

VOLUME ONE
TECHNOLOGY STRATEGIC PLAN
2016-2019



MONTGOMERY COUNTY GOVERNMENT, MARYLAND

DEPARTMENT OF



TECHNOLOGY SERVICES

Responsive • Collaborative • Innovative

June 2016 Update

A Message from the CIO

Our Vision

To Be a Digital County – Ready for Today and Prepared for Tomorrow

*Our Strategic Goals are to
deliver on this vision by:*

- (1) Strengthening delivery of
services to the public*
- (2) Promoting an open and
transparent government*
- (3) Protecting the security of
stakeholder data*
- (4) Improving stakeholder
productivity*
- (5) Leveraging a dynamic
IT-trained workforce*
- (6) Improving the agility of
technology delivery*
- (7) Continually innovating to
create a better future*

I am pleased to have the opportunity to introduce the County's Technology Strategic Plan for calendar years 2016–2019. The Plan is critical as it bridges the current administration's technology investments of the past ten years to the future needs of the County, at a time when technology use for competitive advantage continues to drive unprecedented change globally.

This Plan recognizes the ever growing need for smart constituent services and engagement resulting from the continued consumerization of technology and rapid availability of new Internet services. It places priority on the need for active risk management due to the rise in cyber and physical security threats to automated systems, infrastructure, and information. It assumes that future budgets and resources will be constrained and that technology must continue to facilitate service improvements and compliance in an agile manner, while helping to lower the cost of government through automation and strategic partnerships. It recognizes the expanded role of technology managers in helping the County's elected officials to deal with the larger socio-economic issues facing the County, including demographic change and workforce development, digital equity, and achievement of smart county status.

Finally, it is exciting to note that the release of this plan is accompanied by the rebranding of the Department and our renewed commitment to being responsive, collaborative, and innovative.

H.N. (Sonny) Segal
Director
Department of Technology Services



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County Mission

Priority Objectives

Working with and for our diverse community to achieve:

- ♦ *Responsive & Accountable County Government*
- ♦ *Affordable Housing in an Inclusive Community*
- ♦ *Effective and Efficient Transportation Network*
- ♦ *Children Prepared to Live & Learn*
- ♦ *Healthy and Sustainable Communities*
- ♦ *Safe Streets & Secure Neighborhoods*
- ♦ *Strong & Vital Economy*
- ♦ *Vital Living for All Our Residents*

MONTGOMERY COUNTY MISSION STATEMENT

We pursue the common good by working for and with Montgomery County's diverse community members to fulfil the following priority objectives:

- ♦ *A Responsive and Accountable County Government*
- ♦ *Affordable Housing in an Inclusive Community*
- ♦ *An Effective and Efficient Transportation Network*
- ♦ *Children Prepared to Live and Learn*
- ♦ *Healthy and Sustainable Communities*
- ♦ *Safe Streets and Secure Neighborhoods*
- ♦ *A Strong and Vibrant Economy*
- ♦ *Vital Living for All of Our Residents*

As dedicated public servants, the employees of Montgomery County Government we strive to embody in our work these essential values:

- ♦ *Collaboration*
- ♦ *Inclusiveness*
- ♦ *Knowledge*

- ♦ *Competence*
- ♦ *Innovation*
- ♦ *Respect for the Individual*

- ♦ *Fiscal Prudence*
- ♦ *Integrity*
- ♦ *Transparency*



Table of Contents

VOLUME ONE: TECHNOLOGY STRATEGIC PLAN

A Message from the CIO	I-i
County Mission Statement.....	I-ii
Executive Summary.....	I-1
Introduction	I-2
About Montgomery County, Maryland	I-2
Technology Organization & Governance	I-3
DTS Vision, Mission, Values and Principles	I-5
GOAL 1: Leverage Technology to Continually Strengthen Delivery of Public Services and Communications	I-7
GOAL 2: Select and Deploy Technology Solutions That Promote an Open, Transparent and Accountable Government	I-9
GOAL 3: Invest in Technology and Implement Policy That Protects Stakeholders’ Confidential Data and Information	I-10
GOAL 4: Deploy Technology Solutions That Improve Stakeholder Productivity	I-11
GOAL 5: Leverage IT to Create a Dynamic, Learning, Workforce	I-12
GOAL 6: Improve Agility of Technology Delivery and Utilization.....	I-13
GOAL 7: Innovate Continually for a Better Future.....	I-13
Alignment of Goals with Departmental Technology Plans	I-15
Strengths, Weaknesses, Opportunities and Threats	I-16
Goal Owners.....	I-17
Conclusion.....	I-18

VOLUME TWO: APPENDICES

Appendix 1 – Plan Development & Update Methodology.....	II-1
Appendix 2 – Accomplishments (2014-2015).....	II-3
Appendix 3 – Mapping Emerging Trends to Strategic Technology Goals	II-7
Appendix 4 – DTS Supported Technologies & Services	II-12
Appendix 5 – IT Organization & Governance Structure	II-13
Appendix 6 – Illustrative Technology Plans.....	II-14
Offices of the County Executive	II-14
Community Engagement Cluster	II-15
Office of the County Attorney.....	II-15
Board of Elections – Montgomery County, Maryland	II-16
Montgomery County Ethics Commission	II-16



Department of Finance	II-16
Department of General Services	II-17
DGS—Fleet Management.....	II-17
Office of Human Resources.....	II-18
Office of Human Rights	II-18
Office of Intergovernmental Relations.....	II-18
Department of Liquor Control.....	II-18
Office of Management and Budget.....	II-19
Office of Procurement.....	II-19
Office of Public Information	II-21
Department of Technology Services (including Office of Cable and Broadband).....	II-21
Office of Consumer Protection.....	II-22
Department of Correction and Rehabilitation	II-23
Montgomery County Fire & Rescue Service.....	II-23
Montgomery County Police Department.....	II-24
Office of the Sheriff	II-25
Department of Transportation (including Urban Districts).....	II-25
Department of Health and Human Services	II-26
Montgomery County Public Libraries.....	II-27
Department of Recreation	II-28
Community Use of Public Facilities	II-29
Department of Economic Development (soon to become an independent authority)	II-29
Department of Housing and Community Affairs.....	II-29
Department of Permitting Services.....	II-30
Department of Environmental Protection	II-30
Montgomery County Council	II-31
Board of Appeals	II-32
Office of the Inspector General.....	II-32
Office of Legislative Oversight.....	II-33
Office of Zoning and Administrative Hearings	II-33
Merit System Protection Board.....	II-34
Appendix 7 – Glossary of Acronyms.....	II-35
Appendix 8 – Acknowledgements	II-38



Executive Summary

This two-volume Technology Strategic Plan is produced by the Department of Technology Services (DTS) in collaboration with its partners and stakeholders in all three branches of Montgomery County Government. The Plan supports the vision of the County leadership to use technology to continue to be a leading digital county – ready for today and prepared for tomorrow – as we address and anticipate the needs of our socially and economically diverse constituency.

The Plan detailed herein contains multiple high-level priority initiatives in support of each of the following seven strategic goals:

- GOAL 1: Leverage Technology to Continually Strengthen Delivery of Public Services and Communications*
- GOAL 2: Select and Deploy Technology Solutions That Promote an Open, Transparent and Accountable Government*
- GOAL 3: Invest in Technology and Implement Policy That Protects Stakeholders' Confidential Data and Information*
- GOAL 4: Deploy Technology Solutions That Improve Stakeholder Productivity*
- GOAL 5: Leverage IT to Create a Dynamic, Learning, Workforce*
- GOAL 6: Improve Agility of Technology Delivery and Utilization*
- GOAL 7: Innovate Continually for a Better Future*

Volume One contains the high-level Technology Strategic Plan and the County organization and governance structure responsible for its execution. It also includes key technology initiatives in support of the seven strategic goals that cover the full range of socio-economic programs the County has implemented, or plans to implement, as a part of its smart county mission. The underlying emphasis is that partnerships with stakeholders, existing or new, within or outside of government, will be key to the Plan's success as taxpayers alone should not have to bear the cost of a bright and sustainable future. Volume Two contains the appendices including illustrative tactical plans.

Volume Two summarizes the progress made under County Executive, Isiah Leggett, Chief Administrative Officer, Timothy Firestine, and the County Council. It bridges the Plan to the momentum created by past investments in several large, forward-looking, multi-year initiatives such as Smart Growth, Technology Modernization (ERP, CAD, Radio Infrastructure, HHS Process and Technology Modernization, Integrated Justice Information Systems), openMontgomery, ultraMontgomery, and cyber security acceleration, in addition to the introduction of many new world-class services in functional areas such as public safety, public health, transportation and mobility, land use and development, and digital equity and broadband, among others. Volume Two also contains the technology tactical plans of departments and offices in all three branches of government. These plans will be of particular interest to the County's business partners and solutions providers in targeting their products and services in support of the County's Technology Strategic Plan



About Montgomery County, Maryland

Demographics

Population ~ 1M
Area ~ 500 square miles
Median Age ~ 37 years
BS Degree Education ~ 58%
Median HH Income ~ \$93,000
Foreign-Born ~32%

Government

Operating Budget ~ \$5B
Capital Budget ~ \$15B
County Executive
Chief Administrative Officer
Chief Information Officer
Chief Innovation Officer
Office of CountyStat
Countywide 311 CRM Center
County Council (9 members)
Legislative Branch
Judicial Branch

Information Technology

DTS Operating Budget ~ \$45M
DTS Capital Budget ~ \$120M
Total IT Personnel ~ 300 FTEs
2015 Large Digital Counties
Survey Rank - 2nd
2015 NACo Awards - 23
2015 PTI Awards - 6

External Agencies

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

Introduction

This Technology Strategic Plan (TSP or Plan) is developed by DTS in conjunction with its customers (See Volume Two, Appendix 1). The Plan's overall purpose is to provide a strategic framework for all technology efforts in County government and its joint technology projects with its external agencies and partners in support of Montgomery County's vision, mission and strategic goals. Future-oriented technology tactical plans, as well as information bridging to the accomplishments under the previous technology plan and its extension are included (See Volume Two, Appendix 2). The TSP takes emerging technology trends into consideration (See Volume Two, Appendix 3).

About Montgomery County, Maryland

Montgomery County, Maryland, is a large, demographically diverse urban-suburban-rural county of over one million residents occupying approximately 500-square miles in the National Capital Region, adjacent to Washington, D.C. With an annual operating budget of more than \$5 billion and a capital budget of over \$15 billion, the County invests heavily in technology to support over 350 services provided by its 30 functional departments and offices employing over 10,000 people.

The County's densely populated urban and suburban communities, as well as exurban and rural communities, are home to biotech, computer science, hospitality and military contractor companies. Almost one-third of the County's land mass is reserved for agricultural use. This area has low population density and a need for good broadband connectivity. The County has a high and middle-income population that is highly-educated, but a significant number of low income residents. The population has an overall median age that is similar to the U.S. as a whole, but the County's population is more ethnically and racially diverse.

The County is considered by its peers to be leading in many areas where it provides model, high-quality services. It has a nationally leading K-14 education system known for its innovation and workforce development programs. It is privatizing its economic development organization to



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Technology Organization

Governance

The County maintains a multi-level technology governance structure which includes participation by all three branches of government and external agencies

The County Executive recommends IT budgets to the County Council based on the CAO's support of the County's, stakeholders', the CIO's and OMB's proposals – the CAO, stakeholders and the CIO are responsible for the successful execution of funded plans

Enabling Legislation

DTS's responsibilities were established by Montgomery County Code (MCC) Sec. 2-58D

IPAC membership and responsibilities were established by MCC Sec. 2-58D(d)

maintain and grow its leadership in high-tech sectors. It is also forming partnerships with other local governments, and the State and the Federal governments. The latter has significant presence in the County. The County has a significant investment in broadband. It is planning to expand its capacity and reach regionally, and to focus on digital equity issues. The County's leaders have established government-to-government partnerships domestically and abroad for cultural and economic synergies to attract investment.

Technology Organization & Governance

The County has a centralized and decentralized IT workforce. DTS provides enterprise IT services and solutions, customer support, technology project management, and complex acquisitions and integrations (See Volume Two, Appendix 4). Larger departments have IT staff supporting departmental line-of-business operational and innovation systems.

Technology Governance

In order to effectively manage its technology investment and plans, the County maintains a multi-level technology governance structure which includes participation by all three branches of government and external agencies (See Volume Two, Appendix 5). The Office of Management and Budget (OMB) and DTS collaborate in reviewing IT budget requests submitted by the departments, scoring requests using standardized criteria and a single rating scale. Representative technology plans of the entities within all three branches of government are included for the benefit of business partners and providers (See Volume Two, Appendix 6).

IT governance in the County includes on-going technical and policy reviews. The IT Policy Advisory Committee (IPAC), is comprised of 12 department and office directors. It reviews technology staff input and recommends technology policy to the CAO. The County's Chief Information Officer (CIO) chairs IPAC and the County's Technical Operations Management Group (TOMG).



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Enabling Legislation (continued)

The ITPCC was initially established by County Council resolution in 1984, and reconstituted in 1994 by Council Resolution No. 12-1758

Performance Measures

The County publishes each department's performance data via the CountyStat program. The Chief Administrative Officer conducts an independent 360-degree customer satisfaction survey of County departments to measure customer satisfaction with DTS' process, personnel and overall performance.

TOMG is comprised of departmental IT staff or designees from each County department and office. The TOMG members identify technology-leveraged improvement opportunities in their functional areas. TOMG works jointly with DTS to plan, implement, and support technology opportunities, and with DTS and OMB to fund them.

The County Council formed the Interagency Technology Policy and Coordination Committee (ITPCC) in 1984. The following entities have been designated as ITPCC members: Montgomery County Government, Montgomery County Public Schools, Montgomery College, Maryland-National Capital Park and Planning Commission, Housing Opportunities Commission, and the Washington Suburban Sanitary Commission. The heads of member agencies comprise the ITPCC, and they appoint members of the ITPCC CIO Subcommittee. The latter develops the interagency technology work plan and designates members to workgroups. The ITPCC maintains and executes a work program of shared projects and services, based on recommendations from the CIO Subcommittee. The most successful project is deployment and operation of the County's world-class broadband communications network, FiberNet. This carrier-class network connects over 470 County agency locations and serves a vital role in almost every aspect of County government operations. Current and future service projects include cloud services, virtual networks, data centers, information security, spatial systems and IT organization-related projects.

The CAO is responsible for the successful operation of the County government. The CAO designates one or more Assistant CAOs (ACAO) for technology initiatives. All major technology programs have CAO-appointed governing boards or steering committees with chairpersons. CountyStat, the County's performance management office, reports program metrics and measurements to the CAO on a regular basis and schedules and conducts formal program reviews for the CAO. The Office of Internal Audit schedules independent audits of critical technology programs.



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Our Vision

*To Be a Digital County –
Ready for Today and
Prepared for Tomorrow*

Our Mission

*To leverage technology to
facilitate the delivery of
County government
services in a cost-effective,
timely, high-quality, and
secure manner*

Our Values

- **Responsive**
- **Collaborative**
- **Innovative**

DTS Vision, Mission, Values and Principles

RESPONSIVE. We strive to provide solutions, services and assistance to partners, customers and constituents, when and where they are needed. We adhere to the following principles to ensure our responsiveness:

- **Be Proactive.** *We plan jointly with stakeholders and monitor County activities and real world trends to anticipate and meet the demand for technological solutions and services.*

- **Be Agile.** *We apply agile methods and streamlined processes for the intake, prioritization, development, support, and completion of projects.*

- **Be Timely.** *We plan for and maintain appropriate staff, skill levels, and contractor capacity, to fulfill demand in a timely manner.*

COLLABORATIVE. We commit to working in partnership with our internal customers, external agencies, and the public and private sectors. We adhere to the following principles to ensure collaboration:

- **Be Effective Communicators.** *We provide ongoing communication and engagement to establish, and deliver on, stakeholder expectations.*

- **Be Reliable and Trustworthy.** *We earn trust by: communicating consistently, honestly and openly; treating others as we would like to be treated; exhibiting behavior that is consistent with what has been communicated; and demonstrating integrity in all aspects of our work.*

- **Be a Path to Yes.** *We partner to build on existing, collective strengths, and find solutions to individual and collective problems.*

INNOVATIVE. We commit to continually identifying and implementing innovative technology solutions to deliver value and improvement. We adhere to the following principles to foster a culture of innovation:

- **Be Intelligent Investors.** *We will make people, systems, applications, and infrastructure investments that create a benefit for future enterprise-wide uses beyond meeting immediate requirements.*

- **Be Forward Thinkers.** *We maintain a “big picture” view and foster a “win-win” mentality.*

- **Be Committed to Success.** *We strive for continuous process improvement, to promote and deliver effective technology solutions, and to encourage and acknowledge innovators and thought leaders.*



Our Mission
*To Be a Digital County
Ready for Today and Prepared for Tommorrow*

Our Values
Responsive ▪ Collaborative ▪ Innovative

Our Strategic Goals

*Responsive
Goals*

*Collaborative
Goals*

*Innovative
Goals*

- 1. Strengthen Delivery of Public Services and Communications**
- 2. Promote an Open and Responsive Government**
- 3. Protect Stakeholders' Confidential Data and Information**

- 4. Improve Stakeholder Productivity**
- 5. Create a Dynamic, Learning IT Workforce**

- 6. Improve Agility**
- 7. Innovate Continually for a Better Future**



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Goal 1: Service Delivery & Communications

Value Area: Responsiveness

Goal 1: Leverage Technology to Continually Strengthen Delivery of Public Services and Communications

Implement technology that enables County departments and offices to improve service delivery to residents and businesses

CountyStat Headline Performance Measures

- *Seconds to Serve Web App*
- *Cable Office Customer Satisfaction Ratings*

GOAL 1: Leverage Technology to Continually Strengthen Delivery of Public Services and Communications

Technology empowers the County government to efficiently and effectively deliver services to residents and businesses. As our constituents increasingly expect our services to be available on-line and via mobile devices, we will use technology to communicate with and deliver services to our constituents to enhance the individual user experience.

Strategic Priorities:

- A.** Optimize access to County services from smart phone, tablet and desktop devices
 - Continue to expand responsive design
 - Continue to pursue a “mobile first strategy”
- B.** Continue our digital business evolution by using on-line platforms to replace electronic submission of paper forms and manual entry and tracking of data submissions
 - Automate intake, processing and fulfillment
 - Cross-reference information from different database systems
 - Simplify management and processing of financial transactions with the County
- C.** Expand and improve County staff’s ability to use social media, web, and video tools
 - Provide constituents more communication channels and engagement opportunities
 - Provide easily consumable information
 - Deepen community engagement
 - Improve business communications
- D.** Expand public wifi
 - In County and County agency buildings
 - On public transit and systems, and near transit stops
 - In high pedestrian traffic areas and walkable civic centers



GOAL 1: TECHNOLOGY-ENABLED PUBLIC SERVICES AND COMMUNICATIONS DELIVERY

- E-mail, Phone, Internet
- Databases of case records
- Collaboration - Cross-Department Data Sharing
- ERP - Financial and procurement transactions

General Government



- County Websites
- Correspondence Tracking
- Social Media
- Mobile Apps
- Cable and Internet programming

Community Access



- Cloud-based Storage
- Data Centers
- COOP/DR
- Privacy
- Secure Transactions

Resiliency



- Radio Communications
- Body Cameras
- 911 and e911
- Case Record Management
- Training & Certification Record Management

Public Safety



- Traffic Signal Coordinating
- Traffic Cameras
- Ride-On Maintenance, Routing & Next Bus Alerts
- Snow Removal Mapping
- Pot Hole Reporting & Repairs

Transportation



- eHealth Records
- Mobile Clinics
- School Nurses
- Wireless Medical Devices
- Record-Sharing
- Social Services Databases

Health & Human Services



- Development Mapping
- Inspections
- Licensing
- ePermits & ePlans
- Electronic applications and payments
- Consumer Educations

Community & Housing



- Recycling
- Trash Collection
- Bulk Trash Pick-Up
- Stormwater Monitoring
- LEED-Certified Buildings
- Light & Energy-Use Sensors

Environment



- WiFi
- Online Class Registration and Park/Facility Reservations
- Online Payments
- Digital Books/Music and RFID Checkout

Libraries and Recreation



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Goal 2: Open Government

*Value Area:
Responsiveness*

Goal 2: Select and Deploy Technology Solutions That Promote an Open and Responsive Government

Use technology to enable constituents to better understand government and empower the public to better engage with government

CountyStat Headline Performance Measures

- *Open Data Sets Published*
- *MC311 Service Level Performance of DTS*

GOAL 2: Select and Deploy Technology Solutions That Promote an Open, Transparent and Accountable Government

Montgomery County is one of the leaders in transparent, accountable, open government. The County's open data program, dataMontgomery, has been nationally recognized by numerous organizations and used as a model by over 100 other local jurisdictions.

Open data responds to the public's need to know details of core government operations and the basis for decision making, *e.g.*, in financial management and budget formulation. The County is committed to continue to release new data sets, find ways to make data more consumable (*i.e.*, enable data to be viewed in multiple formats, mashed together, and easier to analyze), and work to identify more useful data, in an on-going effort to be ever more transparent and accountable.

Strategic Priorities:

- A.** Continue to expand and enhance dataMontgomery and implement the Open Data Implementation Plan in support of new open data domains
- B.** Continue to develop and implement open data applications – such as performanceMontgomery (GovStat), contractsMontgomery, budgetMontgomery, and spendingMontgomery – that facilitate stakeholders' understanding of, and input to, the County's plans
- C.** Implement applications that use secure 'open' data collaboration
- D.** Continue to engage the public and employees via on-line forums and meet-ups
- E.** Expand public and business access to data sets
 - Release more data sets
 - Make data more consumable



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Goal 3: Cybersecurity

*Value Area:
Responsiveness*

Goal 3: Invest in Technology and Implement Policy That Protects Stakeholders' Confidential Data and Information

Use security technology, training, and best practices to protect personal, confidential and sensitive data possessed by the government

CountyStat Headline Performance Measures

- *Security Vulnerabilities*
- *Information Security Awareness Training Program (ISATP) Completion Rates*

GOAL 3: Invest in Technology and Implement Policy That Protects Stakeholders' Confidential Data and Information

The County will continue to invest in technology, culture change, policy, processes, and people to strengthen the security of sensitive information and government systems.

Strategic Priorities:

- A.** Proactively manage risk and reduce system vulnerabilities through implementation and improvement of robust security policies, processes, and training
- B.** Protect sensitive data and facilitate compliance with:
 - Health Insurance Portability and Accountability Act (HIPAA)
 - Payment Card Industry-Data Security Standard/Automated Clearing House (PCI-DSS/ACH)
- C.** Improve County resiliency
 - Enhance disaster recovery services
 - Strengthen continuity of operations planning
 - Maintain cybersecurity strategic and tactical plans
 - Continuously educate elected and executive officials and stakeholders
- D.** Maintain and enhance eDiscovery and forensic capabilities
 - Improve security incident response capability
 - Streamline legal discovery
- E.** Participate in security communities of practice
 - Maintain active membership in government and industry sponsored organizations
 - Stay abreast of the evolving threat landscape and recommended actions



Goal 4: Productivity

*Value Area:
Collaboration*

Goal 4: Deploy Technology Solutions That Improve Stakeholder Productivity

Upgrade legacy systems with technologies that improve the productivity, reliability, and security of County staff operations and the ease of use of County services by County constituents

CountyStat Headline Performance Measures

- *Availability of Enterprise Applications*
- *Average Time to Complete Work Requests*

GOAL 4: Deploy Technology Solutions That Improve Stakeholder Productivity

Technology can be used to improve the productivity of the County workforce as well as the productivity of external stakeholders (*i.e.*, constituents and partners) by making government services easy and reliable to use when and where they are needed. The County will use technology to improve the productivity of our day-to-day workforce operations and the productivity of those seeking or receiving County services, by cost-effectively and securely expanding deployment of technology solutions across the enterprise.

Strategic Priorities:

- A.** Modernize processes and replace legacy solutions with automated, web-based, cloud-based, and/or open source solutions or systems as the business case warrants
 - Streamline management of constituent communications and requests
 - Enable cross-database functionality and automated compliance monitoring
 - Support big data applications and analysis
- B.** Optimize collaboration and efficient access to policies, forms, and resources
 - Improve functionality and availability of intranets
 - Provide easy-to-use, well designed, and accessible on-line applications
 - Expand availability and functionality of mobile devices, especially for field staff
- C.** Enhance Countywide collaboration, business efficiency and technology tool utilization
 - Streamline business processes
 - Improve functionality of, and continue to integrate, ERP, MC311, and inter-departmental information systems
 - Implement cloud-based workforce collaboration
- D.** Leverage the capacity of FiberNet and strengthen its business model



Goal 5: Workforce

*Value Area:
Collaboration*

Goal 5: Leverage IT to Create a Dynamic, Learning Workforce

Use technology as a training tool to ensure that the County workforce has the skill sets necessary to meet the workplace needs of today and tomorrow

CountyStat Headline Performance Measures

- *Help Desk Requests Resolved on First Call*

GOAL 5: Leverage IT to Create a Dynamic, Learning, Workforce

The County receives maximum return on its technology investment and tools when its workforce has the skills and training to leverage technology to serve stakeholders better.

Also, the County must be competitive to grow and attract an IT workforce that has the skill sets necessary to support current and next-generation technology solutions, as well as the ability to innovate to execute the mission with limited resources.

Strategic Priorities:

- A.** Ensure that all County employees have access to the current generation of tools and technology training, and expand access to effective mentorship
- B.** Recruit, train, and retain an IT workforce that has advanced skills to support today's complex:
 - Technical infrastructures and implementations
 - Social media environments
 - Productivity enhancement tools and techniques
 - Project and program management
 - Security and privacy requirements
- C.** Foster a culture of "yes" and delivery of high quality customer service at all levels
- D.** Pilot rotation of decentralized IT staff through DTS and vice versa



Goal 6: Agility

**Value Area:
Innovation**

Goal 6: Improve Agility of Technology Delivery and Utilization

Use technology and best practices to improve the efficiency of County operations, and technology procurement, implementation, and operation

CountyStat Headline Performance Measures

- *Enterprise Service Bus (ESB) Data Transfers*
- *Percentage of Internal Audits Implemented*

GOAL 6: Improve Agility of Technology Delivery and Utilization

The County's goal is to improve the speed with which technology solutions can be implemented within the County by improving the process to plan, acquire, and integrate technology solutions and processes. Technology changes rapidly and with delays there is risk of lost opportunity, obsolescence, and stakeholder frustration and disengagement.

Strategic Priorities:

- A.** Use agile solutions development and integration methodologies and practices
 - Select well-integrated or interoperable solutions compatible with the County's enterprise architecture
 - Streamline use of open source, open access, and off-the-shelf solutions where applicable and advantageous
 - Evaluate new technologies (*e.g.*, cloud-hosted solutions) for enterprise deployment
 - Proactively address the ability to adapt business processes to suit specific solutions
- B.** Support a streamlined and effective technology procurement process
- C.** Maintain IT staffing resource contracts to rapidly procure and deploy people with skill sets not existing or not readily available in-house
- D.** Be proactive in identifying the needs of functional departments, especially small departments that do not have dedicated IT staff



Goal 7: Innovation

**Value Area:
Innovation**

Goal 7: Innovate Continually for a Better Future

Use technology to introduce and implement smart government programs that enhance the quality of life and reduce government cost

CountyStat Headline Performance Measures

- *Transmission Facilities (Radio, Wireless Telephone and Mobile Broadband Towers and Antennas) Applications Processing Time*

GOAL 7: Innovate Continually for a Better Future

The County's goal is to leverage technology to: support innovation in the operation of the County and delivery of services and communications to the public; support next-generation SMART (Specific, Measureable, Attainable, Relevant and Timely) connected community initiatives; and, grow the gigabit economy and broadband-dependent science, technology and finance sectors in the County. The County must continue to expand access to broadband and digital literacy training so that all residents can participate in the digital economy and enjoy the benefits of using technology to improve their daily lives.

Strategic Priorities:

- A.** Promote Internet of Things and SMART community initiatives
 - Support Thingstutute testbeds and initiatives
 - Leverage technology planning to support Internet of Things in County infrastructure projects
 - Support big data initiatives and strategies
- B.** Grow knowledge-based employers and careers within the County
 - Expand commercial and non-profit broadband network deployment and capacity
 - Develop innovative approaches to promoting technology-related economic development
 - Expand public-private-educational collaboration
- C.** Enable the public to use technology to improve their daily lives
 - Expand digital inclusion programs
 - Leverage FiberNet-connected and wifi-enabled libraries and community-use facilities as digital inclusion training sites
- D.** Make Montgomery County a Gigabit Community
 - Promote the County's gigabit assets
 - Support Gigabit incubators
 - Seek partnerships



Alignment of Goals with Departmental Technology Plans

By Cluster	Goal 1 Services	Goal 2 Open Gov.	Goal 3 Cybersecurity	Goal 4 Productivity	Goal 5 Workforce	Goal 6 Agility	Goal 7 Innovation
CEX	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
CEC	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
OCA		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
BOE	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
MCEC	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
FIN	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
DGS	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
DGS-FM	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
OHR	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
HR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
OIR	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
DLC	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
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PRO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
PIO	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
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DOCR	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
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MCPD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SHF	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
MCDOT	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
DHHS	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
MCPL	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
REC	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
CUPF	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
DHCA			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
DPS	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
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CC	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	
BoA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			
OIG	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
OLO	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			
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JUD	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>



Strength, Weaknesses, Opportunities and Threats (SWOT) Analysis

A SWOT Analysis can guide future governance strategies

Strengths, Weaknesses, Opportunities and Threats

Strengths	Weaknesses
<ul style="list-style-type: none"> • Well Defined Enterprise Architecture • Standardized Enterprise Service Offerings Widely Used by the Business • Enterprise Thinking with Rollout of Key Enterprise Projects – <ul style="list-style-type: none"> • ERP • MC311 • MCTime • IJIS • Key Governance • Enterprise Project Steering Committees • CIO and IT Review • TOMG and IPAC • Strong Technical Architecture • Strong Private Cloud Offering 	<ul style="list-style-type: none"> • Business Architecture <ul style="list-style-type: none"> • Early connection with project requirements • Data Architecture and ownership • Disaster Recovery/COOP • Distributed IT Governance • Audit Processes • CIP budget to Operating Budget transition strategy
Opportunities	Threats
<ul style="list-style-type: none"> • New Enterprise projects offer opportunities to strengthen enterprise business processes • PSSM and DLC Warehouse projects can widen Enterprise-think • ERP Data Warehouse and BI initiatives offer better view into the ERP covered domains 	<ul style="list-style-type: none"> • Business process change not matching the new systems resulting in inefficiencies • New distributed systems are more difficult to secure resulting in potential vulnerabilities • Bring Your Own Device (BYOD) and mobile device proliferation offer data protection challenges • Unstructured data from video requires significantly more storage and special handling for discovery • Inputs from sensors requires investment in the next generation of systems



Ownership of Strategic Goals

The strategic goals and priorities in this Technology Strategic Plan require executive level sponsorship and response to achieve organizational, legislative, and process changes

Goal Owners

Rapid business change driven by technology raises governance issues that require a correspondingly rapid response from the enterprise. The strategic goals and priorities in this Technology Strategic Plan require executive level sponsorship and response to achieve organizational, legislative, and process changes. Maintaining this strong leadership will allow the County to continue to reap returns on its current and future technology investments.

The table below recommends who should take ownership of each goal. The ACAO for technology will leverage CountyStat and the Innovation Office as resources that can help identify opportunities in any and all of the Goals. “Department/Office Directors” includes Directors of Executive, Legislative and Judicial Branch Departments and Offices.

Goal	Owner(s)
Goal 1 – Leverage Technology to Continually Strengthen Citizen Services Delivery	Individual Department/Office Directors
Goal 2 – Select and Deploy Technology Solutions That Promote an Open, Transparent and Accountable Government	ACAO, Individual Department/Office Directors
Goal 3 – Invest in Technology and Implement Policy That Protects Stakeholders’ Confidential Data and Information	CIO, IPAC Members
Goal 4 – Deploy Technology Solutions That Improve Stakeholder Productivity	CIO, Individual Department/Office Directors
Goal 5 – Leverage IT to Create a Dynamic, Learning Workforce	Human Resources Director, ACAO, CIO
Goal 6 – Improve Agility of Technology Delivery	CIO, Procurement Director
Goal 7 – Innovate Continually for a Better Future	CIO, Chief Innovation Officer



Conclusion

Achievement of the County's strategic technology goals will enable the County to meet its vision of being a digital county, ready for today and tomorrow

The success of this Technology Strategic Plan requires budget availability, reinvestment of savings into new technology, interagency and multi-sector partnerships, and continued leadership of senior management and elected officials

Conclusion

Montgomery County Government plans to further leverage technology to improve its internal services as well as the delivery of services to constituents and the public at large. In order to achieve this, the County will invest in its workforce, systems of record, and systems of innovation to meet the requirements of a digital government, address economic and demographic changes, and to help create a digital community of the future.

Subject to budget availability, the County will implement the initiatives outlined in this plan. In other cases, the Department of Technology Services will work with the departments, office, agencies, the Office of Management and Budget, the Office of Procurement, the Office of the County Executive, and the offices of the County Council to identify alternate funding strategies. These strategies could include technology reinvestment through savings realized from the retirement of older computing assets, competitive procurement, use of newer lower-cost solutions (*e.g.*, subscriptions to cloud-based solutions), grant funding, and public-private-partnerships to achieve these objectives.

The County also plans to benefit from interagency sharing of technology assets such as, joint application development, data center co-location, and joint investment in the replacement of high-cost third-party services with cooperative-shared services (*e.g.*, through expanded use of FiberNet).

Finally, the County plans to utilize technology to sustain and grow: its vibrant economy, businesses and job markets; a culture of well-informed and engaged citizenry; and its innovation industries. In order to achieve this, the County will leverage: the leadership provided by its elected officials and senior management; investment in broadband technologies, computing solutions, workforce development, facilities, transportation infrastructure, and interagency partnerships (*e.g.*, with the schools and college systems); and gains in digital equity among its diverse population.

