



COUNTY OF FREDERICK

Information Technologies
(540) 665-5614

MEMORANDUM

To: BOS IT Committee
From: Scott Varner, IT Director
Subject: BOS IT Committee Agenda and Supporting Information
Date: May 21, 2019

The BOS IT Committee meeting will be held in the First Floor Conference Room at 107 N Kent Street on Wednesday, May 29, 2019 at 8:15 a.m.

Information Only

1. Update on Current Projects
 - a. Switch Replacement/Network Topology
 - b. Pictometry
 - c. Public Safety Software Migration
 - d. Sheriff's Office Mobile Command Terminals
 - e. Landfill Fiber Optic Connection
 - f. Granicus Video Streaming and Electronic Agenda
 - g. GIS Floodplain Update
 - h. Department Organization
2. Cybersecurity
 - a. Multi-factor Authentication
 - b. Cybersecurity Training – 2nd Year
3. Committee Charter Review

4. Broadband Grant Opportunities

- a. USDA
- b. VATI

Information Only

1. Update on Current Projects

- a. The Network Operations Team has completed the second year of the three-year plan to replace the network switching infrastructure. This project focused on the Public Safety Building and included adding additional network capacity as well as replacing all network switches and the building network core. The bulk of the work was completed on a Saturday to minimize any disruption to the 911 center.
- b. The Pictometry fly over has been completed and all imagery delivered to the County on May 1, 2019. For the purpose of this flight the county was divided into two sections, Community and Neighborhood. The Community imagery was done at a resolution of 6” while the Neighborhood was done at 3”. Please see **Appendix A** for the sector map. The flight was started in March 2019 and completed by Mid-April 2019. GIS staff is currently reviewing the imagery to ensure compliance with the standards set forth in the contract. Patrick Fly, GIS Manager, will give a brief demonstration of the Pictometry Online application.
- c. Core software systems for Public Safety were migrated to the County’s virtual infrastructure and several systems upgraded during the process. The County is now providing oversight for the maintenance of the Public Safety software environment.
- d. Network Operations is currently working with the hardware vendor and Sprint Communications to troubleshoot connectivity issues with the new mobile command terminals for the Sheriff’s vehicles. All terminals have been imaged and once the connectivity issue is resolved, the units will be tested in the field by Sheriff’s Office personnel. Pending the outcome of testing, the units will then be deployed. We are targeting June for completion of this project.
- e. The fiber optic connection for the landfill is delayed due to VDOT permitting issues with Comcast. Most of the site work has been completed and is just waiting on VDOT to approve the final permit.
- f. The County PIO, Deputy Clerk, and Information Technology have completed the setup and implementation of the Granicus Streaming Portal and Electronic Agenda Creation. We are now working to determine a soft launch date, training for the Board of Supervisors, and public information campaign.

- g. Patrick Fly, GIS Manager, will give a brief update on the FEMA Floodplain Management.
- h. The GIS Department's new staff are already having a great impact on the addressing backlog the department was experiencing. The Director of Information Technology would like to discuss creating a Deputy Information Technology Director position. The proposal would not include adding any additional staff.

2. *Cybersecurity*

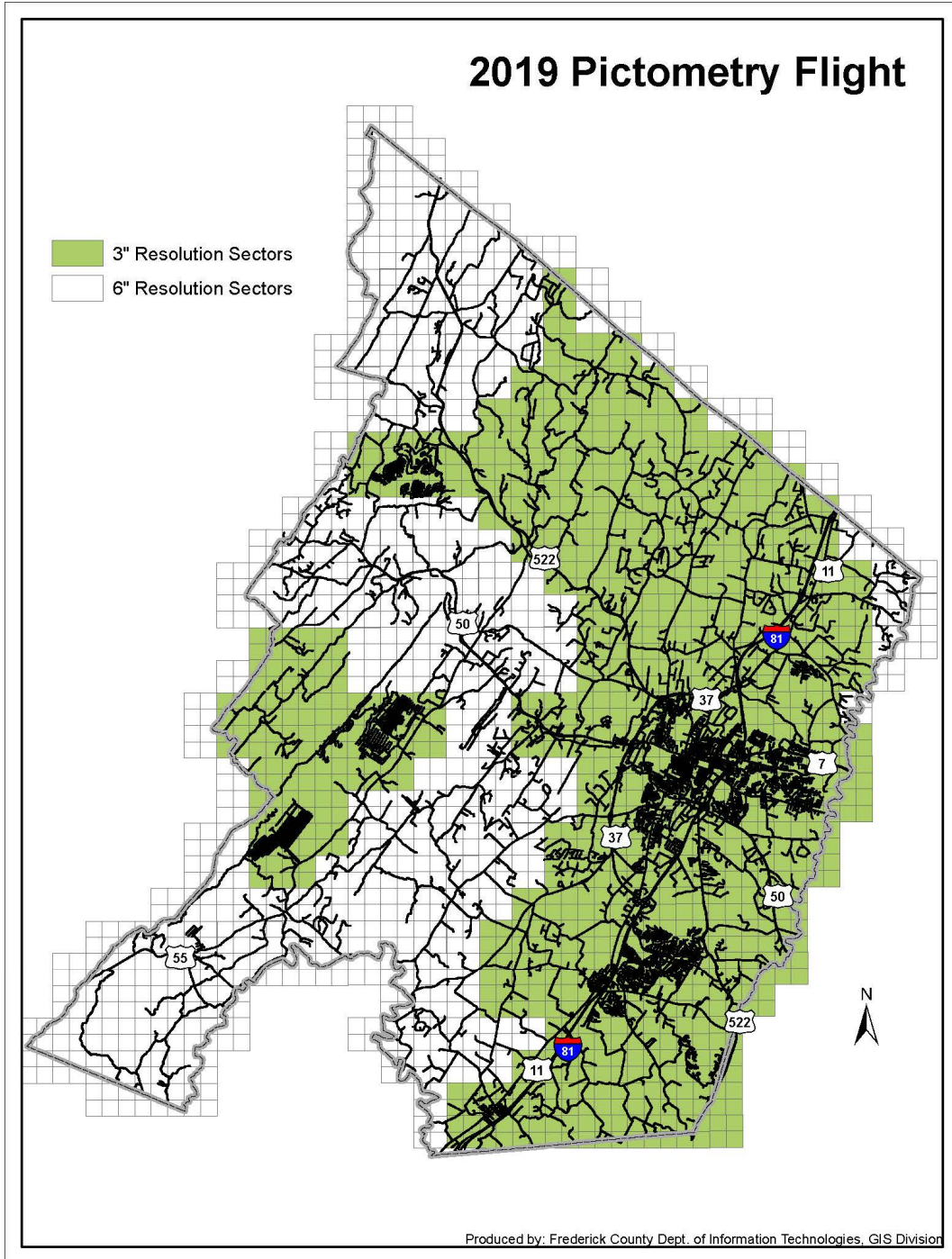
- a. Cyber threats are getting more numerous and our employees are constantly targeted to try and gain access to our systems. The move to multi-factor authentication is necessary as another line of defense against spear phishing attacks. The Director of Information Technology will present options to the committee and discuss the cost of each. Please see **Appendix B** for more information on multi-factor authentication.
- b. The Department will soon be conducting our 2nd year of mandatory cybersecurity training for all County staff. At an undisclosed time, the department will also be conducting email phishing tests for all staff.

3. *Broadband Grant Opportunities*

- a. USDA – The Director of Information Technology will give a brief overview of the grant requirements. Please see **Appendix C** for further information.
- b. VATI – The Virginia Telecommunications Initiative (VATI) grant has now increased to \$19 million in funding for FY2020. The Director of Information Technology and the GIS Manager will give a brief overview of the grant requirements and discuss how the department is working toward capitalizing on some of this funding to improve citizen access to broadband. Please see **Appendix D** for further information.

- 4. *Committee Charter Review* – Please see **Appendix E** for the current charter. If you have any suggestions for changes, please bring your list to the committee meeting.

Appendix A



Appendix B

Multi-factor Authentication



Authentication Factors

The overall authentication process for MFA requires at least two of the three authentication methods:

- a) Something you know, such as a password or passphrase. This method involves verification of information that a user provides, such as a password/passphrase, PIN, or the answers to secret questions (challenge-response).
- b) Something you have, such as a token device or smartcard. This method involves verification of a specific item a user has in their possession, such as a physical or logical security token, a one-time password (OTP) token, a key fob, an employee access card, or a phone's SIM card. For mobile authentication, a smartphone often provides the possession factor in conjunction with an OTP app or a cryptographic material (i.e., certificate or a key) residing on the device.
- c) Something you are, such as a biometric. This method involves verification of characteristics inherent to the individual, such as via retina scans, iris scans, fingerprint scans, finger vein scans, facial recognition, voice recognition, hand geometry, and even earlobe geometry.

Other types of information, such as geolocation and time, may be additionally included in the authentication process; however, at least two of the three factors identified above must always be used. For example, geolocation and time data may be used to restrict remote access to an entity's network in accordance with an individual's work schedule. While the use of these additional criteria may further reduce the risk of account hijacking or malicious activity, the remote access method must still require authentication via at least two of the following factors: something you know, something you have, and something you are.

Appendix C

USDA Reconnect Grant Criteria

On March 23, 2018, Congress passed the Consolidated Appropriations Act, 2018 (the Act), which established a new broadband loan and grant pilot program, now called the Rural eConnectivity Pilot Program (ReConnect Program). The Act appropriated a budget authority of \$600,000,000 to be used on an expedited basis. For that reason, the United States Department of Agriculture (USDA) determined that it is in the public interest to move forward with developing procedures for the ReConnect Program within a Funding Opportunity Announcement (FOA) instead of rulemaking to meet the statutory mandate to implement this new program. An electronic copy of the ReConnect Program FOA is available under [Forms & Resources](#).

One of the essential goals of the ReConnect Program is to expand broadband service to rural areas without sufficient broadband access, defined as 10 megabits per second (Mbps) downstream and 1 Mbps upstream. The first round of applicants have three separate funding categories to choose from: 100 percent (%) loan, 50% loan / 50% grant, or 100% grant. Given the varying closing dates for each funding type, applicants will be limited to one application for this FOA.

To be eligible for a 100% loan or 50% loan / 50% grant, the proposed funded service area in an application must be in a rural area where 90% of the households do not have sufficient broadband access. To be eligible for a 100% grant, the proposed funded service area in an application must be in a rural area where 100% of the households do not have sufficient broadband access. No matter which funding type the applicant requests, the proposed network must be capable of providing service to every premise in the proposed funded service area at a speed of at minimum, 25 Mbps downstream and 3 Mbps upstream.

To be eligible to receive ReConnect Program funds, the proposed service area must meet various criteria. First, a proposed service area must contain at least 90 percent (%) of the households currently lack sufficient broadband access. Sufficient access to broadband means any rural area that has fixed, terrestrial broadband service delivering at least 10 megabits per second (Mbps) downstream and 1 Mbps upstream. For eligibility purposes, if an applicant is applying for multiple proposed funded service areas, each service area will be evaluated on a stand-alone basis.

A proposed funded service must also be located in a rural area. A rural area is any area that is not located in a city, town, or incorporated area that has a population of greater than 20,000 inhabitants or an urbanized area contiguous and adjacent to a city or town that has a population of greater than 50,000 inhabitants.

Appendix D

Virginia Telecommunications Initiative

The Virginia Telecommunications Initiative (VATI) has announced \$19 million in grants in FY 2020 available to local governments (includes towns, cities, counties, economic and industrial development authorities, broadband or wireless authorities, planning district commissions, etc.) to extend broadband service to currently unserved areas. To be eligible the local government must include a private-sector provider as a co-applicant.

The primary objective of VATI is to provide financial assistance to supplement construction costs by private sector broadband service providers, in partnership with local units of government to extend service to areas that presently are unserved by any broadband provider.

Applications must be submitted by a unit of government (Towns, Cities, Counties, Economic Development Authorities/Industrial Development Authorities, Broadband/Wireless Authorities, Planning District Commissions, School Districts, etc.) with a private sector provider(s) as a co-applicant. Eligible projects will be owned and operated by the private sector co-applicant.

VATI is designed to ensure that unserved areas of the Commonwealth have access to broadband speeds of at least 25 Mbps download and 3 Mbps upload. Projects proposing higher speeds in the most cost efficient manner will receive funding priority. In each case, the co-applicant will be required to demonstrate how their proposed technology solution will deliver the promised speeds in the proposed area once operational and how capacity will be aggregated in the network design.

All applicants are required to have solicited public comment for a fifteen (15) day period before submitting applications to DHCD. If an application is received that has not undergone a fifteen (15) day public comment period, it will not be considered for review. Advertisement seeking Public Comment must be made in a non-legal, locally-circulated newspaper with the largest general circulation, as well as posted on the locality website and in public buildings. The notices must provide the address, phone number, TDD, and times for submitting comments and grievances to the applicant locality. All comments must be provided to DHCD with the application

Appendix E

Committee Charter

Frederick County Board of Supervisor's Information Technology Committee Charter

I. Organization

There shall be a committee of the Board of Supervisors ("Board") of Frederick County, Virginia ("County") known as the Information Technology Committee ("Committee"). The Committee shall be comprised of three (3) members of the Board of Supervisors who will be appointed by the Chairman of the Board, with one appointed as Chair, and three (3) citizen members as appointed by the Chairman of the Board. This Charter shall govern the Committee with regard to its duties and responsibilities. The goal of the Committee shall be to promote programs, policies, and practices that provide relevant technology equipment and services to our staff and community.

II. Purpose

The primary function of the Committee is to assist the Board in fulfilling its oversight responsibilities by reviewing and evaluating the Information Technology programs, policies, and procedures of the County. The Committee's primary duties and responsibilities are as follows:

- To serve as an independent and objective party to monitor the Information Technology programs and policies of the County.
- To review and appraise the vision of technology services to ensure we are meeting the county's technology needs.

The Committee will primarily fulfill these responsibilities by carrying out the activities enumerated in Section IV of this Charter.

III. Meetings

The Committee shall meet at least twelve (12) times annually or more or less frequently as circumstances dictate. The Chairman of the Board, the Chair of the Committee, or a majority of the Committee members may call or cancel meetings of the Committee. The Chair of the Committee shall prepare and approve an agenda in advance of each meeting. The County Administrator and the Director or Directors with the responsibilities for Information Technology shall be invited to all meetings. Other management officials and counsel to the Board may be invited as necessary.

IV. Responsibilities

The Committee shall have the following duties and responsibilities:

A. Information Technology

1. Review and advise the Board of Supervisors and senior management of the County with respect to Information Technology initiatives, policies and procedures, including activities related to new technologies, implementation, planning, and mandated requirements.
2. Establish, review, and provide recommendations regarding the County's technology needs. Report the results of the review and any recommended action by the Committee to the Board of Supervisors for final approval.

3. Review and approve all major initiatives and programs of the County to ensure conformance to County objectives. Report the results of such review and any recommended action to the Committee to the Board of Supervisors.
4. Obtain advice and assistance from internal or external consultants to provide advice to the Committee on matters under its purview, including the development of Requests for Proposals and the 3-5 year technology planning. The Committee shall recommend to the Board the fees and terms of engagement of those rendering external advice to the Committee.

B. Other Duties Related to Review, Reports and Improvement Procedures

1. Prepare minutes of all meetings of the Committee, and report to the Board on the matters discussed at each Committee meeting, as appropriate.
2. Review and reassess annually the adequacy of this Charter, and conduct an annual self assessment of this Committee's performance.
3. Perform any other activities consistent with this Charter, the County's goals, objectives and governing law, as the Committee or the Board deems necessary or appropriate.

Approved Board of Supervisors Meeting of 03/14/2012

Sincerely,

Scott Varner

Scott Varner
County of Frederick
Director of IT

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