Technology Services

APPROVED FY19 BUDGET	FULL TIME EQUIVALENTS
$42,171,965	165.75

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

MISSION STATEMENT

The mission of the Department of Technology Services (DTS) is to leverage technology to facilitate the delivery of County government services in a cost-effective, timely, high-quality, and secure manner. DTS strives to be responsive by providing solutions; services and assistance to partners, customers and constituents - when and where they are needed; and to securely enable County employees to provide quality services and information to our residents and businesses. DTS commits to being collaborative by working in partnership with our internal customers, external agencies, and with the public and private sectors; to increase the productivity of County government, businesses and residents; and to assist with technology enabled economic development initiatives. DTS commits to be innovative by continually identifying and implementing innovative technology solutions to deliver value and improvement and to facilitate the innovation programs of the County.

BUDGET OVERVIEW

The total approved FY19 Operating Budget for the Department of Technology Services is $42,171,965, a decrease of $850,093 or 1.98 percent from the FY18 Approved Budget of $43,022,058. Personnel Costs comprise 55.30 percent of the budget for 174 full-time position(s) and two part-time position(s), and a total of 165.75 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 44.70 percent of the FY19 budget.

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

LINKAGE TO COUNTY RESULT AREAS

While this program area supports all eight of the County Result Areas, the following is emphasized:

❖ **A Responsive, Accountable County 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 FY18 estimates reflect funding based on the FY18 Approved Budget. The FY19 and FY20 figures are performance targets based on the FY19 Approved Budget and funding for comparable service levels in FY20.

Measure	Actual FY16	Actual FY17	Estimated FY18	Target 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	3.25	3.25	3.25

ACCOMPLISHMENTS

☑ Completed Computer Aided Dispatch (CAD) 911 modernization with a system GoLive date of April 2, 2017.

☑ Continued substantial progress on personal computer (PC) vulnerability remediation through aggressive software patching, PC re-imaging and Internet blocking.

☑ Enhanced the County's Business Intelligence reporting to assist staff with business level data in several service areas including: DLC Material Transaction Model, DLC Price Model Enhancements, Enterprise Resource Planning (ERP) Performance Dashboard, Payroll Exception Reporting, and Merit System Employee Notifications.

☑ Deployed a new tool, checkspeedmontgomery.com, to enhance Internet Service Transparency in the Community.

☑ Launched Senior Planet Montgomery, providing 3,959 hours of technology training to 268 older adults at 10 locations in partnership with Montgomery County Public Libraries (MCPL), Montgomery County Department of Recreation (REC) Tech Connect, and Jewish Council for the Aging (JCA) Interages. 212 hours of staff professional development was provided, and classes were offered in English and Spanish. 100 percent of the graduates found the course useful.

☑ Launched MontgomeryCodes to provide Science, Technology, Engineering, and Math (STEM) coding, web design and Arduino instruction to 81 students, coding workshops to 300 young people, train 40 students to form a "Coder Corps" to teach coding to middle and elementary school students, and create five digital badges on a digital platform to support individualized skill development.

☑ Completed Risk assessment and penetration testing of the Computer Aided Dispatch (CAD) system.

INNOVATIONS AND PRODUCTIVITY IMPROVEMENTS

✳ Implemented the Account Management Program (first phase). Every Department has an assigned DTS Account Manager available to answer questions and provide customized service.

✳ Automated the separation process for temporary employees for the Department of Recreation (REC), saving employee time and other County resources.

✳ Designed and implemented Family and Medical Leave Act (FMLA) functionality in MCtime. Streamlined end-to-end intake, administration, and usage of FMLA leave to provide consistency and usable data for reporting and administration.

✳ Implemented Department of Liquor Control (DLC) enhancements and integration with third-party applications, including voice picking, stock receiving, and system improvements to billbacks, price model, bill of lading, claims, invoicing, and purchasing.

✳ Improved the technology tools used to conduct the mass liquidation of encumbrances to reduce the staff time spent on this task from days to hours.

✳ DTS is beginning a pilot of Unified Communications as a Service that is projected to reduce costs, enhance collaboration and improve productivity by leveraging and extending the County's existing office cloud productivity platform.

COLLABORATION AND PARTNERSHIPS

✳ FY18 Information Technology Cluster

In FY18, the Information Technology Cluster met to discuss IT issues in the context of the current and future budgets. The group collaborated to develop cost savings proposals that find efficiencies, prevent duplication of effort, and will not negatively impact the overall level of Countywide IT services.

Partners

Office of Consumer Protection, Department of Correction and Rehabilitation, Office of the County Attorney, Office of the County Executive, Office of Emergency Management and Homeland Security, Department of Environmental Protection, Department of Finance, Montgomery County Fire and Rescue Service, Department of General Services, Department of Health and Human Services, Department of Housing and Community Affairs, Office of Human Resources, Office of Management and Budget, Department of Permitting Services, Department of Police, Office of Procurement, Office of Public Information, Department of Public Libraries, Department of Recreation, Sheriff's Office, Division of Transit Services, Department of Transportation

✳ Fibernet Enhancements

DTS is engaged in several Dense Wave Division Multiplexing (DWDM) projects to improve Wide Area Network connectivity and services for Public Safety Radio, Montgomery College (MC), and Montgomery County Public Schools. FiberNet currently serves 536 sites and construction to 29 additional sites is underway. FiberNet carries Internet-hosted phone service for MC and Montgomery County Government and is being planned for the Housing Opportunities Commission (HOC). These projects represent a higher level of collaboration among the Interagency Technology Policy and Coordination Committee (ITPCC) participating agencies. The FiberNet Network Operations Center (NOC) continues to mature.

Partners

Housing Opportunities Commission, Maryland-National Capital Park and Planning Commission, Montgomery College, Montgomery County Public Schools, Washington Suburban Sanitary Commission

✳ Countywide Digital Evidence Management

With the exponentially increasing amount of data flooding our IT systems & resources, the costs, management, and discovery process have all increased in volume and difficulty. Jurisdictions nationwide are struggling with this issue. In FY18, County departments collaborated on the emerging issue of eDiscovery & Digital Evidence Management focusing on:

- Industry trends and solutions, including how other jurisdictions are planning for growing demands of evidence storage
- Data availability, retention, management and reliability
- Policies & Program Management
- Hardware (servers, devices).

In FY18, the County devoted resources to maintain the current digital evidence management infrastructure and in FY19 will continue to provide County leaders options to move forward with long-term sustainable solutions.

Partners

Circuit Court, Department of Correction and Rehabilitation, Office of the County Attorney, Montgomery County Fire and Rescue Service, Office of Management and Budget, Department of Police, Sheriff's Office, Office of the State's Attorney

✳ Public Safety Systems Modernization (PSSM) Deployment

DTS completed the Computer Aided Dispatch (CAD) and Fire Station Alerting PSSM projects, and is continuing implementation of the final two deliverables: replacement of the core voice radio communications infrastructure, and the law enforcement records management system.

Partners

Office of Emergency Management and Homeland Security, Montgomery County Fire and Rescue Service, Department of Police, Sheriff's Office

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

The Enterprise Systems and Operations Division (ESOD) designs, implements and maintains a secure and reliable computer-based hardware, software, and data infrastructure for County business systems and County staff. The Division manages infrastructure for enterprise-wide systems including Enterprise Resource Planning (ERP), MC311 and MCTime. ESOD operates the enterprise data center and manages the enterprise cloud-based e-mail; calendaring and office productivity/collaboration systems; the enterprise directory and identity management systems; enterprise file and print system; enterprise image archiving; 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 security of the County IT infrastructure. ESOD manages and provides support for the Public Safety Data System. ESOD also manages the Enterprise Services Bus (ESB) that provides interfaces and data transfers between enterprise and department systems, with both internal systems and external systems, including open data.

Program Performance Measures	Actual FY16	Actual FY17	Estimated FY18	Target FY19	Target FY20
Enterprise applications system availability (%) [1]	99.996	99.997	99.997	99.997	99.997
Number of Enterprise Service Bus data transfers (monthly average)	201,355	209,620	220,000	230,000	240,000

[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*

FY19 Approved Changes	Expenditures	FTEs
FY18 Approved	**11,852,468**	**37.00**
Increase Cost: Computer Aided Dispatch (CAD) System Maintenance	337,000	0.00
Increase Cost: Software Maintenance increases	70,807	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.	147,584	5.00
FY19 Approved	**12,407,859**	**42.00**

✳ Enterprise Telecommunications and Services

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 PBX telephone network and all associated adjuncts, i.e., voicemail. Radio Communications Services is responsible for the operation and maintenance of the County's 800 MHZ radio and mobile communications systems which predominantly support public safety agencies.

Program Performance Measures	Actual FY16	Actual FY17	Estimated FY18	Target FY19	Target FY20
Average number of workdays to complete telecom requests	6.7	7.4	7.0	7.0	7.0

FY19 Approved Changes	Expenditures	FTEs
FY18 Approved	**6,522,366**	**23.05**
Shift: Transfer of position to OMB	(81,850)	(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.	336,672	3.95
FY19 Approved	**6,777,188**	**26.00**

✳ Enterprise Applications and Solutions

The Enterprise Applications and Solutions Division (EASD) delivers and maintains solutions through web-based applications, data services, and geographic information systems; and 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. 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 DCM Team oversees the replacement of personal computers, manages the 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 FY16	Actual FY17	Estimated FY18	Target FY19	Target FY20
Percent of DTS Help Desk requests that are resolved on the first call [1]	98.5	97.2	97.0	95.0	95.0
Open Data - Number of datasets published	50	47	50	50	50

[1] *Projections match the contract Service Level Agreement (SLA) of 90%.*

FY19 Approved Changes	Expenditures	FTEs
FY18 Approved	**7,601,791**	**40.75**
Increase Cost: Annualization of Positions Approved in FY18	111,222	1.00
Increase Cost: IBI 3i Platform Core Based Maintenance	49,295	0.00
Increase Cost: JustWare Software Maintenance	11,230	0.00
Increase Cost: IBI iWay Data Quality Maintenance	2,390	0.00

FY19 Approved Changes	Expenditures	FTEs
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(574,684)	(5.00)
FY19 Approved	**7,201,244**	**36.75**

✳ Office of the Chief Operating Officer (COO)

The Office of the Chief Operating Officer (COO) provides leadership and strategies for the development and delivery of County technology solution planning through the Project Management Office (PMO) and oversees the day-to-day operations of Technology Services department operating divisions, in support of all Enterprise and departmental systems. The Office manages both Enterprise Architecture and Enterprise Strategic Planning to ensure cost-effective Countywide IT investment. The PMO reviews all technology funding requests for County departments, and develops and maintains project management standards across projects. Additionally, project managers in this Office support cross-departmental projects and the open data initiative. Project Management certification is encouraged to promote continuous growth and demonstration of project management best practices. The Management Services Team is responsible for department administrative support including budgeting and financial processing, human resources management, procurement, and facilities management.

FY19 Approved Changes	Expenditures	FTEs
FY18 Approved	**2,621,619**	**18.10**
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	178,394	0.40
FY19 Approved	**2,800,013**	**18.50**

✳ Office of the Chief Information Officer

This Office of the Chief Information Officer (CIO) provides technology leadership, policy direction, and program guidance for the department and the County government's information technology initiatives, including the Public Safety Systems Modernization (PSSM), Technology Modernization (TechMod), and other County technology programs. The Office of the CIO also includes the Enterprise Security Office (EISO).

PSSM encompasses the modernization of computer aided dispatch (CAD), law enforcement records management, fire station alerting (FSA) and the voice radio infrastructure (800 MHz). TechMod currently includes: the Department of Health and Human Services' Process and Technology Modernization initiative. IJIS facilitates the exchange of data about offenders and offender activity between Montgomery County Agencies (e.g. Police, Sheriff, Corrections, State's Attorney's Office, Health and Human Services, and Circuit Court), the State of Maryland, and the Federal Government. The Office is responsible for assisting departments with creating process efficiencies and aligning their information technology needs with the overall County enterprise strategy. EISO provides enterprise risk assessments, data security consulting, policy/procedure development, and sensitive data architecture design to the County government, provides security training to County employees through an Enterprise Security Awareness Training program, and rapidly responds to 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) and the Payment Card Industry (PCI) Data Security Standards.

Program Performance Measures	Actual FY16	Actual FY17	Estimated FY18	Target FY19	Target FY20
IT Security - Average security vulnerabilities per device	18.7	17.7	12.0	10.0	8.0

FY19 Approved Changes	Expenditures	FTEs
FY18 Approved	4,865,974	14.00
Multi-program adjustments, including negotiated compensation changes, employee benefit changes, changes due to staff turnover, reorganizations, and other budget changes affecting multiple programs.	(217,609)	(5.00)
FY19 Approved	4,648,365	9.00

✳ Enterprise Resource Planning Division (ERPD)

The Enterprise Resource Planning Division (ERPD) is responsible for the operations of the County's core business systems (financials, human resources, procurement and budgeting). ERPD provides production support and supports departments in meeting their operational needs; adapts to the ongoing and changing environment; reengineers business processes to improve efficiency; implements new initiatives and stays abreast of systemic enhancements and improvements to the County's ERP systems. ERPD is comprised of both IT and functional business analysts to promote an integrated ERP environment for developing complex solutions, continual improvements. The ERPD supports the day-to-day operations of finance, human resources, payroll, retirees, budgeting, procurement, warehouse management, and transportation management; maximizes the ERP solution by providing a structure for continuous improvement; streamlines business operations and deploys system enhancements to take advantage of productivity improvements; develops enterprise business intelligence dash board/reporting capabilities and analytic tools providing decision support to executive management and department administrators; and, facilitates the flow of information between all business functions within County government and external stakeholder systems.

Program Performance Measures	Actual FY16	Actual FY17	Estimated FY18	Target FY19	Target FY20
ERP Business Intelligence usage (number of queries)	260,991	239,988	230,000	210,000	200,000
ERP financial transactions (in millions)	304.9	312.0	320.0	325.0	330.0

FY19 Approved Changes	Expenditures	FTEs
FY18 Approved	9,357,840	34.50
Shift: Manager I transfer to OHR	(266,226)	(1.00)
Decrease Cost: Elimination of One-Time Items Approved in FY18	(300,000)	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.	(654,318)	(1.00)
FY19 Approved	8,137,296	32.50

✳ Office of Broadband Programs (OBP)

The Office of Broadband Programs (OBP) is responsible for countywide broadband governance, planning, and execution. This Office leads the County Executive's ultraMontgomery initiative; manages the County's cable television and telecommunications franchise agreements and the Cable Revenue Fund; and manages the County's fiber optic network. The goal of the ultraMontgomery program is to grow knowledge-based jobs that increasingly need always-on, ultra high-speed broadband

networks (e.g., in science, technology, cybersecurity, media, finance, and research & development). The Cable Office ensures that cable services are of high quality; cable providers comply with safety and construction codes; cable customer service requirements are enforced; and, that quality Public, Educational and Government (PEG) cable programming is provided. Network Services is responsible for providing: Wide Area Network (WAN) management and design services to County government; FiberNet connectivity to other agencies; and wireless connectivity. The Cable Office and some costs associated with FiberNet/WAN are charged to the Cable Fund in accordance with the cable franchise provision to support installation,construction, operations, and maintenance of the County's FiberNet and associated network equipment.

FY19 Approved Changes	Expenditures	FTEs
FY18 Approved	200,000	1.00
FY19 Approved	200,000	1.00

BUDGET SUMMARY

	Actual FY17	Budget FY18	Estimate FY18	Approved FY19	%Chg Bud/App
COUNTY GENERAL FUND					
EXPENDITURES					
Salaries and Wages	14,915,339	19,143,088	14,983,056	18,083,569	-5.5 %
Employee Benefits	4,400,173	5,209,601	4,258,942	5,237,552	0.5 %
County General Fund Personnel Costs	**19,315,512**	**24,352,689**	**19,241,998**	**23,321,121**	**-4.2 %**
Operating Expenses	20,677,519	18,549,069	19,749,069	18,730,544	1.0 %
Capital Outlay	21,223	120,300	120,300	120,300	—
County General Fund Expenditures	**40,014,254**	**43,022,058**	**39,111,367**	**42,171,965**	**-2.0 %**
PERSONNEL					
Full-Time	167	176	176	174	-1.1 %
Part-Time	2	2	2	2	—
FTEs	159.40	168.40	168.40	165.75	-1.6 %

FY19 APPROVED CHANGES

	Expenditures	FTEs
COUNTY GENERAL FUND		
FY18 ORIGINAL APPROPRIATION	**43,022,058**	**168.40**
Other Adjustments (with no service impacts)		
Increase Cost: FY19 Compensation Adjustment	458,263	0.00
Increase Cost: Computer Aided Dispatch (CAD) System Maintenance [Enterprise Systems and Operations]	337,000	0.00
Increase Cost: Annualization of Positions Approved in FY18 [Enterprise Applications and Solutions]	111,222	1.00
Increase Cost: Annualization of FY18 Personnel Costs	99,421	0.00
Increase Cost: Software Maintenance increases [Enterprise Systems and Operations]	70,807	0.00
Increase Cost: IBI 3i Platform Core Based Maintenance [Enterprise Applications and Solutions]	49,295	0.00
Increase Cost: JustWare Software Maintenance [Enterprise Applications and Solutions]	11,230	0.00

FY19 APPROVED CHANGES

	Expenditures	FTEs
Increase Cost: Motor Pool Adjustment	9,509	0.00
Technical Adj: Program Personnel Adjustments	3,552	(1.65)
Increase Cost: IBI iWay Data Quality Maintenance [Enterprise Applications and Solutions]	2,390	0.00
Increase Cost: Printing and Mail	1,244	0.00
Shift: Transfer of position to OMB [Enterprise Telecommunications and Services]	(81,850)	(1.00)
Decrease Cost: Retirement Adjustment	(112,825)	0.00
Shift: Manager I transfer to OHR [Enterprise Resource Planning Division (ERPD)]	(266,226)	(1.00)
Decrease Cost: Elimination of One-Time Items Approved in FY18 [Enterprise Resource Planning Division (ERPD)]	(300,000)	0.00
Decrease Cost: Increased Lapse	(1,243,125)	0.00
FY19 APPROVED	**42,171,965**	**165.75**

PROGRAM SUMMARY

Program Name	FY18 APPR Expenditures	FY18 APPR FTEs	FY19 APPR Expenditures	FY19 APPR FTEs
Enterprise Systems and Operations	11,852,468	37.00	12,407,859	42.00
Enterprise Telecommunications and Services	6,522,366	23.05	6,777,188	26.00
Enterprise Applications and Solutions	7,601,791	40.75	7,201,244	36.75
Office of the Chief Operating Officer (COO)	2,621,619	18.10	2,800,013	18.50
Office of the Chief Information Officer	4,865,974	14.00	4,648,365	9.00
Enterprise Resource Planning Division (ERPD)	9,357,840	34.50	8,137,296	32.50
Office of Broadband Programs (OBP)	200,000	1.00	200,000	1.00
Total	**43,022,058**	**168.40**	**42,171,965**	**165.75**

CHARGES TO OTHER DEPARTMENTS

Charged Department	Charged Fund	FY18 Total$	FY18 FTES	FY19 Total$	FY19 FTES
COUNTY GENERAL FUND					
Human Resources	Employee Health Self Insurance	395,325	0.00	395,325	0.00
Liquor Control	Liquor	1,070,393	0.00	1,194,351	0.00
CIP	Capital Fund	617,929	3.50	754,012	4.50
NDA - Retiree Health Benefits Trust	Retirement Fund (ERS)	161,858	0.00	134,314	0.00
Cable Television Communications Plan	Cable TV	786,876	5.35	0	0.00
	Total	**3,032,381**	**8.85**	**2,478,002**	**4.50**

FUTURE FISCAL IMPACTS
CC APPROVED ($000S)

Title	FY19	FY20	FY21	FY22	FY23	FY24

Title	FY19	FY20	FY21	FY22	FY23	FY24
COUNTY GENERAL FUND						
EXPENDITURES						
FY19 Approved	42,172	42,172	42,172	42,172	42,172	42,172
No inflation or compensation change is included in outyear projections.						
Restore One-Time Lapse Increase	0	1,243	1,243	1,243	1,243	1,243
Restoration of one-time lapse adjustment in the budget development year						
Labor Contracts	0	218	218	218	218	218
These figures represent the estimated annualized cost of general wage adjustments, service increments, and other negotiated items.						
Subtotal Expenditures	42,172	43,633	43,633	43,633	43,633	43,633