

Fibernet (P509651)

Category General Government
 Sub Category Technology Services
 Administering Agency Technology Services (AAGE05)
 Planning Area Countywide

Date Last Modified 5/3/13
 Required Adequate Public Facility No
 Relocation Impact None
 Status Ongoing

Total	Thru FY12	Rem FY12	Total 6 Years	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	Beyond 6 Yrs
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EXPENDITURE SCHEDULE (\$000s)

Planning, Design and Supervision	3,046	2,220	200	626	606	20	0	0	0	0
Land	4	4	0	0	0	0	0	0	0	0
Site Improvements and Utilities	13,041	12,441	0	600	250	175	175	0	0	0
Construction	18,103	1,653	1,456	14,994	875	3,877	3,967	2,175	2,175	1,925
Other	24,773	21,173	0	3,600	100	100	100	1,600	1,600	100
Total	58,967	37,491	1,656	19,820	1,831	4,172	4,242	3,775	3,775	2,025

FUNDING SCHEDULE (\$000s)

Cable TV	47,131	26,879	1,182	19,070	1,831	3,916	3,748	3,775	3,775	2,025
Contributions	86	86	0	0	0	0	0	0	0	0
Current Revenue: General	750	0	0	750	0	256	494	0	0	0
G.O. Bonds	8,900	8,426	474	0	0	0	0	0	0	0
PAYGO	2,100	2,100	0	0	0	0	0	0	0	0
Total	58,967	37,491	1,656	19,820	1,831	4,172	4,242	3,775	3,775	2,025

OPERATING BUDGET IMPACT (\$000s)

Maintenance				1,459	1,097	153	101	13	37	58
Net Impact				1,459	1,097	153	101	13	37	58

APPROPRIATION AND EXPENDITURE DATA (000s)

Appropriation Request	FY 14	4,171
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		40,979
Expenditure / Encumbrances		37,581
Unencumbered Balance		3,398

Date First Appropriation	FY 96
First Cost Estimate	
Current Scope	FY 14
Last FY's Cost Estimate	55,473

Description

This project provides for the planning, design, and installation of a County wide fiber optic cable-based communication network with the capacity to support voice, data, and video transmissions among Montgomery County Government (MCG), Montgomery County Public Schools (MCPS), Montgomery College (MC), Maryland National Capital Park and Planning Commission (M-NCPPC), Housing Opportunities Commission (HOC) and Washington Suburban Sanitary Commission (WSSC) facilities. FiberNet is also the communications backbone for the Public Safety Radio and Public Safety Mobile Data Systems (collectively, Public Safety Communications System PSCS), and future technology implementations. Fibernet has an estimated useful life of at least 20 years. Upgrades and replacements to electronic components in the core and at user sites will be required periodically throughout the service life.

Estimated Schedule

At the end of FY12, FiberNet reached 341 locations. Based on the current funding schedule, FiberNet will reach 450 locations by the end of FY13; 469 locations by the end of FY14; 483 locations by the end of FY15; 497 locations by the end of FY16; and 510 locations by the end of FY17.

Cost Change

Cost increase will leverage FiberNet to provide the College with a robust, reliable and cost-effective high-speed College Communication Network by FY15. As part of this partnership, \$750,000 will be shifted from the Information Technology: College project into the FiberNet project. Funding has also been added to expand capacity and reliability for the FiberNet network through completion of hub site improvements and to support wire relocations needed to maintain compliance with utility pole safety standards.

Justification

Fibernet (P509651)

FiberNet is a critical infrastructure asset serving every agency in Montgomery County. As of June 30, 2012, 341 user sites are on-net and receiving critical services from FiberNet. In FY07, the Department of Technology Services (DTS) completed the re-engineering of FiberNet (now referred to as FiberNet II) to directly support Ethernet connections. This provides a core network that is technologically more robust and less expensive to operate on a per-site basis. The Interagency Technology Policy Coordination Committee (ITPCC) focus during the first two years of this CIP will be constructing the ARRA Grant-funded sites, and completing hubsite upgrades and inter-jurisdictional connections to enable cost-effective future technology partnerships. MCG, MCPS, MC, M-NCPPC, HOC and WSSC require substantially increased communication services and bandwidth among their facilities. As locations are connected to FiberNet, the County will be able to provide communications services to those facilities more cost-effectively by using FiberNet than by using leased telecommunications services. Studies include: FiberNet Master Plan; RAM Comm. Mar 1995; FiberNet Eval. Rpt., TRW, Sept 1997; FiberNet Proj. Cost Est., ARINC, Apr 1998; FiberNet Proj. Cost-Benefit Analysis, ARINC, Oct 1998; FiberNet Strategic Plan, PrimeNet, June 2002; FiberNet Strategic Direction, Interagency Telecommunications Advisory Group (ITAG), Nov 2003; and the FiberNet service level agreement, Jan 2005.

Other

DTS is responsible for project management, network operations, and maintenance of electronics, while the Department of Transportation (DOT) is responsible for installation and maintenance of the fiber optic cable. Comcast, at DTS's direction, also provides dark fiber used to connect some locations to FiberNet. Sites installed to date include MCG departments/offices, public safety sites, Montgomery College campuses, MCPS elementary, middle, and high schools plus several administrative facilities, M-NCPPC sites, HOC sites and WSSC sites including the headquarters building in Prince Georges County. The municipalities of Takoma Park, Gaithersburg and Rockville are on FiberNet as well as several cultural centers including the American Film Institute (AFI), the Fillmore, Strathmore, Bethesda Performing Arts, the Convention Center, Olney Theatre, and Black Rock. Currently FiberNet is focused on building out the approved ARRA Grant-funded sites, which includes the majority of MCPS elementary schools, and 21 HOC properties. Funding for these projects are included in the FY13-FY18 CIP. In June 2012, the ITPCC approved a Policy Guideline for Special Allocation of FiberNet Resources. This proposed policy governs special fiber resource allocation decisions for FiberNet for all participating ITPCC agencies. ITPCC will be requested to approve a special allocation request by Montgomery College for creation of a College Fiber Network that would permit MC communications traffic to be routed separate from other FiberNet traffic over equipment operated by the College. In December 2012, the County and MC entered into a separate Memorandum of Understanding (MOU) to address the use and expansion of FiberNet by the College. Agency FiberNet MOUs and Service Level Agreements (SLAs) will be updated and revised to reflect the ongoing FiberNet operating network.

Fiscal Note

The ARRA Grant represents a tremendous cost savings to Montgomery County. The County will receive the benefit of over \$11.1 million dollars in construction for a matching contribution of \$2.6 million. The matching contribution is funded as part of the FY12 and FY13 FiberNet CIP. FiberNet maintenance is supported by a grant from the franchise agreement with Comcast, one of the County's cable service provider. The original grant amount of \$1.2 million/yr is increased by the CPI each year. In the renewed Comcast franchise, the County expects to receive operating support and franchise fee revenues which can be used to support FiberNet maintenance and operations. Capital support received from the Verizon and RCN franchises can be used to support construction of FiberNet through the FiberNet CIP. Current Revenue: General funding will be shifted from the Information Technology: College (P856509) project to complete FiberNet expansion to College sites in accordance with the terms of the MOU.

Coordination

Department of Technology Services, Department of Transportation, Advanced Transportation Management System Project, Montgomery County Public Schools, M-NCPPC, Montgomery College, HOC, WSSC, Comcast, Public Safety Radio System, Information Technology Policy Coordination Committee (ITPCC), ITPCC CIO Subcommittee, Interagency Technology Advisory Group (ITAG), CIO Howard County, Inter-County Broadband Network Program Office