

BUDGET INFORMATION - Construction Programs

OMB Approval No. 4040-0008
Expiration Date 07/30/2010

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	\$ 0.00	\$ 0.00	\$ 0.00
2. Land, structures, rights-of-way, appraisals, etc.	\$ 0.00	\$ 0.00	\$ 0.00
3. Relocation expenses and payments	\$ 0.00	\$ 0.00	\$ 0.00
4. Architectural and engineering fees	\$ 1,629,320.00	\$ 0.00	\$ 1,629,320.00
5. Other architectural and engineering fees	\$ 0.00	\$ 0.00	\$ 0.00
6. Project inspection fees	\$ 1,816,750.00	\$ 0.00	\$ 1,816,750.00
7. Site work	\$ 0.00	\$ 0.00	\$ 0.00
8. Demolition and removal	\$ 0.00	\$ 0.00	\$ 0.00
9. Construction	\$ 8,139,804.00	\$ 0.00	\$ 8,139,804.00
10. Equipment	\$ 13,369,978.00	\$ 0.00	\$ 13,369,978.00
11. Miscellaneous	\$ 77,148.00	\$ 0.00	\$ 77,148.00
12. SUBTOTAL (sum of lines 1- 11)	\$ 25,033,000.00	\$ 0.00	\$ 25,033,000.00
13. Contingencies	\$	\$	\$ 0.00
14. SUBTOTAL	\$ 25,033,000.00	\$ 0.00	\$ 25,033,000.00
15. Project (program) income	\$	\$	\$ 0.00
16. TOTAL PROJECT COSTS (subtract #15 from #14)	\$ 25,033,000.00	\$ 0.00	\$ 25,033,000.00
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter eligible costs from line 16c Multiply X <input type="text" value="69.739"/> % Enter the resulting Federal share.			\$ 17,457,764.00

BTOP Comprehensive Community Infrastructure Detailed Budget

Please complete the General Budget Overview and Detailed Project Costs worksheets.

Please refer to the Comprehensive Community Infrastructure Grant Guidance for detailed instructions on the completing this upload.

Applicants are required to provide this upload as an Excel file, and not to convert it to a PDF prior to upload. Applicants should not alter the layout of the provided templates, except to insert additional line-items as needed in the Detailed Project Costs worksheet.

NTIA BTOP Round Two - CCI #5116
DC Community Access Network ("DC-CAN")
Due Diligence
General Budget Overview

Due Diligence
 May 26, 2010
 Recategorized

Budget	Federal Funding Request	Matching Funds (Cash)	Matching Funds (In-Kind)	Budget TOTAL	Last Mile Allocation	Middle Mile Allocation	Allocated TOTAL
Network & Access Equipment (switching, routing, transport, access)	\$4,474,433	\$7,498,090	\$0	\$11,972,523	\$0.00	\$11,972,523.00	\$11,972,523
Outside Plant (cables, conduits, ducts, poles, towers, repeaters, etc.)	\$9,212,184	\$0	\$0	\$9,212,184	\$0.00	\$9,212,184.00	\$9,212,184
Buildings and Land – (new construction, improvements, renovations, lease)	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0
Customer Premise Equipment (modems, set-top boxes, inside wiring, etc.)	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0
Billing and Operational Support Systems (IT systems, software, etc.)	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0
Operating Equipment (vehicles, office equipment, other)	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0
Engineering/Professional Services (engineering design, project management, consulting, etc.)	\$3,710,847	\$15,000	\$62,146	\$3,787,993	\$0.00	\$3,787,993.00	\$3,787,993
Testing (network elements, IT system elements, user devices, test generators, lab furnishings, servers/computers, etc.)	\$60,300	\$0	\$0	\$60,300	\$0.00	\$60,300.00	\$60,300
Site Preparation	\$0	\$0	\$0	\$0	\$0.00	\$0.00	\$0
Other				\$0			\$0
TOTAL BROADBAND SYSTEM:	\$17,457,764	\$7,513,090	\$62,146	\$25,033,000	\$0	\$25,033,000	\$25,033,000
Cost Share Percentage:	69.74%	30.01%	0.25%				

FINAL VERSION
Recategorized During Due Diligence

**NTIA BTOP Round Two - CCI #5116
OCTO DC-Community Access Network
(Due Diligence)
DETAIL OF PROJECT COSTS**

FINAL (Reclassified)
May 26, 2010
2:00 PM Eastern

PLEASE COMPLETE THE TABLE BELOW FOR THE DIFFERENT CATEGORIES OF EQUIPMENT THAT WILL BE REQUIRED FOR
COMPLETING THE PROJECT. EACH CATEGORY SHOULD BE BROKEN DOWN TO THE APPROPRIATE LEVEL FOR IDENTIFYING
UNIT COST

NTIA BTOP Round Two CCI (Winter 2010) - EasyGrant#:		5116	Applicant:		OCTO DC-Net	Project Name:			DC-Community Access Network (DC-CAN)	RECLASSIFIED (May 12)
SERVICE AREA or COMMON NETWORK FACILITIES:		Match (Cash/In-kind)	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
NETWORK & ACCESS EQUIPMENT					\$11,972,523	\$0	\$11,972,523	\$11,972,523		
Switching	Cisco 3560 24 10/100 PoE + 2 SFP	Cash Match	\$5,790	291	\$1,684,890	\$0	\$1,684,890	\$1,684,890	10. Equipment	223 new sites; 68 upgrade sites.
	GE SFP LC connector LX/LH transceiver (four)		\$565	1164	\$657,660	\$0	\$657,660	\$657,660	10. Equipment	Unit configurations used to construct
	Cisco 1520 Outdoor Series (w/ hardware)		\$3,500	291	\$1,018,500	\$0	\$1,018,500	\$1,018,500	10. Equipment	equipment bill of materials
	Chassis 4507R-E		\$5,497	3	\$16,491	\$0	\$16,491	\$16,491	10. Equipment	Commercial prices, based on procurement
	Supervisor (WS-X45-SUP6-E)		\$10,997	6	\$65,982	\$0	\$65,982	\$65,982	10. Equipment	schedules.
	IOS (S45EESK9-12250SG)		\$6,000	3	\$18,000	\$0	\$18,000	\$18,000	10. Equipment	Same
	48 Port PoE Blades (WS-X4648-RJ45V+E)		\$4,122	6	\$24,732	\$0	\$24,732	\$24,732	10. Equipment	Same
	SFP (GLC-LH-SM)		\$565	12	\$6,780	\$0	\$6,780	\$6,780	10. Equipment	Same
			\$0		\$0	\$0	\$0	\$0		
Routing	Cisco 7606 redundant system 2RSP720-3CXL, 2PS		\$51,750	18	\$931,500	\$0	\$931,500	\$931,500	10. Equipment	Commercial prices, based on procurement
	48-port SFP Gigabit (two)		\$18,750	36	\$675,000	\$0	\$675,000	\$675,000	10. Equipment	223 new sites; 68 upgrade sites.
	48-port SFP FastEthernet (two)		\$6,750	36	\$243,000	\$0	\$243,000	\$243,000	10. Equipment	Unit configurations used to construct
	10GBASE-LR X2 Module (four)		\$3,000	72	\$216,000	\$0	\$216,000	\$216,000	10. Equipment	equipment bill of materials
	MPLS VPN: ASR 9010 (Super Core Site)	Cash Match	\$303,400	2	\$606,800	\$0	\$606,800	\$606,800	10. Equipment	Same
	MPLS VPN: ASR-9006 (Core Site)	Cash Match	\$249,550	8	\$1,996,400	\$0	\$1,996,400	\$1,996,400	10. Equipment	Same
			\$0		\$0	\$0	\$0	\$0		
Transport	DWDM: 10 sites 40-channel Ciena	Cash Match	\$321,000	10	\$3,210,000	\$0	\$3,210,000	\$3,210,000	10. Equipment	Commercial prices, based on procurement
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Access			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Other	Hubbell RE-BOX wall enclosure		\$357	223	\$79,611	\$0	\$79,611	\$79,611	10. Equipment	Commercial prices, based on procurement
	Patch Panel mounting bracket		\$40	223	\$8,920	\$0	\$8,920	\$8,920	10. Equipment	223 new sites; 68 upgrade sites.
	Equipment mounting bracket		\$46	223	\$10,258	\$0	\$10,258	\$10,258	10. Equipment	Unit configurations used to construct
	APC SMART UPS 1000 Rack Mount		\$507	223	\$113,061	\$0	\$113,061	\$113,061	10. Equipment	equipment bill of materials
	Network Management Card		\$224	223	\$49,952	\$0	\$49,952	\$49,952	10. Equipment	Same
	Mounting hardware/patch cord(s)/etc.		\$100	223	\$22,300	\$0	\$22,300	\$22,300	10. Equipment	Same
	Power (PWR-C45-1400DC-P)		\$960	6	\$5,760	\$0	\$5,760	\$5,760	10. Equipment	Same
	48-volt 155-aH battery string (two)		\$1,825	36	\$65,700	\$0	\$65,700	\$65,700	10. Equipment	Same
	Battery tray (two)		\$196	36	\$7,056	\$0	\$7,056	\$7,056	10. Equipment	Same
	Circuit Breaker 100-amp (5)		\$32	90	\$2,880	\$0	\$2,880	\$2,880	10. Equipment	Same
	48v 50amp rectifier module (two)		\$995	36	\$35,820	\$0	\$35,820	\$35,820	10. Equipment	Same
	Cisco 5500 Series Wireless Controller Redundant F		\$897	5	\$4,485	\$0	\$4,485	\$4,485	10. Equipment	Same
	Cisco 5508 Series Wireless Controller for up to 250		\$38,997	5	\$194,985	\$0	\$194,985	\$194,985	10. Equipment	Same
			\$0		\$0	\$0	\$0	\$0		

**FINAL VERSION
Recategorized During Due Diligence**

J Carella

**NTIA BTOP Round Two - CCI #5116
OCTO DC-Community Access Network
(Due Diligence)**

FINAL (Reclassified)
May 26, 2010
2:00 PM Eastern

NTIA BTOP Round Two CCI (Winter 2010) - EasyGrant#:		5116	Applicant:		OCTO DC-Net	Project Name:			DC-Community Access Network (DC-CAN)	RECLASSIFIED (May 12)
OUTSIDE PLANT						\$9,212,184	\$0	\$9,212,184	\$9,212,184	
Cables			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
Conduits	CAN Backbone Fiber Materials		\$2.10	303,250	\$636,825	\$0	\$636,825	\$636,825	10. Equipment	288-count fiber, per foot; vendor quote
	Access Loops		\$1.30	585,100	\$760,630	\$0	\$760,630	\$760,630	10. Equipment	96-count fiber, per foot; vendor quote
			\$0		\$0	\$0	\$0	\$0		
Ducts			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
Poles			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
Towers			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
Repeaters			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
			\$0		\$0	\$0	\$0	\$0	\$0	
Other	Underground Fiber Install		\$8.24	503200	\$4,146,368	\$0	\$4,146,368	\$4,146,368	9. Construction	Unit cost per foot; vendor quote
	Aerial Fiber Install		\$3.86	318250	\$1,228,445	\$0	\$1,228,445	\$1,228,445	9. Construction	Unit cost per foot; vendor quote
	ISP Costs		\$2.14	66900	\$143,166	\$0	\$143,166	\$143,166	9. Construction	Unit cost per foot; vendor quote
	Verizon Inspectors		\$65	27950	\$1,816,750	\$0	\$1,816,750	\$1,816,750	6. Inspection fees	Unit cost per hour; vendor quote
	Install Handholes		\$8,000	60	\$480,000	\$0	\$480,000	\$480,000	9. Construction	Labor for fiber installation; estimates
			\$0		\$0	\$0	\$0	\$0	\$0	

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SERVICE AREA or COMMON NETWORK FACILITIES:		Match (Cash/In-kind)	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
BUILDINGS										
New Construction			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Pre-Fab Huts			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Improvements & Renovs			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Other			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
CUSTOMER PREMISE EQUIPMENT										
Modems			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Set Top Boxes			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Inside Writing			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Other			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
BILLING SUPPORT AND OPERATIONS SUPPORT SYSTEMS										
Billing Support Systems			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Customer Care Systems			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Other Support			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		

**FINAL VERSION
Recategorized During Due Diligence**

J Carella

**NTIA BTOP Round Two - CCI #5116
OCTO DC-Community Access Network
(Due Diligence)**

FINAL (Reclassified)
May 26, 2010
2:00 PM Eastern

NTIA BTOP Round Two CCI (Winter 2010) - EasyGrant#:		5116	Applicant:		OCTO DC-Net	Project Name:			DC-Community Access Network (DC-CAN)	RECLASSIFIED (May 12)
SERVICE AREA or COMMON NETWORK FACILITIES:		Match (Cash/In-kind)	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
OPERATING EQUIPMENT										
Vehicles			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Office Equipment / Furniture			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Other			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
PROFESSIONAL SERVICES										
					\$3,787,993	\$0	\$3,787,993	\$3,787,993		
Engineering Design	DC-Net Engineering, Inspection		\$65	21,040	\$1,367,600	\$0	\$1,367,600	\$1,367,600	4. Architectural and engr.	Estimates; procurement list costs
	Fiber Splicing and Testing		\$65	581	\$37,765		\$37,765	\$37,765	9. Construction	Estimates; procurement list costs
	Network Configuration		\$90	450	\$40,500	\$0	\$40,500	\$40,500	4. Architectural and engr.	Estimates; internal labor
			\$0		\$0	\$0	\$0	\$0		
Project Management	Program Manager		\$90	1,920	\$172,800	\$0	\$172,800	\$172,800	9. Construction	Estimates; procurement list costs
	Project Manager		\$90	3,840	\$345,600	\$0	\$345,600	\$345,600	9. Construction	Estimates; procurement list costs
	Financial Analyst / Program Compliance		\$90	5,760	\$518,400	\$0	\$518,400	\$518,400	9. Construction	Estimates; procurement list costs
Consulting			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Other	Install New DC-Net Sites		\$3,780	223	\$842,940	\$0	\$842,940	\$842,940	9. Construction	Labor for installation; estimates
	Upgrade Existing DC-Net Site (underserved area)		\$1,280	68	\$87,040	\$0	\$87,040	\$87,040	9. Construction	Labor for installation; estimates
	Upgrade Public Safety M-3,4 Sites		\$780	71	\$55,380	\$0	\$55,380	\$55,380	9. Construction	Labor for installation; estimates
	Upgrade Existing DC-Net Model1 Hub Site		\$4,550	18	\$81,900	\$0	\$81,900	\$81,900	9. Construction	Labor for installation; estimates
	Install DC-CAN DWDM		\$15,000	10	\$150,000	\$0	\$150,000	\$150,000	4. Architectural and engr.	Labor for installation; estimates
	Install DC-CAN MPLS Routers		\$780	10	\$7,800	\$0	\$7,800	\$7,800	4. Architectural and engr.	Labor for installation; estimates
	Install Wireless Core		\$624	5	\$3,120	\$0	\$3,120	\$3,120	4. Architectural and engr.	Labor for installation; estimates
					\$0			\$0		
	BTOP Application Submission	In-kind Match	\$115	536	\$61,640	\$0	\$61,640	\$61,640	11. Misc.	Costs of BTOP application preparation
	Plug entry	In-kind Match	\$1	506	\$506	\$0	\$506	\$506	11. Misc.	Plug, round up to nearest 000
	Plug entry		\$1	2	\$2	\$0	\$2	\$2	11. Misc.	Plug, to adjust match to SF-424-C
	ARRA/BTOP Compliance, Report	Cash Match	\$75	200	\$15,000	\$0	\$15,000	\$15,000	11. Misc.	New procedures for ARRA compliance
TESTING										
					\$60,300	\$0	\$60,300	\$60,300		
Network Elements	Network Testing		\$90	220	\$19,800	\$0	\$19,800	\$19,800	4. Architectural and engr.	Estimates, based on experience
	Network Turnup / Testing		\$90	450	\$40,500	\$0	\$40,500	\$40,500	4. Architectural and engr.	Estimates, based on experience
			\$0		\$0	\$0	\$0	\$0		
IT System Elements			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
User Devices			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Test Generators			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Lab Furnishings			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Servers/Computers			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		

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OCTO DC-Community Access Network
(Due Diligence)**

FINAL (Reclassified)
May 26, 2010
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NTIA BTOP Round Two CCI (Winter 2010) - EasyGrant#:		5116	Applicant:		OCTO DC-Net	Project Name:		DC-Community Access Network (DC-CAN)	RECLASSIFIED (May 12)	
SERVICE AREA or COMMON NETWORK FACILITIES:		Match (Cash/In-kind)	Unit Cost	No. of Units	Total Cost	Last Mile Allocation	Middle Mile Allocation	Allocated Total	SF-424C Budget Category	Support of Reasonableness
OTHER UPFRONT COSTS										
Site Preparation			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
Other			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
			\$0		\$0	\$0	\$0	\$0		
PROJECT TOTAL:					\$25,033,000	\$0	\$25,033,000	\$25,033,000		

SF-424C Cross-check Totals	
1. Admin and Legal	\$0
2. Land, structures	\$0
3. Relocation expenses	\$0
4. Architectural and engr.	\$1,629,320
5. Other archit. and engr.	\$0
6. Inspection fees	\$1,816,750
7. Site work	\$0
8. Demolition/removal	\$0
9. Construction	\$8,139,804
10. Equipment	\$13,369,978
11. Misc.	\$77,148
TOTAL SF-424C	\$25,033,000

Matching Contribution Cross-check Totals	
Federal Funding Request	\$17,457,764
Cash Match Contribution	\$7,513,090
In-kind Match Contribution	\$62,146
Total Match Pctg	30.26%
TOTAL SOURCES OF FUNDS	\$25,033,000

69.739%
30.01%
0.25%

SF-424C Difference:	\$0
Sources of Funds Difference:	\$0

Approach to allocating Last Mile and Middle Mile costs:

As this is exclusively a middle-mile project, with last-mile enablement, there are no last-mile costs. All project costs are therefore accounted as allocated to Middle Mile, exclusively. (Last-mile services will be provided by partners. We will provide wholesale billing to last-mile partners, who will, in turn, provide retail services, and billing and support systems to last-mile consumers.)

Additional comments for due diligence submission (May 25, 2010):

A. Overall project financials remain unchanged from original submission: (Mar 26):

- Project Budget remains at \$ 25,033,000.
- Federal BTOP Grant Request reduced to \$17,457,764 (69.739% of project costs). (Reduction of \$178.)
- Matching funds remain at \$ 7,575,238 (30.26% of project costs). Cash match = \$ 7,513,090 (30.01%); in-kind = \$ 62,146 (0.25%). (Increase of \$178)

B. No detail line item amounts changed from initial submission (Mar 26)

C. Recategorized lines for SF-424C from original submissions (Mar 26)

- Moved line "Install Handholds" to "Outside Plant (Other)" from "Professional Services (Other)".
- Reclassified as "Construction" all lines previously reported as "Site Work". Total amount remains unchanged, at \$ 7,103,184.
- Reclassified as "Construction" all lines re project management, program management and program compliance

**FINAL VERSION
Recategorized During Due Diligence**

J Carella



Comprehensive Community Infrastructure Budget Narrative

(Revised for Due Diligence, May 26, 2010)

Applicant Name: District of Columbia Government
Office of Chief Technology Officer (DC OCTO)

EasyGrants Number: 5116
DC Community Access Network

Organization Type: District of Columbia

Proposed Period of Performance: 30 Months
(FY 2011-Q1 – FY 2013-Q2)

Total Project Costs: \$25,033,000

Total Federal Grant Request: \$ 17,457,764

Total Matching Funds (Cash): \$ 7,513,090

Total Matching Funds (In-Kind): \$ 62,146

Total Matching Funds (Cash + In-Kind): \$ 7,575,236

Total Matching Funds (Cash + In-Kind) as Percentage of Total Project Costs: 30.26 %

1. Administrative and legal expenses - \$0

In this CCI Application for DC-CAN, there are no project expenses assigned to “Administrative and Legal Expenses”.

Services to support legal, contract review and other administrative matters will be provided by existing District of Columbia staff, and those costs will not be added to the project.

2. Land, structure, rights-of-way, appraisals, etc. - \$ 0

In this CCI Application for DC-CAN, there are no project expenses assigned to “Land, Structure, Rights-of-Way, Appraisals, etc.”.



3. Relocation expenses and payment - \$ 0

In this CCI Application for DC-CAN, there are no project expenses assigned to “Relocation Expenses and Payments”.

4. Architectural and engineering fees - \$ 1,629,320

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

Architectural and Engineering Fees	Hours	Years	Rate	Total Cost
Engineering Services – services for fiber bundle installations, allocations	21,040	9.0	\$65 / hour	\$ 1,367,600
Network Configuration – configuration and implementation of base network infrastructure	450	0.25	\$90 / hour	\$ 40,500
Install DC-CAN DWDM Multiplexing Systems – enable efficient fiber management and capacity management	10 instances	Not Applicable	\$15,000 / installation	\$ 150,000
Install DC-CAN MLPS Routers – support communications infrastructure	10 instances	Not Applicable	\$ 780 / installation	\$ 7,800
Install Wireless Core	5 instances	Not Applicable	\$624 / installation	\$ 3,120
Network Turn-up and Assurance	450	0.25	\$ 90 / hour	\$ 40,500
Network Testing	220	0.12	\$ 90 / hour	\$ 19,800
TOTAL:				\$ 1,629,320

Unit costs are based on contract rate schedules; work efforts are based on experience within DC-Net.

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

No cash matching funds are committed for this expense category. It is entirely funded by BTOP grant money.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

No in-kind matching funds are committed for this expense category. It is entirely funded by BTOP grant money.



5. Other architectural and engineering fees - \$ 0

In this CCI Application for DC-CAN, there are no project expenses assigned "Other Architectural and Engineering Fees".

6. Project inspection fees - \$ 1,816,750

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

Project Inspection Fees	Hours	Years	Rate	Total Cost
Verizon Inspectors	27950	13.0	\$ 65 / hour	\$ 1,816,750
TOTAL:				\$ 1,816,750

A core strategy of the DC-CAN proposal is the intent to run new fiber bundles only through existing Verizon conduit. This eliminates the need for new construction, minimizes service interruptions, and eliminates disruption to environment. As DC-Net personnel (primarily contractors) will be installing new fiber, DC-CAN will arrange for Verizon inspectors to be on-site during fiber pulls, splices, etc., and to sign off that new infrastructure was successfully completed, and did not impact Verizon, or other, service. This expense funds those Verizon inspection efforts.

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

No cash matching funds are committed for this expense category. It is entirely funded by BTOP grant money.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

No in-kind matching funds are committed for this expense category. It is entirely funded by BTOP grant money.

7. Site work - \$ 0

In this CCI Application for DC-CAN, there are no project expenses assigned "Site Work".

8. Demolition and Removal - \$ 0



In this CCI Application for DC-CAN, there are no project expenses assigned “Demolition and Removal Fees”.

9. Construction - \$ 8,139,804

- Provide description of estimated fees, rates, explanation of proposed services, and additional information as needed.

Construction	Units	Years	Rate	Total Cost
Underground Fiber Installation	503,200	c. 14	\$ 8.24 / foot	\$ 4,146,368
Aerial Fiber Installation	318,250	c. 5	\$3.86 / foot	\$ 1,228,445
ISP Costs	66,900	c. 1.5	\$ 2.14 / foot	\$ 143,166
Fiber Splicing and Testing	581	c. 0.3	\$ 65 / hour	\$ 37,765
Install New DC-Net Sites	223	c. 0.5	\$ 3,780 / site	\$ 842,940
Upgrade Existing DC-Net Sites (underserved)	68	c. 0.2	\$ 1,280 / site	\$ 87,040
Upgrade Public Safety M-3,-4 Sites	71	c. 0.2	\$ 780 / site	\$ 55,380
Upgrade Existing DC-Net Model1 Hub Site	18	c. 0.4	\$ 4,550 / site	\$ 81,900
Install Hand-holes	60	c. 2.8	\$ 8,000 / unit	\$ 480,000
TOTAL:				\$ 7,103,004

Unit costs are based on contract rate schedules; work efforts are based on experience within DC-Net.

- In addition, project management, program management and financial and compliance efforts are budgeted as “Construction” costs. Following is a table of roles, hours, rates and total costs.

Program Manager will be roughly half-time over the two-and-a-half year project schedule (30 months); unit costs are based on procurement schedules. Project manager will be full-time for duration of project; again, unit costs are list prices. Financial analyst and compliance analyst will be responsible for financial controls, and satisfying compliance, reporting and other obligations imposed by acceptance of the BTOP grant. We have classified these expenses as “Construction”, as they are part of the project execution.

Admin & Legal: Staff	Hours	Years	Rate	Total Cost
Program Manager	1,920	2.25	\$90 / hour	\$ 172,800



Project Manager	3,840	2.25	\$90 / hour	\$ 345,600
Financial Analyst / Compliance Analyst	5,760	2.25	\$90 / hour	\$ 518,400
TOTAL:				\$ 1,036,800

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

No cash matching funds are committed for this expense category. It is entirely funded by BTOP grant money.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

No in-kind matching funds are committed for this expense category. It is entirely funded by BTOP grant money.

10. Equipment - \$ 13,369,978

- Provide a list of equipment in the form of a table with description, number of units, unit cost, state whether it is being purchased or leased, and additional information as needed.

The following table lists all equipment for purchase for the DC-CAN project. All equipment will be purchased (none leased). All unit costs have either been sourced from Procurement Office, or obtained via quotation from supplying vendor.

Quantities were derived based on planned configuration for each site, multiplied by the number of sites (newly added; upgraded; etc). These site counts are based upon the planned set of Community Anchor Institutions, Points of Inter-Connections, and core DC-Net processing centers.

Total equipment cost is \$13,369,978.

Requested BTOP grants will fund \$ 5,871,888, and the remaining balance of \$ 7,498,090 will be funded by OCTO's cash match contribution. In the right hand column, the four sets of equipment which will be purchased using the District's Cash Match have "YES" in their cells, which are also colored yellow.



Equipment Type, Model	Unit Price	Quantity	Extended	Pricing Source	Cash Match
Cisco 3560 24 10/100 PoE + 2 SFP + IPS Image	\$5,790	291	\$1,684,890	DC-Net cost per unit	Yes
GE SFP LC connector LX/LH transceiver (four)	\$565	1164	\$657,660	DC-Net cost per unit	
Cisco 1520 Outdoor Series (w/ hardware)	\$3,500	291	\$1,018,500	DC-Net cost per unit	
Chassis 4507R-E	\$5,497	3	\$16,491	DC-Net cost per unit	
Supervisor (WS-X45-SUP6-E)	\$10,997	6	\$65,982	DC-Net cost per unit	
IOS (S45EESK9-12250SG)	\$6,000	3	\$18,000	DC-Net cost per unit	
48 Port PoE Blades (WS-X4648-RJ45V+E)	\$4,122	6	\$24,732	DC-Net cost per unit	
SFP (GLC-LH-SM)	\$565	12	\$6,780	DC-Net cost per unit	
Cisco 7606 redundant system 2RSP720-3CXL, 2PS	\$51,750	18	\$931,500	DC-Net cost per unit	
48-port SFP Gigabit (two)	\$18,750	36	\$675,000	DC-Net cost per unit	
48-port SFP FastEthernet (two)	\$6,750	36	\$243,000	DC-Net cost per unit	
10GBASE-LR X2 Module (four)	\$3,000	72	\$216,000	DC-Net cost per unit	
MPLS VPN: ASR 9010 (Super Core sites)	\$303,400	2	\$606,800	DC-Net cost per unit	Yes
MPLS VPN: ASR-9006 (Core Sites)	\$249,550	8	\$1,996,400	DC-Net cost per unit	Yes
DWDM: 10 sites 40-channel Ciena 4200 RS	\$321,000	10	\$3,210,000	DC-Net cost per unit	Yes
Hubbell RE-BOX wall enclosure	\$357	223	\$79,611	DC-Net cost per unit	
Patch Panel mounting bracket	\$40	223	\$8,920	DC-Net cost per unit	
Equipment mounting bracket	\$46	223	\$10,258	DC-Net cost per unit	
APC SMART UPS 1000 Rack Mount	\$507	223	\$113,061	DC-Net cost per unit	
Network Management Card	\$224	223	\$49,952	DC-Net cost per unit	
Mounting hardware/patch cord(s)/etc.	\$100	223	\$22,300	DC-Net cost per unit	
Power (PWR-C45-1400DC-P)	\$960	6	\$5,760	DC-Net cost per unit	
48-volt 155-aH battery string (two)	\$1,825	36	\$65,700	DC-Net cost per unit	
Battery tray (two)	\$196	36	\$7,056	DC-Net cost per unit	
Circuit Breaker 100-amp (5)	\$32	90	\$2,880	DC-Net cost per unit	
48v 50amp rectifier module (two)	\$995	36	\$35,820	DC-Net cost per unit	
Cisco 5500 Series Wireless Controller Redundant Power Supply	\$897	5	\$4,485	DC-Net cost per unit	
Cisco 5508 Series Wireless Controller for up to 250 Aps	\$38,997	5	\$194,985	DC-Net cost per unit	
CAN Backbone Fiber Materials	\$2.10	303,250	\$636,825	DC-Net cost per unit	
Access Loops	\$1.30	585,100	\$760,630	DC-Net cost per unit	
TOTAL EQUIPMENT			\$13,369,978		
Total DC Cash Match				\$7,498,090	
Total BTOP Federal Grant				\$5,871,888	



- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

\$ 7,498,090 in District of Columbia cash will be used as a matching contribution toward the DC-CAN project. The source of the funds will be District of Columbia Government.

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

No in-kind matching funds are committed for this expense category. It is entirely funded by BTOP grant money, and by District of Columbia cash match, as indicated above.

11. Miscellaneous - \$ 77,148

- Provide additional information as needed.

DC-CAN has accounted for three project cost items in its budget, as listed in the following table.

Miscellaneous	Hours	Years	Rate	Total Cost
BTOP Application and Proposal Preparation	536	0.25	\$ 115 / hour	\$ 61,640
Plug entry, to round proposal to nearest 000.				\$ 506
Plug entry, to round match to SF-424-C				\$ 2
Policy and Procedure Changes to support ARRA / BTOP Compliance and Transparency obligations	200	0.10	\$ 75 / hour	\$ 15,000
TOTAL:				\$ 77,148

Re BTOP Application and Proposal Preparation, three contractors worked approximately four-and-a-half weeks to construct the proposal and application. Estimated at 536 person hours, at a blended average cost of \$115 / hour, BTOP proposal development costs are estimated at \$61,640. This item is being classified as an in-kind match, and no BTOP funds will be used for this.

\$506 was added to the budget as a plug entry, to bring the project cost to an even thousand dollars. These both are classified as in-kind match, and no BTOP funds will be used for this.

\$2 was added to the budget as a plug entry, to ensure the SF-424-C totals match detailed budget. (Due to precision limits on percentage calculations, this was necessary to match identically.)

Re Policy and Procedure Changes, in the event of a BTOP grant award, it is expected that changes will be required to support new financial controls, additional financial reports, quarterly submissions to Recovery.gov, and other compliance obligations associated with acceptance of a grant. District of



Columbia estimates 200 hours at \$75 per hour, or \$15,000, to implement these changes. This item is being classified as a cash match, and no BTOP funds will be used for this.

- Provide detailed description, calculation, and basis of evaluation for each Cash Matching Funds source.

The \$15,000 for Policy and Procedure Changes, to support implementation of ARRA and BTOP compliance and transparency efforts, are being classified as Cash Match. Source of these funds is the budget of the District of Columbia Office of the Chief Technology Officer (OCTO).

- Provide detailed description, calculation, and basis of evaluation for each In-Kind Matching Funds source.

The \$61,640 for the legitimate costs of the BTOP Application Preparation (from late January NOFA to submission) are being classified as in-kind matching funds. In addition, the \$508 plug entry is classified as in-kind matching, as well, for a total of \$62,148. Source of these funds is the budget of the District of Columbia Office of the Chief Technology Officer (OCTO).

13. Contingencies - \$ 0

In this CCI Application for DC-CAN, there are no project expenses assigned to "Contingencies".

15. Project (program) income - \$0

In this CCI Application for DC-CAN, there is no program income expected, or recorded in this category.