>40,750</b>	<b>460,417</b>	<b>460,417</b>	<b>379,917</b>	<b>\$1,341,500</b>	<b>1,341,500</b>
<b>Construction</b>						
	0	0	0	0	\$0	
<b>Other</b>						
Future Leading Practices, Large Project Oversight, & Subgrants for Technical Assistance Program	90,737	93,237	88,237	38,237	\$310,449	
	0	0	0	0	\$0	
	0	0	0	0	\$0	
<b>Total</b>	<b>90,737</b>	<b>93,237</b>	<b>88,237</b>	<b>38,237</b>	<b>\$310,449</b>	<b>310,449</b>
<b>Total Direct Costs</b>	<b>141,487</b>	<b>620,984</b>	<b>615,984</b>	<b>485,484</b>	<b>\$1,863,939</b>	<b>1,863,939</b>
<b>Total Indirect Costs</b>	<b>14,149</b>	<b>62,098</b>	<b>61,598</b>	<b>48,548</b>	<b>\$186,394</b>	
<b>Total Costs</b>	<b>155,636</b>	<b>683,082</b>	<b>677,582</b>	<b>534,032</b>	<b>\$2,050,333</b>	

(ND) Information Technology Department		MATCH as % of total project cost					2011
PROPOSED MATCH FOR NEW FEDERAL FUND REQUEST	Project Yr 2	Project Yr 3	Project Yr 4	Project Yr 5	Total		
<b>Personnel Salaries</b>							
Program Director	0	13,377	13,377	13,377	\$40,131		
K12 Broadband Staffing	0	36,750	36,750	36,750	\$110,250		
	0	0	0	0	\$0		
<b>Total</b>	<b>0</b>	<b>50,127</b>	<b>50,127</b>	<b>50,127</b>	<b>\$150,381</b>	<b>150,381</b>	
<b>Fringe Benefits (@ XX%)</b>							
Program Director	0	5,733	5,733	5,733	\$17,199		
K12 Broadband Staffing	0	15,750	15,750	15,750	\$47,250		
	0	0	0	0	\$0		
<b>Total</b>	<b>0</b>	<b>21,483</b>	<b>21,483</b>	<b>21,483</b>	<b>\$64,449</b>	<b>64,449</b>	
<b>Travel</b>							
<i>In-State</i>	0	0	0	0	\$0		
<i>Out-of-State</i>	0	0	0	0	\$0		
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	
<b>Equipment</b>							
	0	0	0	0	\$0		
	0	0	0	0	\$0		
	0	0	0	0	\$0		
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	
<b>Supplies</b>							
	0	0	0	0	\$0		
	0	0	0	0	\$0		
	0	0	0	0	\$0		
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	
<b>Subcontracts</b>							
	0	0	0	0	\$0		
	0	0	0	0	\$0		
	0	0	0	0	\$0		
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>0</b>	
<i>Construction</i>	0	0	0	0	\$0		
<b>Other</b>					\$0		
K12 Equipment	0	90,000	90,000	90,000	\$270,000		
GIS Infrastructure	0	19,699	19,699	19,699	\$59,098		
	0	0	0	0	\$0		
	0	0	0	0	\$0		
	0	0	0	0	\$0		
<b>Total</b>	<b>0</b>	<b>109,699</b>	<b>109,699</b>	<b>109,699</b>	<b>\$329,098</b>	<b>329,098</b>	
<b>Total Direct Costs</b>	<b>0</b>	<b>181,309</b>	<b>181,309</b>	<b>181,309</b>	<b>\$543,928</b>	<b>543,928</b>	
<b>Total Indirect Costs</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>\$0</b>		
<b>Total Costs</b>	<b>0</b>	<b>181,309</b>	<b>181,309</b>	<b>181,309</b>	<b>\$543,928</b>		



Requesting Title	Title Detail	Unit Cost	Periods	Total	Personnel	Fringe Ben	Travel	Equip	Supplies	Space Rent, Prof Dev	
										Contractual	Other
1 Application Development	9 Apr 2014-10/14	75	1872	\$140,472	\$28,180	\$42,150					
1 Data Storage	Storage of Data	10	2808	\$24,000	\$5,040	\$5,790		\$16,890			
1 GIS Storage	Storage of Data	75	2628	\$5,910	\$1,216	\$464		\$1,720			
3 Program Manager	Ongoing oversight	75	3120	\$234,000	\$156,787	\$67,194	\$6,012	\$2,505	\$1,503		
4 Broadband Planning				\$208,400	\$141,562	\$60,670	\$100,000	\$6,168			
Oracle Hosting	Tabular Data	0	60	\$0							
GIS Hosting	Special Data	0	60	\$0							
Web Hosting	Presentation of Maps	0	60	\$0							
Project Management	Initial Project	75	0	\$0							
GIS Coordinator	Bob's time	75	0	\$0							
Assessing Costs				\$0							\$0
Broadband Assessment				\$0							\$0
Spectrum Analysis				\$0							\$0
<b>Total Cost</b>				<b>\$1,613,753</b>	<b>\$403,685</b>	<b>\$173,008</b>	<b>\$106,012</b>	<b>\$32,198</b>	<b>\$1,503</b>	<b>\$889,853</b>	<b>\$7,500</b>

Data directly from PS - will need JV's to move \$ into 1092

Requesting Title	Title Detail	Unit Cost	Periods	Total	Personnel	Fringe Ben	Travel	Equip	Supplies	Service Fees		Indirect
										Contractual	Other	
1 Application Development	9 Apr 2014-10/14	75	1872	\$140,472	\$28,180	\$42,150						
1 Data Storage	Storage of Data	10	2808	\$24,000	\$5,040	\$5,790		\$16,890				
1 GIS Storage	Storage of Data	75	2628	\$5,910	\$1,216	\$464		\$1,720				
3 Program Manager	Ongoing oversight	75	3120	\$234,000	\$156,787	\$67,194	\$6,012	\$2,505	\$1,503			
4 Broadband Planning				\$208,400	\$141,562	\$60,670	\$100,000	\$6,168				
<b>Total</b>				<b>\$1,613,753</b>	<b>\$403,685</b>	<b>\$173,008</b>	<b>\$106,012</b>	<b>\$32,198</b>	<b>\$1,503</b>	<b>\$889,853</b>	<b>\$7,500</b>	
5 Updates Y3-Y5				\$530,000						\$530,000		\$53,000
5 Active Updates				\$297,000						\$297,000		\$29,700
8 Provider Update Web App				\$161,000						\$161,000		\$16,100
5 Address File Development				\$15,000						\$15,000		\$1,500
5 Speed Test Maintenance				\$6,000						\$6,000		\$600
8 General Enhancements				\$40,000						\$40,000		\$4,000
5 Future Leading Practices				\$152,949						\$152,949		\$15,295
6 Program Director		4777.5	36	\$233,189	\$120,393	\$51,597	\$40,000			\$175,500	\$7,500	\$21,198
5 Project Mgmt		75	2340	\$201,300						\$75,000	\$150,000	\$18,300
7 Technical Assistance to ND Communities				\$44,000						\$44,000		\$4,400
7 Other Reporting				\$44,000						\$44,000		\$4,400
<b>Sub Total</b>				<b>\$2,050,333</b>	<b>\$120,393</b>	<b>\$51,597</b>	<b>\$40,000</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1,541,500</b>	<b>\$910,449</b>	<b>\$186,394</b>
<b>Fed Funding Total</b>				<b>\$3,664,086</b>	<b>\$524,078</b>	<b>\$224,605</b>	<b>\$146,012</b>	<b>\$32,198</b>	<b>\$1,503</b>	<b>\$2,221,353</b>	<b>\$917,949</b>	
2 Base Maps				\$400,000						\$400,000		\$0
<b>Sub Total</b>				<b>\$432,399</b>	<b>\$14,485</b>	<b>\$4,574</b>	<b>\$0</b>	<b>\$20,340</b>	<b>\$0</b>	<b>\$400,000</b>	<b>\$0</b>	<b>\$0</b>
5 K13 Broadband Staffing				\$157,500	\$110,250	\$47,250				\$170,000		\$0
5 K12 Equipment				\$270,000				\$270,000				\$0
5 GIS Infrastructure				\$50,068				\$39,098				\$0
6 Program Director		1592.5	36	\$57,330	\$40,131	\$17,199				\$44,449		\$0
<b>Sub Total</b>				<b>\$543,928</b>	<b>\$150,381</b>	<b>\$64,449</b>	<b>\$0</b>	<b>\$329,098</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>In-Kind Total</b>				<b>\$983,317</b>	<b>\$264,666</b>	<b>\$69,023</b>	<b>\$0</b>	<b>\$349,438</b>	<b>\$0</b>	<b>\$400,000</b>	<b>\$0</b>	<b>\$0</b>
<b>Project Total</b>				<b>\$4,647,412</b>	<b>\$688,343</b>	<b>\$233,528</b>	<b>\$146,012</b>	<b>\$381,631</b>	<b>\$1,503</b>	<b>\$2,621,253</b>	<b>\$917,949</b>	<b>\$0</b>

Data directly from PS - will need JV's to move \$ into 1092

Description	Total	Personal	Fringe Ben	Travel	Equip	Supplies	Contractual	Other	Indirect
<b>Development</b>	<b>\$695,838</b>	<b>\$405,336</b>	<b>\$45,144</b>	<b>\$0</b>	<b>\$23,520</b>	<b>\$0</b>	<b>\$503,736</b>	<b>\$0</b>	<b>\$20,100</b>
Fed	\$474,736	\$105,336	\$45,144	\$0	\$23,520	\$0	\$300,736	\$0	\$0
In-Kind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Y3-5 Fed	\$721,100	\$0	\$0	\$0	\$0	\$0	\$201,000	\$0	\$20,100
In-Kind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Data Collection</b>	<b>\$2,784,359</b>	<b>\$110,250</b>	<b>\$47,250</b>	<b>\$0</b>	<b>\$329,098</b>	<b>\$0</b>	<b>\$1,868,718</b>	<b>\$160,448</b>	<b>\$118,555</b>
Y1-2 Fed	\$543,218	\$0	\$0	\$0	\$0	\$0	\$543,218	\$0	\$0
In-Kind	\$400,000	\$0	\$0	\$0	\$0	\$0	\$400,000	\$0	\$0
Y3-5 Fed	\$1,309,544	\$0	\$0	\$0	\$0	\$0	\$1,025,500	\$160,448	\$118,555
In-Kind	\$400,000	\$110,250	\$47,250	\$0	\$329,098	\$0	\$0	\$0	\$0
<b>Program Mgmt / Reporting</b>	<b>\$631,318</b>	<b>\$331,795</b>	<b>\$140,564</b>	<b>\$46,032</b>	<b>\$22,845</b>	<b>\$1,508</b>	<b>\$45,000</b>	<b>\$7,500</b>	<b>\$21,199</b>
Fed	\$287,400	\$156,787	\$67,194	\$6,012	\$2,505	\$1,503	\$45,000	\$7,500	\$0
In-Kind	\$339,399	\$14,485	\$4,574	\$0	\$20,340	\$0	\$0	\$0	\$0
Y3-5 Fed	\$233,189	\$120,393	\$51,397	\$40,000	\$0	\$0	\$0	\$0	\$0
In-Kind	\$557,330	\$40,131	\$17,199	\$0	\$0	\$0	\$0	\$0	\$0
<b>Planning</b>	<b>\$559,900</b>	<b>\$141,562</b>	<b>\$69,670</b>	<b>\$100,000</b>	<b>\$6,168</b>	<b>\$0</b>	<b>\$135,000</b>	<b>\$180,000</b>	<b>\$28,500</b>
Y1-2 Fed	\$308,400	\$141,562	\$69,670	\$100,000	\$6,168	\$0	\$0	\$0	\$0
In-Kind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Y3-5 Fed	\$201,500	\$0	\$0	\$0	\$0	\$0	\$115,000	\$150,000	\$26,500
In-Kind	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$4,647,432</b>	<b>\$686,943</b>	<b>\$293,028</b>	<b>\$146,012</b>	<b>\$841,651</b>	<b>\$1,503</b>	<b>\$2,631,353</b>	<b>\$317,949</b>	<b>\$186,394</b>
Total Fed	\$3,664,085	\$524,078	\$224,605	\$146,012	\$32,193	\$1,503	\$2,231,318	\$17,949	\$186,394
In-Kind	\$983,327	\$164,866	\$69,023	\$0	\$49,458	\$0	\$400,000	\$0	\$0
Y1-2 Fed	\$1,613,753	\$403,685	\$173,008	\$105,012	\$32,193	\$1,503	\$689,853	\$7,500	\$0
In-Kind	\$439,399	\$14,485	\$4,574	\$0	\$20,340	\$0	\$400,000	\$0	\$0
Y3-5 Fed	\$2,050,333	\$120,393	\$51,397	\$40,000	\$0	\$0	\$1,241,500	\$310,449	\$186,394
In-Kind	\$543,218	\$150,381	\$64,449	\$0	\$329,098	\$0	\$0	\$0	\$0

	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
<b>Fed</b>						
<i>Personnel Salaries</i>	\$230,917	\$230,917	\$325,581	\$47,338	\$40,131	\$674,884
Y1-2	\$230,917	\$230,917	\$325,581	\$47,167	\$0	\$634,685
Y3-5	\$0	\$0	\$0	\$40,131	\$40,131	\$120,333
<i>Fringe Benefits</i>	\$0	\$0	\$53,820	\$37,422	\$17,199	\$108,441
Y1-2	\$98,964	\$98,964	\$53,820	\$20,223	\$0	\$173,008
Y3-5	\$0	\$0	\$0	\$17,199	\$17,199	\$34,398
<i>Travel</i>	\$0	\$0	\$46,339	\$43,333	\$30,000	\$119,672
Y1-2	\$36,339	\$36,339	\$33,333	\$0	\$0	\$105,612
Y3-5	\$0	\$0	\$10,000	\$10,000	\$10,000	\$30,000
<i>Equipment</i>	\$0	\$0	\$15,068	\$4,056	\$0	\$19,124
Y1-2	\$15,068	\$15,068	\$2,056	\$0	\$0	\$17,124
Y3-5	\$0	\$0	\$0	\$0	\$0	\$0
<i>Supplies</i>	\$0	\$0	\$781	\$0	\$0	\$781
Y1-2	\$781	\$781	\$0	\$0	\$0	\$1,562
Y3-5	\$0	\$0	\$0	\$0	\$0	\$0
<i>Subcontracts</i>	\$0	\$0	\$135,764	\$460,417	\$460,417	\$1,056,598
Y1-2	\$794,840	\$95,014	\$95,014	\$0	\$0	\$989,853
Y3-5	\$0	\$0	\$40,750	\$460,417	\$460,417	\$1,341,500
<i>Other</i>	\$0	\$0	\$90,737	\$98,237	\$88,237	\$277,211
Y1-2	\$7,500	\$7,500	\$0	\$0	\$0	\$15,000
Y3-5	\$0	\$0	\$90,737	\$98,237	\$88,237	\$277,211
<b>Total</b>	<b>\$230,917</b>	<b>\$230,917</b>	<b>\$608,502</b>	<b>\$608,502</b>	<b>\$608,502</b>	<b>\$1,846,413</b>
Y1-2	\$1,184,380	\$1,184,380	\$326,574	\$102,800	\$0	\$1,613,753
Y3-5	\$0	\$0	\$141,487	\$620,384	\$615,984	\$1,377,855
<b>Match</b>						
GIS per year	\$19,699	\$19,699	\$19,699	\$19,699	\$19,699	\$98,494
K-12 Network Staffing	\$0	\$0	\$0	\$52,500	\$52,500	\$105,000
K-12 Equipment	\$0	\$0	\$0	\$90,000	\$90,000	\$180,000
Program Dir Match	\$0	\$0	\$0	\$19,110	\$19,110	\$38,220
Total DGS Matching	\$19,699	\$19,699	\$19,699	\$181,209	\$181,209	\$371,216
<b>Total</b>	<b>\$419,699</b>	<b>\$419,699</b>	<b>\$698,201</b>	<b>\$819,711</b>	<b>\$819,711</b>	<b>\$2,215,629</b>

Base Map	500,000.00	0.8	400,000.00	from Mike Lynk
GIS infra				
Intel	2,150.00	0.1	5,160.00	From DP 112.1-16
Oracle	1,225.00	0.1	2,940.00	From DP 112.1-16
Websphere	800.00	0.1	1,920.00	From DP 112.1-16
Disk	4,300.00	0.1	10,320.00	From DP 11: Logic here is that we need other base data for Broadband data to lay on top of
GIS Coord	7,941.10	0.1	19,058.64	From Labor Distribution Report but we can use Even Amount each month unless pay raise

439,398.64

Y3-5 Matching Principles	Annual \$	3 Yr Total	15%
K-12 Network Staffing	\$350,000	\$1,050,000	\$157,500
K-12 Equipment	\$600,000	\$1,800,000	\$270,000
GIS Match	\$19,699	\$59,098	\$59,098
Program Dir Match	\$19,110	\$57,330	\$57,330
			\$543,928