MEMORANDUM

April 18, 2019

TO:

Government Operations and Fiscal Policy Committee

FROM:

Dr. Costis Toregas, Council IT Adviser

SUBJECT:

Department of Technology Services (DTS) Operating Budget

PURPOSE:

Review and recommend action on the FY20 DTS Operating Budget

Expected to attend:

Sonny Segal, Chief Information Officer, Department of Technology Services Dieter Klinger, Chief Operating Officer, Department of Technology Services Jennifer Nordin, Analyst, Office of Management and Budget (OMB)

Directors from the divisions of Enterprise Systems and Operations, Enterprise Telecommunications and Services, Enterprise Applications and Solutions, Enterprise Resource Planning, and Office of Broadband Programs may also be available to address detailed questions.

Summary of Staff recommendations:

- 1. Accept the Executive's recommended budget of \$44,005,142 for FY20, which represents an increase of 4.3% over the FY19 approved budget of \$42,171,965, with the following considerations:
 - a. Request that the senior position of Cable Administrator be filled as expeditiously as possible.
 - b. Propose that the excessive lapse strategy be explored as a cross-departmental issue later in the summer months.
 - c. Request a briefing to review the new performance metrics for DTS management once they are finalized.

Background

The DTS budget has been increased for the last six of seven years, reflecting the importance of technology in the delivery of services across all departments. The table below provides detail on the total DTS budget figures by year, including the recommended FY20 total budget:

| | Recommended FY20 | Approved FY19 | Approved FY18 | Approved FY17 | Approved FY16 | Approved FY15 |
|------------------------|---------------------|------------------|------------------|------------------|------------------|------------------|
| Total DTS budget | \$44,005,142 | \$42,171,965 | \$43,022,058 | \$41,532,780 | \$40,907,969 | \$30,272,068 |
| Incr/Decr | +4.3% | -2.0% | +3.9 % | +1.5 % | +35.1 % | +5.3 % |

The Executive's DTS budget recommendation for FY20 is on ©1-10. A selection of accomplishments listed in the Executive's budget shows some of the areas of impact related to technology:

ACCOMPLISHMENTS

- Awarded the "Large Digital Counties Award" from the Center for Digital Government and NACo; six NACo awards; and six Public Technology Institute awards.
- Responded to 32,000+ IT Help Desk calls and tickets.
- Improved customer experience on County websites by implementing "responsive design" which enables websites to adjust to tablet and cellphone screens.
- Reduced vulnerabilities through aggressive software patching, computer re-imaging, and internet blocking.
- Published the FiberNet Master Plan which identifies the strategic needs of each County agency; planned and in-progress projects; and priority capital investments.
- Conducted the first Interagency Technology Policy and Coordination Committee (ITPCC) Cyber Security Awareness Month.
- Improved information security for all County data stored on OneDrive and SharePoint.
- Implemented a cyber security dashboard to easily share status updates and issues with County departments.
- Improved access to public Wi-Fi by upgrading wireless infrastructure in County facilities.

INNOVATIONS AND PRODUCTIVITY IMPROVEMENTS

- The Employee Productivity Solutions Team (EPS) developed SharePoint solutions to improve collaboration and workflow automation and trained department "champions" to scale the practice.
- Improved customer experiences for Department of Liquor Control (DLC) licensees by improving the iStore interface.
- Implemented technology solutions, including scanning and voice picking, to improve speed and accuracy in the DLC warehouse. 38-2 General Government FY20 Operating Budget and Public Services Program FY20-25.
- Implemented workflow changes in the employee appraisal process to achieve efficiencies and workforce satisfaction.

Personnel Issues

The Executive has proposed that two senior positions in DTS – that of Chief Broadband Officer and Chief Data Officer – be converted to non-merit. The position descriptions of these two positions are on ©11-19. Since these two positions were funded in prior budgets as merit, there is no significant budgetary difference that comes with the change. In addition, these two positions are currently filled with

incumbents (Joseph Webster and Michael Knuppel, respectively). The Committee should monitor the performance and longevity of the positions and provide reactions as appropriate to the Executive.

The proposed budget has an unusually high number of lapsed positions (certainly higher than prior years). Thirteen positions in all divisions are being lapsed for a total cost reduction of \$1,360,000. At the same time, there are entries in the proposed budget that restore one-time lapse increases from FY19 of \$1,243,000. This appears to be counterproductive for the effectiveness of the department that continues to execute programs at lower-than-approved levels. This lapse strategy appears to be present in other department budget proposals as well, suggesting that a cross-departmental look at this issue may produce useful insights. Given the pressure of the budget and much larger overriding issues, this review could be done in the summer months.

Questions and Answers

Council Staff raised several questions to understand the structure and focus of the FY20 budget request. For ease of tracking and evaluating the budgetary requests, these questions were addressed to DTS management in three categories: Policy, Management, and Technology. Additionally, there were more detailed questions for each division budget. Questions and answers are below, along with Council Staff comments where warranted.

POLICY

Currently, there is a single performance measure for the department, and it is solely inward-looking (average internal customer satisfaction). Given the continuous migration of many outward-facing services to digital platforms, are there ways to add measures regarding the perception and experiences of the general public? Please suggest some relevant ones so the Committee can appreciate the strategy in play.

The County currently uses several methods of evaluating customer perception and experience on digital platforms including an online survey of visitors to the County's web portal and monitoring of several popular social media channels to gauge the public's perception and experience with County services. Additionally, DTS is actively working with the Office of Performance and Innovation (OPI, formally CountyStat) to review and update performance metrics.

Staff Comment: The overall intent of the question was to understand how the DTS leadership is held accountable for their performance. Using and updating performance metrics is a vital responsibility of management and a system must be in place for budgets as critical as those of Countywide technology support. Understandably, the transition to a new administration will bring with it changes in performance management strategies, so the lack of comprehensive metrics currently is a given. The Committee should request an early briefing of what metrics will be used to evaluate the performance of DTS once they have been developed, and have a chance to weigh in.

The organization is transitioning from a program, base-plus-increment budget to an outcome-based budget over time. What is the planned role for technology in this transition, and are there elements in the FY20 budget that will allow for such a role?

The Office of Management of Budget and Office of Performance and Innovation are currently looking at best practices regarding outcome-based budgeting to inform future budgeting processes.

Staff Comment: Understandably, things are in flux given a new administration. However, if the new approach to budgeting is implemented in FY20, it is important to understand whether the proposed FY20 DTS budget includes resources that can create and deploy the needed IT platforms for the new budget processes, many of which will have to be automated.

Is the Executive exploring ways to expand the existing tendencies to centralize IT functions across departments? The current federated system may continue inefficiencies both in governance and in costs, while cloud migration and continued focus on the resident suggests benefits from uniform investments managed centrally.

The County Executive is focused on evaluating current County functions, including DTS, to identify opportunities for efficiencies. The structure of IT functions may be considered as part of this review and reorganization process.

Staff Comment: Council Staff has asked that an estimate of IT costs in departments other than DTS be provided so that options such as increased centralization of IT services can be evaluated properly as a budget option. This request is pending.

The Council and Executive have agreed to focus on Racial Equity initiatives in FY20. Please detail areas of the requested budget that speak to this issue or support efforts throughout the County through technology platforms and tools.

Technology is one tool that can be used to help enable measurement of racial equity indicators and changes. DTS will work closely with the Chief Equity Officer to apply technology for this important initiative. The County's technology platforms and tools allow County Departments and leadership to apply uniform business rules across county departments and collect and track data on the outcomes of established metrics. For example, Office of Broadband Programs supports digital equity that affects business, education, and quality of life for all.

Staff Comment: This technology-based capability can be an important tool once the racial equity initiative is fully developed. Uniform business rules are the key to **process equity**, while tracking data around established metrics is the ideal way to establish **outcome equity**. DTS should be a major support player in the initiative.

MANAGEMENT

How up to date are DTS staff on current marketplace-driven new skills (block chain, AI, Big Data, API development, etc.)? How would you assess their readiness, and does the proposed budget provide pathways to upskill them?

DTS staff stay up to date on marketplace driven new skills through County provided instructor-led and advanced online technology trainings, continuing education, and training provided by outside agencies. DTS also leverages contractors on an as-needed basis.

Staff Comment: DTS is to be commended for providing training programs to employees. The outcome of these new-tool training sessions is not clear, and subsequent discussions with DTS leadership can explore the degree of readiness of staff for the new skill challenges ahead.

Cyber security continues to be a key priority. With the introduction of a new Digital Officer reporting to the CAO, will the security-reporting arrangements for risk management and cyber security change?

The Chief Digital Officer will report directly to the Chief Administrative Officer and will guide digital initiatives and risk management. DTS will work closely with the Chief Digital Officer in these areas.

Will reporting relationships within DTS change with the introduction of the two non-merit positions of CDO and CBO? Please provide a crosswalk between these two positions and requested budget items.

The Chief Data Officer and Chief Broadband Officer are existing positions in the DTS budget that have been changed to non-merit positions. There are no additional budget requests for these positions outside of compensation adjustments.

Please identify the specific items that cause the DTS requested budget to increase by \$1.8 million.

FY20 budget changes are documented on page 38-7 in the recommended publication. These changes total \$1.83 million and include:

- FY19 and FY20 compensation adjustments: +\$857,027
- Net increase in lapse to meet reduction targets: -2 FTE, -\$214,909
- Software and hardware maintenance cost increases: +\$575,829
- Annualization of the ESRI enterprise agreement: +\$192,617
- Additional off-site data center capacity: +\$120,000
- Additional one-time resources for IJIS contractors: +\$100,000
- Shift of 1.5 FTEs from the PSSM CIP to DTS Operating: +\$202,613.

TECHNOLOGY

The County has invested heavily in ERP, MC311, radio systems and other "TechMod" efforts, but we are approaching the decade mark since they were deployed and much is changing in the technology marketplace. How would you evaluate current conditions of these major systems, and does this budget request include a preparation for a transition that can provide improved levels of service or better price points for support?

DTS continuously monitors changes in the IT industry and evaluates potential solutions to improve customer experiences, operations, and create efficiencies and reduce costs. Current system conditions include:

- Oracle EBS will be updated to version 12.2 during CY2019 to provide a technical foundation and ERP support through 2030 or later.
- The Public Safety System Modernization (PSSM) capital improvement project is almost complete with the two remaining projects expected to be completed in FY21.
- MC311 was upgrade to the latest CRM system and DTS is currently working in conjunction with the Public Information Office to evaluate next generation platforms and solutions including cloud options.

Following is a divisional look at the budget request.

Enterprise Systems and Operations Division (ESOD)

The physical relocation of the MC311 Call Center led to a 14-month data gap from August 2016-October 2017, making evaluation of comparable time periods challenging. What technology weakness led to this? Are current DTS budgets adequate to prevent this data gap? Is there an MC311 improvement element in the FY20 budget?

A configuration change by the vendor impacted data fields in the Call Management System during the move from 51 Monroe to 1401 Rockville Pike. Despite a yearlong effort by DTS, the vendor was unable to provide a resolution or solution. DTS then leveraged contractor support with expertise in telephony, Oracle BI, and Dev Ops to identify the root cause, restore the data, and put in place measures to minimize the likelihood of reoccurrence. This resulted in enhanced data and better reporting. DTS is currently working in conjunction with the Public Information Office to evaluate next generation platforms and solutions including Cloud options.

Why are three positions lapsed in FY20? What impact will that have on services and why?

The positions are lapsed to meet the DTS budget reduction target. The duties and responsibilities for these positions have been absorbed without impact to services provided.

There is a +\$120,000 item requested for off-site data center capacity. Is this to be spent within ITPCC agencies that can provide such backup? If not, why?

DTS did evaluate ITPCC agencies' datacenters; however, the capacities available did not meet the County needs.

Can you provide a three-year table with information for cloud storage?

While the county leverages cloud storage, including Office 365 OneDrive and Evidence.com, the applications provide for unlimited storage as part of the licensing cost. DTS continues to evaluate cloud solutions for on-premise applications and infrastructure based on business needs or the ability to minimize total cost of ownership.

Staff Comment: The Committee will be reviewing a new CIP request for digital evidence data storage on April 30, 2019 in a joint GO/PS session. This \$750,000 request does not align with the statement above that applications provide for unlimited storage.

Enterprise Telecommunications and Services Division (ETSD)

FY19 is the third year of migration of PBX services to the cloud. Please provide a status report, along with any residual expenses in FY20. Distinguish between UCaaS Microsoft and Broadsoft elements.

The County piloted UCaaS solutions including Microsoft and Broadsoft as well as Voice Over internet protocol (VOIP) alternatives in the Department of Technology Services. The County is

currently evaluating the results and is continuing to reinvest savings realized from carrier changes in network upgrades to support the move to VoIP, data growth, and migration to cloud services.

Please clarify whether there remain PBX elements to be supported in the FY20 budget request and justify.

PBX and voicemail continue to be used for voice telephone services including MC311. Maintenance costs are included in the recommended budget.

Why are two positions lapsed in FY20? What impact will that have on services and why?

The positions are lapsed to meet the DTS budget reduction target. The duties and responsibilities for these positions have been absorbed without impact to services provided.

Provide a status report on the radio system and detail charges for support within the ETSD budget.

The current radio system has 11 tower sites with an annual maintenance cost of approximately \$1.3 million. This system will be kept in operation until the P25 system is fully implemented in FY21. The P25 system will have 22 sites and an annual maintenance cost of approximately \$1.9 million.

Enterprise Applications and Solutions Division (EASD)

Why are three positions lapsed in FY20? What impact will that have on services and why?

The positions are lapsed to meet the DTS budget reduction target. The duties and responsibilities for these positions have been absorbed without impact to services provided.

Please provide an update for the County's Open Data program; include estimates of dataset usage by requesting agency or individual for the most popular 10 sets.

The County has published 267 data sets in total. So far in FY19, the County has published 26 data sets and expects to publish 24 additional datasets by June 30, 2019. The list of planned datasets for FY20 will be available this summer. The 10 most popular datasets as measured by page views (CY2018):

- Parking Garage Space Availability (112,056)
- Daily Arrests (89,636)
- Employee Salaries (52,649)
- Crime (42,132)
- Leaf Collection (41,682)
- Food Inspections (16,587)
- Traffic Violations (11,287)
- *Road Closures* (6,484)
- Vehicle Crash Reports (6,390)
- Residential Building Permits (5,041)

Please provide a status update on the Employee Productivity Solutions program and discuss weaknesses and strategies for FY20; who are the departments most helped, and what are the most requested services?

The Employee Productivity Team (EPS) is staffed by 3 FTEs and provides the following services to County Departments: standardize leave requests (most requested service); assistance with SharePoint form development with simple and complex workflows; assistance with creating SharePoint sites and Document repositories; trainings for Office 365; quarterly brown bag sessions. EPS will continue this work in FY20 and explore the feasibility of developing an enterprise-wide leave request form.

The Esri data agreement request is in addition to budget items already included in the DTS base budget. Explain why an increase is required, and discuss Esri license pricing for DTS, other departments, and other ITPCC agencies. Are there opportunities to reduce costs, and can they be pursued in the FY20 budget process?

The County's 10-year Geographic Information Systems (GIS) contract with Esri Inc. expired in December 2018. The County's new Enterprise Agreement with Esri was executed in December 2018 for 3-years with a fixed annual cost of \$250,000. DTS was able to successfully negotiation this price down from \$300,000 per year. Prior to FY20, Esri costs were funded out of department budgets. The FY20 budget consolidates costs in the DTS base budget (\$57,383 existing in the DTS base budget; \$60,850 shifted from departments to DTS; \$131,767 added to DTS).

Staff Comment: The Committee should discuss and understand reasons why the Esri contract almost tripled in price in a single year. Prior annual costs of \$57,383 and \$60,850 totaled \$118,233, compared to a new level of \$300,000 (reduced to \$250,000).

Office of the Chief Operating Officer (COO)

Why are three positions lapsed in FY20? What impact will that have on services and why?

The positions are lapsed to meet the DTS budget reduction target. The duties and responsibilities for these positions have been absorbed without impact to services provided.

What will be the responsibilities of the shifted 1.5 FTEs from the PSSM project inside the COO office?

The positions provide contracting, budgeting, and financial support to all DTS programs including the PSSM CIP project.

Please detail and justify the increase of more than \$1.3 million in multi-program adjustments.

The multi-program adjustments are a result of the FY19 departmental reorganization, negotiated compensation and employee benefits changes.

Office of the Chief Information Officer (CIO)

How is the Chief Data Officer position funded? There is no increase in the budget and the position is new.

The Chief Data Officer is an existing position in the DTS budget that has been changed to non-merit position. There are no additional budget requests for this position outside of compensation adjustments.

The sole performance measure is average security vulnerabilities per device. It would be useful to add measures that speak to the effectiveness of the CIO. Can you suggest such measures?

DTS is actively working with the Office of Performance and Innovation (OPI, formally CountyStat) to review and update performance metrics.

Please provide an update for the IJIS program, including a timeline for completion. The \$100,000 contract staff request is over and above IJIS allocations already in the base. Please explain the increase.

The Integrated Justice Information Systems (IJIS) program supports several applications for Montgomery County Justice Agencies (e.g., Police, Sheriff, Corrections, State's Attorney's Office, Health and Human Services, and Circuit Court). The FY20 IJIS workplan includes maintaining existing applications as well as implementing the next phase of Jail Management System, integration of the State's new court case management system, and needed upgrades to the Criminal Information Management System platform. The one-time funding included in the Executive's recommended budget supports resource requirements of the FY20 workplan.

Is the PSSM program completed? Provide a status report for each PSSM element and explicit costs in the FY20 budget request

Four PSSM projects have been completed and two projects, including the law enforcement records management system and the radio system infrastructure project, are expected to be completed in FY21. The PSSM program will use the existing appropriation in FY20 and FY21.

Staff Comment: The Committee has tentatively scheduled a worksession to discuss the radio infrastructure portion of PSSM on April 30, 2019 and, more specifically, the issue of completion dates for antenna deployments.

Enterprise Resource Planning Division (ERPD)

Why are two positions lapsed in FY20? What impact will that have on services and why?

The positions are lapsed to meet the DTS budget reduction target. The duties and responsibilities for these positions have been absorbed without impact to services provided.

Please provide information on the Change Management team. Who is currently involved, and what is their assignment specifically?

The Change Management team is staffed by 3 FTEs. The team leads organizational change efforts focusing on the people-side of change to drive end-user adoption and proficiency. The team also manages all Oracle trainings including Financials/Supply Chain and Human Capital Management.

The ERP system has been in operation for almost a decade. Please discuss plans for updating or changing this vital system and provide detail on what part of the ERPD budget request provides this exploration.

ERPD will complete a major Oracle EBS upgrade from release 12.1.3 to 12.2.7 in the next several months. The upgrade mainly changes the technology stack used in future versions and provides the benefit of decreasing downtime during Oracle patches. It also provides a more modern user interface and increased functionality for some of the modules.

After the upgrade, ERPD will archive and purge transactional data. This effort will address the volume of records to improve performance of the system. Additionally, DTS anticipates the need to reevaluate business processes and needs to identify if departments require customizations, configurations, or reimplementation of modules in the future.

Office of Broadband Programs (OBP)

Provide a summary of accomplishments within ultraMontgomery in FY19 to date and identify private organizations taking advantage of County investments. Indicate uses of the work program within a racial equity perspective.

| Economic | Held the "Using Better Broadband in Commercial Buildings to Drive Growth" |
|----------------|--|
| Development, | Broadband Summit; Released guidebooks including "Broadband Infrastructure |
| Marketing, | for Developers: A Fiberoptic Connectivity Guide" and "Broadband Network |
| and Business | Providers Serving Montgomery County Businesses;" Held conduit and fiber |
| Engagement | strategic planning meetings with commercial network providers and state and |
| | local parterns; drafted private road conduit standards; supported the County's |
| | Amazon H2Q effort; and partnered with MCEDC on placemaking marketing |
| | materials and the MoCo365 Campaign. |
| Partnerships | Atlantech Online Inc; Dark Fiber and Infrastructure for Asbhurn fiber and data |
| | center connectivity; Crown Castle to NIST; MD DOIT and MDOT; Smart Media |
| | LLC; MD Governor's Office of Rural Broadband. |
| Infrastructure | East County Fiber Highway Phase 1; Engineering design and feasibility for Viva |
| | White Oak conduit network, Great Seneca to Ashburn, and Silver Spring and |
| | Bethesda Conduit networks; and East County commercial data center connection points. |
| Senior Planet | Provided 6,640 hours of comprehensive digital equity technology trainings to |
| Montgomery | 371 participants at 14 locations including the Gilchrist Immigrant Resource |
| , | Center, recreation centers, and senior centers. 214 participants gradated from |
| | 27 multi-week courses and 448 people participated in 66 single day tech explore |
| | lectures and workshops. |
| Performance | OBP is working with Office of Performance and Innovation (formerly |
| measurement | Countystat) to leverage and analyze community insights demographic |
| | information to strategically expand program offerings in languages and to |
| | coordinate transit options to Senior Planet Montgomery programs. |

Please provide a summary of planned projects for the ultraMontgomery program and costs related to this effort. Include CIP funding requirements when appropriate.

FY20 capital projects include: East County Fiber Highway Phase 2 Regional Interconnect; FiberNet connection to Viva White Oak, Great Seneca Fiber Highway to Ashburn, and Bethesda/Silver Spring 5G Conduit Phase 1. As of 4/9/2019; remaining balance in the capital project is \$1,732,196. FY20 appropriation is \$680,000.

FY20 Operating programs include: Senior Planet Montgomery, Other Digital Equity, 5G/IoT, Business marketing, and small cell/fiber leasing. The costs for these operating programs are included in the FY20 recommended budget of \$404,245.



\$44,005,142

FULL TIME EQUIVALENTS

167.25

* H. N. (SONNY) SEGAL, CHIEF INFORMATION OFFICER

MISSION STATEMENT

The mission of the Department of Technology Services (DTS) is to be responsive, collaborative, and innovative in providing technology solutions and services to facilitate the delivery of a wide range of services in all branches of government. The department strives to provide its solutions and services in a cost effective, timely, high quality, and secure manner to reduce service times, avoid cost, reduce information security risk, and improve the quality of County services through automation-assisted process improvement.

- DTS is responsive by providing solutions and services to internal and external partners, customers and constituents, when and
 where they are needed; and securely enabling County employees to provide quality services and information to internal entities,
 residents, and businesses.
- DTS is collaborative as it partners with internal customers, external agencies, and the public and private sectors to increase the productivity of County government, businesses, and residents; and, to assist with technology-enabled economic, workforce development, and digital equity initiatives.
- DTS is innovative as it identifies and implements technology solutions to business needs that enhance value and enable continuous measurable improvement.

BUDGET OVERVIEW

The total recommended FY20 Operating Budget for the Department of Technology Services is \$44,005,142, an increase of \$1,833,177 or 4.35 percent from the FY19 Approved Budget of \$42,171,965. Personnel Costs comprise 54.92 percent of the budget for 174 full-time position(s) and two part-time position(s), and a total of 167.25 FTEs. Total FTEs may include seasonal or temporary positions and may also reflect workforce charged to or from other departments or funds. Operating Expenses account for the remaining 45.08 percent of the FY20 budget.

The recommended FY20 Operating budget funds technology initiatives that are consistent with the County's Technology Strategic Plan (2016 to 2019). An update to the plan is expected in FY20.

http://www.montgomerycountymd.gov/DTS/Resources/Files/strategic/Technology/StrategicPlan2016-2019 Vol1.pdf.

In addition, this department's Capital Improvements Program (CIP) requires Current Revenue funding.

Technology Services General Government 38-1

COUNTY PRIORITY OUTCOMES

While this program area supports all seven of the County Executive's Priority Outcomes, the following is emphasized:

Effective, Sustainable Government

DEPARTMENT PERFORMANCE MEASURES

Performance measures for this department are included below (where applicable), with multi-program measures displayed at the front of this section and program-specific measures shown with the relevant program. The FY19 estimates reflect funding based on the FY19 Approved Budget. The FY20 and FY21 figures are performance targets based on the FY20 Recommended Budget and funding for comparable service levels in FY21.

| Measure | Actual FY17 | | Estimated FY19 | Target FY20 | |
|--|----------------|------|----------------|----------------|-----|
| Multi-Program Measures Average customer satisfaction rating (1-4) on the yearly internal customer survey of County managers | 3.23 | 3.24 | TBD | TBD | TBD |

ACCOMPLISHMENTS

| By Same | Awarded the "Large Digital Counties Award" from the Center for Digital Government and NACo; six NACo awards; and six Public Technology Institute awards. |
|---------|--|
| | Responded to 32,000+ IT Help Desk calls and tickets. |
| . \$ | Improved customer experience on County websites by implementing "responsive design" which enables websites to adjust to tablet and cellphone screens. |
| | Reduced vulnerabilities through aggressive software patching, computer re-imaging, and internet blocking. |
| V | Published the FiberNet Master Plan which identifies the strategic needs of each County agency; planned and in-progress projects; and priority capital investments. |
| 1 | Conducted the first Interagency Technology Policy and Coordination Committee (ITPCC) Cyber Security Awareness Month. |
| | Improved information security for all County data stored on OneDrive and SharePoint. |
| | Implemented a cyber security dashboard to easily share status updates and issues with County departments. |
| ا تح | Improved access to public Wi-Fi by upgrading wireless infrastructure in County facilities. |

INNOVATIONS AND PRODUCTIVITY IMPROVEMENTS

- The Employee Productivity Solutions Team (EPS) developed SharePoint solutions to improve collaboration and workflow automation and trained department "champions" to scale the practice.
- Improved customer experiences for Department of Liquor Control (DLC) licensees by improving the iStore interface.
- Implemented technology solutions, including scanning and voice picking, to improve speed and accuracy in the DLC warehouse.

Implemented workflow changes in the employee appraisal process to achieve efficiencies and workforce satisfaction.

PROGRAM CONTACTS

Contact Helen Ni of the Department of Technology Services at 240.777,2807 or Jennifer Nordin of the Office of Management and Budget at 240.777.2779 for more information regarding this department's operating budget.

PROGRAM DESCRIPTIONS

Enterprise Systems and Operations Division (ESOD)

The Enterprise Systems and Operations Division (ESOD) designs, implements, and maintains a secure and reliable data center and server and cloud infrastructures for County business systems, County staff, contractors, suppliers, and volunteers. The Division manages infrastructure for enterprise-wide business systems including Enterprise Resource Planning (ERP), MC311, and MCTime. ESOD operates enterprise data centers and manages enterprise cloud-based solutions, office productivity, collaboration systems, the enterprise directory and identity management systems, enterprise file and print systems, enterprise image archiving and records management, and hundreds of enterprise and department servers (web, application, and database), including ongoing patching and remediation of the servers to maintain and improve functionality and security of the County IT infrastructure. ESOD manages and provides support for the Public Safety Data System and multiple aspects of the 911 operations. ESOD also manages the Enterprise Services Bus (ESB) that serves as the County's data highway for easy systems interfacing and secure, very high-speed data transfers between enterprise and department systems, with both internal systems and external systems, including the many systems participating in the open data program.

| Program Performance Measures | Actual FY17 | Actual FY18 | Estimated FY19 | Target FY20 | Target FY21 |
|---|----------------|----------------|-------------------|----------------|----------------|
| Enterprise applications system availability (%) 1 | 99.997 | 99.970 | 99.997 | 99.997 | 99.997 |
| Number of Enterprise Service Bus data transfers (monthly average) | 209,620 | 205,023 | 210,000 | 215,000 | 220,000 |

¹ Enterprise Applications System Availability is the availability of the following applications: ERP's Oracle EBS system, ERP's Oracle EBS self-service system, MC311 system, MC311 self-service system, MCG Internet Portal, Department of Recreation's Class system

| er en Paris de la Carriera de la Ca La carriera de la Ca | an Saillean Paine agus Brandan Daoine agus | |
|--|---|--------|
| FY19 Approved | 12,407,859 | 42.00 |
| Enhance: Off-site data center capacity | 120,000 | 0.00 |
| Decrease Cost: Lapse two Sr. IT Specialists and one Technology Expert | (340,517) | 0.00 |
| Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. | 751,971 | (4.00) |
| FY20 Recommended | 12,939,313 | 38.00 |

Enterprise Telecommunications and Services Division (ETSD)

The Enterprise Telecommunications and Services Division (ETSD) provides reliable, modern, and integrated communications services and solutions for County government departments and agencies including MC311. PBX Telecommunications Services is responsible for the programming, operation, and maintenance of the County's telephone system and related services, e.g., voicernail, call distribution. Radio Communications Services is responsible for the operation and maintenance of the County's 800

Technology Services General Government 38-3

MHZ radio and mobile communications systems and infrastructures which predominantly support public safety agencies.

| Program Performance Measures | Actual FY17 | Actual FY18 | Estimated FY19 | Target FY20 | Target FY21 |
|--|----------------|----------------|--|----------------------|----------------|
| Average number of workdays to complete telecom requests | 7.4 | 9.6 | 7.0 | 7.0 | 7.0 |
| FY19 Approved | | e relation. | to a constitutiva na companya a constitutiva da companya da companya da companya da companya da companya da co | inges† ≠\$ 77.188 | 26.00 |
| Decrease Cost: Lapse one Program Manager II and one Sr. IT Specialist | | | • | 8,580) | 0.00 |
| Multi-program adjustments, including negotiated compensation changes, empensation changes due to staff turnover, reorganizations, and other budget changes affecting | | | | 1,614) | (8.00) |
| FY20 Recommended | | | 4,86 | 6,994 | 18.00 |

Enterprise Applications and Solutions Division (EASD)

The Enterprise Applications and Solutions Division (EASD) delivers and maintains solutions through web-based applications, data services, and geographic information systems. EASD also provides oversight for the Device Client Management (DCM) program and the County's IT Help Desk. The Web and Mobile Applications Team supports the County's digital government initiatives including website management and openMontgomery. Digital government provides cost-effective services at greater convenience to residents and employees through the use of modern web technologies. The Data Services Team leads the County's Open Data program and oversees the execution of its implementation plan. The Geographic Information Systems Team designs and implements applications for County departments, designs and develops custom maps and web-based mapping applications, and maintains the accuracy and currency of the Montgomery County Street Centerlines database and related data layers. The Employee Productivity Solutions (EPS) Team is focused on helping the departments improve processes and automate workflows and approvals to minimize output variability, improve service quality, and reduce government processing times. The EPS also provides the departments with extensive training in the new productivity tools sets (e.g., Office365, OneDrive, SharePoint for collaboration). The DCM Team oversees the replacement of personal computers and manages software patching, distribution and enterprise anti-malware systems, including ongoing remediation of computers to maintain and improve security of the County IT infrastructure. In addition, the DCM Team administers the DCM and IT equipment maintenance contracts and provides general IT support directly to departments and employees through the County's IT Help Desk.

| Program Performance Measures | Actual FY17 | Actual FY18 | Estimated FY19 | Target FY20 | Target FY21 |
|--|---|----------------|-------------------|----------------|-----------------|
| Percent of DTS Help Desk requests that are resolved on the first call | 97.2 | 97.0 | 97.0 | 97.0 | 97.0 |
| Open Data - Number of datasets published | 47 | 46 | 50 | 50 | 50 |
| | es also es La la | El-Asia E | | | Combact Control |
| FY19 Approved | | | 7,201 | • | 36.75 |
| Enhance: ESRI Enterprise Agreement | | | 192 | 2,617 | 0.00 |
| Decrease Cost: Lapse two Sr. IT Specialists and one Manager III | | | (352 | ,300) | 0.00 |
| Multi-program adjustments, including negotiated compensation changes, empensation changes and changes due to staff turnover, reorganizations, and other budget changes affecting | | • | 1,563 | 3,520 | 8.00 |
| FY20 Recommended | | | 8,605 | 5,081 | 44.75 |

Office of the Chief Operating Officer (COO)

The Office of the Chief Operating Officer (COO) provides operational leadership and strategies for the development and delivery of County government's technology solutions planning through the Project Management Office (PMO). The COO oversees the day-to-day operations of the Department's operating divisions in support of all enterprise and departmental systems and infrastructures. The COO also manages Enterprise Architecture Planning functions to ensure cost-effective Countywide IT investment. The PMO reviews and provides input to the departments' technology funding requests; organizes and chairs regular meetings of the Technology Managers Operations Group (TOMG) comprised of departmental IT staff; provides IT project management cortification; and coordinates the activities of DTS' Account Managers that are assigned groups of user departments. The Management Services Team is responsible for department administrative support including budgeting and financial processing, human resources management, procurement, and facilities management.

| Fixe Recommended Clanger 1985 The Paris 1985 | po presidenta a consider Sensa de composito de | |
|---|---|-------|
| FY19 Approved | 2,800,013 | 18.50 |
| Shift: 1.5 FTEs from the Public Safety Systems Modernization (PSSM) capital project | 202,613 | 1.50 |
| Decrease Cost: Lapse one IT Specialist III, one Sr. IT Specialist, and one Program Manager | (356,982) | 0.00 |
| Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. | 1,508,607 | 4.00 |
| FY20 Recommended | 4,154,251 | 24.00 |

Office of the Chief Information Officer (CIO)

The Office of the Chief Information Officer (CIO) manages the Department of Technology Services, provides technology leadership, develops technology and information security plans, provides policy direction, and overseas high value programs, initiatives, and organization units including the Enterprise Information Security Office (EISO), the Public Safety Systems Modernization (PSSM) Program, the Office of Broadband Programs; the Integrated Criminal Justice Information System (IJIS) Program Office; and the Enterprise Data Management initiative. In addition, the CIO chairs the County government's Information Technology Policy Advisory Committee (IPAC); represents the County on the CIO Subcommittee of the Council-appointed Interagency Technology Policy Coordinating Committee (ITPCC); represents the County at the regional level (e.g., Metropolitan Washington Council of Governments CIO Committee); represents the County at the State level (e.g., the Governor's technology related boards, and the Maryland Association of Counties (MACO) IT Affiliate); and, represents the County at the National level (e.g., the National Association of Counties and the Public Technology Institute).

The EISO governs enterprise information security risk management, data security assessments and audits, policy and procedure development, and sensitive data architecture design, provides security training to County employees through an Enterprise Security Awareness Training program, and rapidly responds to information security and privacy incidents that may affect confidentiality, integrity, and/or availability of the County's information assets and data. Additionally, the EISO is responsible for oversight in various information security compliance mandates, such as the Health Insurance Portability and Accountability Act (HIPAA), the Maryland Security and Protection of Information Act (SPIA), and various other State and Federal information security laws. The PSSM Program encompasses the modernization of the Computer Aided Dispatch (CAD) system, the Law Enforcement Records Management (LE-RMS) system, the Fire Station Alerting (FSA) system, and the mobile Radio Communications Infrastructure (RSI). The IJIS Program facilitates the exchange of criminal justice data between Montgomery

Technology Services General Government 38-5



County Agencies (e.g., Police, Sheriff, Corrections, State's Attorney's Office, Health and Human Services, District and Circuit Court), the State of Maryland, and the Federal Government. The IJIS Program Office is responsible for assisting departments with creating process efficiencies and aligning their information technology (IT) needs with the overall County enterprise strategy, State and Federal laws, and criminal justice management best practices. The Enterprise Data Management initiative is led by the Chief Data Officer (CDO) and ensures the County's structured and unstructured data is inventoried, cleansed, available, and secured for use in business decision making, continuous service improvement, operational governance, planning, and transparency. Activities include data cataloging, normalization, architecting, securing, sharing, and analysis to facilitate County government efficiency through the institutionalization of data-driven decision-making. The CDO works closely with CountyStat, the County's performance management office to develop and institutionalize data analytics capabilities across the County and to market on-going comprehensive data analytics tools and techniques for specific outcomes. The CDO defines and oversees how the department captures, maintains, and applies data and information to support key processes.

| Program Performance Measures | Actual FY17 | Actual FY18 | Estimated FY19 | Target FY20 | Target FY21 |
|---|--------------------------------------|---------------------------------------|-------------------|----------------|----------------|
| IT Security - Average security vulnerabilities per device | 17.7 | 12.9 | 10.0 | 8.0 | 7.0 |
| FY20 Recommonded Changes | | e e e e e e e e e e e e e e e e e e e | | | |
| FY19 Approved | | | | 48,365 | 9.00 |
| Enhance: Contract staff - Integrated Justice Information System (IJIS) ma | | | | 00,000 | 0.00 |
| Multi-program adjustments, including negotiated compensation changes changes due to staff turnover, reorganizations, and other budget changes | s, employee ber s affecting multi | nefit changes ple programs |), i. | (7,391) | 0.00 |
| FY20 Recommended | | | 4,7 | 40,974 | 9.00 |

Enterprise Resource Planning Division (ERPD)

The Enterprise Resource Planning Division (ERPD) is responsible for providing critical business management support capabilities to County government's core business functions including financial management, human capital management, budgeting, procurement, supply chain management and enterprise change management. ERPD provides this support through its use of the Oracle Corporation's E-Business Suite (EBS) and Oracle Business Intelligence Enterprise Edition (OBIEE) platforms customized for County use. The ERPD partners with user departments and external stakeholders (e.g., suppliers and retail licensees) to meet operational needs, adapt to the ongoing and changing environment; reengineer business processes to improve efficiency; implement new initiatives; and stay abreast of platform enhancements and improvements to the County's ERP systems. ERPD is comprised of business analysts and software developers required to develop complex solutions to drive continuous service delivery and improvement. Operations supported include those in the Department of Liquor Control (e.g. order management and warehouse functions).

| Program Performance Measures | Actual FY17 | Actual FY18 | Estimated FY19 | Target FY20 | Target FY21 |
|---|---------------------|--------------------------------------|----------------------------------|----------------|----------------|
| ERP Business Intelligence usage (number of queries) | 239,988 | 236,073 | 230,000 | 220,000 | 210,000 |
| ERP financial transactions (in millions) | 312.0 | 316.2 | 320.0 | 325.0 | 330.0 |
| Tress Recommended Changes | er eren Germanen | e de la pareció. La della pareció | generalischen Seine Gereichen | | |
| FY19 Approved | | | 8, | 137,296 | 32,50 |
| Decrease Cost: Lapse one Sr. IT Specialist and one Functional Busines | s Analyst | | (1 | 189,655) | 0.00 |

| | i Asilindi Arri Allasi pasa supera sa abili | |
|---|--|-------|
| Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. | 346,643 | 0.00 |
| FY20 Recommended | 8,294,284 | 32.50 |

Office of Broadband Programs (OBP)

The Office of Broadband Programs (OBP) is responsible for Countywide broadband governance, planning, implementation, and operations; encouraging broadband related economic development; and enabling digital equity initiatives. This Office leads the County Executive's ultraMontgomery initiative; manages the County's cable television and telecommunications franchise agreements and the Cable Revenue Fund; ensures that consumer cable and broadband services are of high quality; communications providers comply with safety and construction codes; enforces cable and broadband customer service requirements; promotes community and civic engagement through Public, Educational, and Government (PEG) programming utilizing multi-media platforms; and manages the County's fiber optic network and related broadband services.

The goals of the ultraMontgomery program are to grow knowledge-based jobs that rely on always-on, ultra high-speed broadband networks (e.g., in biohealth/bioscience, advanced technologies, cybersecurity, media, financial services, federal agencies, and research & development), encourage broadband abundance and innovation in the County, and to increase digital equity for all County residents, businesses, and entrepreneurs. Only ultraMontgomery is reflected below. Other OBP programs are detailed in the Cable Television Communications Plan section of this publication.

| e de l'occumente de de des la company de | | |
|---|---------|------|
| FY19 Approved | 200,000 | 1.00 |
| Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs. | 204,245 | 0.00 |
| FY20 Recommended | 404,245 | 1.00 |

BUDGET SUMMARY

| | Actual | Budget | Estimate | Res ommended | %Chg |
|-------------------------------------|------------|------------|------------|--------------|---------|
| | E718 | FY19 | FY19 | FY20 | Budfice |
| COUNTY GENERAL FUND | | | | | |
| EXPENDITURES | | | | | |
| Salaries and Wages | 15,622,430 | 18,083,569 | 15,693,710 | 18,846,053 | 4.2 % |
| Employee Benefits | 4,480,077 | 5,237,552 | 4,341,547 | 5,319,799 | 1.6 % |
| County General Fund Personnel Costs | 20,102,507 | 23,321,121 | 20,035,257 | 24,165,852 | 3.6 % |
| Operating Expenses | 21,039,382 | 18,730,544 | 21,267,068 | 19,718,990 | 5.3 % |
| Capital Outlay | 0 | 120,300 | 120,300 | 120,300 | _ |
| County General Fund Expenditures | 41,141,889 | 42,171,965 | 41,422,625 | 44,005,142 | 4.3 % |
| PERSONNEL | | | | | |
| Full-Time | 176 | 174 | 174 | 174 | _ |
| Part-Time | 2 | 2 | 2 | 2 | _ |

Technology Services General Government 38-7



BUDGET SUMMARY

| | Actual EY18 | Buriget FY19 | Estimate FY19 | Accommented 1720 | Haling Harrister |
|------------------------------|----------------|-----------------|------------------|---------------------|---------------------|
| FTEs | 168.40 | 165. 75 | 165.75 | 167.25 | 0.9 % |
| REVENUES | | | | | |
| Miscellaneous Revenues | (22,873) | 0 | 0 | 0 | _ |
| County General Fund Revenues | (22,873) | 0 | 0 | 0 | Table - |

FY20 RECOMMENDED CHANGES

Expenditures FFEs

COUNTY GENERAL FUND

| FY | 19 ORIGINAL APPROPRIATION | 42,171,965 | 165.75 |
|--|--------------------------------|------------|--------|
| Changes (with service impacts) | | | |
| Enhance: ESRI Enterprise Agreement [Enterprise Applications and Solutions Divisions Di | sion (EASD)] | 192,617 | 0.00 |
| Enhance: Off-site data center capacity [Enterprise Systems and Operations Division | n (ESOD)] | 120,000 | 0.00 |
| Enhance: Contract staff - Integrated Justice Information System (IJIS) maintenance the Chief Information Officer (CIO)] | e and enhancements [Office of | 100,000 | 0.00 |
| Other Adjustments (with no service impacts) | | | |
| Increase Cost: Restore One-Time Lapse Increase | | 1,243,125 | 0.00 |
| Increase Cost: FY20 Compensation Adjustment | | 643,301 | 0.00 |
| Increase Cost: Software maintenance increases | | 521,629 | 0.00 |
| Shift: 1.5 FTEs from the Public Safety Systems Modernization (PSSM) capital pro Operating Officer (COO)] | eject [Office of the Chief | 202,613 | 1.50 |
| Increase Cost: Annualization of FY19 Personnel Costs | | 177,114 | 0.00 |
| Increase Cost: Motor Pool Adjustment | | 54,200 | 0.00 |
| Increase Cost: Retirement Adjustment | | 36,612 | 0.00 |
| Decrease Cost: Lapse one Sr. IT Specialist and one Functional Business Analyst [I Division (ERPD)] | Enterprise Resource Planning | (189,655) | 0.00 |
| Decrease Cost: Lapse one Program Manager II and one Sr. IT Specialist [Enterpri Services Division (ETSD)] | se Telecommunications and | (218,580) | 0.00 |
| Decrease Cost: Lapse two Sr. IT Specialists and one Technology Expert [Enterprise Division (ESOD)] | Systems and Operations | (340,517) | 0.00 |
| Decrease Cost: Lapse two Sr. IT Specialists and one Manager III [Enterprise Applia (EASD)] | cations and Solutions Division | (352,300) | 0.00 |
| Decrease Cost: Lapse one IT Specialist III, one Sr. IT Specialist, and one Program Operating Officer (COO)] | n Manager [Office of the Chief | (356,982) | 0.00 |

FY20 RECOMMENDED 44,005,142 167.25

PROGRAM SUMMARY

Program Name FY19 APPR FY19 APPR FY20 REC FY20 R



| PROGRAM SUMMARY | | | | |
|--|---------------------------|-------------------|-------------------------|-----------------|
| Program Name | FY19 APPR Exponditures | FY19 APPR FIEs | FYZ9 RFC Expanditums | TYZORFC FIFs |
| Enterprise Systems and Operations Division (ESOD) | 12,407,859 | 42.00 | 12,939,313 | 38.00 |
| Enterprise Telecommunications and Services Division (ETSD) | 6,777,188 | 26.00 | 4,866,994 | 18.00 |
| Enterprise Applications and Solutions Division (EASD) | 7,201,244 | 36.75 | 8,605,081 | 44.75 |
| Office of the Chief Operating Officer (COO) | 2,800,013 | 18.50 | 4,154,251 | 24.00 |
| Office of the Chief Information Officer (CIO) | 4,648,365 | 9.00 | 4,740,974 | 9.00 |
| Enterprise Resource Planning Division (ERPD) | 8,137,296 | 32.50 | 8,294,284 | 32.50 |
| Office of Broadband Programs (OBP) | 200,000 | 1.00 | 404,245 | 1.00 |
| | | | | |

CHARGES TO OTHER DEPARTMENTS

Total

42,171,965

165.75

44,005,142

167.25

| 那样的影响,我们就是一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个一个 | | | | | | |
|--|--|-------|-----------|------|-----------|------|
| Charged Department | Charged Fund | | FYill | FY19 | EA30 | FY20 |
| | The state of the s | | Total | FIEC | Totals | FTCS |
| COUNTY GENERAL FUND | | | | | | |
| Human Resources | Employee Health Self Insurance | | 395,325 | 0.00 | 395,325 | 0.00 |
| Liquor Control | Liquor | | 1,194,351 | 0.00 | 1,049,691 | 0.00 |
| CIP | Capital Fund | | 754,012 | 4.50 | 507,606 | 3.00 |
| NDA - Retiree Health Benefits Trust | Retirement Fund (ERS) | | 134,314 | 0.00 | 135,433 | 0.00 |
| | | Total | 2,478,002 | 4.50 | 2,088,055 | 3.00 |

FUTURE FISCAL IMPACTS

CE RECOMMENDED (\$000S)

| Tale | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 |
|--|---------------|-------------|------------|-------------|--------------|--------|
| COUNTY GENERAL FUND | | | | | | |
| EXPENDITURES | | | | | | |
| FY20 Recommended | 44,005 | 44,005 | 44,005 | 44,005 | 44,005 | 44,005 |
| No inflation or compensation change is included in outyear projections. | | | | | | |
| Elimination of One-Time Items Recommended in FY20 | 0 | (100) | (100) | (100) | (100) | (100) |
| Items recommended for one-time funding in FY20, including IJIS contractors, | , will be eli | iminated fr | om the ba | se in the o | utyears. | |
| Restore One-Time Lapse Increase | 0 | 1,458 | 1,458 | 1,458 | 1,458 | 1,458 |
| Restoration of one-time lapse adjustment in the budget development year | | | | | | |
| Labor Contracts | 0 | 37 | 37 | 37 | 37 | 37 |
| These figures represent the estimated annualized cost of general wage adjust | ments, se | rvice incre | ments, and | d other neg | otiated iter | ms. |
| Subtotal Expenditures | 44,005 | 45,399 | 45,399 | 45,399 | 45,399 | 45,399 |

Technology Services General Government 38-9



THIS PAGE INTENTIONALLY LEFT BLANK



Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

| Subject | Position Description for Chief Broadband Officer, Department of Technology Services | Number 6-19 | |
|---------|---|----------------|--|
| | g Department ce of Human Resources | Effective Date | |

Montgomery County Regulation on

POSITION DESCRIPTION – CHIEF BROADBAND OFFICER, DEPARTMENT OF TECHNOLOGY SERVICES

Issued by: County Executive Regulation No. 6-19

Authority: Montgomery County Code (2014) Section 1A-104(b)(2)

Supersedes: None

Council Review: Method (1) under Code Section 2A-15

Register Vol. 36 No. 2

Effective Date:

Comment Deadline: March 3,2019

Summary:

This regulation establishes the position description for Chief Broadband Officer,

Department of Technology Services, a non-merit position.

Staff contact:

Kimberly Williams, Office of Human Resources

(240) 777-5198

Address:

Office of Human Resources
Executive Office Building
101 Monroe Street, Fifth Floor
Rockville, Maryland 20850

Background:

Montgomery County Code § 1A-104(b)(2) requires that certain positions in the Executive

Branch designated by law as non-merit must be supported by a position description

established by executive regulation under method (1).

CHIEF BROADBAND OFFICER, DEPARTMENT OF TECHNOLOGY SERVICES

DEFINITION OF CLASS:

This appointed, non-merit, single-incumbent executive management job classification is in the Office of Broadband Programs in the Department of Technology Services. The incumbent performs as the County's Chief Broadband Officer (CBO) and reports to the Director, Department of Technology Services (DTS). The CBO is responsible to achieve the County Executive's priority objectives in digital equity, economic



Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

| Subject | Position Description for Chief Broadband Officer, Department of Technology Services | Number 6-19 |
|---------|---|----------------|
| } | Department ce of Human Resources | Effective Date |

development, and workforce development through broadband technologies. The incumbent is responsible for planning and deploying broadband technologies that enhance the County's and its constituents' ability to leverage broadband and the Internet to conduct business.

MAJOR DUTIES:

The incumbent is responsible for identifying, developing, resourcing and implementing broadband initiatives and programs that are critical to the delivery of the government's service to residents and businesses, and support business and workforce development and job creation in targeted priority economic sectors, enhance community engagement and Smart County initiatives, and position the County's digital infrastructure to be prepared to meet future demand in areas such as public safety, education, mobility, digital equity, and commerce. The incumbent will be responsible for the County's broadband initiatives, infrastructure, services, and related cable, video, television, and consumer services.

EXAMPLES OF DUTIES: (Illustrative Only)

- Formulating a large-scale multi-sector, multi-year broadband program for the County.
- Assisting the CIO in the development and maintenance of appropriate organizational structures
 necessary for the County to meet emerging and future challenges and demands for broadband while
 maximizing the return on investment in existing broadband functions and assets to the County.
- Overseeing the following program areas: The County's fiber optic network, FiberNet, and the County government's network services, the Cable Office, and the ultraMontgomery program.
- Providing expertise and guidance in the leveraging of broadband technologies by developing a clear vision and producing a broadband and digital infrastructure master plan with measurable outcomes;
- Developing the business case and overseeing the development and implementation of budgets and fiscal forecasts;
- Identifying strategic public-private partnerships and capital investments;
- Identifying, competing for, and administrating grants and matching funding sources;
- · Negotiating agreements and managing vendors and franchisees;
- Developing and maintaining good relations with members of the County Legislative Branch and other key partners;
- Representing the County's interests in broadband matters at the Federal, State and County government;
- Developing, delivering and defending testimony in public hearings of the legislative or policy governing bodies (e.g., FCC, State Legislature, Congress).
- Identifying and implementing best practices for the management of existing and emerging wireless and wireline technologies.
- Resolving the County residents' cable and broadband complaints and addressing businesses' broadband connectivity issues; and supporting digital equity initiatives and technology training.



Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

| | Subject | Position Description for Chief Broadband Officer, Department of Technology Services | Number 6-19 |
|--|-------------------------|---|----------------|
| The chart of the party or a party of the | Originating l Office | Department of Human Resources | Effective Date |

- Working with and representing the County at telecommunications forums and association, e.g., National Association of Telecommunications Officers and Advisors (NATOA)
- Working with the Montgomery County Economic Development Corporation (MCEDC), Montgomery
 County Business Council (MCBC), the County's Interagency Technology Policy Coordinating
 Committee (ITPCC), the Information Technology Policy Advisory Committee (IPAC), the Metropolitan
 Washington Council of Governments (MWCOG), and others to further the County's broadband interests
 and objectives.

MINIMUM QUALIFICATIONS:

Education: Graduation from an accredited college or university with a Master's Degree in telecommunications, computer science, engineering, business or related field or equivalent experience.

Experience: Seven (7) years of progressively responsible professional experience in enterprise-wide organizational management of broadband/telecommunication operations and services, four (4) years of which were in a supervisory or executive capacity.

Licenses, Registrations, Certifications, or Special Requirements: None

KNOWLEDGE, SKILLS AND ABILITHES:

- Thorough knowledge of broadband technologies and architectures
- Demonstrated in-depth knowledge of business principles and practices required to manage high-speed broadband service to the business and residential premises; including but not limited to sales, operations, customer service, communications and process development.
- Knowledgeable about budgeting, general accounting and fiscal management practices; office procedures; and business operating systems.
- Thorough understanding of financial principles; be able to evaluate fiscal and financial information and achieve positive financial results.
- Must be knowledgeable about the appropriate methods and means of dealing with human behavior situations in a variety of business circumstances.
- Ability to plan, implement, and support large scale fiber networks; including but not limited to recommending policies, procedures, organizational structures, staffing, processes, and management reporting and controls.





Marc Elrich, County Executive

MONTGOMERY COUNTY EXECUTIVE REGULATION

Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

| Subject | Position Description for Chief Broadband Officer, Department of Technology Services | of Number 6-19 |
|------------------------------------|--|--|
| | g Department ice of Human Resources | Effective Date |
| | nonstrated ability to effectively work directly with the public, vendo | rs, and county and other |
| | nmunicate effectively verbally and in writing with all organizational sidiaries and with outside contractors and vendors. | levels both in the utility and its |
| • Religoal | es on extensive experience, sound judgment and demonstrates leades. | aship to plan and accomplish |
| atter | ven ability to plan and organize work to meet deadlines, all with a hintion to detail. Must have strong analytical and critical thinking skilling abilities. A wide degree of creativity and flexibility is expected. | |
| personeed form prob and c | ity to communicate effectively, verbally and in writing, in a diverse passion and negotiation of conflicts and problems; assessing operations; interpreting legal documents and government regulations, evaluates, and data; analyzing complex written documents; identifying and lems; working long and irregular hours, and under pressure conditions thereing results through subordinates; and maintaining order in an intities. | onal, program, staffing, and fisca ting fiscal and financial reports, resolving administrative ons; delegating responsibility |
| prop build | aires understanding and the ability to interpret contracts, agreements erly apply provisions to supervising and directing the work of subord and lead a team successfully. Must be able to resolve administrative gate duties to achieve results. | dinates as appropriate, and to |
| | erstands the concept of providing quality services and agrees to mai perior customer service. APPROV | ntain a continuing commitment ED AS TO FORM AND LEGALITY |
| MEDICAL | BY: | OF THE COUNTY ATTORNEY |
| Approved: | DATE | 1/11/19 |
| Ma | 4/9/19 | |

Date



Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

Subject

Position Description for Chief Data Officer, Department of

Number

Technology Services

5-19

Originating Department

Office of Human Resources

Effective Date

Montgomery County Regulation on

POSITION DESCRIPTION - CHIEF DATA OFFICER, DEPARTMENT OF **TECHNOLOGY SERVICES**

Issued by: County Executive Regulation No. 5-19

Authority: Montgomery County Code (2014) Section 1A-104(b)(2)

Supersedes: None

Council Review: Method (1) under Code Section 2A-15

Register Vol. 36 No. 2

Effective Date:

Comment Deadline: March 3, 2019

Summary:

This regulation establishes the position description for Chief Data Officer, Department of

Technology Services, a non-merit position.

Staff contact:

Kimberly Williams, Office of Human Resources

(240) 777-5198

Address:

Office of Human Resources **Executive Office Building** 101 Monroe Street, Fifth Floor Rockville, Maryland 20850

Background:

Montgomery County Code § 1A-104(b)(2) requires that certain positions in the Executive

Branch designated by law as non-merit must be supported by a position description

established by executive regulation under method (1).

CHIEF DATA OFFICER, DEPARTMENT OF TECHNOLOGY SERVICES

DEFINITION OF CLASS:

This appointed, non-merit executive management job classification is in the Department of Technology Services. The incumbent performs as the County's Chief Data Officer (CDO) and is appointed by the County Executive. The CDO works under the administrative direction of and reports to the Director, Department of Technology Services (DTS) to plan, coordinate, direct, and evaluate Countywide data management standards



Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

| Subject | Position Description for Chief Data Officer, Department of Technology Services | Number 5-19 |
|--|---|----------------|
| Originating Department Office of Human Resources | | Effective Date |
| | ive of Human Resources | |

and practices; oversee and maintain data stores and architectures; ensure effective data confidentiality, security, integrity, transparency, and availability; enable data exploitation and business intelligence; formulate, evaluate, and implement data systems policies and procedures; and perform related duties. The CDO leverages knowledge of the County's business functions and services; existing data assets, technology investments and platforms, and data management organization; data consumption needs; strategic priorities; and targeted outcomes of the County Executive to carry out the CDO functions and duties.

MAJOR DUTIES:

The incumbent is responsible for developing strategies and managing Countywide data activities to facilitate a data-driven enterprise and provide transparency. The incumbent is also responsible for identifying, developing, resourcing, and implementing an enterprise data management program critical to the delivery of the government's service to residents and businesses, and to ensure government data confidentiality, integrity, and availability. The incumbent develops, leads, and oversees a comprehensive strategy to govern data capture, storage, maintenance, visualization, integration, security, and access to meet the County's current needs and prepare the County for future needs in structured and unstructured data governance; data storage, searchability and recoverability; government transparency; business intelligence, analytics and discoverability. Further, the incumbent is responsible for civic data analytics, information governance, control, policy development, collaboration, and engagement. Managing data quality and data lifecycle management, the incumbent will produce data architectures and data management strategic plans that increase the County's ability to make data-driven decisions.

EXAMPLES OF DUTIES: (Illustrative Only)

- Implement and manage a comprehensive, centralized and progressive Enterprise-wide data strategy for the County that includes: data architecture, management, accuracy, security and privacy; civic data analytics, intelligence, integrity, visualization, and governance; GIS and innovation.
- Assist the DTS Director in the development and maintenance of appropriate organizational structures
 necessary for the County to meet emerging and future challenges and demands for data management while
 maximizing the return on investment in existing data management functions and assets of the County.
- Direct and oversee varied data initiatives throughout the County to ensure consistent alignment with the Enterprise's data management strategy.
- Develop and implement policies, procedures, and standards regarding data operation, data accountability;
 data quality, privacy, and ethics; manage data governance; study and maximize data quality.
- Formulate a large-scale multi-department, multi-source, multi-year enterprise data management program for the County.





Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

| | Subject | Position Description for Chief Data Officer, Department of Technology Services | Number 5-19 |
|--|---------|---|----------------|
| Originating Department Office of Human Resources | | · . | Effective Date |

- Provide data warehousing strategies that provide consistent, clean, and integrated data.
- Establish an architecture and a collection of integrated decision support-applications and databases, providing easy access to business data.
- Collaborate with and mentor a cross-functional team of professionals that include data engineers, data administrators, database administrators, developers, GIS analysts, and other positions as needed to support the County's data analytics strategy.
- Support planning for Enterprise-wide systems and platforms; make recommendations for integration of incongruent systems for data sharing and consistency.
- Assist in the collection and cleansing of data from varied legacy systems; make recommendations for modernizing legacy systems and assuring new solutions provide timely, useful and clean data.
- Review existing systems and operating procedures to identify trends, cost reductions and identify ways to increase operational efficiency.
- Work with the departments to identify data needs for larger outcomes and enhancement of service delivery, cost avoidance and process innovation.
- Work with consultants and industry partners to identify data management best practices.
- Work with other partners data scientists to ensure availability of data for active, enterprise-wide performance management.

MINIMUM QUALIFICATIONS:

Education: Master's degree from an accredited college or university in Data Science, Computer Science, Management Information Systems, Statistics, Analytics or another quantitative discipline or equivalent experience.

Experience: Ten (10) years of progressive work experience in data analytics/data science in a fast-paced, complex environment.

Licenses, Registrations, Certifications, or Special Requirements: None Knowledge, Skills, and Abilities

Advanced knowledge of:

- Enterprise data management best practices and strategies;
- County or large local government data-driven operations and needs;
- Various government privacy, security and associated laws, rules and regulations including all applicable standards;





Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

| | Subject | Position Description for Chief Data Officer, Department of Technology Services | Number 5-19 |
|--|---------|--|----------------|
| Originating Department Office of Human Resources | | | Effective Date |

- Computer-based systems processing personally identifiable information (PII) and electronic Private Health Information (ePHI) such as in employee record systems and various protocols relative to privacy and confidentiality of information;
- Data security risk analysis and the development of data security architectures and protocols;
- Leadership techniques, principles, and procedures to assign work, schedule, train, and evaluate the work
 of assigned or matrixed staff;
- Principles and processes for providing customer services; this includes meeting established quality standards;
- Strategic planning principles and theories to ensure competitive advantage;
- Big Data solutions and management techniques for high-impact outcomes in service delivery virtuous cycles, e.g., in law enforcement and human services;
- Expertise in data governance and quality control;
- Working with Cloud technologies, e.g., for data storage, aggregation, analysis, and retrieval;
- Creating best practices and methodologies for technical projects;
- Building business cases for large technical projects;
- Data modeling and visualization techniques;
- Various sources and resources for information at the federal, state and local level in the privacy and security areas;
- Managing large cross-agency, cross-departmental programs.

Ability to:

- Participate with upper management in a decision support mode through the development of appropriate management information;
- Emotional Intelligence to carry out cross-agency, cross-departmental work;
- Advocating for data analytics value across a business to diverse audiences with solid business experience in the field:
- Information management projects and programs;
- Influence personnel through a matrix organization as opposed to line management authority;
- Deal with the public, press, other officials, members of the County Council, boards and commissions, and State and federal officers or representatives in a manner that is diplomatic, clear, and knowledgeable;
- Work in a fast-paced environment, meet deadlines with a sense of urgency, focus on detail and accuracy and be an independent thinker;



Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

| Subject | Position Description for Chief Data Officer, Department of Technology Services | Number 5-19 |
|--|---|----------------|
| Originating Department Office of Human Resources | | Effective Date |

- Lead and think strategically;
- Use logic and reasoning to analyze, understand, and evaluate complex situations. Leverage ability to
 identify the strengths and weaknesses of alternative approaches or solutions, to a situation or targeted
 outcome. Exercise appropriate judgment in establishing priorities. Consider the relative costs and benefits
 of potential actions in developing and defending the business case;
- Develop and maintain cooperative and professional relationships with employees at all levels, representatives from various departments, and outside agencies. Effectively respond to and resolve complex inquiries;
- Communicate complex ideas and proposals effectively so others will understand to include preparation of reports, agendas, and policies;
- Listen and understand information and ideas presented verbally and in writing;
- Handle a variety of human resources issues with tact and diplomacy and in a confidential manner

Skill In:

- Large program management;
- Working with multiple stakeholders at various organizational levels;
- The design, development, and validation of descriptive, predictive, prescriptive, and applied analytics;
- Mentoring, training and working with data owners and expert personnel in tense situations.

MEDICAL EXAM PROTOCOL: Medical History Review.

| Approved: | 4/9/19 |
|--|---------------------------------|
| Marc Elrich, County Executive | Date |
| | PROVED AS TO FORM AND LEGALITY. |
| | OFFICE OF THE COUNTY ATTORNEY |
| | BY: GR MITTER |
| The second secon | - 1/11/19 |