

Telecommunications Network Upgrade

(Funding Recommended)

Project Type: Construction / Technology

Project Status: New*

Requestor: Department of Accountability, Research & Technology

Project Description:

This project will provide funding to upgrade the Albemarle County network telecommunications infrastructure to meet the expanding instructional and administrative data needs. The upgrades would provide for substantial increases in bandwidth by migrating to the latest wireless and physical networking technologies, including the construction of county owned wide area wireless and optical data transport facilities. The upgrades will allow the division to utilize high density and bandwidth application of contemporary web technologies that will demand video, collaboration tools and distance learning in addition to normal operational needs. *This CIP request represents the combination of the previously submitted Local Area Network Upgrade and Wide Area Network Upgrade to maintain/replace network routers, switches, and data cables (both copper and fiber), and enables opportunities for Local Government Information Technology to increase its operational capacity.

Location:

All schools, CATEC, VMF, Building Services/DART, COB additional government locations

Relationship to an Approved county Policy or Plan:

County Strategic Plan: This project is consistent with Goals 1 and 2 of the County's Strategic Plan.

Comprehensive Plan: This project is consistent with the objectives and goals listed in the school section of the County Community Facilities Plan.

Guiding Principles:

- Provide and maintain education facilities and technologies that enhance teaching and learning;
- Support and enhance Albemarle County's overall quality of life and community desirability and livability, including projects that contribute to the arts, education, community events, outdoor recreation, historic and cultural heritage, and social opportunities;
- Respond to technological innovations and incorporate technological rather than spatial solutions when appropriate.

Other: This plan is consistent with Goals 4 and 5 of the School Division Strategic Plan.

Project Justification:

The Albemarle County network is a required and critical component to provide access to the internet, online instructional materials, SOL testing, distance learning, telephone/voice and video services, as well as centralized administrative applications and database systems. The demands placed on our current network infrastructure have quickly outgrown capacity; creating difficulties providing the basic levels of access our students and staff require, being inconsistent with our vision as outlined in our various technology and organizational plans. This funding requested allows the division to maintain network routers, switches, and data cables (both copper and fiber). There are several distinct areas where the division upgrades to equipment and services will allow Albemarle County Public Schools to meet both current and future needs. The division will routinely replace switches, routers, and associated equipment that manage data on our network. The division must maintain the physical cabling that carries the data between the numerous network devices; this includes cabling located inside a building as well as cabling between buildings, both copper and fiber optic. The division must routinely replace the access points and related hardware that is essential to the wireless access, inside a building as well as outside. Network and wireless hardware required to sustain the local area network as well as the wide area network have been included at the previous funding request levels; usable equipment lifecycle is typically 3-7 years. Network cabling has an estimated useful life of approximately 25-50 years.

Change/Reasons for Revisions:

This funding will enable us to increase the quantity of equipment that our vendors will bid on and that will most likely result in more competitive pricing and a reduction in equipment unit costs.

Alternatives/Impact if Project Not Funded/Completed:

If this project is not completed, Albemarle County will not be able to continue to meet the data needs of our students and staff which will greatly limit learning opportunities, create difficulties in administering state mandated SOL testing and will be detrimental to the overall operational efficiency of the organization.

(Continued: Telecommunications Network Upgrade)

Other Special Considerations:

Technical/Oversight Committee Recommendations:

No changes are recommended to the project request.

Telecommunications Network Upgrade	Appropriated to Date*	FY 14 Cost	FY 15 Cost	FY 16 Cost	FY 17 Cost	FY 18 Cost	FY 14-18 Total
PROJECT EXPENDITURES							
Architectural/Design/Engineering Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Land Acquisition Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction/Site Preparation/Utilities Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Furniture/Fixture/Equipment/IT Costs	\$0	\$900,000	\$0	\$0	\$0	\$900,000	\$1,800,000
Other Initial Capital Expense Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Project Management	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PROJECT EXPENDITURES TOTAL	\$0	\$900,000	\$0	\$0	\$0	\$900,000	\$1,800,000
PROJECT REVENUES							
Loan Proceeds	\$0	\$675,000	\$0	\$0	\$0	\$810,000	\$1,485,000
Equity Funding	\$0	\$225,000	\$0	\$0	\$0	\$90,000	\$315,000
PROJECT REVENUES TOTAL	\$0	\$900,000	\$0	\$0	\$0	\$900,000	\$1,800,000
OPERATIONAL IMPACTS - None							

*Appropriated to date: Budgets appropriated to date are recorded for currently funded projects that have a defined start and stop (i.e. a construction project or specific technology replacement). Projects that do not have a defined start or stop (i.e. maintenance/replacement projects) are recorded as "on-going."