

Fibernet -- No. 509651

Category
Subcategory
Administering Agency
Planning Area

**General Government
Technology Services
Technology Services
Countywide**

Date Last Modified
Required Adequate Public Facility
Relocation Impact
Status

**March 28, 2012
No
None.
On-going**

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY11	Est. FY12	Total 6 Years	FY13	FY14	FY15	FY16	FY17	FY18	Beyond 6 Years
Planning, Design, and Supervision	3,046	2,220	200	626	606	20	0	0	0	0	0
Land	4	4	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	13,106	12,441	65	600	250	175	175	0	0	0	0
Construction	14,544	1,169	1,875	11,500	875	2,175	2,175	2,175	2,175	1,925	0
Other	24,773	21,173	0	3,600	100	100	100	1,600	1,600	100	0
Total	55,473	37,007	2,140	16,326	1,831	2,470	2,450	3,775	3,775	2,025	0

FUNDING SCHEDULE (\$000)

Cable TV	44,387	25,921	2,140	16,326	1,831	2,470	2,450	3,775	3,775	2,025	0
Contributions	86	86	0	0	0	0	0	0	0	0	0
G.O. Bonds	8,900	8,900	0	0	0	0	0	0	0	0	0
PAYGO	2,100	2,100	0	0	0	0	0	0	0	0	0
Total	55,473	37,007	2,140	16,326	1,831	2,470	2,450	3,775	3,775	2,025	0

OPERATING BUDGET IMPACT (\$000)

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

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.

CAPACITY

As of September 1, 2011, there are 316 sites on FiberNet. The number of sites scheduled for completion by September 1, 2014 is 465. By September 1, 2017, that number is expected to be 510.

ESTIMATED SCHEDULE

FiberNet anticipates 134 sites will be brought on-net by 2014. In the prior FY11-16 CIP, the estimated time frame would have extended into 2017.

COST CHANGE

Cost increase is due to an expansion of the project scope primarily related to the increasing MCPS FiberNet sites, as well as providing FiberNet support to the Advanced Traffic Management System.

JUSTIFICATION

FiberNet is a critical infrastructure asset serving every agency in Montgomery County. As of September 1, 2011, 316 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 newer, faster 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. MCG, MCPS, MC, M-NCPPC, HOC and WSSC require substantially increased communication services and bandwidth among their facilities. The County will provide fiber optic services to those facilities for which leased telecommunications services cannot meet current or projected demand as cost effectively as FiberNet. 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 fiber used in Fibernet. Sites installed to date include MCG

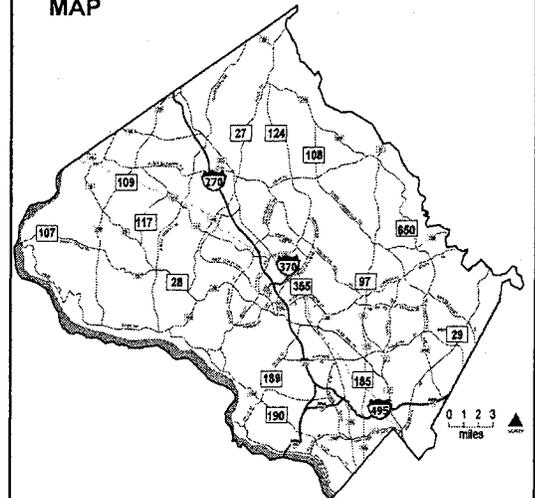
APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY96	(\$000)
First Cost Estimate	FY13	55,473
Current Scope		
Last FY's Cost Estimate		39,147
Appropriation Request	FY13	1,831
Appropriation Request Est.	FY14	2,470
Supplemental Appropriation Request		0
Transfer		0
Cumulative Appropriation		39,148
Expenditures / Encumbrances		37,045
Unencumbered Balance		2,103
Partial Closeout Thru	FY10	0
New Partial Closeout	FY11	0
Total Partial Closeout		0

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

MAP



Fibernet -- No. 509651 (continued)

departments/offices, PSCS sites, MC campuses, MCPS high schools/middle schools/administrative facilities and several elementary schools, 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 American Film Institute (AFI), Strathmore, the Convention Center and Black Rock. Currently FiberNet is focused on building out the approved ARRA Grant-funded sites, which includes all remaining MCPS elementary schools, 8 MC sites, and 21 HOC properties. Approximately \$3 million is necessary to build out the cable plant to support Advanced Traffic Management System field devices. Funding for this project is included in the FY13-FY18 CIP.

ITPCC will undertake an approval action on a recommended 'Fiber Sub-Allocation Policy and Decision Process' in FY13. This proposed policy will govern future special fiber resource sub-allocation decisions for FiberNet for all participating ITPCC agencies.

ITPCC will be requested to approve a special sub-allocation request by Montgomery College for the installation and maintenance of fiber to 8 MC sites. Agency FiberNet Memorandum of Understanding (MOU) and Service Level Agreements (SLAs) will be updated and revised to reflect the ongoing FiberNet operating network. A separate MOU will be developed for a special sub-allocation of dark fiber for the 8 Montgomery College sites, installed as part of the current ARRA Grant-funded Fibernet expansion.

FISCAL NOTE

The ARRA Grant represents a tremendous cost savings to Montgomery County. The County will receive the benefit of over \$17 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 the County's cable service provider, Comcast. The original grant amount of \$1.2 million/yr is increased by the CPI each year. The FiberNet operating grant will expire at the end FY13 when the current Comcast cable franchise agreement expires. The County is planning to request a similar level of funding during the Comcast franchise renewal negotiations.