



County of Fairfax, Virginia

MEMORANDUM

April 2, 2019

TO: Sharon Bulova, Chairman and Members
Fairfax County Board of Supervisors

FROM: Edward H. Blum, Chairman *EHB*
Information Technology Policy Advisory Committee (ITPAC)

SUBJECT: FY 2020 ITPAC Budget Letter to the Board of Supervisors

ITPAC is pleased to provide this assessment of the County's IT budget to the Board of Supervisors. This assessment draws on our regular interactions with Department of Technology (DIT) senior leadership as well as our expertise as IT professionals.

Acknowledging Successes: The County's IT Program continues to be acknowledged as a national best practice for governance, investment and low-risk delivery model. It has delivered relevant technology solutions supporting the Board's goals and strategies for government service efficiencies.

Going forward, the County can build on these successes while considering changes in strategy and priorities to take advantage of technology innovation at the right time and focus on business and IT service transformation. This presents a difficult balance and challenge since the IT market is changing fast. The foundation for a successful FY20 builds on the successes of FY19. Notable accomplishments include:

- Implementing multi-factor authentication (MFA) to reduce the risk of introducing malware into county networks and systems causing data breaches and denial of service that would be extremely damaging to county services.
- Implementing push-to-talk cellular technology in both county and FCPS vehicle fleets, resulting in significant annual operating savings of over \$1.1 million, and cost avoidance of \$16 million by not running two radio communications infrastructures, as well as greatly increasing range and safety for school buses that often travel outside county boundaries for school activities. This technology also has potential to enhance mobile worker functionality.
- Transitioning from on-premise technology infrastructure to cloud services by moving the county e-mail and messaging platforms to Office 365 and user folders to One Drive provides better efficiency and more data storage, reducing the hardware footprint in the Government Center.
- Migrating the County/Schools FOCUS system to the LINUX server operating system from an older UNIX environment improved technical operational efficiency and system performance and reduced costs to support.
- Significant progress on consolidating and transitioning customer relationship management systems to standard enterprise solutions in several agencies furthered goals that enhance public experience and interaction with county agencies for a large number of services.
- Significant progress on transitioning original courtroom technology to digital and implementing FirstNet wireless broadband capabilities for public safety.

- Progress implementing Health and Human Services Technology Roadmap capabilities across multiple agencies for more effective intake for services and progress toward data analytics and dashboards supporting Diversion First.
- Implementing electronic building plans submission technology (e-Plans) supporting Fairfax First and Economic Success initiatives.

Support for the County Executive’s Proposed Budget: ITPAC has reviewed and recommends support for the County Executive’s budget for information technology. This endorsement comes after multiple conversations between ITPAC and DIT Senior Staff during which the County’s IT projects, priorities, and emerging challenges were shared and discussed.

Some of the key investments we highlight are:

- **Funding for County’s IT Investment Portfolio:** ITPAC applauds the coordinated efforts of the Department of Management and Budget (DMB) and DIT that resulted in an innovative, well-timed and much needed increased investment in the County’s IT portfolio. DMB combined FY 2019 Third Quarter and Carryover funds with FY 2020 funds in the Advertised Budget to provide \$31.38 million in support for the County’s IT investment portfolio. These newly available funds represent a notable increase from the \$9.5 million average budget over the prior three years. As a result, DIT will fund 61% (17 of 28) of the County’s submitted FY 2020 IT project requests. All of these projects advance the County’s strategic priorities and include a mix of initiatives that benefit both citizens and employees. ITPAC strongly endorses this enhanced investment.
- **Continue Investment in the Planning Land Use System (PLUS) project:** This strategic, multi-agency project replaces a set of antiquated systems with a modern technology platform. It streamlines planning, permitting and inspection processes and supports continuous improvement and innovation. As part of the *FY 2019 Third Quarter Review*, the County Executive recommended significant investments to allow this project to move forward to the next critical stage. ITPAC strongly endorses this action. With the extraordinary scope of agencies and systems involved, ITPAC recommends that the county work at a deliberate pace using contemporary methodologies for implementation to take advantage of innovation opportunities and business transformation to reduce the time needed to apply for and produce permits.
- **Continue Investment in the Human Services (HS) Integrative Roadmap:** Individuals and families served by the County’s HS system frequently have needs which must be coordinated and addressed by multiple programs and services, each of which ask for the same information in different formats. This initiative aims to tie together and help coordinate the work of various health, housing, and social services agencies to deliver person-centered services. It also reduces operating costs and risks associated with redundant and overlapping processes. This project is making progress and ITPAC strongly endorses this action.
- **Data Center Consolidation:** DIT proposes relocating the County’s data center to a commercial off-site location as part of next generation IT infrastructure modernization. The goal is to improve technology operational efficiency and resiliency as well as to ensure high-availability and improved cybersecurity. This move will also release prime Government Center space for other needs and reduce utility consumption costs. As part of the *FY 2019 Third Quarter Review*, the County Executive recommended investments to allow for the purchase of communications and server equipment as well as relocation and other stand-up related costs necessary to facilitate the move. This strategy will give the County direct access ramps to cloud providers such as Azure and Amazon WEB Services, which ITPAC highly recommends to continue technology infrastructure modernization.

ITPAC strongly endorses this action which will yield future utility and operating cost efficiencies as well as better use of the Government Center building space. ITPAC further recommends that this approach should be examined for possible benefits to the Courts and FCPS.

- **Funds to Support Programs Formerly Supported by UASI Grant Fund:** The County Executive recommended funding to support programs transitioning from the federally-funded Urban Areas Security Initiative (UASI) to local funding. Specifically, these investments would support the National Capital Region Geospatial Data Exchange (NCRGDX) platform, which allows for the exchange of geospatial data for emergency management and response, and the Identity and Access Management Services (IAMS) project, which allows first responders and other emergency support functions in the Nation Capital Region (NCR) to access regional and shared applications. These capabilities have contributed to supporting mutual aid in public safety operations and affect access controls leveraging partner jurisdictions' own systems. ITPAC strongly endorses this action.

Additional Efficiency Opportunities: In addition to the investments identified in the County Executive's budget, ITPAC supports the following opportunities for more effective use of resources:

- Identify economies of scale by aggressively working with partner agencies including FCPS, and/or neighboring jurisdictions to provision shared services. In the immediate future, ITPAC sees potential in even more technology infrastructure and application consolidations, especially with regard to data centers, cloud-based applications and shared services.
- Defray County costs by exploring and removing obstacles to selling or renting County-designed IT services to other jurisdictions which have similar needs but fewer resources.
- Improve operations by expanding investment in digitization and use of electronic forms.
- Improve resource utilization, adherence to a common technical standard, and workforce development by exploring the consolidation of some agency-based IT positions or responsibilities to DIT.
- Achieve better value at a lower cost or through improved capacity by consolidating independent data and voice infrastructure environments and continue the transition to cloud services.
- Expand work on enterprise-wide data analytics and management dashboards in order to consolidate the enormous amount of available data into a form that is useful when making strategic, budgetary or programmatic decisions. Relatedly, provide citizen portals for on-line inquiries and automated issue resolution to speed the provisioning of County services.

Emerging or Continuing Challenges: The County has a talented IT team working hard to build new capabilities, find efficiencies and maintain its infrastructure. This work is never-ending because the challenges they face continue to evolve. Below are the most important challenges ITPAC sees impacting the work of the County's IT professionals.

- **Increasing Competition for Critical Talent:** The County must adjust its procedures for hiring and retaining critical IT professionals. As the DC-Maryland-Virginia (DMV) region continues to build its reputation as a hub for IT and cyber security talent, the market place for that talent has grown more competitive. ITPAC members know from their own experiences that recruiters from defense contractors and biotech companies, Capital One with its headquarters in McLean, and now Amazon with its headquarters in Arlington, are all poaching talent at an alarming rate. ITPAC strongly advises the County to review its hiring practices for agility, as many IT professionals are lured to new employers at a speed the County's hiring practices cannot match; and competitiveness, as the market

rate for IT talent is rising faster than most other sectors. ITPAC notes that several other governments in the region are doing compensation studies, as they are experiencing the same phenomena.

- **Lack of Agility in Acquisitions Impedes Operations:** The County’s IT acquisition process should increase its agility and reduce the time to execute IT contracts. Current practices unnecessarily drag out getting technology investments realized and in some cases have actually prevented implementation.
- **Cyber Threats Continue to Grow and Evolve:** With additional County services going online for greater efficiencies and citizen access, cybersecurity protection solutions and methods must keep pace. Increased funding directed toward further reinforcing the County’s cybersecurity and data privacy protection capabilities is money well spent.
- **Data Is Both a Resource and a Liability That Must Be Managed:** The proliferation of networkable devices (and video) in all agencies is generating enormous amounts of data (“Big Data”) which the County must gather, securely store, manage, and analyze. Doing so is critical to identifying new opportunities for efficiency and productivity, as well as measuring the success of the County’s strategic initiatives. Failure to do so exposes the County to greater threats from having its data hacked, inadvertently exposed, or misused. The County should increase its focus on data planning and management.

ITPAC appreciates the opportunity to provide input as part of the County’s annual budget process. As with other high performing organizations, the County’s reliance on technology continues to increase. With the need to protect against constantly evolving cyber threats and the rapid advance in the use of technology to deliver services, the County must stay abreast of the latest technologies to meet its goals. ITPAC looks forward to continuing support of DIT and its efforts to ensure that Fairfax County remains one of the country’s leading technology communities, a preferred locality in which to live and do business.

Cc:

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