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	NT10BIX5570075	969524214

4. Recipient Organization

University Corporation For Advanced Internet Development 1150 18th Street, NW, #1020, Washington, DC 20036-3825

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)
Nili Tannenbaum	X
	7d. Email Address ntannen@internet2.edu

7b. Signature of Certifying Official	7e. Date Report Submitted (MM/DD/YYYY):
Submitted Electronically	02-28-2012

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)	7105	This number was calculated by using the Actual Total Cost from Project Inception through the End of the Current Reporting Period ($53,437,496) divided by the Number of Network Miles Leased (7,521). ($53,437,496 ÷ 7,521 = $7,105)
Average cost per household passed (Last Mile)	0	NA
Average cost per subscriber (Last Mile)	0	NA
Maximum broadband speed advertised (Middle Mile)	1000000000	10Gb/sec
Maximum broadband speed advertised (Last Mile)	0	NA
Average broadband speed provided (Middle Mile)	8000000000	8Gb/sec
Average broadband speed provided (Last Mile)	0	NA

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
NA	NA	NA	NA

[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)

For clarification, this project includes approximately 100+ pre-existing interconnection agreements. These are typically informal settlement-free peering agreements with commercial networks (e.g., Facebook, Google, etc.).

Internet2 maintains a number of informal settlement-free-interconnect agreements with content providers and small internet service providers. There are no formal agreements that have been arranged in the last annual reporting period, nor are there any agreements currently in negotiation.

Peering and Transit Agreements (600 words or less)

For clarification, this project includes the improvement of access for 20 pre-existing transit customers.

We have 2 Letters of Intent that may result in 2 additional connections by Year 3, Quarter 1.

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)	0	Public Housing	0
Libraries	0	Other Institutions of Higher Education	0
Medical and Healthcare Providers	0	Other Community Support Organizations	0
Public Safety Entities	0	Other Government Facilities	0
Community Colleges	0	Total Community Anchor Institutions	

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).

NA

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:

NA

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)?
The Internet2 IP network (AS 11537) generally provides best effort forwarding of all IP traffic. Exceptions to best effort forwarding are limited to the following:
• The forwarding of traffic explicitly tagged as "less than best effort" (aka Scavenger Service) by the end user. Internet2 offers less than best effort traffic forwarding to support researchers that choose a lower class of service for transferring large datasets which are insensitive to loss or latency.
• MPLS traffic engineering is sometimes used to differentially route Internet2's "managed high-speed service" traffic from commercial peering or commodity traffic for the purpose of load balancing traffic among backbone resources.
• Internet2 offers its network peers the option of using BGP community strings to signal to the Internet2 backbone that traffic destined for a particular prefix should be discarded at the earliest opportunity. This mechanism is provided so that Internet2 network peers are able to minimize the effects of an on-going network-based attack. In addition, network peers are provided with a range of traffic influencing BGP community values to control how their [the peer's] traffic is treated by the backbone.

The Internet2 IP network is used exclusively for transit among regional networks and the public Internet (i.e., no users connect directly to the Internet2 IP network). The Internet2 IP network does not interfere with the transmission of content as long as the content is not harmful to the operation or security of the Internet2 IP network and the networks with which it peers. Internet2 is responsive to the lawful requests of law enforcement agencies, however given its role as a transit network, such requests are typically directed to the networks that serve end-users directly.

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).
NA

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
32,624	7,521	0	0	25,103	0	0

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

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
0	0	0	0

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).

All of the project's network interconnection facilities are either located in carrier-neutral collocation facilities such as those hosted by Equinix or within carried-owned facilities such as in Level 3. In all cases, the facility owner provides collocation and cross-connect services on a nondiscriminatory basis, within reasonable business and technical terms.

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).
NA

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

Seek clarification of any program requirements directly from your NTIA team.

Ensure that you understand and comply with all recipient requirements, which includes ensuring that sub-recipients do the same.

Ensure that your vendor/contractor agreements contain language to ensure they comply with any flow-through requirements of the program.

Complete drafts of compliance reports ahead of schedule and seek their review by your NTIA team.

Maintain a calendar of compliance deadlines.

If you receive verbal advice from your NTIA team, acknowledge your understanding of such advice in writing to ensure your understanding is correct and that the information is documented.

Perform on the stated goals of your project (i.e., don't lose sight of the goals).

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).