City of Roseville

Information Technology

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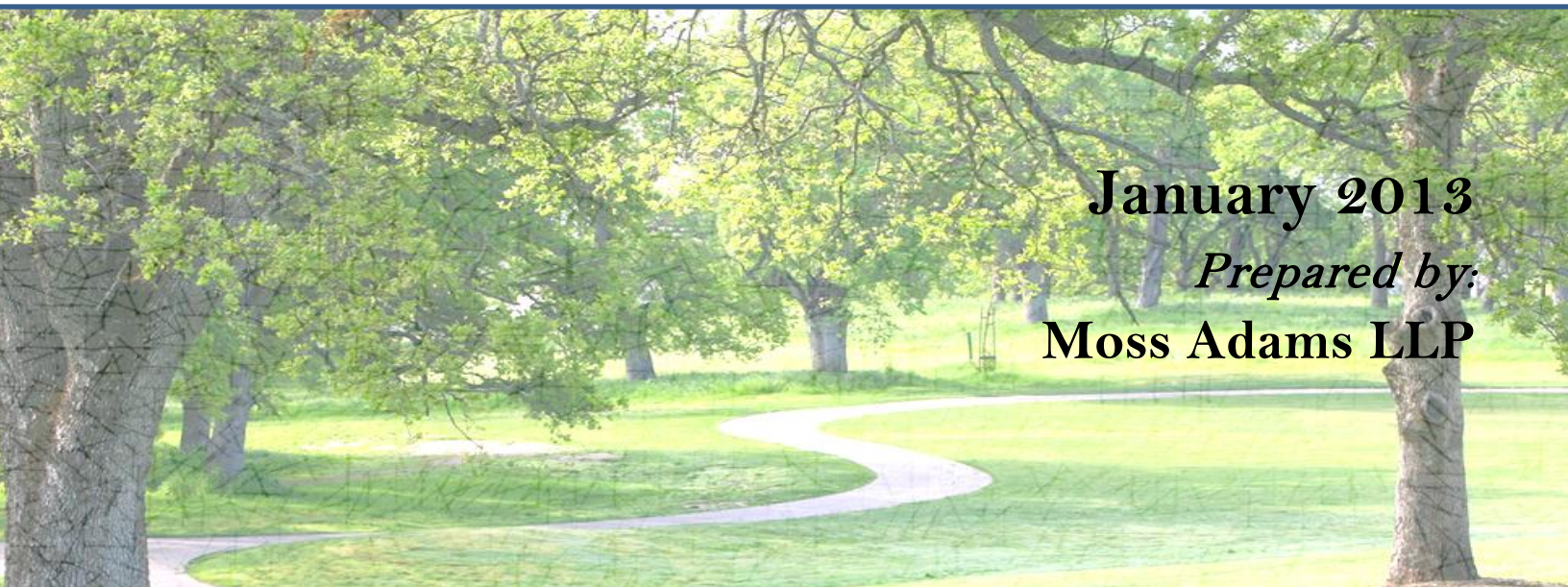
Strategic Technology Plan



January 2013

Prepared by:

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CIO MESSAGE

With this document, the IT Planning and Administration Team presents to you the 2013-2015 Citywide Strategic Technology Plan. These past years have brought many challenges, opportunities, and improvements to our business technology and partnership environment, including assessments of our work program, resources, technology initiatives, and leadership framework (Vision, Mission and Values).

During the past year, we introduced four major business technology initiatives: mobile, big data/information, cloud computing, and social media technologies. The City transformed its website into the Virtual City Hall, formed alliances, and completed many projects through cross functional teams and business partners - such as Enterprise Security, Inclusion Program, Public Safety Team, and Technology Governance Committee.

The City envisions and requires even greater use of innovative technology in the years ahead, and this forward thinking Strategic Technology Plan will help guide many technology decisions in the future: The plan will be used as the primary basis for justifying and prioritizing future budget requests involving innovative technology resources. Going forward, the focus areas include:

* *Information Management* – define policies and procedures, processes and controls to manage information throughout the City
* *Enterprise Systems* – optimize existing and replacement enterprise system to meet day-to-day operation
* *Process & Workflow Improvements* – share information and services
* *Records Management* – manage records-retention throughout the course of business
* *Customer Service & Governance* – pursue opportunities to achieve greater customer satisfaction
* *Emerging Technologies* – develop and embrace new technology fields to achieve efficiencies
* *Mobile Workforce* – facilitate mobility and interact with the public through mobile technologies
* *E-Government & Citizen Interaction* – expand virtual presence online and increase transparency in government
* *Security & Privacy* – promote productivity and ease of access without impeding security and regulatory compliance requirements
* *Innovative Ideas & Workforce Empowerment* – foster innovative ideas with respect to empowering City staff

The Future is the primary focus of this living document, and it is intended to guide us to achieve the City's Vision, Mission and Goals, as well as to become the City of choice for living, working, and collaboration.

Hong Sae
Chief Information Officer

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I. EXECUTIVE SUMMARY

Like many local governments, the City of Roseville is facing a challenging economic environment and has competing demands for technology with limited City resources to meet those needs. The City set out to create a strategic plan to enhance the City's internal and external effectiveness in supporting internal users (City staff) that directly support service delivery to the community (including residential and business/commercial customers). This strategic technology plan will be used to assist in the achievement of the City's business objectives to guide the City's efforts toward a clearly defined vision.

Each initiative includes multiple strategies and expected outcomes related to each strategy. The expected outcomes have been derived directly from the needs of the customers identified during the entire strategic technology planning process. The delineation of expected outcomes will enable ongoing measurement of the City's success in implementing the strategic technology plan.

An important component of this effort has been to ensure the plan reflects the "voice of the customer." This means that the planning process was designed to capture the expectations and preferences of a variety of stakeholders within departments throughout the City. This information, combined with information gleaned from a variety of other sources, including prior studies, legislative/regulatory activities, and analysis of technology trends, has provided the strategic framework for the three-year plan. This framework consists of the following ten initiatives:

INFORMATION MANAGEMENT

This initiative focuses on a series of strategies and associated projects designed to encompass the policies, procedures, processes and controls intended to manage information throughout the City, supporting immediate and future regulatory, legal, risk, environmental, decision support, data sharing, and operational requirements.

ENTERPRISE SYSTEMS

This initiative focuses on a series of strategies and associated projects designed to ensure that the use and support of existing systems is optimized by capitalizing on existing or under-utilized functionality to meet data, processing, and reporting needs across the City. In addition, this initiative addresses those needs of existing systems requiring replacement, or the acquisition of new applications.

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PROCESS & WORKFLOW IMPROVEMENTS

This initiative focuses on a series of strategies and associated projects designed to achieve greater efficiencies across the City in terms of sharing of information and documentation. Through appropriate use of technology, the City will save time and resources.

RECORDS MANAGEMENT

This initiative focuses on a series of strategies and associated projects to facilitate the management of a records retention program involving the systematic review, retention, and destruction of documents and records received or created during the course of business.

CUSTOMER SERVICE & GOVERNANCE

This initiative focuses on a series of strategies and associated projects to pursue opportunities to achieve greater customer satisfaction with Information Technology functions and systems.

EMERGING TECHNOLOGIES

This initiative focuses on a series of strategies and associated projects to capitalize on trends and developments in the technology field for the purpose of achieving efficiencies and expanding opportunities for connecting with citizens.

MOBILE WORKFORCE

This initiative focuses on a series of strategies and associated projects to capitalize on trends in newer technologies that untether the City's workforce from desktop machines and facilitate mobility. In addition, this initiative strives to increase the opportunities for interacting with the public through mobile technologies.

eGOVERNMENT & CITIZEN INTERACTION

This initiative focuses on a series of strategies and associated projects for expanding the City's virtual presence through website re-design, standardization, and expansion of online services. In addition, this initiative focuses on addressing the requirements for increased transparency in government.

SECURITY & PRIVACY

This initiative focuses on a series of strategies and associated projects to promote productivity and ease of access without impeding security and regulatory compliance requirements.

INNOVATIVE IDEAS & WORKFORCE EMPOWERMENT

This initiative focuses on a series of strategies and associated projects aimed at fostering innovative ideas with respect to empowering City staff as well as ensuring the availability of technology funding.

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II. INTRODUCTION AND OVERARCHING GOALS

A. MISSION AND VISION

The City of Roseville is at a crossroads with regard to its strategic growth initiatives. The City's visionary theme of "One City, Urban to Metropolitan, Open for Business" suggests images of projected growth in population, an expansion of services, and a unified effort throughout the City to serve the citizens and the business community efficiently and effectively. It is a tall order that requires implementation of timely and thoughtful strategic initiatives to help the City realize its vision.

Several factors come into play as the City makes decisions on how it positions itself in the next three years. Internal influencers and drivers, such as the City's vision and the voice of the customer feed into the strategic initiatives under consideration. Whereas the City's vision may serve as a high-level guiding principle, it is the voice of the customer (citizens, business partners, and City departments) that ultimately drives where the City needs to be in the future.

Alternatively, there are also external influencers and drivers that need to be factored into strategic initiatives. Legislation, whether at the local or federal level, could impact strategic direction and funding available for special projects. Similarly, technology trends in the marketplace and the changing way in which business is conducted need to be considered especially given Roseville's growing population of tech-savvy citizens.

A graphical illustration showing the dynamics of these primary influencers and drivers on Roseville's ultimate strategic initiative outcomes is shown on the next page.

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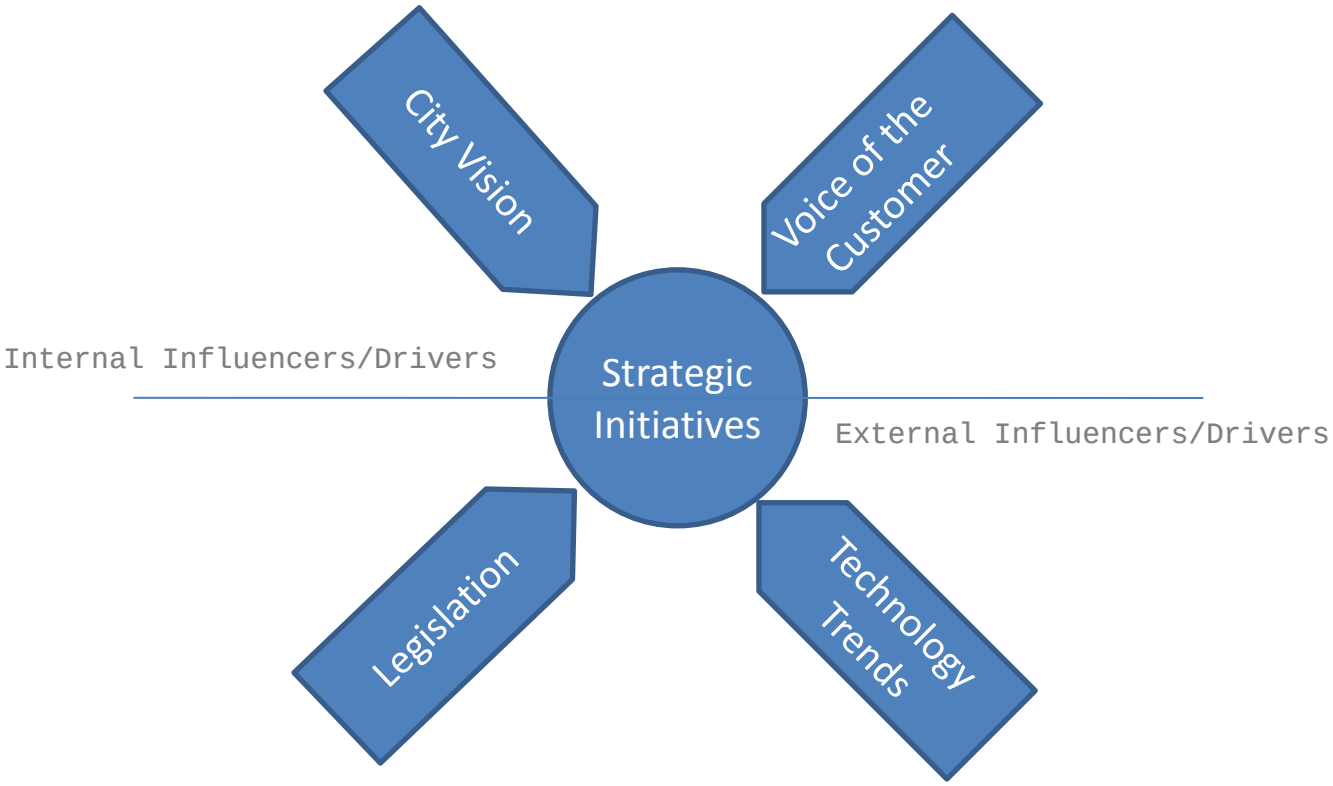

B. GOALS

There are a number of overarching goals that are associated with this Citywide Strategic Technology Planning effort. These goals are described below and have been used to not only structure this planning document, but also to develop the strategic goals and initiatives described within this document. The primary goals of this project include the following:

- Guarantee that the strategic technology direction of the City aligns with the business strategies, objectives and meets customer needs
- Ensure that the strategic initiatives strengthen and reinforce the vision of the City as a whole
- Reinforcing the acceptance of the City as a technology leader within the region
- Improving collaboration between the IT Department and other departments
- Improve Technology Governance processes
- Capitalize on current trends within the technology sector that allow for realization of efficiencies

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C. PLANNING PROCESS

The purpose of this Three-Year Strategic Technology Plan is to align the business technology investment and efforts with the needs of the City and the citizens of Roseville. Additionally, the technology plan, goals, and initiatives are structured to support the mission and goals of the City, as defined by City Management.

The planning process has been straightforward and has largely been driven by the customers. The project approach was designed to be streamlined and efficient, building on previous efforts that the IT Department and City have already undertaken. The process included data gathering, including interviews to capture the voice of the customer, which helped identify the wants and needs of departments. This effort was important to balance the demand for business technology services versus the limited supply of resources available in the City. The process further helped ensure that the highest-priority efforts have been undertaken and supported transparency and access from a variety of stakeholders.

Fundamentally, this planning process represents a continuance of the improvements to technology governance that the City has been pursuing over the past several quarters. One of the primary tenets of strong Technology Governance revolves around aligning an organization's technology strategy with the business strategy. In the public sector, this can become complicated due to the fact that each department/division/bureau will have their own business strategies relative to the work they perform. However, it is sometimes the case that individual departments do not have well-defined strategic plans. As such, while the planning team has accounted for those plans that are available, much of the work to identify department strategies has come about through the voice of the customer interviews. Based on previous recommendations, the IT Department is elevating the Technology Governance processes within the City, and is demonstrating leadership in ensuring that technology plans are in alignment with the City's business strategies.

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III. BUSINESS BACKGROUND

A. VISION

The strategic vision typically represents the overarching purpose for the organization's existence, including the charter under which it operates. In Roseville, this includes the mission of the organization and the City goals that help establish the foundation and prioritization of activities with respect to the implementation and use of technology. For the City of Roseville, the following mission and vision have been defined.

OUR VISION: *The City of Roseville is an exceptional organization committed to fostering a dynamic, caring and inclusive community that is simply a great place to be!*

OUR MISSION: *Create and maintain a vibrant community environment and enhance the quality of life for our residents, businesses, customers, and partners.*

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B. OVERVIEW OF THE INFORMATION TECHNOLOGY DEPARTMENT

The Information Technology (IT) Department is comprised of three major business units - Planning & Administration, Customer Service—spanning Service Desk, Business Applications and Public Safety Technology Services—and the Infrastructure team, comprised of Geographic Information System (GIS)/Internet, Data Center, and Communications. The Department has the responsibility of administrating and maintaining technology for the City of Roseville. The IT Department has developed and is working toward a vision to:

- Lead Roseville in technology
- Partner together to succeed
- Be flexible and agile to meet business needs with innovation
- Have a collaborative work environment

Additional details on the Vision-Mission-Values of the IT Department can be found in *Section IV* of this document.

The City of Roseville was recently awarded first place in the Center for Digital Government and Digital Communities 2011 Digital Cities Survey, in the population category of 75,000-124,999. The survey recognizes municipalities that successfully incorporate information technology into operations to better serve constituents and businesses. Recognized cities have continued to realize operational objectives despite financial challenges, strategically investing to maximize dollars and effectively conduct the business of government. 2011 represents the second year in a row Roseville was recognized as one of the top five most technology-advanced cities in America, in its population category.

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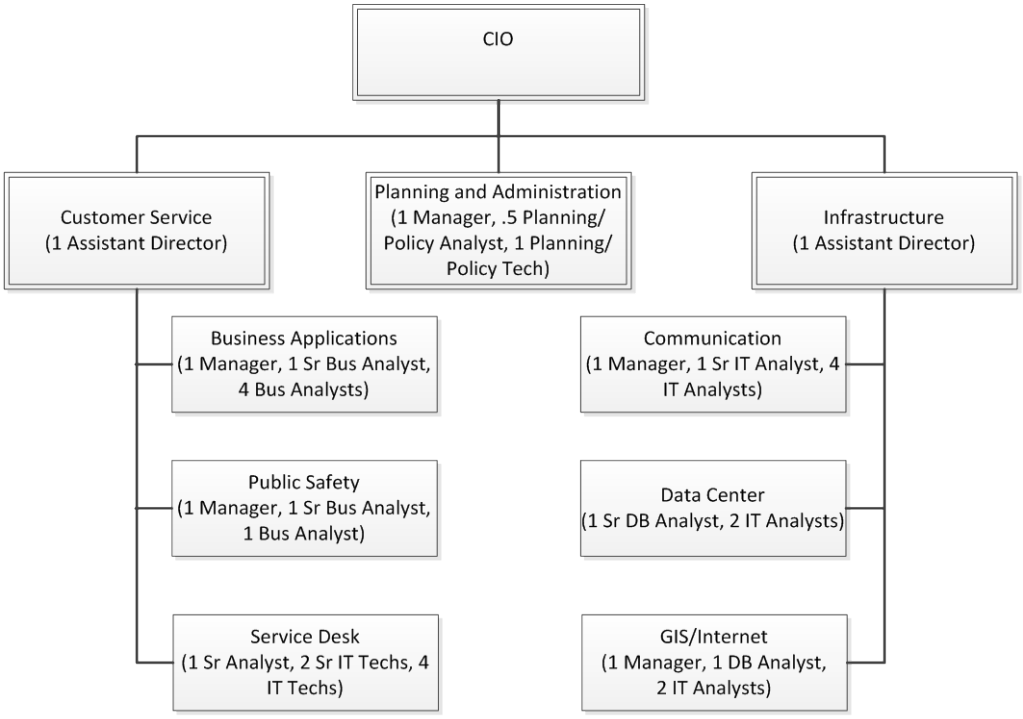
C. ORGANIZATIONAL STRUCTURE



D. FUNCTIONAL TEAMS

As noted, the department is comprised of three major units which are further broken down into seven divisions. The following table provides additional information regarding the make-up of each function and the key responsibilities that fall to each division.

Function	Division	Roles/Responsibilities
Planning/Administration		• Project Management • Strategic Planning • Policies, Procedures and Methodologies • Budget Administration • Office Administration

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Function	Division	Roles/Responsibilities
Customer Service/ Applications	Customer Services	• Customer service • Asset management • Incident management • Training • First-level application troubleshooting
	Enterprise Applications Support	• Business solutions analysis • Business solutions implementation • Report development • Business applications support
	Public Safety Technology Services	• Public Safety business applications support • Public Safety technology implementation
Infrastructure/Operations	Communications	• Wired/wireless network (data, voice, video) • Information security • Physical security • Radio (800MHz and VHF) • Telephony • Remote access • Mobile device management
	Data Center	• Data center maintenance • Server admin/security • Network file backup/recovery • Database administration • E-mail • Antivirus
	Geographic Information Systems(GIS)/Internet	• GIS application development • GIS solution support • GIS database management • GIS mapping/geoprocessing • GIS data analysis • Web infrastructure and development

E. CITYWIDE CROSS-FUNCTIONAL TEAMS

Technology governance processes help the City invest in technology sensibly and in a way that is consistent with its strategic goals. It also ensures resources are available to complete technology projects. Technology governance within the City is furthered by the creation of a number of cross-functional teams consisting of key representatives from within the IT Department as well as within various other departments. Development of these cross-

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functional teams has yielded benefits such as improving collaboration and communication within specific programs. Representative cross-functional teams and committees include:

Committee Name	Purpose
Technology Governance Committee	Guides City technology investment, ensuring consistency with City goals, and ensuring availability of resources to complete technology projects.
Enterprise GIS Committee	Consists of three groups: the Technical Committee performs annual planning, provides technical direction, and sets standards; the Steering Committee establishes priorities, formulates policy, and provides program oversight; and the Sponsor Group oversees the GIS program.
Enterprise Security Committee	Establishes a uniform approach and strategy to develop, implement, and maintain the Citywide Security program (informational/logical and physical), including: availability, confidentiality, and integrity of information systems; security awareness/training programs; regulatory compliance; risk assessment and management; incident/emergency response; and audits.
Enterprise Asset Management Steering Committee	Oversees the Citywide asset management program as well as implementation of the Maximo work and asset management software solution.
Public Safety Technology Steering Committee	Consists of two groups: the Public Safety Technology Steering Committee, which provides leadership and decision-making authority for Public Safety technology efforts; and the Public Safety Users Group, which reviews technology concepts, develops technology governance paperwork, provides recommendations to the Steering Committee, and works on Public Safety technology projects.
Virtual City Hall (VCH) Team	Shapes the City's virtual presence, services, interaction, information, engagement and transparency with internal and external communities. Additional responsibilities include: assisting with the VCH Strategic Plan; creating e-Government Priority Action Plan to define projects and priorities using collaborative common-sense approach; informing, engaging, and educating internal and external communities; gathering public and internal needs; creating VCH policies and procedures.
800 MHz System Committee	Provides, operates, and maintains a primary 800MHz voice communication system of high quality and reliability at a competitive price that is scalable for future technologies.
Financial, HR, Procurement System Committee	Oversees the enterprise financial, HR, and procurement system, including responsibility for strategic initiatives, planning, and implementation, and ensuring the system remains a valuable tool for the City.

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Committee Name	Purpose
RoseU Committee	Oversees the enterprise learning management system, including responsibility for strategic initiatives, planning, and implementation, and ensuring the system remains a valuable tool for the City.
Electronic Document Management System Committee	Oversees the enterprise electronic document management system, including responsibility for strategic initiatives, planning, and implementation, and ensuring the system remains a valuable tool for the City.
Utility Billing System Committee	Oversees the enterprise utility billing system, including responsibility for strategic initiatives, planning, and implementation, and ensuring the system remains a valuable tool for the City.
Permits Committee	Oversees the enterprise permitting system, including responsibility for strategic initiatives, planning, and implementation, and ensuring the system remains a valuable tool for the City.

F. STUDIES

The City has recently undergone several studies, the recommendations and results of which should be accounted for where applicable in this plan. These studies include a Citywide efficiency and effectiveness study by the Matrix Consulting Group, a utility-operations study by Hometown Connections, an annual Finance audit by Maze and Associates, as well as two studies by Moss Adams Advisory Services, including an utility billing best business practices and industry trends study, and an infrastructure, staffing, and security compliance study. As part of this strategic planning process, these reports were reviewed to identify any themes that would be relevant to the strategic technology planning process. The strategic technology planning team sought out any themes affecting the current use of technology and the organization of technology resources throughout the City that should be accounted for in strategic goals and initiatives.

To that end, the following themes were identified as being relevant to the strategic technology planning process for consideration in the development of strategies and initiatives:

- IT can improve its understanding of technology needs of its customers
- IT resources should be centralized to the extent possible and the division of roles/responsibilities between central IT and other department personnel should be clarified.
- Security and compliance requirements are increasing and IT should stay current on security issues and monitor infrastructure security.
- The City should continuously evaluate in-house versus outsourced/cloud solutions whenever possible.

- Improve project management and Technology Governance processes to effectively implement and continuously support technology, and adequately understand all resource requirements.
- Develop service level agreements between IT and each department.
- Consider developing improved reporting capabilities through such technology as a data warehouse.

G. STATE/FEDERAL LEGISLATIVE INFLUENCES

On an ongoing basis, the City tracks external factors that may impact how technology is deployed and utilized Citywide. Foremost among these external influences are pieces of legislation that have been introduced into the State legislature and are at varying stages of being considered for passage and implementation. Most recently, legislation has focused on the transparency of State and local governments with respect to their constituents. In addition, recent legislation expands the acceptable methods and mechanisms through which government may communicate with the public.

The following table shows a sample listing of representative legislation, both local and national, as of the writing of this plan, which would have an impact on technology within the City.

Legislation	Focus	Potential Impact
CA Assembly Bill 1509	Requires additional information be posted on the City's website under certain circumstances	• Increased need for distributed content management • Need for access to information
CA Assembly Bill 1604	Provides additional authorities with respect to computer trespassing	• Increased need for intrusion detection
CA Assembly Bill 2455	Adds provisions regarding required notifications of security breaches and the potential exposure of personal information	• Increased need for intrusion prevention • Increased need for data security
US Senate Bill 2105	Increased requirements for security and resiliency of cyber and communications infrastructure	• Increased need for security of utility infrastructure • Increased need for compliance management

H. ONGOING MEASUREMENT

Within the City's adopted budget document, each Department has defined performance measures where relevant. For its part, the IT Department is committed to continuous improvement with respect to customer service, overall service delivery, system reliability, and project management. To facilitate continuous improvement, the Department has identified a number of metrics that can be used to measure the success of the Department. These metrics

fall into two primary categories – work volume and efficiency and effectiveness measures – which are listed below:

Work Volume	
• Number of Reported Service Requests / Incidents • Number of Personal Computing Devices (PC, Laptop, MDC) • Number of Mobile Devices (PDA, Cell phones) • Number of Radios • Number of Messages Processed by Mail Server (Valid/Spam)	• Number of Applications/Systems Supported • Number of Visits to City Website • Number of Page Views on City Website • Number of Innovative Technology Projects Submitted • % of Annual General Fund Operating Revenue Spent by IT Department • Annual Information Technology budget per Citywide FTE

Efficiency and Effectiveness	
• % of Priority #1 Service I Incident Requests completed within 4 Hours • % of Medium Service I Incident Requests completed within 5 Business Days • % of Tier 1 Service I Incident Requests resolved at time of call • Operation Cost of Each Electronic Mailbox per Year • Operational Cost per Gigabyte of Storage • Customer Satisfaction Survey - % Responses of Satisfied or Very Satisfied	• % of Data Center Uptime during Business Hours • % of Network Uptime during Business Hours • % of Radio System Uptime during Business Hours • % of Phone System Uptime during Business Hours • Number of information security breaches • # of Technology Projects Completed • % Revenue Collected Online • % Project Milestones completed on time • % of Application Uptime during Business Hours

In addition to these metrics, the Department also gauges performance by conducting regular customer satisfaction surveys. Over the past few years, the survey has revealed that the Department has shown improvement in several key areas as follows:

Survey Questions / KPI / Benchmark	Satisfied / Very Satisfied		
	2010 (Baseline)	2011 (Current)	% Improvement
1) Professionalism of staff	88.2%	96.4%	+ 9.30%

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Survey Questions / KPI / Benchmark	Satisfied / Very Satisfied		
	2010 (Baseline)	2011 (Current)	% Improvement
2) Service provided in a timely manner	67.0%	84.1%	+ 25.52%
3) Level to which your business processes are supported	66.9%	80.8%	+ 20.93%
4) Degree to which you feel well-partnered with IT	71.8%	78.9%	+ 9.89%
5) Ease of submitting service requests	84.4%	91.6%	+ 8.53%
6) Technical proficiency of staff	88.7%	92.4%	+ 4.17%
7) Overall customer satisfaction	77.7%	88.6%	+ 14.03%

However, the surveys have also helped to identify some key areas for improvement, which are considered as part of this Citywide strategic planning effort. Based on customer inputs, the IT Department has identified several key areas / plans of action on which to focus improvement efforts in the years ahead:

1. Changing business process for incident management to serve customers quicker.
2. Training in techniques for better customer service over the phone, e-mail, or in person.
3. Focus on cross-functional team collaboration.
4. Standardize project communications and prioritization.
5. Department outreach meetings to listen to the voice of the customer at all levels.
6. Strive to become more business focused and learn our customers business.
7. Creation of service level agreements.
8. Creation of technology fund for proactive asset management.

Once this Citywide Strategic Technology Plan has been adopted, it will be important to continue with measuring progress against the plan to ensure that the plan remains relevant given prospective changes in the technology environment, external influencers, City or IT leadership, etc. It is expected that this plan will be re-visited on an annual basis to ensure it remains representative of the City's and the Department's mission and vision.

While the work volume and efficiency/effectiveness metrics will make for a solid basis on which to measure and report operational performance of the IT Department, they will not facilitate ongoing measurement of success or failure against this strategic plan. Ongoing measurement

relative to the strategic goals and initiatives requires that each strategy have expected outcomes associated with them. These outcomes should be measurable in order to determine if/when progress has been made and the strategic goals have been achieved. As such, for each strategy, expected outcomes have been identified. These outcomes have been developed from the voice of the customer interviews that represent the primary internal influencers/drivers for the strategic plan. Therefore, moving forward, success will be measured by whether the needs of the customers are being met and the benefits are being realized. On an annual basis, it is expected that stakeholder interviews will be conducted as part of the ongoing measurement process.

I. BUSINESS TECHNOLOGY OVERVIEW

i. Current Environment

The current technology environment within the City is complex. The IT Department's primary charter is to implement, manage, support and administer technical components across the City. These components can be simplistically classified into two primary categories: infrastructure components and business systems. Infrastructure components consist of the following:

- Hardware and communications components (physical/virtual servers, workstations, printers, telephones, radios, UPS devices)
- Networking and security components (Active Directory, wireless networks, firewalls, switches/hubs/routers, cabling)
- Systems Software components (operating systems, databases, e-mail, antivirus, browsers)

Business systems include the following:

- Enterprise systems (financial, HR, timekeeping, GIS, utility billing, permitting, document management, asset management, public safety, other specialized department applications)
- Productivity tools (Microsoft Office suite, Adobe products)
- Reporting tools (Crystal, SQL Server Reporting Services)

From a support standpoint, the infrastructure teams are tasked with supporting 12 operating systems, 10 different database versions (72 servers), 45 physical servers and 152 virtual servers, over 1,400 PCs/laptops, and over 200 printers. With respect to business systems, the applications teams are responsible for the following:

Department	# of Systems Supported	Department	# of Systems Supported
Attorney	2	HR	2
CDD	9	Parks \Library	7
Citywide	45	Media	1
Clerk	1	Police Department	40
Electric	1	Planning	2
EU	4	Public Safety	5
Finance	13	Public Works	3
Fire	14	Purchasing	1
Housing	1	Vehicle Maintenance	2

ii. Industry Trends and Associated Challenges

Technology use in the work place is rapidly evolving. Currently, needs for a vast computing infrastructure are giving way to user needs for access to data and applications from any location on any computing device. Cloud computing is enabling this scenario along with users' growing dependency on smart computing platforms (e.g., tablets, smartphones, etc.) to stay "connected" to their workplace. As a result, we are seeing changes in user needs that will need to be accommodated by the City as it considers its strategic direction for technology over the next three years.

Currently, there are a number of industry trends that continue to further the idea that desktops are becoming a relic of the past. The ubiquity of smart devices in the workplace has changed the landscape for accessing critical business data. No longer are workers limited to performing computing tasks from their desks as portable computing platforms, such as tablets, netbooks, and smartphones, become integrated into the network. For the City, the use of such technology will allow for increased public interaction, an increase in the number and types of devices that need support, an increase of user expectations of information availability, and the potential for such devices to ultimately replace the PC as the primary computing tool in some departments.

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While there are indeed benefits to using mobile, smart computing devices, there are considerable challenges to overcome before their widespread use and adoption across the City's departments. Most notable of these challenges is securing these devices. IT departments and industry in general is struggling with the BYOD ("bring your own device") phenomenon that permits employee users the ability to access organization data via their own smartphone or tablet. Users want to be able to access data as they need it so organizations are trying to find the right balance between permitting access to business data on these devices and ensuring security, given that the devices may not be issued by the organization. The City is no different. As adoption of these portable computing devices becomes more commonplace and standard practice across the departments, the City will need to determine how to best manage these devices from a data security standpoint.

Cloud computing is another "cutting edge" technology that is finding its acceptance as a viable computing model for organizations with limited IT budgets, smaller IT teams, limited support skills, and limited computing infrastructure. Since cloud computing operates on the same principles as a utility business (you only pay for what you use), it is an attractive alternative for organizations looking to reduce operating costs and capital expenditures. Cloud computing facilitates the ability to access data from anywhere and from any computing device. The built-in levels of redundancy in cloud infrastructures will provide increased network resilience and on-demand computing power as the City needs it.

The issue of data security with cloud computing service providers has been the top concern among CIOs. Since there is no uniformly accepted set of data security standards for cloud environments, organizations that want to jump into the cloud computing foray will need to conduct their own due diligence to ensure that their data will be secured. In addition, some type of data may be subject to legal restrictions on where it can reside and there may also be stipulations on breach notifications. Should the City consider cloud computing in the evolution of its technology environment, it will need to factor in these concerns to determine if this is a sound and appropriate strategy to pursue. At a minimum, the City could look to implementing its own private cloud or a hybrid cloud deployment model that would add some degree of network resiliency, disaster recovery, and data access.

Other trends that should be considered are regional partnerships and social media. More and more in the municipal space, cities and counties are teaming up to share computing infrastructure. Shared data centers that are managed by an independent service provider have helped municipalities reduce operating costs and administrative overhead associated with running a full-fledged IT Department, along with hardware such as servers and networking components. Planned appropriately, a shared computing infrastructure should help with providing network resiliency, improved backhaul performance, and disaster

recovery capabilities. The City will need to identify potential partners for this endeavor should it decide this strategy is a feasible one.

Social media is gaining widespread acceptance across all industries as a viable means to communicate to customers, employees, and other stakeholders. Local government is no different with its leveraging of Facebook, Twitter, and YouTube for notifying citizens of events, important dates, initiatives being considered, and the like. The Public Affairs & Communications Department within Roseville was an early adopter of social media and continues to lead the Citywide Social Media Working Group, as well as collaborating with local agencies promoting the effective use, structure and policy for government organizations. As Roseville has already embraced the use of social media as a communication channel, it can expect its use to grow and demand for it as a means of instant, real-time information will continue to increase among its tech-savvy citizens.

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IV. IT STRATEGIC GOALS

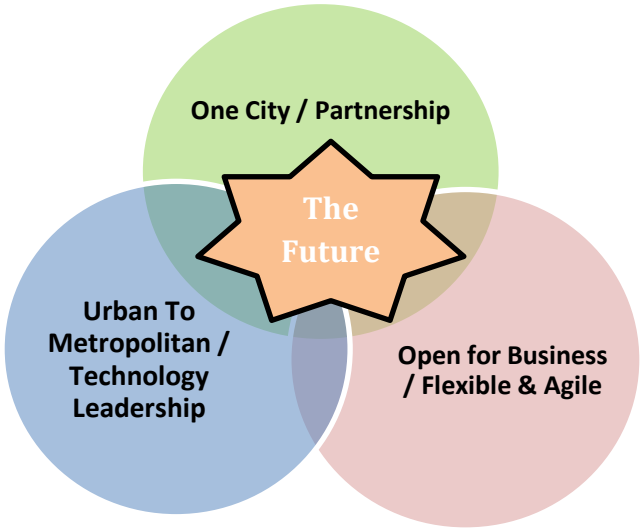
The IT team has worked together to develop new Vision, Mission, and Values statements (VMV) for the department. The new VMV statement represents the core values for the team and also sets the Department's vision for the future. Through this process, it was made clear that the team values partnerships, excellent service, innovation, and superior results.

The mission that has been prepared by the IT team is as follows:

> *Through our leadership, expertise and strategic partnerships, we deliver innovative, cost effective technology solutions to support Citywide operations and provide excellent service to the community.*

The vision for the department is a picture of where its members want to take the department in the future. The team came up with the following components for the vision:

- ***Valued Partnerships*** *– we appreciate people and are committed to relationships and teamwork based on integrity, trust and respect.*
- ***Excellent Service*** *– we strive for continuous improvement and efficiency. We emphasize communication and will listen.*
- ***Innovation*** *– we embrace new ideas and will anticipate and adapt to change for success.*
- ***Superior Results*** *– we desire success through quality, value, safety, security, high performance and accountability.*



In many of these areas the team has already achieved part of the vision. In others, there is still some work to do. This vision is further described in the following sections.

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A. TECHNOLOGY LEADERSHIP

At the core of establishing Roseville as leaders in technology for the region is the ability of the City to provide leadership that is consistently secure, cost effective, and proficient. The leadership component of the IT Department's vision statements ties to the City's vision of shifting from ***Urban to Metropolitan***. From the standpoint of technology, the vision is to become a well-planned City with an eye on a secured infrastructure, as it grows to provide the most cost effective and proficient services.

B. STRATEGIC PARTNER TO SUCCEED

With respect to establishing strategic partnerships, the IT Department's primary focus is on the City's departments. In this regard, the IT Department expects to partner with all City departments to provide Citywide technology solutions. Through these strategic partnerships, IT will focus on the customer, emphasize communication, and strive for continuous improvement as IT and the departments work together to achieve success. This aspect of the IT Department's vision relates directly to the City's vision of ***One City***. As a result, the IT Department maintains a commitment to teamwork and relationships where diverse work groups partner as One City, putting its emphasis on communication to bring about change and continuously improve our community.

C. AGILE & FLEXIBLE TO MEET BUSINESS NEEDS WITH INNOVATION

The IT Department strives to continuously respond to changing business needs with innovation, agility, and flexibility. In addition, the Department's vision revolves around becoming more proactive and achieving valuable, measurable results. The agility and flexibility component of the Department's vision statements ties to the City's vision of being ***Open for Business***. As such, the Department aims for flexibility and agility, desirous of success through quality, innovation, proactivity and valuable results.

D. COLLABORATIVE WORK ENVIRONMENT

These efforts and this vision culminate in the creation and maintenance of a collaborative work environment built on trust and cooperation. In the end, collaboration leads to a more enjoyable work environment as the IT Department aids in the realization of the overarching City vision.

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V. STRATEGIC INITIATIVES & DESIRED OUTCOMES

Many of the sections leading up to this point have provided background information pertaining to the factors that help drive the development of strategic goals and initiatives. These internal and external influencers include the following:

- The City's ***mission and vision*** helps set the values, mission, and vision of the IT Department and helps set the overall direction for the entire City
- ***Recent studies*** provide independent insight into issues and improvement opportunities that help to set goals
- State and Federal ***legislation*** is representative of future regulatory factors that need to be accounted for from a compliance standpoint, and, therefore, have an impact on how information technology will need to be managed
- Customer surveys provide direct feedback from stakeholders regarding service delivery and, similar to the recent studies, help set goals and ***improvement opportunities***
- The current technology environment drives ongoing ***resource*** requirements, primarily from a support standpoint, and, therefore, should be considered as ***constraints***, if nothing else
- ***Industry trends*** and challenges provide insights into the direction that technology and the industry is moving overall, but they should also be recognized as constantly changing

While each of these areas has been considered in terms of setting strategic goals and helping to define strategic initiatives, they are not the primary drivers for this plan. The strategic planning process focused primarily on listening to the '***voice of the customer***'. Through interviews with each department, the planning team assembled a listing of needs and expectations from each City department. These voiced needs were assembled and analyzed to identify themes that then laid the groundwork for development of the strategic components of this plan. The following sections represent the strategic initiatives and expected outcomes that represent the future needs across the City. Within the table below, the internal and external influencers have been mapped to the initiatives to provide some context around the primary drivers for the initiatives developed.

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Initiative	Influencers						
	Mission/ Vision	Recent Studies	Legislation	Improvement Opportunities	Resource Constraints	Industry Trends	Voice of the Customer
Information Management	✓	✓	✓	✓		✓	✓
Enterprise Systems	✓	✓		✓			✓
Process & Workflow Improvements	✓	✓		✓	✓		✓
Records Management			✓	✓	✓	✓	✓
Customer Service & Governance	✓	✓		✓	✓		✓
Emerging Technologies	✓			✓		✓	✓
Mobile Workforce	✓			✓	✓	✓	✓
E-Government & Citizen Interaction	✓		✓	✓		✓	✓
Security & Privacy	✓	✓	✓	✓		✓	✓
Innovative Ideas & Workforce Empowerment	✓	✓		✓	✓	✓	✓

A. INFORMATION MANAGEMENT

This initiative focuses on a series of strategies and associated projects designed to encompass the set of policies, procedures, processes and controls intended to manage information throughout the City, supporting immediate and future regulatory, legal, risk, environmental, decision support, data sharing, and operational requirements.

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i. Strengthen Data Management

Improve the accessibility of data as well as increase opportunities for sharing data amongst the departments and with the public. Additional components relate to optimizing storage and pursuing data warehousing capabilities in an effort to combine data from across the City, both financial and operational. See also Decision Support & Performance Management.

Expected outcomes:

- Expanded availability of information across the City
- Ability to manage larger volumes of data
- Reduction in redundant data stores
- Increased number of opportunities for sharing data between departments
- Increased number of opportunities for sharing data with partners

ii. Pursue Systems Integration Opportunities

Identify opportunities for minimizing redundancies with respect to data entry and storage by linking together different systems and software applications physically or functionally to act as a coordinated whole.

Expected outcomes:

- Reduced number of manual steps in data flow processes
- Increased focus on data platforms and integrations as part of systems selection and acquisition processes
- Clarity of data ownership, custodianship, and system of record

iii. Enhance Decision Support & Performance Management

Enhancing data analysis and reporting capabilities across the City for the purpose of improving decision-making capabilities and tracking metrics for performance management. This involves identifying existing opportunities for better utilization of current systems (such as GIS) for decision-making as well as developing new opportunities to consolidate disparate data sources for reporting and analysis.

Expected outcomes:

- Expanded reporting capabilities
- Decreased time for problem-solving and decision-making
- Availability of regular performance reporting
- Increased number of dashboards and information portals
- Integrated data from multiple source systems
- Consistent presentation of data and ability to view data across the City

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B. ENTERPRISE SYSTEMS

This initiative focuses on a series of strategies and associated projects designed to ensure use and support of existing systems is optimized by capitalizing on existing or under-utilized functionality to meet data, processing, and reporting needs across the City. In addition, this initiative addresses needs for which existing systems require replacement or new applications should be acquired.

i. Expand Capabilities, including Support, of Current Enterprise Systems

Focus on assessing current enterprise systems for opportunities to expand usage across the City as well as to ensure adequate support is available. Identify opportunities to further integrate enterprise systems (IFAS, SIRE, GIS, CIS).

Expected outcomes:

- Expanded GIS capabilities and integration
- Utilization of Workforce for Parks, Recreation, Library and Police scheduling
- Support for AutoCAD, GIS, Maximo systems
- Availability of IFAS test environments
- Integration between Workforce and IFAS

ii. Address Needs for New Enterprise and Vertical Systems

Define and execute a series of projects to replace existing, aging systems as well as address unmet system and functional needs across the City.

Expected outcomes:

- Acquired and implemented fully integrated Human Resources Information System
- Acquired or upgraded Utility Billing/Customer Information System (CIS)
- Acquired and implemented child care billing system
- Implemented and supported Library system
- Implemented and maintained Accela Automation software
- Implemented mobile video systems for Police
- Acquired and implemented Property management and real estate system
- Reduced number of systems unsupported by vendors
- Increased focus on commercial off-the-shelf systems
- Increased focus on outsourced systems

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C. PROCESS & WORKFLOW IMPROVEMENTS

This initiative focuses on a series of strategies and associated projects designed to achieve greater efficiencies across the City in terms of sharing of information and documentation. Through appropriate use of technology, the City will save time and resources.

i. Improve Data Flow through Systems Integrations and Interfaces

Identify opportunities for improving and streamlining the flow of information between systems by linking together different systems and software applications physically or functionally to act as a coordinated whole.

Expected outcomes:

- Improved efficiency and access to information through integration of SIRE and IFAS
- Improved efficiency and time savings through integration between Workforce and IFAS by eliminating manual steps
- Increased efficiencies (time savings, eliminated redundancies, reduction of manual steps) through automation and workflow implementation
- Utilization of barcodes/scanners in inventory stores
- Improved data sharing with external business partners

ii. Pursue Agenda Automation

Ensure faster and more efficient creation and distribution of council agendas, including automation of submittals, approvals, and packet assembly.

Expected outcomes:

- Implementation of automated agenda preparation
- Decreased lead time for agenda approvals and preparation

iii. Identify Additional Paperless Opportunities

Focus on opportunities for converting paper documents into digital formats for the purpose of achieving cost savings, making document sharing easier, keeping personal information more secure, and improving efficiencies.

Expected outcomes:

- Increased number of processes managed through automated workflow
- Increased use of interactive forms
- Expanded use of SIRE across the City
- Expanded use of SIRE functionality
- Implementation of electronic report preparation within Police Department
- Implementation of online bid processes

- Utilization of barcodes/scanners in inventory stores

D. RECORDS MANAGEMENT

This initiative focuses on a series of strategies and associated projects to facilitate the management of a records retention program involving the systematic review, retention, and destruction of documents and records received or created during the course of business.

i. Utilize Technology to Implement Records Retention Policies

Focus on implementing records retention policies through the use of automated tools for ensuring compliance and facilitating purging.

Expected outcomes:

- Establishment of document archives
- Improved records management
- Increased recognition of employee obligations in retaining electronic documents
- Improved ability to determine life span of existing documents

ii. Optimize Use of Document Management Systems

Expand the use of SIRE across the City, standardize indexing, and implement workflow capabilities.

Expected outcomes:

- Improved ability to store and manage electronic documents
- Increased speed in document retrieval
- Improved ability to search for and locate electronic documents
- Expanded usage of document workflow functionality

iii. Establish Reasonable e-mail Retention Policies

Define and implement effective e-mail retention policies that minimize the liabilities associated with electronic mail management while not inhibiting productivity.

Expected outcomes:

- Reduced infrastructure costs resulting from lower storage requirements
- Improved Outlook performance and e-mail management efficiency
- Improved ability to locate archived e-mails
- Decreased compliance efforts
- Improved user workflow efficiency with email archiving capabilities

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E. CUSTOMER SERVICE & GOVERNANCE

This initiative focuses on a series of strategies and associated projects to pursue opportunities to achieve greater customer satisfaction with Information Technology functions and systems.

i. Expand Customer Service Capabilities

Focus on examining resource allocation with respect to supporting systems and departments, establishing service level agreements, and exploring opportunities to empower users to become more self-sufficient.

Expected outcomes:

- Increased number of service level agreements with departments
- Improved systems support in terms of number of systems supported
- Decreased response time
- Increased customer satisfaction
- Balance between support needs and resources
- Potential decrease in desktop support issues as a result of empowering department power users

ii. Improve Collaboration and Communication with Departments

Increase recognition of distinct customer needs by expanding understanding of business processes and user needs. Increase involvement of and communication with customers with respect to decision-making processes, resource and project scheduling, and performance.

Expected outcomes:

- Improved resource scheduling and allocation
- Improved understanding of department needs
- Increased visibility for stakeholders to project costs, resource requirements, timelines
- Minimized issues associated with poorly-timed rollouts
- Greater recognition of IT as technology leaders
- Greater clarity in distribution of roles and responsibilities between IT and departments
- Increased visibility into performance metrics

iii. Institutionalize IT Governance Processes

Further the strategic alignment of IT with the City by assessing IT Governance effectiveness, prioritizing improvement opportunities, and increasing stakeholder involvement through participatory measures and greater communications.

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Expected outcomes:

- Greater recognition of IT as technology leaders
- Improved understanding of customer needs
- Expanded involvement of non-IT personnel in governance processes and decision-making
- Establishment of technology standards and improved enforcement thereof
- Established, standardized criteria for technology purchases

iv. Ensure System Reliability

Focus on stabilizing systems and implementing improved monitoring functions to enable a shift from a reactive to a proactive stance.

Expected outcomes:

- Stabilized infrastructure
- Decreased downtime and 'fire drills'
- Improved system performance
- Improved wireless and remote access capabilities
- Improved Outlook performance

F. EMERGING TECHNOLOGIES

This initiative focuses on a series of strategies and associated projects to capitalize on trends and developments in the technology field for the purpose of achieving efficiencies and expanding opportunities for connecting with citizens.

i. Pursue Cloud/Software-as-a-Service Opportunities

Identify cloud opportunities, whether public, private, or community, to take advantage of benefits such as scalability, prospective cost savings, ability to re-allocate resources, etc. Include infrastructure-/software-as-a-service options whenever analyzing alternatives for replacing existing or acquiring new systems.

Expected outcomes:

- Increased number of hosted systems
- More rapid scalability
- Improved access to up-to-date software and hardware
- Decreased demand on internal resources for maintenance
- More efficient interaction with vendors via online bid processes
- Improved decision-making through expanded use of GIS

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G. MOBILE WORKFORCE

This initiative focuses on a series of strategies and associated projects to capitalize on trends in newer technologies that untether the City's workforce from desktop machines and facilitate mobility. In addition, this initiative strives to increase the opportunities for interacting with the public through mobile technologies.

i. Develop a Mobile Strategy

Evaluate opportunities and establish a consistent method, with associated standards, of utilizing mobile technology to expand citizen interaction opportunities and capitalize on workforce mobility within the City.

Expected outcomes:

- Established and communicated standards
- Increased understanding of the opportunities and associated benefits of mobile technology

ii. Enable Greater Mobility of the Workforce as well as Citizen Interaction through Mobile Technologies

Pursue opportunities for connecting with the public via mobile devices through offering unique user experiences specific to the mobile platforms and developing applications to expand citizen touch points. Expand mobile workforce capabilities to facilitate remote data capture, increased efficiencies, reduced administration, enhanced workflow, and improved morale.

Expected outcomes:

- Enhanced mobility of workforce
- Decreased effort/time spent on remote tasks
- More efficient inventory tracking and fulfillment through use of barcodes and scanners in warehouse
- Increased number of mobile devices in use
- Expanded use of videoconferencing
- Increased number of citizen touchpoints

H. eGOVERNMENT & CITIZEN INTERACTION

This initiative focuses on a series of strategies and associated projects for expanding the City's virtual presence through website re-design, standardization, and expansion of online services. In addition, this initiative focuses on addressing the requirements for increased transparency in government.

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i. Coordinate Social Media Presence

Continue with progress made to-date by ensuring that a centralized vision and strategy for use of social media, as well as roles and responsibilities, are clearly defined and communicated across the City, focusing on consistency of messaging. Capitalize on available technologies to facilitate effective and efficient consolidation of feeds and coordination of messaging/posts. Include social media feeds in information/data management processes.

Expected outcomes:

- Ability to measure and interpret the success/failure of social media usage
- Improved visibility into citizen concerns and needs
- Incorporation of social media feeds into data analysis and decision support processes
- Increased volume of citizen touch points through social media outlets

ii. Solidify Virtual City Hall Plans

Develop concrete plans, including strategic and tactical plans, for moving the Virtual City Hall concepts forward through continued coordination across the City, focusing on the agreed-upon goals and guiding principles.

Expected outcomes:

- Completion of a VCH Strategic Plan
- Development of an actionable tactical plan
- Progress along the Web Maturity framework, moving each department towards providing online transactions and community-centric services

iii. Achieve Greater Openness, Communication, and Accountability through Transparency

Adopt a policy of making City government more open, accessible, and transparent to the citizens of Roseville. Pursue initiatives and technologies that ensure the availability and search ability of fiscal and operational information and other public records and documentation.

Expected outcomes:

- Increased access to information for citizens
- Increased number of searchable documents/records
- Improved ability to share data with partners

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I. SECURITY & PRIVACY

This initiative focuses on a series of strategies and associated projects to promote productivity and ease of access without impeding security and regulatory compliance requirements.

i. Pursue Balance between Security and Productivity

Evaluate security measures to ensure a balance between users' ability to get work done and maintaining adequate protection by increasing visibility into existing vulnerabilities and compliance requirements as well as educating users on risks.

Expected outcomes:

- Assured compliance with relevant regulations
- Improved authentication management
- Reduction in exposures to risks
- Increased security awareness
- Improved productivity and efficiency through balanced solutions

ii. Expand Remote Access Capabilities

Support users in maintaining acceptable levels of productivity by enabling remote access and connectivity to City data and systems through virtual private networking.

Expected outcomes:

- Increased use of remote connectivity without significant risk exposure
- Increased security awareness
- Reliable wireless and remote connectivity
- Increased number of systems accessible outside of City premises

iii. Ensure Regulatory Compliance

Utilize technology to ensure and even streamline the capacity for the City to comply with applicable laws and regulations, particularly in the realm of data privacy, availability, and integrity.

Expected outcomes:

- Improved password policies and authentication management
- Increased awareness of compliance requirements within IT and amongst users
- Decreased exposure of personally identifiable information, protected health information, payment card information, etc.

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J. INNOVATIVE IDEAS & WORKFORCE EMPOWERMENT

This initiative focuses on a series of strategies and associated projects aimed at fostering innovative ideas with respect to empowering City staff as well as ensuring the availability of technology funding.

i. Pursue Innovative Funding Strategies

Consider alternative technology funding strategies that represent a departure from the traditional funding for technology, including grant funding, budgeting and appropriation strategies (including utilizing uncommitted funds or realized savings from prior technology projects), shared services, and leveraging buying power. Explore additional opportunities associated with pursuing partnership and outsourcing scenarios.

Expected outcomes:

- Increased availability of funds for future needs
- Increased visibility into upcoming costs
- Improved consideration of technology lifecycles in budgeting processes
- Ability to measure benefits and costs savings associated technology projects

ii. Increase Citywide Buying Power

Facilitate collective buying power to realize purchase discounts by centralizing technology purchases, publishing technology inventories, and collaborating across the City to meet technology needs.

Expected outcomes:

- Increased opportunities for discounts in technology purchases
- Availability of a Citywide technology inventory
- Reduced number of de-centralized technology purchases

iii. Provide Adequate Training

Ensure the City's workforce has the knowledge and skills to efficiently utilize and support the City's applications and infrastructure. Explore opportunities for establishing power users within departments for first line support to users.

Expected outcomes:

- Decreased downtime and reliance on external support
- Increased ability for Library staff to troubleshoot user issues
- Improved morale
- Increased number of department power users
- Increased number of cross-trained backups within IT
- Better-trained workforce

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VI. CONCLUSIONS AND NEXT STEPS

Moss Adams has been pleased to have been given the opportunity to assist the City of Roseville in preparing this important document, and applauds the City for the approach taken in assembling the content of this plan. Rather than focus primarily on preparing a plan that focuses on detailed projects and technologies that is derived primarily through discussions with IT Department, the City has focused more on developing a big picture document. A bulk of the time spent on this project has been in discussions with representatives from the Departments throughout the City to understand their needs and how they see technology being employed to support service delivery to citizens and other stakeholders.

An important component of this effort has been to ensure the plan reflects the "voice of the customer." This means that the planning process was designed to capture the expectations and preferences of stakeholders within departments throughout the City. This information, combined with information gleaned from other sources, including prior studies, legislative/regulatory activities, and analysis of technology trends, has provided the strategic framework for the three-year plan. Of utmost importance, the plan took into account the City's overarching mission and vision with an eye toward furthering the goals and objectives laid out by the City Manager.

In subsequent years, Moss Adams will re-visit the plan and make updates to it, as needed, to reflect changes in priorities and/or initiatives. In addition, specific audits of progress against defined initiatives will be conducted to assess the progress made by the City against the plan.