ANNUAL PERFORMANCE PROGRESS REPORT FOR BROADBAND INFRASTRUCTURE PROJECTS

General Information

1. Federal Agency and Organizational Element to Which Report is Submitted	2. Award Identification Number	3. DUNS Number
Department of Commerce, National Telecommunications and Information Administration	NT10BIX5570044	041544081

4. Recipient Organization

University of Illinois 506 S. Wright St.
364 Henry Admin. Bldg., Urbana, IL 61801-3620

5. Current Reporting Period End Date (MM/DD/YYYY)	6. Is this the last Annual Report of the Award Period?
12-31-2011	◯ Yes ◉ No

7. Certification: I certify to the best of my knowledge and belief that this report is correct and complete for performance of activities for the purposes set forth in the award documents.

7a. Typed or Printed Name and Title of Certifying Official	7c. Telephone (area code, number and extension)
Michael K Smeltzer	2172443835
	7d. Email Address
Director of Networking	smeltzer@illinois.edu

7b. Signature of Certifying Official	7e. Date Report Submitted (MM/DD/YYYY):
Submitted Electronically	02-21-2012

OVERALL PROJECT PERFORMANCE INDICATORS

1. Please provide the following average cost figures for your project. Please review the instructions to determine how to calculate these figures. Write "0" in the second column and "N/A" in the third column if your project does not yet have this information. Depending on whether your project contains Middle Mile and/or Last Mile components, some metrics may not apply. Please provide a narrative description if the total is different from the target provided in your baseline plan (600 words or less).

Cost Indicator	Average Cost / Speed	Narrative (describe your reasons for any variance from the baseline plan or any other relevant information)
Average cost per new mile (Middle Mile)	0	We have not yet completed any of our middle mile fiber rings or laterals. Construction was delayed by the length of time it took for the Environmental Assessment, the fiber engineering and completing the RFP process for our construction contractors. We underestimated all three in our baseline plan. We will also not receive our first fiber shipment until the first quarter of 2012.
Average cost per household passed (Last Mile)	0	We have not yet passed any of our FTTP households with fiber. Construction was delayed by the length of time it took for the Environmental Assessment, the fiber engineering and completing the RFP process for our construction contractors. We underestimated all three in our baseline plan. We will also not receive our first fiber shipment until the first quarter of 2012. While this is not a metric that NTIA tracks, we have passed 1,613 households with conduit, which is roughly one third of the total in our Fiber-to-the-Premise (FTTP) service areas.
Average cost per subscriber (Last Mile)	0	We have not yet completed any of our FTTP installations. Construction was delayed by the length of time it took for the Environmental Assessment, the fiber engineering and completing the RFP process for our construction contractors. We underestimated all three in our baseline plan. We will also not receive our first fiber shipment until the first quarter of 2012.
Maximum broadband speed advertised (Middle Mile)	10 Gbps	We will be able to deliver 10 Gbps (or partial 10 Gbps on a 10 Gbps link) ringed connections to major Anchor Institutions or businesses if they so desire.
Maximum broadband speed advertised (Last Mile)	1 Gbps	All of our last mile FTTP customers will have a 1 Gbps connection to our local UC2B Intranet. Their Internet connectivity will be sold in tiers, starting with a 20 Mbps symmetric Internet connection and going up from there.
Average broadband speed provided (Middle Mile)	20 Mbps	We expect almost all of our middle mile Anchor Institution customers to have a 20 Mbps Internet connection. (1 Gbps to the local Intranet.) A few will have larger Internet connections, but not enough to impact the average.
Average broadband speed provided (Last Mile)	20 Mbps	We expect almost all of our last-mile FTTP customers to have 20 Mbps Internet connections. (1 Gbps to the local Intranet.) A few will have larger connections, but not enough to raise the average.

2. Please provide each facility name and type, the county where the facility is located, and census tract information for any facilities funded by your project during this annual reporting period. Report only facilities for which construction has been completed.

Facility Identifier / Name	Facility Type	County	Census Tracts
N/A	N/A	Champaign	N/A

Add Facility	Remove Facility

3. Please identify (1) the total number of interconnection, peering, and/or transit agreements entered into during this annual reporting period; (2) the total number of agreements of each type that you are currently negotiating; and (3) whether you have denied any request for interconnection and if so, why. If you have not entered into any agreements, please write "N/A."

Interconnection Agreements (600 words or less)

N/A
We have no completed interconnection agreements at this time. UC2B has always intended to interconnect with local providers and has published rates for doing so in our BTOP application. We are currently reviewing those rates one last time before we seek interconnection agreements.

Peering and Transit Agreements (600 words or less)

N/A
We have no completed peering or transit agreements at this time. We have started discussions with the University of Illinois about peering with the University and their local caching services such as Akamai. We have started discussions about peering with the Illinois Century Network. We are strong proponents of local peering, and certainly have not denied any request to peer, nor do we anticipate ever denying a request to peer. Our core network design has always included local peering connections. UC2B will be purchasing Internet transit in Chicago.

CAPACITY, UTILIZATION, AND CAPABILITY INDICATORS

4. Community Anchor Institutions: In the chart below, please provide information on the types of community anchor institutions capable of receiving service (i.e., anchor institutions connected to your network plus those passed by your network) as a result of BTOP funds.

Type of Community Anchor Institution	Total Number Within Service Area	Type of Community Anchor Institution	Total Number Within Service Area
Schools (K-12)	38	**Public Housing**	12
Libraries	4	**Other Institutions of Higher Education**	1
Medical and Healthcare Providers	34	**Other Community Support Organizations**	80
Public Safety Entities	31	**Other Government Facilities**	93
Community Colleges	1	**Total Community Anchor Institutions**	294

5. Please indicate the average increase in broadband speed provided to the community anchor institution customers as a result of your project, including a description of how this increase was calculated (600 words or less).

We have not begun services to Anchor Institutions yet, but when we do, the minimum Internet speed available from UC2B will be a 20 Mbps symmetric service. That will be typically 2-10 times faster than what they receive today via DSL or cable modem.

6. What retail services are being provided by this project? Please describe below. (600 words or less). As an attachment to this report, please provide pricing plans (in $ per month) associated with each retail service. Retail services description:

UC2B does not provide any retail services yet. They will start in the 2nd quarter of 2012. We have attached our planned suite of retail services, but please also know that we are in the midst of a review of our pricing models and there is a good chance that we may make some adjustments in the weeks to come. We do know for sure that we will offer the 20 Mbps symmetric service to FTTP residential customers for $19.99 a month. We are looking at perhaps breaking out non-profits and government entities as well as for profit businesses and having different rate scales for each. We are also seeking to monetize a ringed, high-availability service that our equipment will allow us to provide. The UC2B Policy Board has hired a municipal broadband consultant (with non-grant funds) for this final business plan and service offering review. The consultant's report is due on February 15th. We expect the Board to act quickly on the recommendations, and finalize the remaining service offerings.

7a. What network management policies (e.g., bandwidth limitations, traffic prioritization) are in place for the services provided by your project? 7b. Have you ever limited or blocked consumers from accessing any lawful content, service, service provider, or application, or prevented any consumers from attaching any legal device to the network? If so, please explain why (300 words or less)?
We have yet to offer any service and therefore have not been in a position to block anything. However, we have no plans to limit bandwidth utilization beyond the Internet rate limiting that is built into the tiers of service. We may implement Quality of Service (QOS) on some or all VLANS, but that by itself will not discriminate against any single user or class of users.

8. If applicable, please provide the total number and the percentage of subscribers who have dropped the broadband service provided through this project (total number of households and/or businesses and the "churn rate") and the subscribers' reasons for discontinuing their service (600 words or less).
N/A

9. Please provide the following information regarding the number of fiber strand-miles:

Total Number of Strand-miles	Total Number of Active Fiber Strand-miles Used by Recipient	Total Number of Leased Fiber Strand-miles	Total Number of Dark Fiber Strand-miles	Total Number of Strand-miles Being Built		
				Active	**Leased**	**Dark**

24,963	0	0	0	6,256	5,706	13,001

10. If you wholesale dark fiber, please list your wholesale customers and the number of fiber miles you currently are leasing to those customers:

UC2B has not executed any IRU agreements yet, but we have letters of intent for IRU's from the following:
City of Champaign - 637 strand miles, City of Urbana - 496 strand miles, University of Illinois - 900 strand miles, Unit 4 Schools - 290 strand miles, District 116 Schools - 164 strand miles, Champaign County - 252 strand miles, C-U Mass Transit District - 453 strand miles, Champaign Telephone Company - 453 strand miles, State of Illinois/ICN - 764 strand miles, State of Illinois/IDOT - 453 strand miles. Recently we entered into discussions with the Illinois Rural Health Network for 584 strand miles.

11. Please provide the following information regarding the facility collocation capacity:

Total Facility (total square feet for all facilities)	Number of Square Feet Used by Recipient	Number of Square Feet Leased	Number of Square Feet Available
850	754	0	96

12. If you do not own collocation space, please describe how and where other network providers and/or customers interconnect with your network (600 words or less).

UC2B will be leasing space from the University in two UIUC Nodes for its core network equipment and for a minimal amount of collocation space for the routers of our Dark Fiber customers. In order to have as redundant a system as possible, our Dark Fiber customers will need to locate a small router that can terminate the fiber coming from the 7 rings in each of the two core nodes. We have allocated a quarter of a 7-foot-tall, 23"-inch-wide rack for each IRU customer. Beyond that, UC2B is not offering any collocation space.

Instead, we are including diverse fiber transport on any of our seven rings as part of our service provider packages. If an ISP can get fiber to any one of the 400+ manholes on our seven backbone rings that will contain splice cases, they can connect redundantly to the UC2B network core and distribute their services.

Additionally, service providers will be able to connect to UC2B in three University telecommunications nodes, where many of them already have facilities today. AT&T has a presence in all three nodes. Windstream and Champaign Telephone have presences in two of the nodes. ICN, Comcast, Pavlov Media and Volo Broadband have a presence in one of the nodes. There is also a group of private firms that is looking at constructing a data center / carrier hotel that will have dual connections to several of the UC2B rings, which by definition gets them access to all seven. Our seven fiber rings were designed to be able to redundantly connect any location on one ring to any location on any ring. Our seven ring design reduces the need for co-location and decentralizes service provider hardware.

13. To the extent that you have made any subcontracts or sub grants, please provide the number of subcontracts or sub grants that have been made to socially and economically disadvantaged small business (SDB) concerns as defined by section 8(a) of the Small Business Act, 15 U.S.C. 647, as modified by NTIA's adoption of an alternative small business size standard for use in BTOP. Please also provide the names of these SDB entities (150 words or less).

UC2B has only made two sub-awards, and both were made to local municipalities - the Cities of Urbana and Champaign. The City of Urbana hired a prime contractor for the fiber construction in its city limits, and their prime contractor engaged the services of four small disadvantaged Minority and Female Business Enterprises (MAFBE) as subcontractors. They are: Electrical Resource Management (MBE), Southern Belle Electric and HVAC (MBE), Tepper Electric Supply Co. (FBE) and Groundhog Utility Construction, Inc. (FBE). The City of Champaign's prime contractor for the fiber construction in Champaign hired two FBE subcontractors. They are: Prairie Restorations, Inc. and Gordon Electric Supply, Inc.

14. Please describe any best practices/lessons learned that can be shared with other similar BTOP projects (900 words or less).

This will not apply to all projects, but sub-awarding the construction with will happen in Champaign to the City of Champaign and sub-awarding the construction that will happen in Urbana to the City of Urbana has proved to be an excellent decision. Because the contractors report directly to the Public Works departments of each city, there is great communication between each contractor and its employing city, and issues are resolved quickly. Whether a contractor agrees or disagrees with a decision made by a city does not really matter, because at the end of the day the city is paying the contractor, and therefore the cities are getting what they want in their rights-of-ways, installed the way they want it installed.

Municipalities that do not provide municipal-owned utilities do not necessarily have in-house expertise with underground utility construction. While they see it from a permitting and inspection perspective all the time, they can lack expertise in planning and implementation. One of our early hires was a retired fiber construction manager with more than 20 years of experience supervising fiber and copper utility construction. His expertise in the planning and daily implementation has been worth every dollar we pay him. He has been a vital link between the fiber construction crews and the cities' Public Works departments.

15. **Using the Excel spreadsheet template titled "Annual PPR CCI Addendum", please provide an updated list of Community Anchor Institutions (CAIs) that you have connected and plan to connect to your network**.

16. **Using the Excel spreadsheet template titled "Annual PPR CCI Addendum", please provide a list of community pairs that are receiving new or improved broadband service as a result of BTOP grant funds.**

17. **Please provide up-to-date network route maps in a single file, in a Google Earth compatible format (e.g., KMZ file).**