City of Allen

Information Technology Strategic Plan Refresh 2016-2019

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Section 1: Executive Summary

1.1 Introduction

The City of Allen's technology abilities have grown dramatically over the last several years. The City has effectively managed the deployment of long-term projects, as defined in the previous IT strategic plan, as well as kept pace with the increasing user needs. In order to maintain the strategic momentum towards improved digital government services, the City, IT has re-engaged with Sciens Consulting Services to update the IT Strategic Plan.

1.2 Project Background

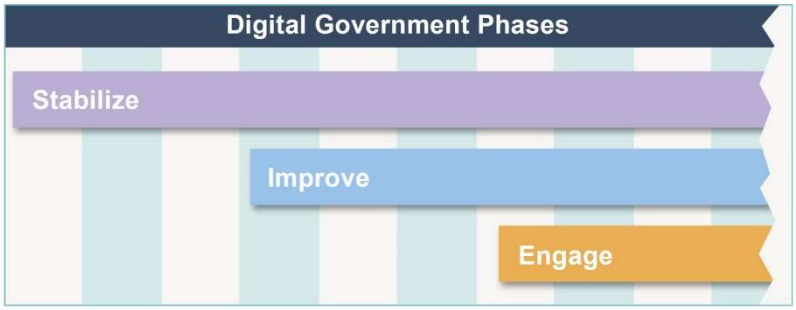
The City of Allen's technology requirements have grown dramatically over the last decade, especially as the IT Department implemented the IT Strategic Plan developed in 2006. To name a few of achievements from that Plan, the City has built out a new data center, refurbished an existing one; improved the depth and reach of the City's network, using both fiber and microwave; and, selected best-in-class Public Safety systems to manage Public Safety operations.

These changes to technology have brought new ideas about serving the community and new approaches through the use of state-of-the-art technologies. However, they have also placed and continue to place significant demands on the limited technology support resources that are responsible for implementing and maintaining them.

Having completed the infrastructure improvements in the initial plan, the City called upon Sciens Consulting Services to review their technical environment and provide a new 5-Year Information Technology Strategic Plan.

Having successfully implemented their second 5-year Information Technology Strategic Plan, the City reached out to Sciens Consulting for a short, 3-year Strategic Plan Refresh that would provide insight into infrastructure modernization, continued disaster recovery improvement, and enhancements in end user support.

1.3 Digital Government Phases



Realizing the promises of a local digital government can be captured in the three phases described below.

- **Phase 1 – Stabilize**

  Much like constructing a building, the move to digital government requires constructing a stable, solid foundation. A standardized and simplified network, a hardened and well-maintained data center, and comprehensive disaster recovery processes must be in place to make a City's infrastructure capable of supporting the transaction volume, storage and security requirements, and stress placed on it. The focus of this phase is physical locations, structures, wires and switches, security provisions, and backup and disaster recovery capabilities.

- **Phase 2 – Improve**

  With a stable infrastructure in place, our attention turns to the applications or enterprise software systems that support the day-to-day operations of the organization. These applications must be robust enough to handle the organization's transaction volumes, and integrated to minimize data re-entry between component systems. In addition, these applications should have a flexible, real-time reporting capability that allows for dashboard or portal views into information needed by managers to make time-sensitive decisions.

- **Phase 3 – Engage**

  With a stable infrastructure and backend applications in place, the focus then turns to extending the local government applications through online and mobility systems. Once the applications are implemented in Phase 2, it's time to train user staff, untethering them from desktops and enabling field transactions in real-time. Residents and businesses will also need to be notified that Web-based services are available on a 24x7x365 basis. Self-service capability for citizens and staff reduces demand on the City and improves delivery of service.

Although presented as three distinct phases, some organizations blur the lines, pursuing multiple phases simultaneously. This approach can spell disaster by costing more money, delaying the deployment, and causing disruption to government operations. Creating a digital government requires each phase to be well-established and maintained before launching the next phase because each phase serves as the basis for the next phase.

For example, applications require a fast, reliable network. Web services running on legacy applications will run slowly and frustrate the citizens instead of exciting them about the local

government's new capabilities.

Each phase brings its own set of risks. Most local governments have limited resources for creating a digital government environment, and they want to minimize the disruption to municipal operations. For these organizations, a coherent strategy must be designed and pursued.

Varying views have emerged regarding the goals of digital government. Some believe that technology is a principle means for fundamentally reshaping government and democracy. Others focus more on short-term opportunities of simply enhancing the services delivered to citizens (G2C), facilitating enhanced interactions between government and businesses (G2B), as well as enhancing government operations (G2G).

Overall, most strategists believe that digital government helps to engage and inform the community by creating a more responsive, efficient and accountable government. Greater government accountability pressures the operating departments to deliver higher quality services on par with accepted business practices. To make this possible, goals such as more responsive, efficient and accountable government must be supported by City Council and City Management strategy and policy, and by the systems deployed and supported by the IT Department.

In the end, the primary goals for digital government are to satisfy customer service expectations, and increase the efficiency and effectiveness of government operations. Additionally, digital government is expected to provide access to information and transactions online, increase community participation in government, and demonstrate full disclosure and trustworthiness.

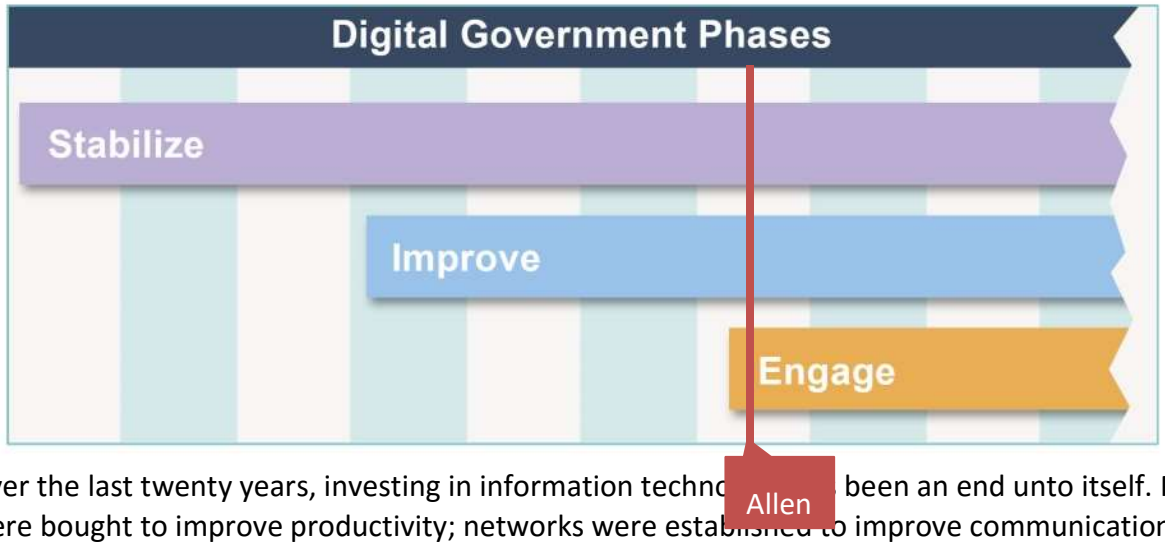
The information below focused on how digital government is driving the evolution of IT, leveraging the most modern technology architectures available.

1.4 City's Digital Government Strategy

In the first IT Strategic Plan, the City established a solid network infrastructure and data center, keys to the first phase of digital government implementation, Stabilization. In the second IT Strategic Plan, the City focused on (a) providing integrated, core applications that are key to the second phase of digital government, Improvement Phase, (b) maintaining of its investments in the first phase, and (c) upgrading the City's performance management systems that are key to the third phase of digital government, Engagement Phase. In this update, the City will focus on continuing to modernize the technology infrastructure (i.e. operating systems, end user

equipment, email, mobility).

1.5 Role of IT in Digital Government



Over the last twenty years, investing in information techno been an end unto itself. PCs were bought to improve productivity; networks were established to improve communications. Yet there was no larger goal in mind. With the advent of digital government, the purpose of technology investment and the role of IT are changing.

The IT Department has traditionally been seen as a support function. To effectively undergo the transformation to digital government, IT must be seen more as an equal partner to the functional, citizen-facing departments. The quality of service provided by the City to the citizenry is dependent upon this recasting of the Department. Technology is integral to the function of every department's business processes. IT must continue to provide support for core business functions while providing leadership and facilitation of core cross-departmental and City information management and technology functions.

The digital government transformation emphasizes information management over information technology, helping to ensure that technology investment decisions are supported by clearly defined business requirements. Technology must allow departments to better integrate their information to meet the City's strategic direction and better serve the community. It must enable collaborative planning and coordination of initiatives, resources and investments to meet the City's goals and objectives. If it does not, the technology investment is hard to justify.

The IT Department must undergo fundamental restructuring to meet the challenges presented by digital government. IT must adjust how it performs its work and how it interacts with and services other departments. To date, municipal IT infrastructure has primarily supported City staff. As its scope broadens to include the citizenry, demands for availability, reliability, privacy

and security will significantly increase IT service requirements. These include: monitoring service levels, calls for service, problems identified, networks, systems and interfaces.

It is IT's responsibility to manage the risks associated with implementing digital government. Effective implementation of digital government requires a centralized coordination of all departments' activities, including operational, financial, security and privacy related risks. To provide these support services while maintaining data integrity, security and privacy, key elements of the Information Technology function must be centrally managed.

Minimally, these include:

- Telephone network
- Data network, both wired and wireless
- Firewalls, routers and switches
- Interfaces between the Internet and City systems
- Electronic transaction infrastructure

1.6 Mission of the IT Department

The IT Department is the City's principle instrument for achieving its strategic information technology vision and goals. IT Department must be structured and staffed to provide applications and network infrastructure and ensure data integrity for the City.

The mission of the IT Department is provided below.

Mission of the IT Department
To provide technology consultation, services and infrastructure to enhance the quality and efficiency of services being provided to the community by the City's Departments.

1.7 Planning Process

The first phase of the project was the performance of an assessment with the customer departments and IT Department. Tactical and strategic findings and conclusions from that phase were reported to the City with prioritized recommendations.

The key initiatives from this phase are included in this Plan. Specifically, these goals center on moving the City through the City Services phase of Digital Government. They include a focus on applications, process integration and streamlining, and customer support. Effective process

integration and streamlining will minimize rework, information re-entry, and duplicative data/errors, which lead to overall organizational effectiveness and efficiency. These goals and initiatives are described later in this section.

1.8 Plan Components

The Plan is organized to show the relationship between the core IT strategies, goals and specific initiatives that will accomplish each strategy. The table below shows the relationship between goals and initiatives, serving as the foundation for this Strategic Plan.

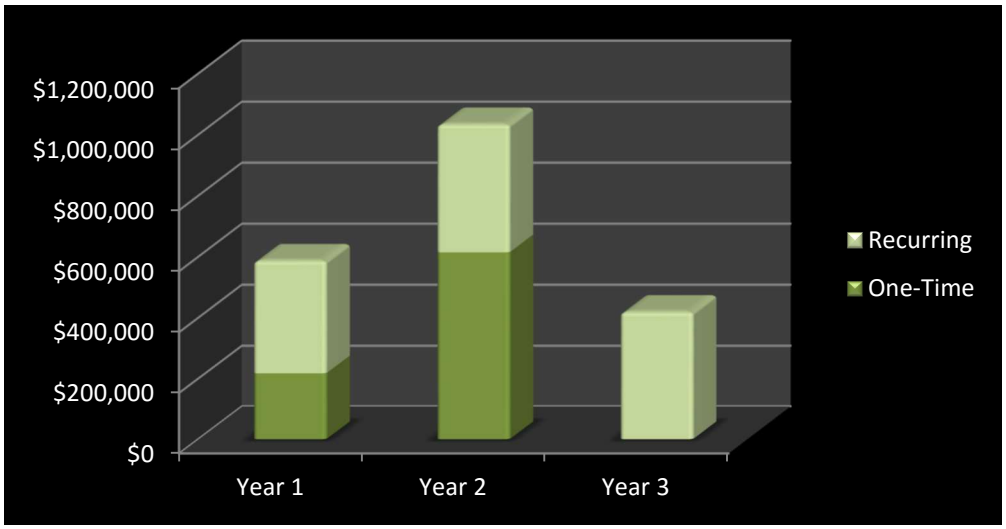
Goal	Initiative	Description
Continue to Modernize the Technology Infrastructure	Upgrade the City's Microsoft Enterprise Agreement	Expand the City's Microsoft Enterprise Agreement to include an Enterprise Cloud Suite environment that provides Office 365 and Exchange features. The price listed is the total cost of the EA including upgrades.
	Improve the City's Mobility Technology Capabilities	Deploy Avaya Phone application on smartphones to improve the City's Telecommunication Operations.
		Expand the use of Airwatch MDM to manage smartphones.
		With the expansion of AirWatch's capabilities, IT will work with City Management to develop a City-wide Bring-Your-Own-Device (BYOD) policy that covers data security and remote device "wiping".
	Improve Network resilience by implement a secondary Point-of-Presence	To improve the City's disaster recovery capabilities, IT will work with Grande Communications to implement a secondary Point-of-Presence (PoP) at the Allen Event Center. This secondary PoP will improve network resilience and reduce network risk.
	Update the City's LAN/WAN network	Link Updates to improve the City's network connectivity and disaster recovery capabilities,

Goal	Initiative	Description
		IT will upgrade the microwave link sites at the following locations: Rowlett, Custer, Prestige, Malone Water Tower, Fire Station 2, Fire Station 3, Fire Station 4, Fire Station 5, Water Creek Golf Course, & Stacy Road. The upgrade microwave links will enable improved network connectivity at host sites.
	Modernize the City's aging Infrastructure	To modernize the City's Traffic Signal Network, IT will need to replace a total of 60 signal switches located around the City.
	Improve the City Staff's Computing Environment	Initiate a pilot test program of Windows 10 to validate utilization of the operating system within the City's technical and business environments.
		After validation that applications will operate on Windows 10, Install new workstations using Windows 10 and transition to a full Windows 10 environment as leased workstations expire.
	Facilitate the replacement of the City's Parks and Recreation Software	IT will assist the Parks and Recreation Department in the transition from CLASS to ActiveNet. IT will be providing support; not purchasing the software.
	Implement a stop-gap Preventative Maintenance System	IT will lead the City in selection and implementation of an enterprise-wide Preventative Maintenance Management (PMMS) System. The implementation of the PMMS will require both the strategic sourcing of an industry-leading application and the possible conversion of data from Tyler's Work Order System.
	Evaluate the GIS data and model being utilized by the City	Utilize a GIS Consultant to analyze the City's Current GIS database/layers and facilitate the development of a GIS plan either utilizing the

Goal	Initiative	Description
		current GIS structure or the Local Government Model.
	Provide the City's staff with Software Refresher Training	IT will sponsor Munis training by acquiring Tyler Training staff to refresh the following user departments: Finance, Human Resources, Payroll, & Community Development. 1 week of Train-the-Trainer Classes for 10 individuals.
		IT will sponsor TriTech training by acquiring TriTech Training staff to refresh Police Department staff. 1 week of Train-the-Trainer Classes for 10 individuals.

1.9 Investment Summary

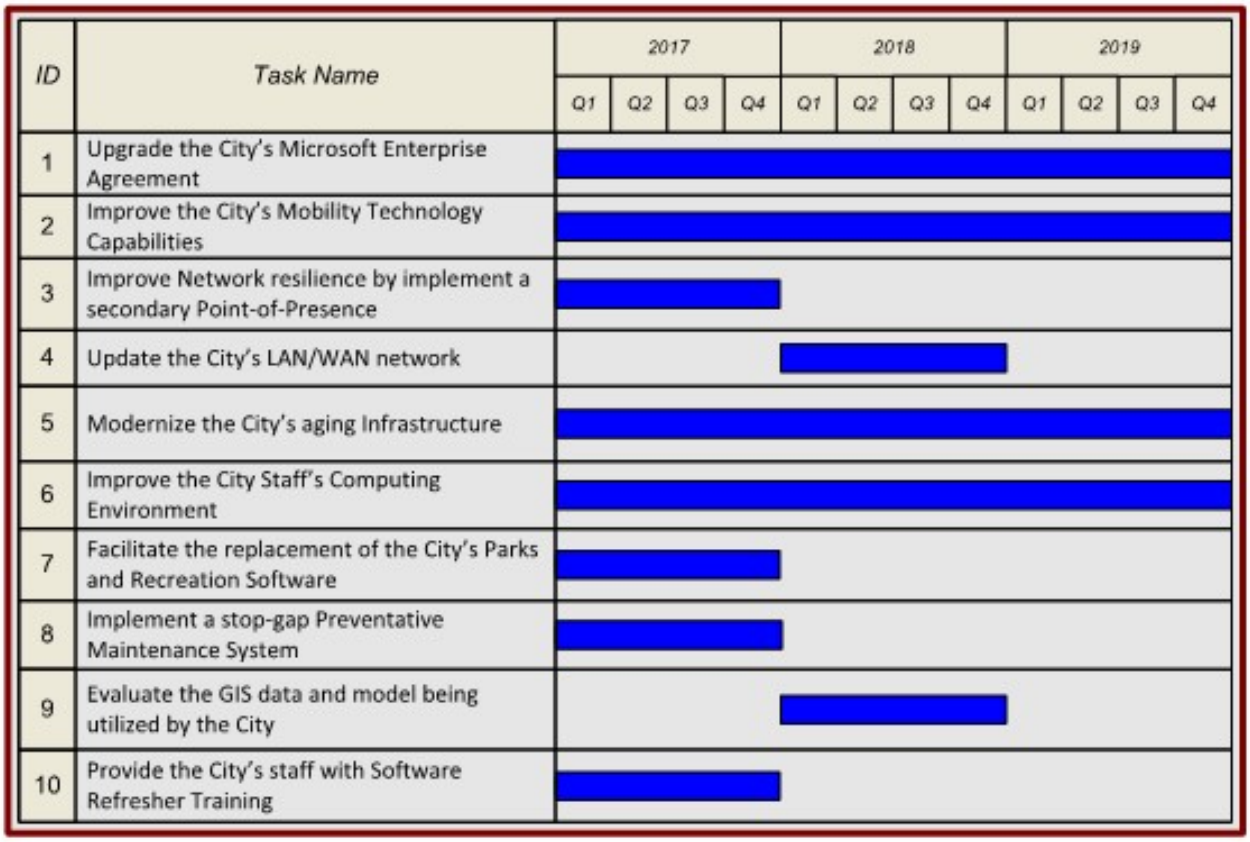
The 5-year investment summary related to the goals and initiatives is shown below.



	Calendarized Investment			Total	Annual Average
	Year 1	Year 2	Year 3		
One-Time	$218,000	$615,000	$0	$833,000	$277,667
Recurring	$369,707	$419,707	$419,707	$1,209,121	$403,040
TOTALS	$587,707	$1,034,707	$419,707	$2,042,121	$680,707

1.10 Recommended Implementation Schedule

The recommended implementation schedule for the goals and related initiatives in this Plan is shown below.



ID	Task Name	2017				2018				2019			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Upgrade the City's Microsoft Enterprise Agreement												
2	Improve the City's Mobility Technology Capabilities												
3	Improve Network resilience by implement a secondary Point-of-Presence												
4	Update the City's LAN/WAN network												
5	Modernize the City's aging Infrastructure												
6	Improve the City Staff's Computing Environment												
7	Facilitate the replacement of the City's Parks and Recreation Software												
8	Implement a stop-gap Preventative Maintenance System												
9	Evaluate the GIS data and model being utilized by the City												
10	Provide the City's staff with Software Refresher Training												

Appendix A: Detailed Calendarization

#	Project	Year 1		Year 2		Year 3		5-Year TCO
		One-Time	Recurring	One-Time	Recurring	One-Time	Recurring	
A1	Microsoft	$ -	$ 255,207	$ -	$ 255,207	$ -	$ 255,207	$ 765,621
A2	Mobility	$ -	$ 22,500	$ -	$ 22,500	$ -	$ 22,500	$ 67,500
A3	Secondary Point-of-Presence	$ 100,000	$ 15,000	$ -	$ 15,000	$ -	$ 15,000	$ 145,000
A4	LAN / WAN	$ -	$ -	$ 600,000	$ 50,000	$ -	$ 50,000	$ 700,000
A5	Infrastructure Replacement	$ 72,000	$ -	$ -	$ -		$ -	$ 72,000
A6	End User System Replacements	$ -	$ -	$ -	$ -	$ -	$ -	$ -
A7	Parks System	$ -	$ 52,000	$ -	$ 52,000	$ -	$ 52,000	$ 156,000
A8	Preventative Maintenance System	$ 30,000	$ 25,000	$ -	$ 25,000	$ -	$ 25,000	$ 105,000
A9	GIS	$ -	$ -	$ 15,000	$ -	$ -	$ -	$ 15,000
A10	Refresher Training	$ 16,000	$ -	$ -	$ -	$ -	$ -	$ 16,000
	TOTAL	$ 218,000	$ 369,707	$ 615,000	$ 419,707	$ -	$ 419,707	$ 2,042,121