

Arlington County Digital Strategy 2020



Introduction

I am pleased to present for your review the Arlington County Digital Strategy for Technology Services for 2020 and beyond.

We aim to provide guidance or a “north star” where technology is appropriately applied to realize the Arlington’s goal of becoming a world-class community. We are pivoting from a reliance on physical infrastructure and a proximity to the federal government to one that recognizes the value of talent as the distinguishing factor for its economic development.

Setting the Stage:

Arlington County’s first digital strategy was published in 2001. The following document is the 5th revision and iteration, representing strategies for the implementation of digital services. Each strategy document has defined a path forward for the County’s Department of Technology Services (DTS) within a span of 3-5 years, seeking to inform County management, the County Board, and the Arlington community on the priorities and focus of technology in the County. Much has changed since 2001 when we were still six years from the introduction of the first iPhone. The rate at which technological change continues to accelerate suggests that what technology can do for our citizens and workforce 5 years from now will be more likely to reflect the transformation of the past 20 years than between 2015 and today.

The 2001 strategy centered on providing access to government “anytime, anywhere, with no wrong door.” Subsequent strategies have sought to build a solid foundation and connect real government services to provide outcomes envisioned in 2001. The County has invested to:

- Modernize the County’s back office business systems;
- Provide business continuity and resiliency with a secondary network operations datacenter and adoption of cloud services;
- Build a County-owned fiber optic network to replace those provisioned through a cable franchise agreement; and
- Develop and implement a suite of mobile applications for emergency management, parking payment, and reporting of service needs.

While working to provide County staff and citizens with current technology, we have maintained a focus on improving the foundation for critical public safety systems, County records, and securing critical infrastructure and systems.

In the 4th Digital Strategy for 2015-2020, the County’s technological maturity began to enable a wholesale change in the delivery of government services. Now five years later, technology is an essential component of every service and function performed by the County government. It is no longer an accessory, but mission critical. At this same time, it became clear that DTS could no longer be the sole driver of technology innovation, rather a strong partnership was necessary between enterprise technology support and each business unit. Therefore, the Digital Strategy evolved to suggest desired business outcomes and not to prescribe specific technology solutions. We proposed definitions of those outcomes that would best serve the community. The past four years experiences have shown the technological compass of the 4th Digital Strategy to be true.

Arlington County has been recognized by the National Association of Counties (NACO) as a top ranked Digital County over the last five years, validating our direction. In this span, Arlington was named the number one Digital County in the nation for three straight years.

The completion of ConnectArlington, the emphasis on the future of health care through Destination 2027, the strategic discussions on the future of Public Safety, and the arrival of new corporate partners have all made Arlington’s future very bright. [Brookings noted in October, 2019](#) that talent-driven economic development far surpasses any other driver of economic development. In the coming years, Amazon and the associated ecosystem of innovators living and working in Arlington will look for an engaged community and administration who can clearly speak to values, responsible public-private partnership, and the “Arlington Way.”

Arlington Named the Number One Digital County by NACO for 3 of past 5 years

Going forward:

Digital Strategy 2020 will serve to push deeper into the details and provide clearer markers of what we feel will continue to shape the County. The exponential growth in data and connectivity, along with our community’s appetite for what’s possible will continue to push us forward. To better understand the community’s specific needs, DTS conducted a series of visioning exercises over the past two years. The series branded as ‘Defining Arlington’s Digital Destiny’ sought to predict the impact of digital need, not in the five years as was the horizon of previous strategies, but much longer – 15 to 20 years.

Our community visioning series captured important feedback about mobility, learning, health, security & privacy, energy and work.

We held sessions on the topics of mobility, learning, health, security/privacy, energy and work. Many of the specific and foundational objectives discussed in this document first surfaced during these engagements. This 5th iteration of the Arlington County Digital Strategy identifies specific

foundational investments of time, effort, priority, and budget that must be considered for the County to evolve its capability to satisfy future needs.

Our approach will be to first reiterate a vision for the application of technology, representing what might be. Next, we will work to connect the vision to four mission-driven core areas. Finally, a tactical plan will serve to identify specific objectives and key results whose attainment will represent County progress in the core areas. In the end, we believe this focus will continue to advance Arlington County's talent-driven economy.

Sincere Regards:

A handwritten signature in black ink, appearing to read "Jack Belcher". The signature is fluid and cursive, with the first name "Jack" being more prominent than the last name "Belcher".

Jack Belcher

Chief Information Officer

The Vision and Values Guiding Arlington County's Digital Strategy 2020

Vision Statement - A community that enhances the lives of everyone who lives, works, or visits.

To realize this vision, the County will leverage innovation through digital services that will focus resources on community goals, quality of life for everyone who lives, works, or visits, and the competitiveness of its economy in a sustainable manner. Our goal is to continuously seek new and innovative ways to grow the County's technology and knowledge assets and leverage them to improve its citizen-centric services.

The exponential growth in technology and our desire to seize the opportunities available to Arlington today present an unprecedented time for transformation. Historically, Arlington benefited from a large federal presence that provided economic stability. As new, innovative enterprises move to Arlington, there are emerging opportunities to shape our future. The attraction is the educated and talented workforce that Arlington enjoys.

To steward this change and realize the community's goals, the County will look at all aspects of the digital ecosystems and how they are connected. Comprehensive planning and strategic management efforts like the General Land Use Master Plan have proven to be essential elements in defining Arlington's path. A similar discipline will need to be applied to emerging digital innovations. Intentional investments in digital solutions are fundamental to realizing this transformation.

Disruptive change will be required. Anyone who has been a part of an effort to move from paper to electronic processes understands that transformation is not a light lift. Understanding, engagement, buy-in, and patience by leaders in the community and administration will be a key driver of the degree to which this strategy is successfully implemented.

To start, all investments will first be aligned with the values of the community, specifically the following four mission-driven core areas of work.

The success of these missions requires an intentional investment of our limited resources, clear statements of the desired outcomes, and identification of specific actions and initiatives to achieve those desired outcomes. As we realize the benefits of a digital strategy and achieve the goals of an “intelligent” community, we continue to align our technology efforts with the service needs and outcomes of the County departments who provide for everyone who lives, works, or visits.

With the Digital Strategy, we have created a framework for the digitalization of County services. In a not-so-distant future, there will not be a need to visit a County building and wait in line to apply for and receive a permit to build a deck on a property. The plan is not about technology for technology’s sake; it proposes technology solutions to make it easier and faster to deliver services to everyone regardless of their proficiency in technology. In the spirit of transparency, we intend to provide for progress updates during each year’s budget process. To contribute to realizing Arlington’s Digital Strategy, we describe a tactical action plan to drive balanced progress across enterprise, departmental, public, and mixed-use technology initiatives.

Digital Strategy 2020: The Tactical Plan

This plan recommends the necessary foundational investments that must be made to realize the core areas. Each objective was identified with the goal of achieving resiliency and excellence in operational delivery with the aspiration of transformation and innovation.

While traditionally dated for five years, given the exponential advances in technology, we must continue to evolve the plan to accommodate new developments and opportunities. Therefore, the plan categories these proposed investments into three categories:

Run

- The mandate to **RUN** the County's technology ecosystem will sustain, refresh, and secure the County's current capabilities.

Grow

- The mandate to **GROW** the County's technology ecosystem will improve, add, and expand the County's capabilities.

Transform

- This category will focus on the innovation and application of technology to **TRANSFORM** previous ways of doing business when incremental change may not be enough.

Investments will be formatted as OBJECTIVES which may have specific measures associated with them to determine progress in the satisfaction of the objective, which we have described as KEY RESULTS.

It is anticipated that these objectives and key results will evolve as new requirements arise and technology advancements necessitate, described by Gartner's 'Continuous Next,' as a persistent need to reconsider strategy based upon advances in technology.

What we must do well (Objectives)	The result of what we do (Key Results)	Investments for:
<p>RUN—Continuously Improve What We Have</p>  <p>Sustain, Refresh, and Secure the County’s Current Capabilities</p>		
<p>RUN-1) – Provide Guidance and Review of all Technology Initiatives</p>	<p>RUN-1.1) – Adopt Adaptive Technology Governance (reframe to be a result: Adaptive Technology Governance Implemented)</p> <p>RUN-1.2) – Leverage Mobility Strategies to Expand Workforce Capabilities (reframe: Expanded Workforce Capabilities through Mobility Strategies)</p> <p>RUN-1.3) – Apply Technology to Effect Improved Workforce Automation (reframe: Improved Workforce Automation)</p> <p>RUN-1.4) – Establish a Technology Leadership Investment Board (reframe: Strong Technology Leadership Investment Board)</p>	<p>Enterprise</p>
<p>RUN-2) – Reduce Costs, Streamline Service Provisioning, and Ensure Security and Privacy to County’s Electronic Infrastructure</p>	<p>RUN-2.1) – Modernization of the County’s Internal Network Infrastructure</p> <p>RUN-2.2) – Modernize the Server Hosting and Computation Capabilities through Adoption of Cloud Smart Strategy</p> <p>RUN-2.3) – Harden and Expand Cyber Security Defenses and Awareness</p> <p>RUN-2.4) – Migrate File Storage from Network to Cloud Where Appropriate</p> <p>RUN-2.5) – Modernize Core Voice and Messaging Systems</p> <p>RUN-2.6) – Implement a Comprehensive IT Asset Management System</p>	<p>Enterprise</p>
<p>RUN-3) – Provide for Transparency, Accountability, and Access</p>	<p>RUN-3.1) – Develop an Enterprise Data Management Program</p> <p>RUN-3.2) – Grow Workforce Expertise in Data Mining</p> <p>RUN-3.3) – Demonstrate Data Analytics in Support of Decision Making</p>	<p>Enterprise</p>

What we must do well (Objectives)	The result of what we do (Key Results)	Investments for:
GROW—Add What We Need  Add and Expand the County’s Capabilities		
GROW-1) - Retire ‘Technology Debt’ through the refreshment of its Back of the Office Financial Systems	GROW-1.1) - Modernization of the Revenue system GROW-1.2) - Implementation and Continuous Enhancement of Enterprise Payment Portal GROW-1.3) - Modernization of Enterprise Resource Planning (ERP) system	Enterprise
GROW-2) – Modernize the Core Back of the Office Business Systems	GROW-2.1) - Modernization of the County Permitting Systems GROW-2.2) - Refresh the core Land Records System GROW-2.3) - Upgrade the Real Estate and Assessment System	Enterprise
GROW-3) - Upgrade the core Public Safety Technology systems		Enterprise
GROW-4) - Refresh the core Health and Human Services Systems		Enterprise
GROW-5) - Modernize the Courts Technology	GROW-3.1) - Provide for Visualization Technologies GROW-3.2) - Complete technology refreshment of all Court Rooms GROW-3.3) - Upgraded WiFi Capacity GROW-3.4) - Implement electronic workflow for Attorneys GROW-3.5) - Provide technology support for the CWA	Enterprise
GROW-6) - Provide for integration and Predictable Refreshment Cycles	GROW-6.1) - Implement an Integration Platform GROW-6.2) - Scheduled refreshment as recommended by Software Provider	Enterprise

What we must do well (Objectives)	The result of what we do (Key Results)	Investments for:
GROW-7) –Leverage Infrastructure (ConnectArlington), Right of Way Fiber, Municipal IoT as a Platform for Public Good	GROW-7.1) - Promote Digital Equity GROW-7.2) - Promote Telehealth GROW-7.3) - Establish ConnectArlington as a platform for Higher Ed & Research GROW-7.4) - Create a Municipal IoT Network to support sensing technologies	Enterprise
GROW-8) - Establish shared understanding and vision for Smart Community Implementation	GROW-8.1) - Develop an element of the Comprehensive Plan of Digital Services GROW-8.2) – Develop a shared understanding among all shareholders of a vision of a Smart Community GROW-8.3) - Develop a governance model to provide for intentional investments across all shareholder interests	Enterprise
GROW-9) - Integrate Future Technology Opportunities	GROW-9.1) - Establish a process to evaluate, test and introduce new technologies GROW-9.2) - Establish metrics to evaluate value of new technologies	Enterprise
TRANSFORM—Innovate for Change  Focus on the Innovation and Application of New Technologies		
TRANSFORM-1) - Technology governance is provided through an enterprise lens to ensuring there is not duplication, that inter-departmental collaboration and consistency in action.	TRANSFORM-1.1) - Coordinated Annual Technology Budget Submissions TRANSFORM-1.2) - Coordinated Bi-Annual Technology CIP Submissions	Enterprise

What we must do well (Objectives)	The result of what we do (Key Results)	Investments for:
TRANSFORM-2) - Technology investments are intentionally made to align with the strategies and priorities of the County.	TRANSFORM-2.1) - Stated Alignment of Technology Initiatives to Objectives stated in Technology Master Plan TRANSFORM-2.2) - Annual Statement of planned technology investments	Enterprise
TRANSFORM-3) - All investments will be defined by desired outcomes and metrics to determine achievement.	TRANSFORM-3.1) - Statement of objectives and qualitative metrics prior to initiation technology initiatives	Enterprise
TRANSFORM-4) - Decisions are increasingly data driven.	TRANSFORM-4.1) - Adoption of Data Analyst Classification TRANSFORM-4.2) - Creation of Project Dashboards informed by Data Analysis	Enterprise
TRANSFORM-5) - Maintain the health of County Enterprise systems, including risk and predictable expenditure.	TRANSFORM-5.1) - Annual secured funding of hardware and software maintenance TRANSFORM-5.2) - Annual secured funding of application renewals TRANSFORM-5.3) - Annual secured funding of hardware and software maintenance TRANSFORM-5.4) - Annual secured funding of application replacements and renewal	Enterprise
TRANSFORM-6) - Ensure integrity of County systems by continuous end user training and testing.	TRANSFORM-6.1) - Annual certification of cyber security training TRANSFORM-6.2) - First time testing certificate award improvement TRANSFORM-6.3) - Reduction in staff failure rate	Enterprise

What we must do well (Objectives)	The result of what we do (Key Results)	Investments for:
TRANSFORM-7) - The County workforce is aligned with productivity enhancing technologies and enabled by the automation of routine tasks.	<p>TRANSFORM-7.1) - Development of technology workforce development plan</p> <p>TRANSFORM-7.2) - Alignment of vacancy fulfillments with technology workforce development plan recommendations</p> <p>TRANSFORM-7.3) - Annual Report identifying the state of new technologies adoption</p> <p>TRANSFORM-7.4) - Establishment of a Technology / Innovation Impact section in all Board Reports</p> <p>TRANSFORM-7.5) - Annual Survey and Report on the County Workforce utilization of workplace technologies</p>	Enterprise
TRANSFORM-8) - Technology assets are centrally assigned according to business need, managed by the enterprise to ensure security, and managed by the business to validate effective use.	<p>TRANSFORM-8.1) - Universal Adoption of Virtual Machine Technologies</p> <p>TRANSFORM-8.2) - Reduction of variance in systems</p> <p>TRANSFORM-8.3) - Definition of Workforce Classifications and necessary end user technologies</p> <p>TRANSFORM-8.4) - Periodic review and adjustment as required of end user technologies</p>	Enterprise
TRANSFORM-9) - County technology is available anywhere, anytime.	<p>TRANSFORM-9.1) - Advertise Schedule of Application Migrations based on five-year plan</p> <p>TRANSFORM-9.2) - Annual Report included in Budget submission of actual expenditures and projected costs</p>	Enterprise
TRANSFORM-10) - Expedite service delivery and improved citizen engagement by centralizing key pieces of citizen data.	<p>TRANSFORM-10.1) – Adopt Plan for Customer Relationship Management system</p> <p>TRANSFORM-10.2) – Advertise Schedule of Call Center Integrations</p> <p>TRANSFORM-10.3) - Annual Report on Call Volume and First Call Resolution</p>	Enterprise

What we must do well (Objectives)	The result of what we do (Key Results)	Investments for:
TRANSFORM-11) - All investments are considered from a lens of citizen equity.	TRANSFORM-11.1) - Creation of ConnectArlington Master Plan TRANSFORM-11.2) - Align ConnectArlington expansion and enhancements to recommendations of the ConnectArlington Master Plan	Enterprise
TRANSFORM-12) - Official County records and data are created, retained, and retired in a consistent, organized fashion to be promptly accessible when needed.	TRANSFORM-12.1) - Establishment of record creation procedures TRANSFORM-12.2) - Comprehensive training of staff in procedures TRANSFORM-12.3) - Advertised scheduled retirement of Associated Network Drive Storage	Enterprise
TRANSFORM-13) - Reduce system risk across technology		Enterprise
TRANSFORM-14) - Reduce specific risk across users		Enterprise
TRANSFORM-15) - Reduce or eliminate abandoned user accounts		Enterprise