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	NT10BIX5570018	014409657

4. Recipient Organization

Critical Hub Networks, Inc 1314 Ponce De Leon Ave.
Ste. 400, San Juan, PR 00907-4047

5. Current Reporting Period End Date (MM/DD/YYYY)	6. Is this the last Annual Report of the Award Period?
12-31-2012	◯ 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)
Karen Elizabeth Larson	7877289000
	7d. Email Address
Vice President	kmarazzi@caribe.net

7b. Signature of Certifying Official	7e. Date Report Submitted (MM/DD/YYYY):
Submitted Electronically	02-26-2013

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)	6948.40	Calculation based on costs associated with middle miles completed as of 12/31/2012: 4,096.
Average cost per household passed (Last Mile)	0	N/A
Average cost per subscriber (Last Mile)	0	N/A
Maximum broadband speed advertised (Middle Mile)	10 Gbps	We offer middle mile transit and peering at up to 10Gbps for last mile providers
Maximum broadband speed advertised (Last Mile)	0	N/A
Average broadband speed provided (Middle Mile)	836.78 Mbps	As of 12/31/2012, there were 14 last mile providers interconnected.
Average broadband speed provided (Last Mile)	0	N/A

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
PR-NAP (Telegrafo)	Interconnection Point	Municipio de San Juan	721270021002018
NAP of the Americas	Interconnection Point	Miami-Dade County	120860037024002
Caguas	Interconnection Point	Municipio de Caguas	720252010002032
Mayaguez	Interconnection Point	Municipio de Mayaguez	720970815222059
Machos	Interconnection Point	Municipio de Ceiba	720371602011038
Casa Blanca	Interconnection Point	Municipio de Luquillo	720891401023002
Zarzal	Interconnection Point	Municipio de Rio Grande	721191306012018
Caimito	Interconnection Point	Municipio de San Juan	721270100424023
Torrecilla	Interconnection Point	Municipio de Barranquitas	720199523012020
Miradero	Interconnection Point	Municipio de Villalba	721497201001000
Sagrado Corazon	Interconnection Point	Municipio de San Juan	721270039021001
Bayamon	Interconnection Point	Municipio de Bayamon	720210303004017

Guaynabo	Interconnection Point	Municipio de Guaynabo	720610403032000
Guaynabo3	Interconnection Point	Municipio de Guaynabo	721270099012013
Carolina	Interconnection Point	Municipio de Carolina	721270054011013
Fajardo	Interconnection Point	Municipio de Fajardo	720531502004020
Piedra Azul	Interconnection Point	Municipio de Las Piedras	721519509002008
Piñas	Interconnection Point	Municipio de Cayey	720252028003017
Percha	Interconnection Point	Municipio de Morovis	721019554013086

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)

In 2012, PRBI has signed interconnection agreements with five (5) last mile service providers. We are continuing to negotiate interconnection agreements with seven (7) last mile providers. We have not denied any requests for interconnectivity.

Peering and Transit Agreements (600 words or less)

N/A

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)	1,473	**Public Housing**	0
Libraries	119	**Other Institutions of Higher Education**	32
Medical and Healthcare Providers	256	**Other Community Support Organizations**	0
Public Safety Entities	194	**Other Government Facilities**	0
Community Colleges	0	**Total Community Anchor Institutions**	2,074

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).

The Puerto Rico Bridge Initiative project is a middle-mile project serving primarily last mile broadband providers. Projections for Community Anchor Institutions on our baseline were made based on data we received from broadband providers on how many each of their networks served. Critical Hub did not receive any funding for laterals or last mile connectivity to CAI's. Critical Hub is working directly with the Dept of Education to provide local peering with 1,473 schools at their main facilities. Peering interconnection will be via a 1Gbps port.

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:

The PRBI project does not provide retail services. PRBI provides middle-mile transit and peering services to broadband service providers. In addition, PRBI will also provide peering services to Critical Community Anchor Institutions and Government Agencies.

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)?

7a. Critical Hub's network consists of, but is not limited to, channel banks, hubs, switches, routers, servers, Local Area Networks at the equipment locations, Wide Area Links connecting sites together consisting of the microwave & fiber optic equipment, and the network management tools provided by the equipment manufacturer. The specifics and details are available upon request and published at our webpage (www.criticalhub.com).

7b. Critical Hub Networks generally provides best effort forwarding of all IP traffic. Exceptions to best effort forwarding are limited to the following: (a) forwarding of traffic explicitly tagged as "less than best effort" by the end-user, offering a priority of traffic forwarding that is less than best effort to support researchers that choose a lower class of service when they transfer large data sets which are insensitive to loss or latency. (b) MPLS traffic engineering is sometimes used to differentially route "managed high-speed service" traffic from commercial peering or commodity traffic for the purpose of load balancing traffic among backbone resources. (c) measures to address distribution of harmful viruses or spam, denial of service attacks, and other harmful activities following customer notification of violations of our Acceptable Usage Policy.

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**
15,604	15,604	0	0	0	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:
N/A

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
8,000	1,267	4,620	2,113

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).
N/A

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).
Critical Hub Networks, Inc. is itself a Socially and Economically Disadvantaged Small Business (SBD) concern. In addition, funds have been expended to the following SDB's: Computer Paradise, EOA Telecom, Fire Control Corporation, JAS Corporation, International

Hardware, JD Interiors, Sanchez Technical, TecnolAir, Teknical Telekom, VersaTech.

---

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

- Maintain, regularly review all award documents including NOFA, CD450, SAC, Budget, BTOP Recipient Master Checklist of Activities.
- Keep your Grant File up-to-date.
- Regular logins to PAM & GOL.
- Regular communication with NTIA & NOAA staff is essential to ensure that project stays on course and nobody has any surprises. We prepare a memo for each call to summarize project status, ongoing challenges, other pending issues.
- Ensure all SAC requirements, including BAA, Davis Bacon, Disbarment, etc are properly included in procurement documents such as PO's, RFP/RFQ, and any contractor agreements.
- Start reporting preparations early, and participate in drop-in calls to address questions. Often other recipients catch minor details that you may miss - its a great way to ensure that you are reporting correctly!
- Designate a compliance officer who is dedicated to ensuring project compliance, budgeting, and maintenance of contemporaneous records.
- Finding experienced, qualified staff can be a challenge. Anticipate training requirements.

---

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).