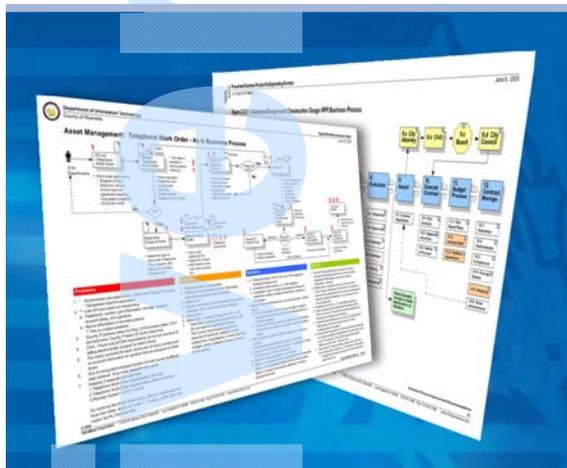


able  
able  
Del

**PROBLEMS**  
**SOLUTIONS**  
**BENEFITS**  
**RAPID WORKFLOW®**



## Information Technology Strategic Plan Part 1: Findings & Recommendations August 18, 2014



**ThirdWave**

**27**  
**YEARS**

Thought Leadership, Exceptional  
Performance & Results  
Established in 1987

**ThirdWave Corporation**  
*Information Systems Intelligently Applied*

11400 W. Olympic Blvd. Suite 200  
Los Angeles, CA 90064  
www.ThirdWaveCorp.com  
310.914.0186





# Table of Contents

## IT Strategic Plan: Part 1 Findings & Recommendations

- Preface ..... 1**
- Executive Summary: Findings & Recommendations..... 1**
- 1 Information Technology Strategic Plan Vision ..... 1
- 2 ITSP Project Goals & Objectives ..... 2
- 3 Project Approach & Methodology ..... 2
- 4 ITSP Findings ..... 3
- 4.1 Summary of Findings ..... 3
- 4.2 Leading Enterprise Information Technology Challenges ..... 4
  - Figure 1: Internal City IT Challenges ..... 4
  - Figure 2: External Public IT Challenges ..... 5
- 4.3 Leading Technology Initiatives..... 5
  - Figure 3: Technology Initiatives Identified (Not Prioritized) ..... 6
- 4.4 ITSP Potential Benefits ..... 7
  - Figure 4: Potential ITSP Benefits..... 8
- Section 1 Introduction ..... 1.1**
- 1.1 Project Background, Goal & Objectives..... 1.1
- 1.2 IT Strategic Plan Project Approach..... 1.2
  - Figure 1.2.1: Comprehensive Project Approach & Methodology ..... 1.3
- Section 2 Requirements Definitions Findings ..... 1.5**
- 2.1 Requirements Introduction ..... 1.5
- 2.2 Information Technology Focus Group Findings..... 1.6
  - 2.2.1 Summary of IT Focus Groups..... 1.6
    - Figure 2.2.1.1: Dashboard of IT Department’s Challenges ..... 1.6
- 2.3 City Staff Survey ..... 1.7
  - Figure 2.3.1: Significant Internal Information Technology Challenges ..... 1.7
- 2.4 Online Public Survey..... 1.8
  - Figure 2.4.1: Online Public Survey Summary..... 1.8
- 2.5 Summary of Technology Requirements ..... 1.9
  - Figure 2.5.4.1: Management Policies & Operational Improvement..... 1.10
  - Figure 2.5.4.2: Infrastructure & Hardware Requirements ..... 1.11
  - Figure 2.5.4.3: Departmental & Enterprise Software Requirements ..... 1.12
  - Figure 2.5.4.4: E-Government Requirements ..... 1.13
- 2.6 Summary of Potential Benefits..... 1.14
  - Figure 2.6.1: Summary of Potential Internal and External Benefits ..... 1.14
  - Figure 2.6.2: External Benefits – Community Outreach Workshops ..... 1.15
  - Figure 2.6.3: Internal Benefits – Visioneering / 2015 Plan Workshops / IT Focus Groups..... 1.16
- 2.7 Benefits Summary Analysis ..... 1.17



**Section 3 Information Technology Strategic Plan Recommendations ..... 1.18**

3.1 Introduction to the ITSP Recommendations ..... 1.18

3.2 ITSP Initiatives ..... 1.19

3.2.1 Technology Recommendations ..... 1.19

    I Infrastructure ..... 1.19

        I 1 Communications / Networks..... 1.19

        I 2 Telephone Systems..... 1.23

        I 3 Consultant Remote Access ..... 1.24

    HW Hardware: Servers, Desktops, Mobile Devices, Peripherals ..... 1.24

        HW 1 Desktop Computers..... 1.24

        HW 2 Standalone Printers..... 1.25

        HW 3 Desktop Scanners ..... 1.25

        HW 4 Mobil Devices ..... 1.26

    D SW Software: Departmental ..... 1.27

        D SW1 Asset Management ..... 1.27

        D SW2 Traffic Operations Center ..... 1.28

    E SW Software: Enterprise ..... 1.29

        E SW1 Enterprise Resource Planning System ..... 1.29

        E SW2 Enterprise Content Management System ..... 1.30

        E SW3 Geographic Information Systems ..... 1.35

    E-GOV Software: E-Government ..... 1.36

        E-GOV 1 City Website Design ..... 1.36

        E-GOV 2 City Website Content Management ..... 1.38

        E-GOV 3 Public E-Government Applications..... 1.39

        E-GOV 4 Social Media ..... 1.42

        E-GOV 5 E-Learning Tools ..... 1.45

        E-GOV 6 Online Notification of Events ..... 1.46

        E-GOV 7 Video Chat at Council Meetings..... 1.47

3.2.2 Operational Recommendations ..... 1.48

    O 1 Network Security ..... 1.48

    O 2 Training ..... 1.48

    O 3 Technical Support..... 1.49

    O 4 Disaster Recovery ..... 1.49

    O 5 Business Connectivity..... 1.50

    O 6 Cell Phone Help Desk..... 1.51

    O 7 GIS System Administration ..... 1.51

3.2.3 Management Recommendations ..... 1.52

    M 1 Regional IT Consortium ..... 1.52

    M 2 Management Policies..... 1.54

    M 3 IT Staff Resources ..... 1.56

    M 4 Change Management ..... 1.56

        Figure M 4.1: Best Practice IT Change Management Model..... 1.57



---

## Preface

---

### IT Strategic Plan: Findings & Recommendations

---

## Preface

The City of Westlake Village Information Technology Strategic Plan (ITSP) is the result of a comprehensive and thorough assessment of the City's existing technologies, operational requirements and service delivery needs. This document reflects an examination of tactical and strategic requirements from an internal and external customer perspective; it is technologically strategic, operationally responsive, and fiscally sound. The ITSP addresses the unique requirements of critical business needs of the City and its constituents, visitors and business community as a whole.



The ITSP is the product of a highly collaborative effort with city management, councilmembers, city staff, business community and the public, all of which made valuable contributions throughout the project. A considerable focus was made on integrating the IT strategic planning process with the *City of Westlake Village 2015 Strategic Plan*. City leadership sought to ensure the alignment of the ITSP with the vision, core values, goals and objectives of the 2015 Plan.

Based on ThirdWave's 27 years of experience (working with more than 115 cities throughout the US and Canada), it bears noting that Westlake Village is truly a unique and extraordinary city. We offer the following observations:

- **"City in the County":** Nestled in the picturesque hills of the Conejo Valley, Westlake Village represents a wonderful sense of place, reflecting the very best of a master planned community. The City's elected officials and management team have made, and continue to make, a conscientious effort to maintain the community's quality of life.



- **A strong future consciousness:** The Westlake Village City Manager, other City staff and councilmembers have a strong and enthusiastic sensitivity to planning for the future. This goes beyond the future use of emerging technologies, but to a genuine concern on how the city of the future will function overall in its business and service delivery model, and what technology landscape will best support the City's vision.
- **Committed City staff:** This future consciousness of City staff is exceeded only by an impassioned commitment to the City's constituents. Westlake Village staff has a strong level of professionalism, with a conscientious commitment to delivering exemplary services to the residents, business and visitors of the community.
- **An effective outsourced business model:** The City has made impressive and effective use of outsourced services to contain costs as well as meet the needs of the community. This has allowed containing the number of employees to a remarkably lean 10 person fulltime staff, while sustaining a commendable level of services to the community.

The ITSP focuses on supporting and enhancing the City's current business model and vision and is comprised of two complementary volumes:

**Part 1: ITSP Finding & Recommendations**, identifying a comprehensive set of technology opportunities and initiatives, which contain the rationale for the recommended IT initiatives identified in the ITSP (this volume);

**Part 2: ITSP 5-Year Implementation Plan**, providing the final list of proposed initiatives, budget estimates, and a phased roadmap for implementing the ITSP.

Like many municipal agencies throughout California, Westlake Village faces the challenge of meeting constantly growing service needs and customer expectations, while being as cost effective as possible. Thus, the challenge of adopting, funding and implementing an ITSP is a formidable one. However, given its 5-year timeline of the ITSP, there is plenty of latitude in the future budgeting and execution of technology initiatives.

The ITSP is a living document that can be (and should be) adjusted over time. It provides an opportunity for new, more efficient ways of providing services coupled with strategic technology investments. The cornerstone of this ITSP is to ensure that investments in strategic business technologies are sound and deliver the highest possible value to the City and its constituents. The ITSP supports the City's ongoing evolution in how it operates and delivers extraordinary services to its residents, businesses and visitors.

Roy R. Hernández  
President / CEO, ThirdWave Corporation  
August 18, 2014



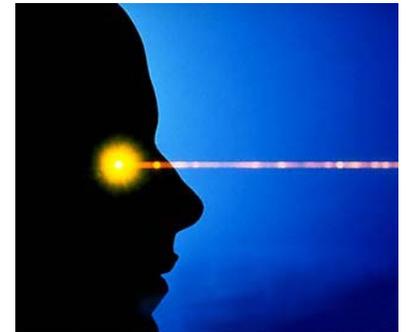
## Executive Summary

## Findings & Recommendations

### 1. Information Technology Strategic Plan Vision

This document reflects an Information Technology Strategic Plan (ITSP) custom tailored to the City of Westlake Village. It is technologically sound with a focus on Strategic Business Technologies in response to the business and service delivery needs of the Westlake Village community. The vision of the ITSP is to:

*Provide a comprehensive roadmap fostering the use of proven state-of-the-practice broadband infrastructure and Information Technologies in the most strategic, innovative, cost effective and efficient ways possible to support internal City operations, business activities and extraordinary customer service delivery.*



The adoption and implementation of the ITSP will leverage the effective investment in Information Technologies while at the same time supporting the City's core values and the City's 2015 Plan.



## 2. ITSP Project Goal & Objectives

The goal of the Information Technology Strategic Plan (ITSP) is to help the City:

- Connect technology resources and innovation with the initiatives of the City's 2015 Plan;
- Document internal and external municipal technology uses and requirements;
- Identify the role of Information Technology within the organization, and;
- Specify Information Technology solutions for the organization to support providing exemplary services to the community of Westlake Village.



The objectives of the ITSP project are to:

- Guide the City in responsive technology planning and sound investments;
- Assist the City in future citywide technology improvements and additions such as E-Government applications, public Wi-Fi, expansion of commercial broadband capabilities within underserved areas of the City, and the strategic deployment of emerging technologies;
- Provide a 3 to 5-year Technology Strategy employing a highly participatory process directly engaging City departments, City staff, the business community and the residents of Westlake Village; and
- Articulate actionable recommendations that will guide and shape how the Westlake Village delivers innovative and effective technology services throughout the organization and to the community at large.

## 3. Project Approach & Methodology

The Westlake Village ITSP project employed a comprehensive and structured “waterfall” best practice methodology encompassing a robust emphasis on community outreach, involvement and input. The project relied on the collection, assessment, and synthesis of various types of information, including:

- Data on existing and planned Information Systems;
- IT Focus Groups with IT staff and management;
- Management and Staff Survey;
- Community outreach workshops with citizens, regional government agencies and the business community;
- Connectivity / community infrastructure lunch meetings with the public and local businesses; and
- Online Customer Survey, to allow constituents, businesses and government agencies the opportunity to provide input into the project.



## 4. ITSP Findings

Westlake Village is located 38 miles west of downtown Los Angeles and only eight miles from the Pacific Ocean. The City is recognized as one of the finest areas to live, work and raise a family in Southern California. The community offers a variety of residential housing options, convenient shopping centers, and a thriving business and industrial base. As a master-planned community, residential, recreational and commercial sites were carefully located within the City to preserve, enhance and protect the area's unspoiled natural environment.

The City of Westlake Village (population 8,270) incorporated in December 1981 as the 82<sup>nd</sup> municipality in Los Angeles County. Westlake Village's orientation as a contract City, with only ten full-time staff, sees many of its services provided through agreements with Los Angeles County and private agencies and consultants.

### 4.1 Summary of Findings

The following provides a list of key findings in the Information Technology Strategic Planning project:

- The most consistently identified challenge is the lack of high-speed and reliable Internet access, Fiber / Wi-Fi, which is resulting in the inability of constituents and the local business community to make the best use of web-enabled technologies.
- The City's website is comparable to other city websites of comparable size; however, citizens in the Online Public Survey noted that it needs to be redesigned with the content upgraded.
- The City is not currently making significant use of online E-Government applications and social media, which present a substantial opportunity for enhancing effectiveness and the distribution of information.
- The City IT office automation / help desk support is outsourced to a highly capable local firm who has developed a close working relationship with the City. However, the initiatives proposed in the ITSP include a number of systems and applications that may extend beyond Lanspeed's capabilities to support.
- The City does not have an IT department or any internal dedicated IT staff, which seems to be working fairly well. However, staff also noted issues with technical support, ongoing training, and the implementation of certain enterprise technologies, i.e., Asset Management, ERP, Enterprise Document Management Systems, and web services.

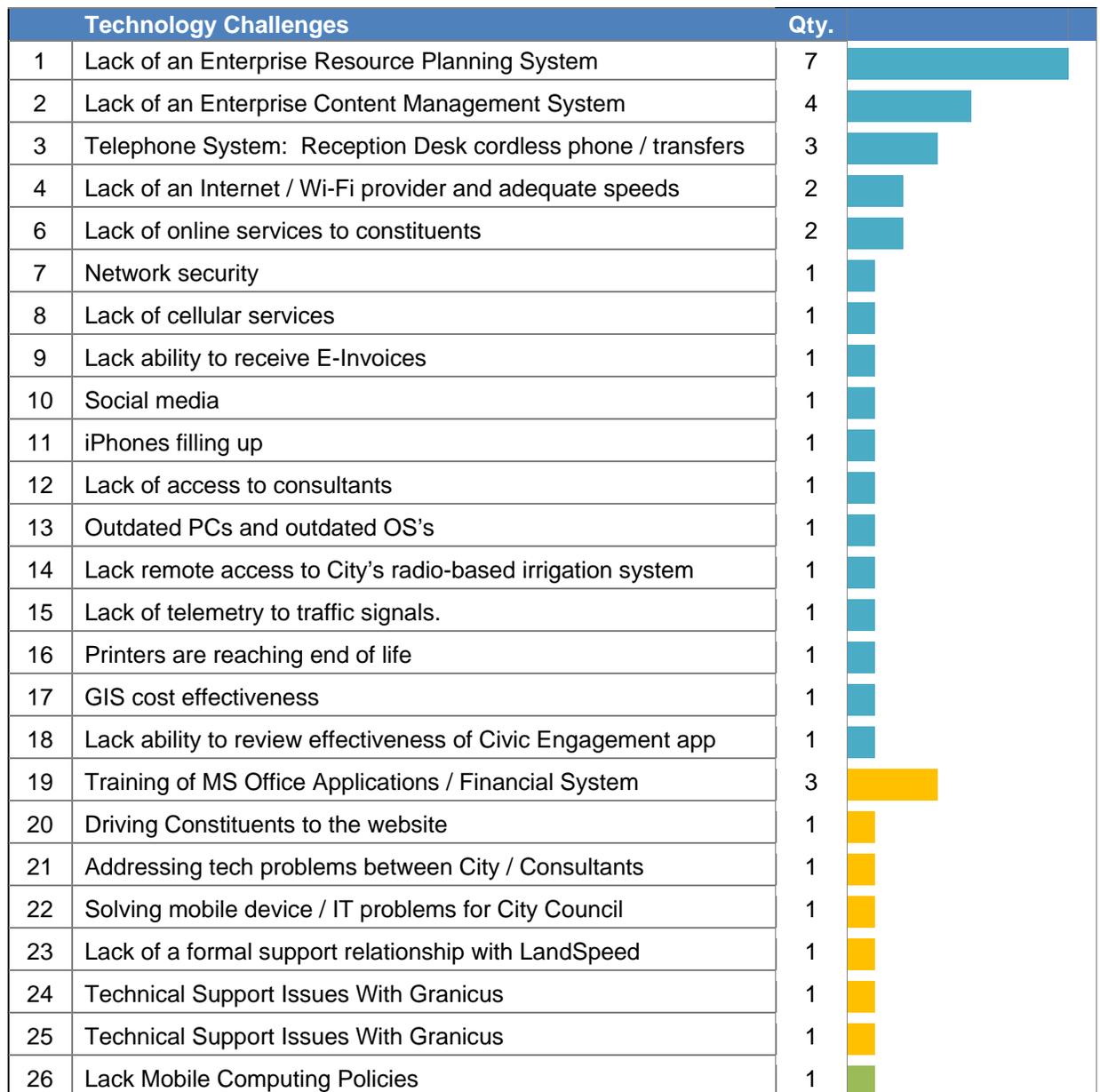
The City's current internal IT environment is a mixed blessing: while it has been cost effective and has functioned well in the past, it may be unsustainable in the future. The proliferation of web-based applications and the public / business expectation of Digital Cities will require IT knowledge, skills and abilities resources the City lacks today. Given the tactical and strategic role Information Technology plays in effective and efficient municipal service delivery, the cost effective status quo could act as an impediment in reaching the vision, goals and objectives identified in the City's 2015 Strategic Plan and the requirements identified in the ITSP project. This issue will be addressed in the ITSP Implementation Plan, which will use outsourcing and/or cloud computing as possible solutions for containing costs while sustaining service levels.



## 4.2 Leading Enterprise Information Technology Challenges

The figure below provides a summary of the leading internal technology challenges identified by City management and staff in the Staff Survey and IT Focus Groups.

**Figure 1: Internal City IT Challenges**



**Legend:**

Technology    Operational    Management



The figure below provides a summary of the leading external technology challenges identified by local government agencies, the business community, and residents of Westlake Village in the Online Public Survey and Community Outreach Focus Groups.

**Figure 2: External Public IT Challenges**

Technology Challenges		Qty.	
1	Limited connectivity: Wi-Fi	3	
2	Limited connectivity: Fiber	2	
3	Lack of web-enabled Public Safety system / notifications	2	
4	Lack of E-Commerce applications	1	
5	Need to improve City Website	1	
6	Lack of availability and consistency of network bandwidth.	1	
7	Integration on online applications with GIS	1	
8	Lack of co-location facilities / data center	1	
9	Lack of cellular service	1	
10	Government / business websites are not mobile responsive	1	
11	City website lacks intelligence	1	
12	Lack of commonality / standardization (Infrastructure / HW)	1	
13	Lack of use of City Website	1	
14	Not leveraging joint cost of aerial imagery	1	
15	Lack of a technology local agency networking group	1	
16	Lack of budget / financial resources	1	
17	Lack of a purchasing consortium	1	

**Legend:**

Technology      Operational      Management

**4.3 Leading Technology Initiatives**

The figure on the next page provides a list of technology initiatives identified in several tasks in the ITSP project, including the IT Focus Groups, Community Outreach Workshops with regional agencies, business community and constituents, and the Online Public Survey.

The following initiatives are organized by category, however, they are not prioritized. (The following ITSP initiatives will be assigned weighted scores, and be prioritized, in the ITSP Implementation Plan, Volume 2 of this report.) **This list reflects a compilation of all possible solutions identified in the project, however, some of the following initiatives will be combined and others will be eliminated during the prioritization process for a variety of reasons.**



**Figure 3: Technology Initiatives Identified (Not Prioritized)**

<b>INF Infrastructure</b>		
1.	I 1	Network Security
2.	I 2	Network Providers
3.	I 3	Phone Systems Enhancement
4.	I 4	Fiber Infrastructures
5.	I 5	City Wi-Fi Infrastructure
6.	I 6	Microwave Point-to-Point Infrastructure
8.	I 7	Consultant Remote Access
9.	I 8	Traffic Operations Center
<b>HW Hardware: Servers, Workstations, Peripherals</b>		
10.	HW 1	Servers / Data Storage
11.	HW 2	Personal Computers
12.	HW 3	Peripherals
13.	HW 4	Desktop Scanners
14.	HW 5	Printer Upgrades
15.	HW 6	Tablets
16.	HW 7	Smart Phones
<b>D SW Software: Departmental</b>		
17.	D SW 1	Asset Management
<b>E SW Software: Enterprise</b>		
18.	E SW 1	Enterprise Resource Planning System
19.	E SW 1.1	Financial System
20.	E SW 1.2	Budget System
21.	E SW 1.3	Access to Vendor Information
22.	E SW 1.4	Payment Apps
23.	E SW 1.5	Accounting Software
24.	E SW 2	Enterprise Content Management System
25.	E SW 2.1	Imaging
26.	E SW 2.2	Content Management
27.	E SW 2.3	Records Management
28.	E SW 2.4	E- Forms
29.	E SW 2.5	E- Signatures
<b>EGOV E-Government</b>		
<b>EG.1 City E-Government Apps</b>		
31.	EG 1.1	Online Payments / E-Commerce
32.	EG.1.2	Online Information / Services
33.	EG.1.3	City Website Design / Navigation / Open Standards
34.	EG.1.4	City Website Content Management
<b>EG 2 Public E-Government Apps</b>		
35.	EG.2.1	Online / Mobile Applications
36.1	EG 2.2.1	Online Grant Applications
36.2	EG 2.2.2	Online Reporting Application
36.4	EG 2.2.4	Online Surveys from Website



- 37. EG 2.2 Social media
- 37.1. EG 2.2.1 Facebook
- 37.2 EG 2.2.2 Twitter
- 37.3 EG 2.2.3 Instagram / YouTube / Tumblr
- 38. EG 2.3 Online Video
- 39. EG 2.4 E-Learning Tools
- 40. EG 2.5 E-Mail Notification of Events
- 41. EG 2.6 Video Chat at Council Meetings

**OPS Operational Sustainability**

- 42. OP 1 Training
- 42.1 OP 1.1 IT Staff Training
- 42.2 OP 1.2 City Staff Office Application Training
- 42.3 OP 1.3 Budget Software
- 42.4 OP 1.4 Financial System
- 42.5 OP 1.5 Web – Enabled Apps
- 42.6 OP 1.6 Citizen Training
- 42.7 OP 1.7 City Council Training (Mobile)
- 43. OP 2 Disaster Recovery
- 44. OP 3 Business Continuity
- 45. OP 4 Cell Phone Help Desk
- 50. OP 5 GIS Admin

**MNG Management Policies**

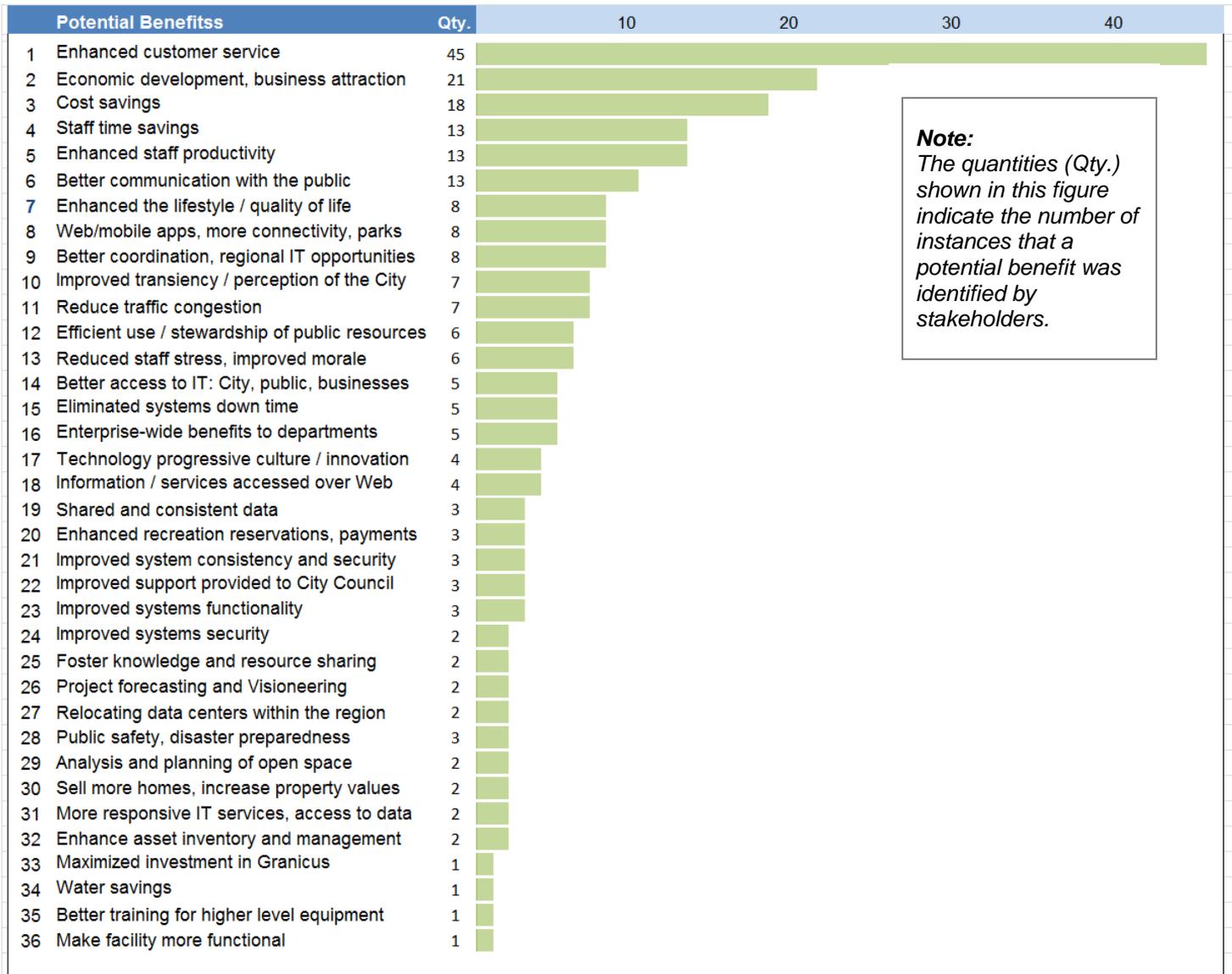
- 51. M 1 Regional IT Consortium
- 51.1 M 2 Infrastructure Group
- 51.2 M 3 Technology Group
- 51.3 M 4 GIS Applications
- 51.4 M 5 Consortium IT Purchases
- 52. M 6 IT Policies
- 52.1 M 7 Technical Support Policies
- 52.2 M 8 Mobile Computing Policy
- 52.3 M 9 Online Application Policies
- 53. M 10 Staff Resources
- 42. M 11 IT Staff: City & Contracted

**4.4 ITSP Potential Benefits**

A total of 36 (thirty-six) general types of benefits were identified in the ITSP project. (These were combined from a total of two-hundred and twenty-four (224) specific potential benefits.) The figure below provides the top twenty (20) potential benefits that will be derived from approving and funding the ITSP.



**Figure 4: Potential ITSP Benefits**



This illustration provides an indication of the type of opportunities, and their relative magnitude, identified in the course of the ITSP project, as articulated by City staff, constituents, the business community and ThirdWave.



## Section 1

### Introduction

#### 1.1 Project Background, Goal & Objectives

The goal of the Information Technology Strategic Plan (ITSP) is to help the City identify both internal and external municipal technology uses, the role of Information Technology within the organization, and technology solutions for the organization in providing exemplary services to the community of Westlake Village.

In addition, the goal of the ITSP is to help guide the City in responsive technology planning and sound investments. Finally, the ITSP will assist the City in future citywide technology improvements and additions such as public Wi-Fi, expansion of commercial broadband capabilities within underserved areas of the City, and the strategic deployment of emerging technologies.



The objective of the ITSP is to provide a 3 to 5-year Technology Strategy employing a highly participatory process directly engaging City departments, City staff, the business community and the residents of Westlake Village. The ITSP contains actionable recommendations that will guide and shape how Westlake Village delivers innovative and effective technology services throughout the organization and to the community at large.

This report is accompanied by a second volume, the Westlake Village ITSP Implementation Plan, focusing on prioritization, budgeting and deployment sequencing. As such, the following pages address “what” should be done, and the Implementation Plan addresses the “when” and at “what cost.”



The objectives of the ITSP are to:

- Connect technology resources, innovation, and initiatives to the City's vision, as carefully crafted in 2004:

*Westlake Village is a "city in the country" where residents are actively engaged and involved in the life of the community. Over the years, a well-conceived master plan, shared values, and a balanced economy (i.e., residential, commercial) have fostered a strong sense of identity and a uniquely high quality of life. This combination of elements will continue to drive City residents to build upon their successes as they address the opportunities and challenges of the future.*

*In 2015, Westlake Village will continue to be a well-functioning community with an innovative, welcoming and environmentally-friendly business climate, ample and accessible open space and recreational areas, well-maintained, safe and connected neighborhoods, and a vibrant city center. It will be a community that provides opportunities for everyone-from young to old-to fully enjoy and actively participate in community life.*

- Serve as the framework for how IT services will be delivered to the City.
- Define a clear set of goals, guiding principles, and strategic priorities for accomplishing the City's objectives:
  - Information technology Strategy
  - Information technology Strategy Implementation Plan
  - IT Business / Operating Plan
  - Guiding Principles
- The IT Strategy contains actionable objectives, and will be the guiding document that shapes how the City delivers innovative, unified, and effective technology services throughout the organization and to the community.

To this end, the implementation of future business systems and information technology projects must be properly prioritized, scheduled, and coordinated as part of an overall ITSP. Implementation of the ITSP will help ensure the City's technological advancement by making logical and sound investments in physical resources (i.e., hardware, software, integrated systems, etc.) and human resources (staff and training).

## 1.2 IT Strategic Plan Project Approach

The ITSP project employed a comprehensive, logical and structured "waterfall" approach relying on the collection, assessment, and synthesis of various types of information, including:

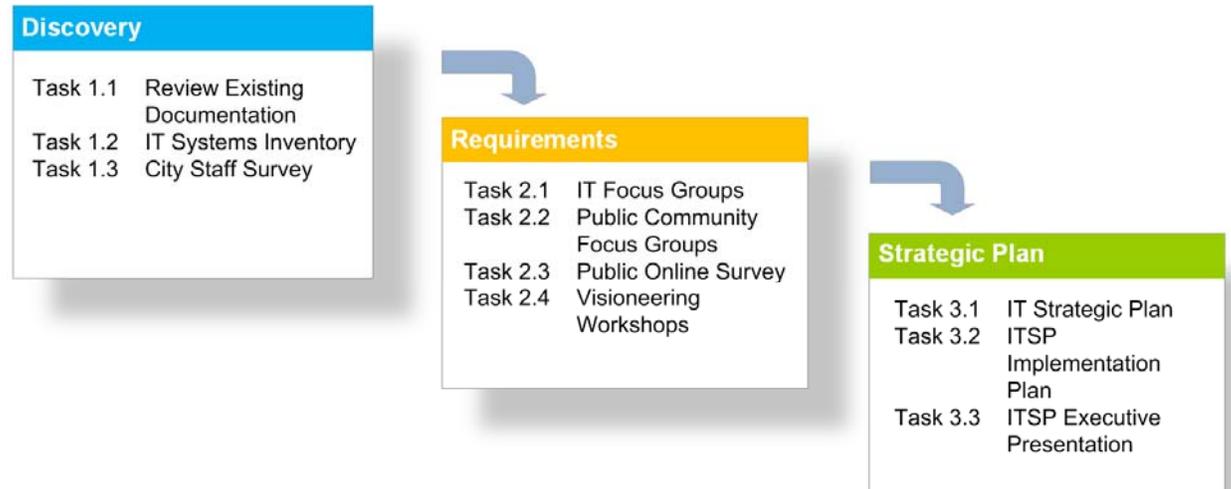
- Documentation of Current Technology;
- IT Systems Inventory;
- City staff survey;
- IT Focus Groups data;
- Public / Community Focus Groups;
- Business Lunch Meetings input; and,



- Visioneering Workshops

Figure 1.2.1 below provides a roadmap of the approach used on the ITSP project. As shown, the project was broken out into three phases: Discovery, Analysis / Requirements, and Recommendations & Strategy.

**Figure 1.2.1: Comprehensive Project Approach & Methodology**



Data from one phase is referenced in subsequent project phases and forms the basis for the final recommendations and strategy.

**Phase 1:** The Discovery Phase established a baseline understanding of the City’s IT and business systems environment, including a survey of existing information technologies.

**Phase 2:** The Analysis / Requirements Definition Phase engaged a broad section of City stakeholders, regional government agencies, residents and business community including:

- **IT Staff Focus Groups:** addressing every facet of IT operations and support.
- **Public Community Outreach Focus Groups:** addressing requirements for all of the City’s constituents, regional government agencies, business community and residents.
- **Public Online Survey:** providing the public the opportunity of getting engaged in the strategic planning process, and contributing their input on requirements.
- **Visioneering Workshops:** held with all stakeholder groups (City staff and management, residents, government agencies and the business community) to address departmental, enterprise operating, and service delivery needs.



**Phase 3:** The Strategic Planning Phase: which synthesized all of the data collected in previous tasks to produce the ITSP, including a multiple year Implementation Plan with prioritized technology initiatives.

The ITSP identifies opportunities for improving business process and customer service through policy, process and/or technology improvement initiatives. ThirdWave used a comprehensive analysis to produce pragmatic, custom solutions tailored for the specific needs of the City.



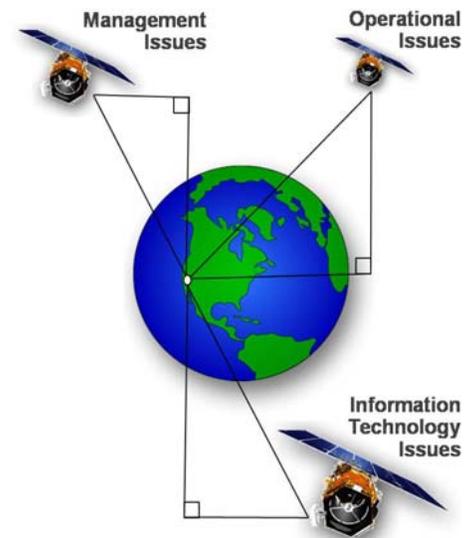
## Section 2

# Requirements Definition Findings

### 2.1 Requirements Introduction

ThirdWave's requirements framework triangulates on all key facets of the organization to get a crisp definition of business, functional and technology requirements to produce responsive strategic recommendations.

- **Management:** Address business unit missions, business architecture, governance structure, management policies, strategic planning, fiscal and staff resource allocation to effectively sustain the ITSP.
- **Operational:** Address streamlined business processes, methods and procedures, and service delivery tools required by staff to provide extraordinary service delivery.
- **Technology:** Address strategic Information Technologies with the appropriate architecture, organizational structure, staffing knowledge, skills and abilities; and standards / best practices.



The data on the following pages provide graphic summaries of business requirements from various perspectives, i.e., management, operational, and technology, collected in various project tasks.



## 2.2 Information Technology Focus Group Findings

The following provides a summary of findings from a Focus Group held with IT staff and management IT portfolio and operations. These are provided to illustrate the nature of challenges and opportunities facing the City in four key technology areas:

- Infrastructure;
- Hardware;
- Software; and
- Sustainability & Service Delivery.



### 2.2.1 Summary of IT Focus Groups

The figure below (2.2.1.1) provides an overall summary of the data collected in the four focus groups. While the compiled instances of management, operational, and technology problems are not weighted, this dashboard provides a general indicator of existing challenges facing the City's Information Technologies.

**Figure 2.2.1.1: Dashboard of IT Challenges**

Dashboard	issues	%	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Management	2	9.6%	█																								
Operational	5	23.8%	█	█	█	█	█																				
Technology	14	66.6%	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
	<b>21</b>	<b>100</b>																									

A number of issues were identified; and the following represent the most significant:

**Management:**

- Lack of a formal technical support model.
- Use of mobile devices and need for E-Government policies.

**Operational:**

- Staff solving mobile device/IT issues.
- Formalized technical support model.

**Technology:**

- Communications/networking as it relates to Internet access.
- Some office systems reaching end of life.
- Lack of applications: Enterprise Resource Planning (Budget, Finance, AP/AR, HR, etc.) and Enterprise Content Management, E-Government applications to provide online information and services.
- Lack of remote access from outside City Hall to certain applications, i.e., radio-based irrigation control, lack of telemetry to traffic signals.



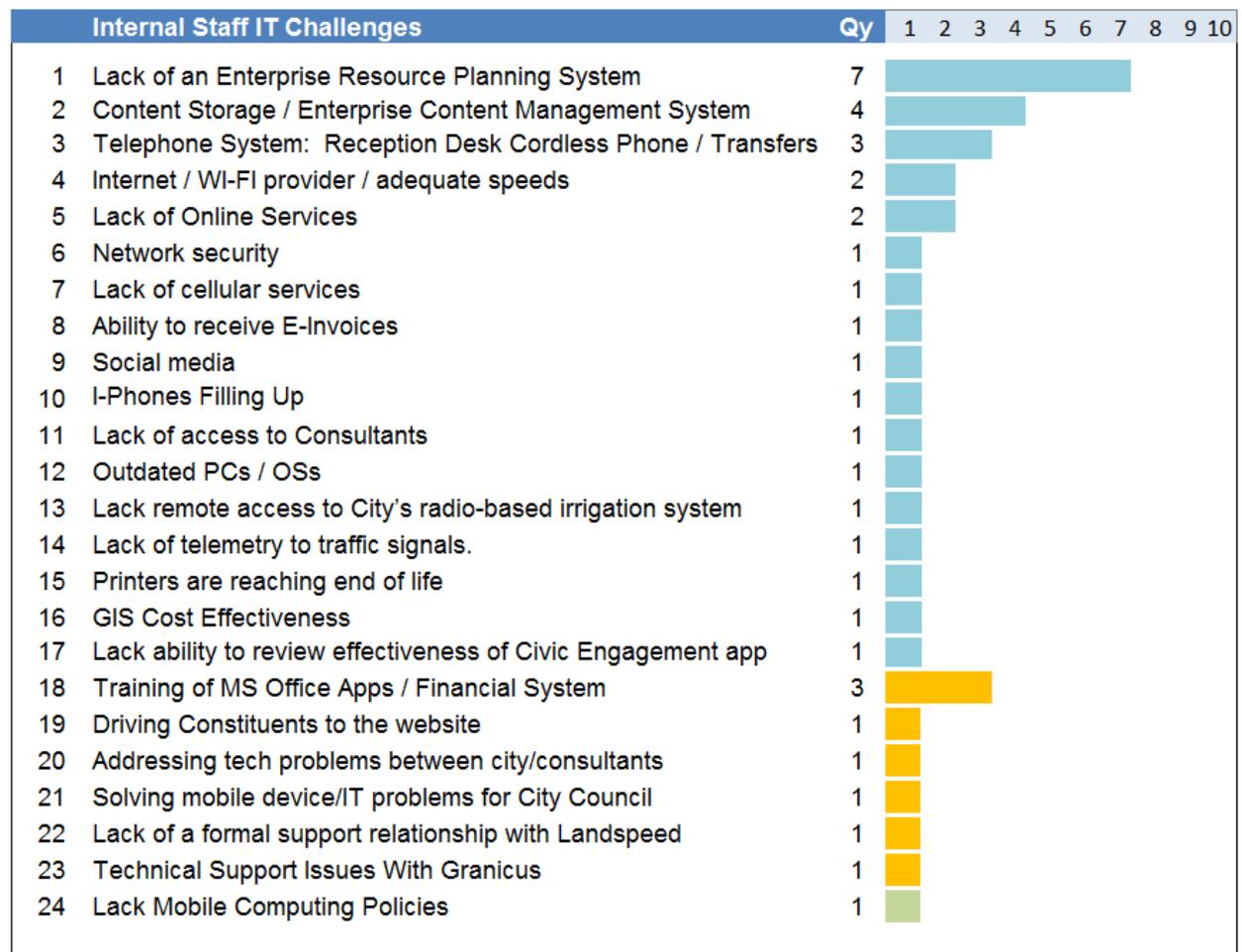
### 2.3 City Staff Survey

A survey was provided to the City on April 2, 2014 which provided all City staff the opportunity to contribute input on the City's existing systems, requirements, and the IT consultant's ability to support them. This online survey addressed the following:

- Existing information systems
- Information and data sharing needs
- Business and service delivery applications

Figure 2.3.1 below illustrates the most significant IT challenges identified by City staff, sorted from most to least mentioned. The answers are in response to the question: "What are the most significant Information Technology challenges facing the City? (This includes one or more of the following: hardware, software, technical support, training, and/or vendor provided services.)"

**Figure 2.3.1: Significant Internal Information Technology Challenges**



Technology Operational Management



## 2.4 Online Public Survey

Engaging the community of Westlake Village, and obtaining their input, was a crucial component of the ITSP project. SurveyMonkey, a popular online survey tool, was employed to gather input from the public. Moreover, the City did an extraordinary job of informing the public of the survey, including emails, mailed notices, and other means.



The public survey was prominently posted on the City's Website for two weeks, from May 30 until June 12, 2014. The survey was aimed at the City's customers including residents, businesses, regional government agencies and visitors. The survey addressed the following:

- Customer service
- Public access/mobile alternatives for City information
- Online products and services
- E-Commerce, transactional services

The following provides a summary of significant findings from the survey.

**Figure 2.4.1: Online Public Survey Summary**

Survey Questions	Summary of Public Response
<b>Responses:</b>	238 persons took the survey, an outstanding response for a City the size of Westlake Village.
<b>Respondents:</b>	Residents: 91.19%, Business Community: 13.86%, non-residents Community Member, 4.41%.
<b>Demographics:</b>	Majority of respondents (40.79%) in the 51 – 65 year old age category, followed by 35 – 50 (23.25%) and 66 – 79 year olds (22.81%).
<b>Technology Use:</b>	This community has a high utilization of technology: 93.51% have a computer at home, 85.02% have a smart phone, followed by persons with Notebook/Laptop computers, 77.09%.
<b>Reasons for contacting the City:</b>	Getting information about the Library, Public Information and Special Events.
<b>Website Access:</b>	Very low: the majority of respondents (58.59%) use the City's website "A few times a year."
<b>Website Rating:</b>	The public views the City's website as being "Good."



Figure 2.4.1: Online Public Survey Summary (continued)

<b>Website Use:</b>	Residents currently access the City’s website to find information on activities and City Events (66.07%) and to “Receive news and updates 63.69%).
<b>Importance of Online Services:</b>	Rated as “Very Important” by 47.93% of responders.
<b>Ability to provide online services:</b>	Responders rated the City’s website as “Good” 40.24% of the time.
<b>Use of City Care:</b>	The majority of respondents (48.70%) have not used it
<b>City website compared to other government websites:</b>	The majority of respondents (60.67%) rated it “About the same.”
<b>Online payments:</b>	The majority of respondents (41.45%) are “Very Likely” to pay for City services online.
<b>Communication Technologies:</b>	Highest rated include E-Commerce and Mobile Apps; lowest rated include Twitter and Facebook.
<b>Importance of Communication Technologies:</b>	E-Commerce, Mobile Apps, and Facebook.
<b>Satisfaction with Internet Services:</b>	Split evenly, satisfied and dissatisfied.
<b>Internet improvement:</b>	Top two include “Speed and Cost.”
<b>Connectivity best meeting needs:</b>	Fiber Network followed by Wi-Fi.

## 2.5 Summary of Technology Requirements

The figures on the following pages (2.5.4.1 thru 2.5.4.4) provide a graphical overview of the technology requirements identified in all discovery and requirements definition project tasks including the:

- Rapid Workflow® Business Process Workshops
- Management Interviews
- IT Focus Groups
- Staff On-line Survey

For traceability purposes, these figures illustrate where technology solutions were identified, allowing those not involved in the ITSP project to reference their origin. **It is important to note that, for practical purposes, several of the initiatives shown in the following figure were combined in the recommendations contained in Section 3 of this document.**





Figure 2.5.4.1: Management Policies & Operational Improvements

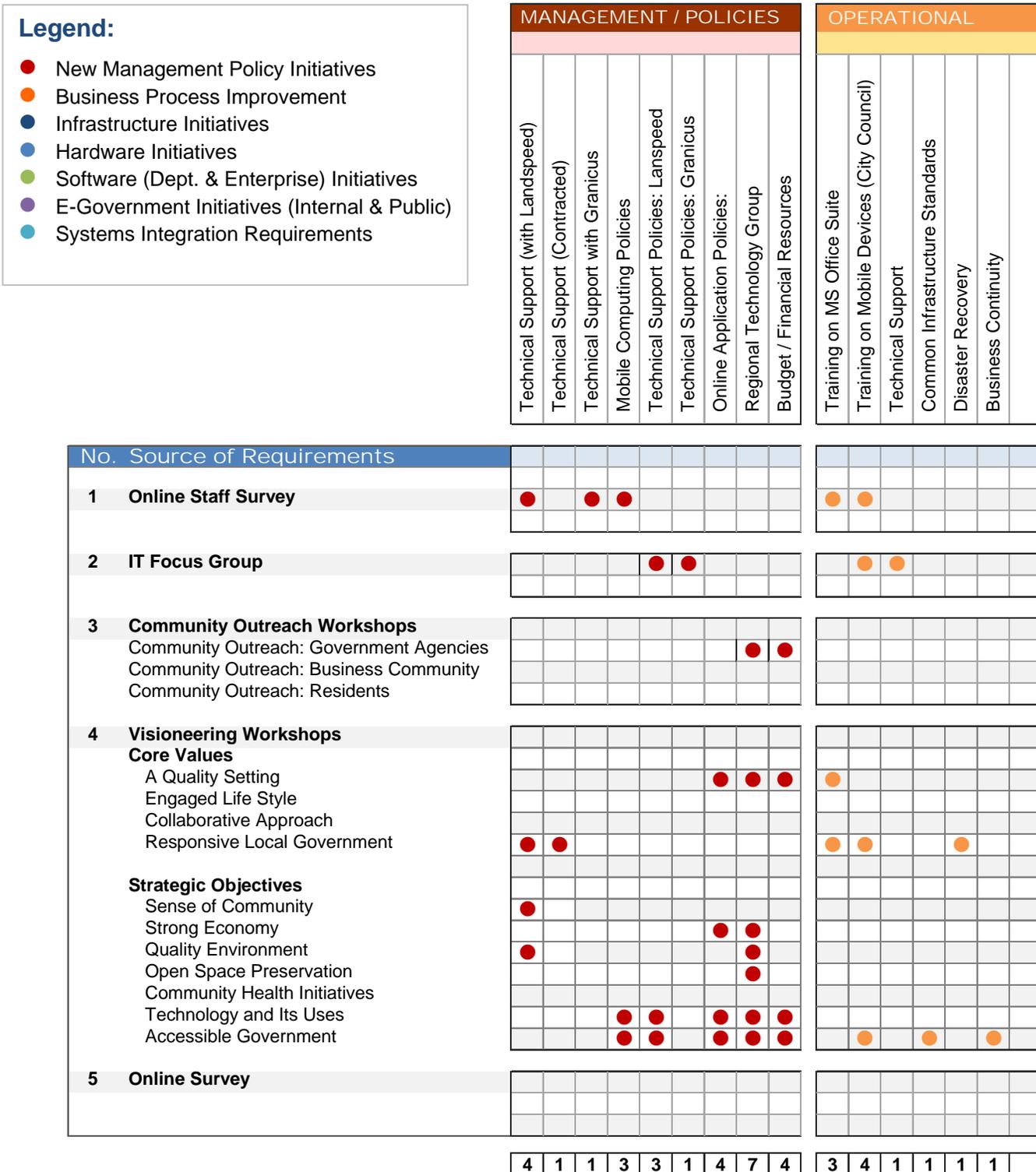




Figure 2.5.4.2: Infrastructure & Hardware Requirements

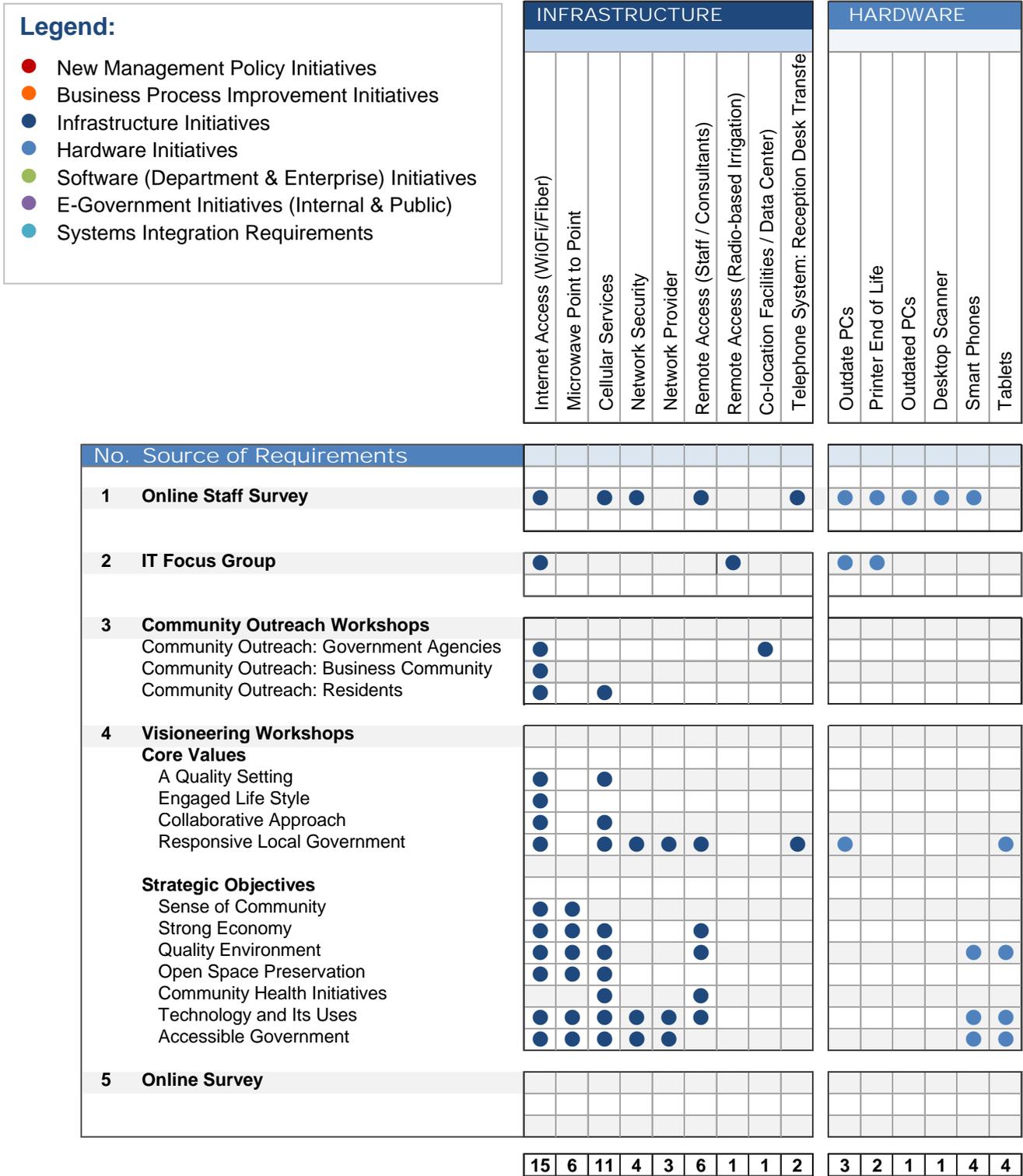




Figure 2.5.4.3: Departmental & Enterprise Software Requirements

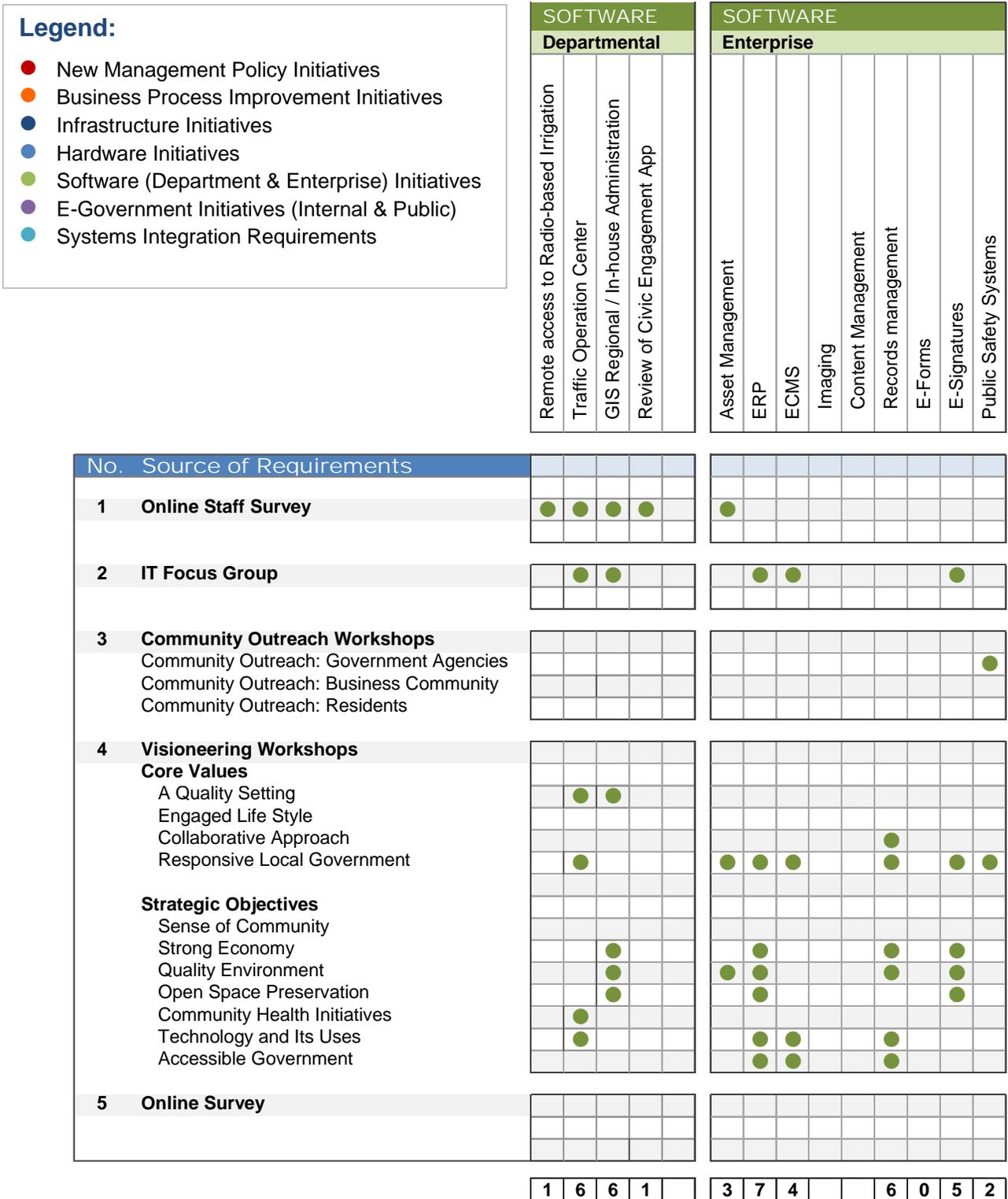
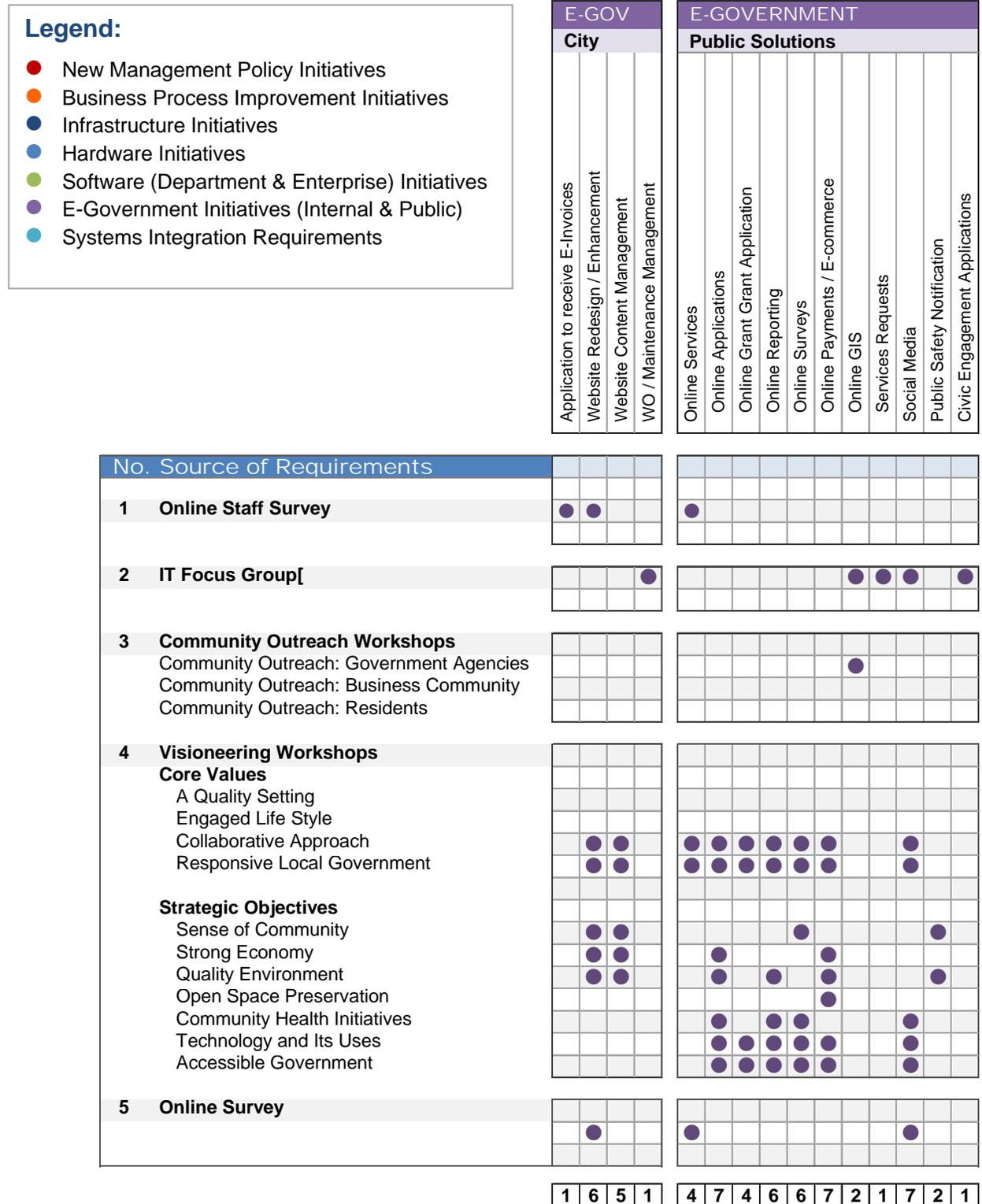




Figure 2.5.4.4: E-Government Requirements

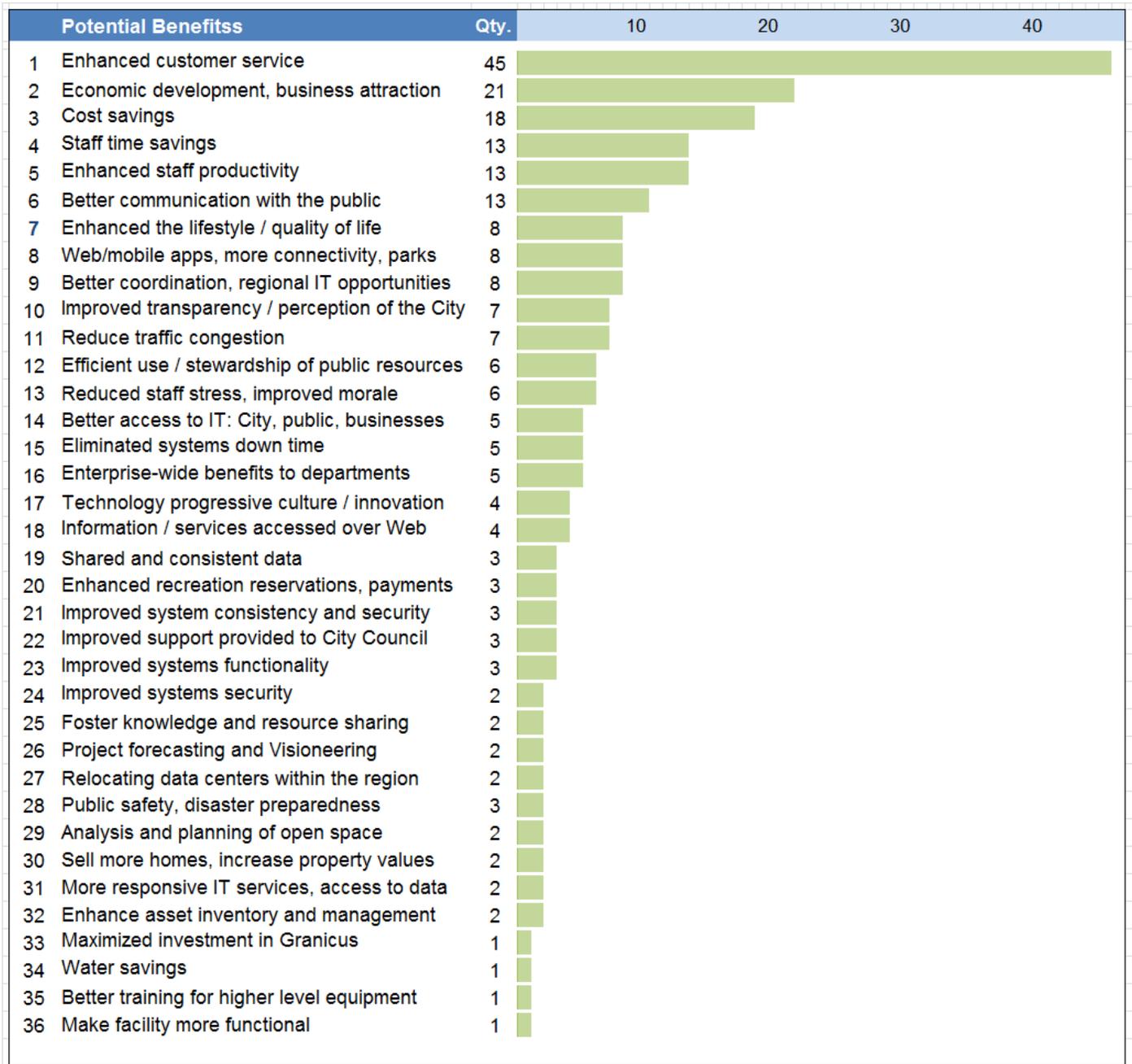




## 2.6 Summary of Potential Benefits

This following series of figures provide an overall view of the benefits identified in the course of the project. The figure below is a compilation of all internal and external potential benefits if the ITSP initiatives were funded and implemented.

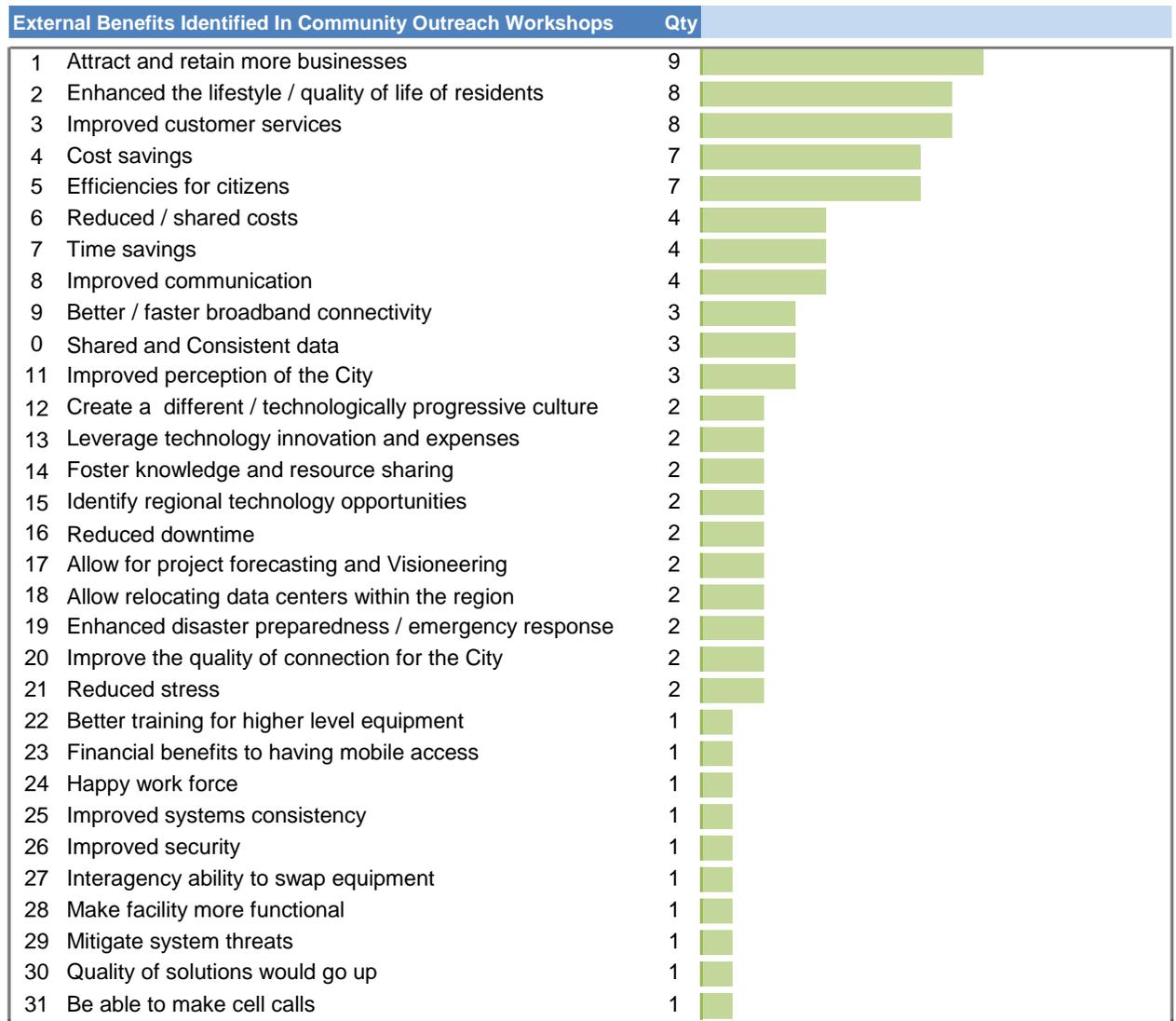
**Figure 2.6.1: Summary of Potential Internal and External Benefits**





The figure below provides a list of external potential benefits if the ITSP initiatives were funded and implemented. The Gant chart indicates benefits identified by the public, e.g., constituents, business and regional government agencies, three community outreach workshops.

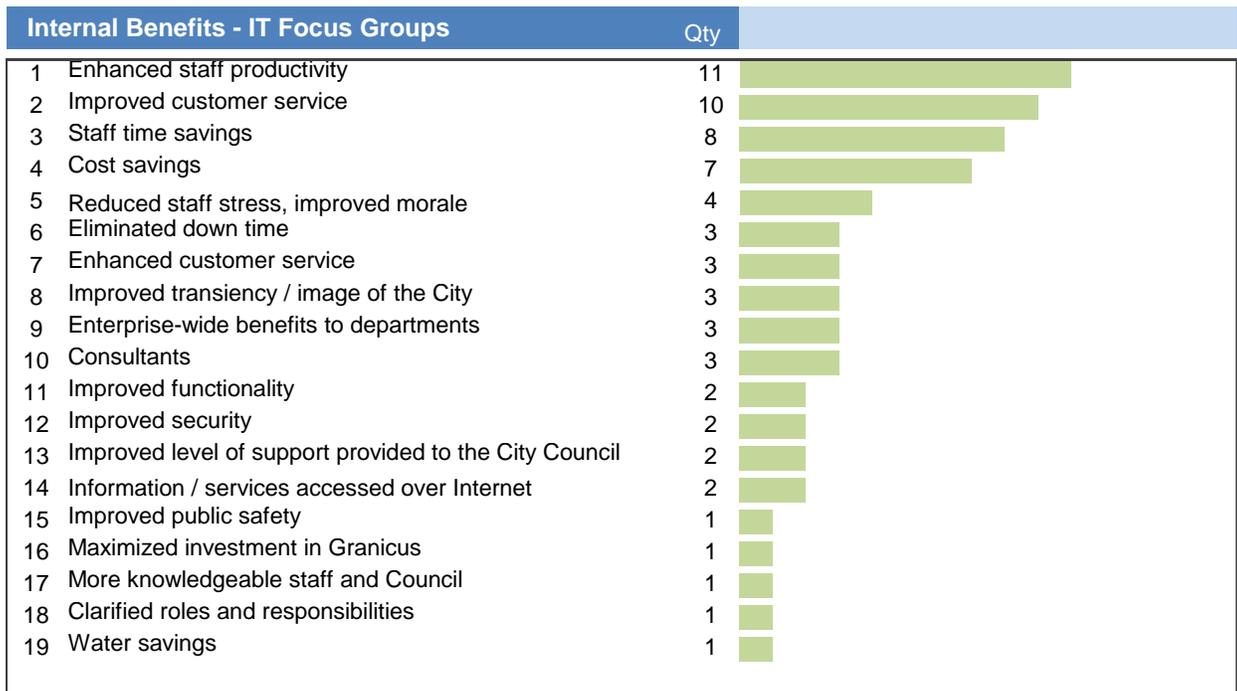
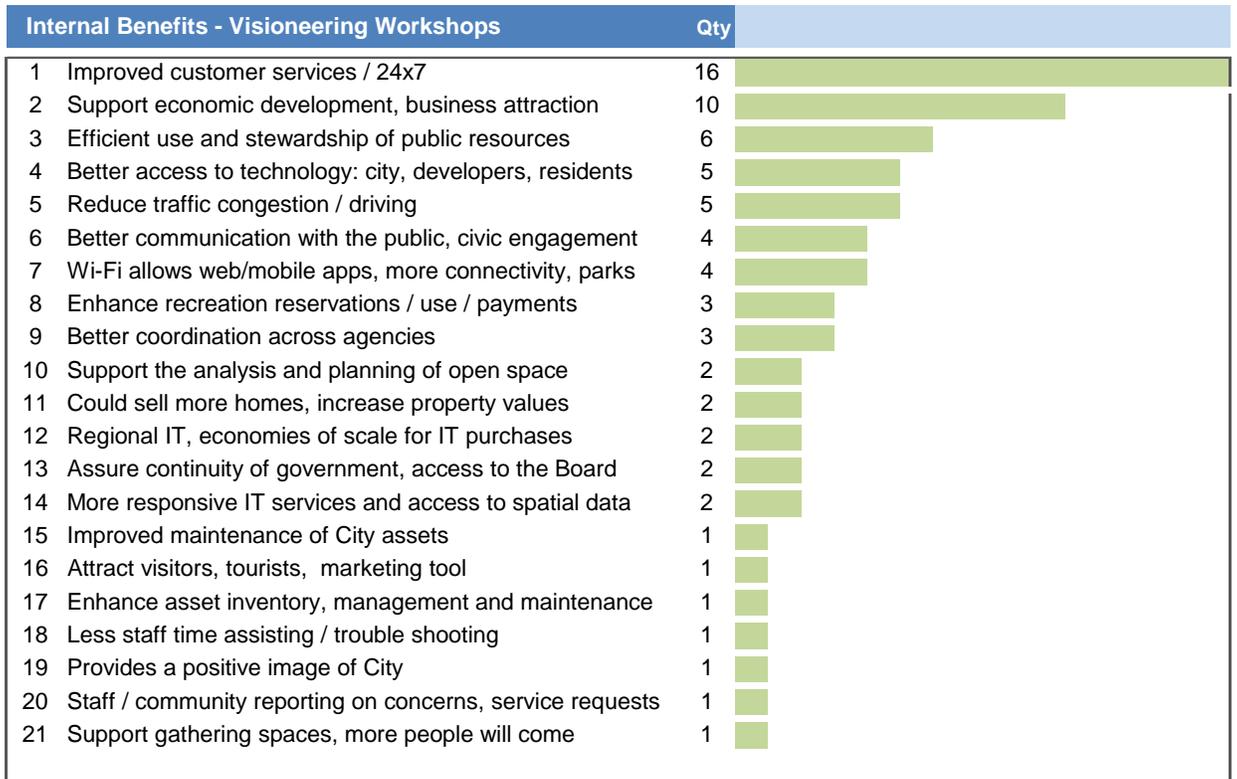
**Figure 2.6.2: External Benefits – Community Outreach Workshops**



The figure on the following page provides a list of internal potential benefits if the ITSP initiatives are funded and implemented. The Gant chart indicates benefits identified by City staff and management in the IT Focus Groups and 2015 Plan Visioneering workshops.



**Figure 2.6.3: Internal Benefits – Visioneering / 2015 Plan Workshops / IT Focus Groups**





### 2.7 Benefits Summary Analysis

The benefit statement data shown in the previous tables was identified by City staff and management as outcomes of implementing the ITSP initiatives. The top ten benefits shown below provide a compelling case for the adoption and implementation of the ITSP:

- Enhanced customer service
- Economic development and business attraction
- Cost savings
- Staff time savings
- Enhanced staff productivity
- Better communication with the public and civic engagement
- Enhanced the lifestyle / quality of life of residents
- Web / mobile applications, more connectivity
- Better coordination across agencies, and regional IT opportunities
- Improved transparency / perception of the City

The top benefits clearly indicate that investment in the ITSP will provide substantial benefits in key areas, all of which are aligned with the City's business goals and 2015 Plan. These benefits include efficient use of staff time, enhanced customer service, cost savings, improved decision making, and streamlined business processes (service delivery).



## Section 3

# Information Technology Strategic Plan Recommendations

### 3.1 Introduction to the ITSP Recommendations

The following pages provide the findings and recommendations for the City of Westlake Village ITSP. This document reflects the City's input, IT industry best practices, and ThirdWave's 27 years of experience in this area.

This section of the ITSP includes a description of technology initiatives, reflecting input provided in all phases of the project.



It is important to note **that not all solutions identified** in Section 2.5.4 Summary of Technology Requirements (Figure 2.5.4.1 Management Policies & Process Improvement, Figure 2.5.4.2 Infrastructure & Hardware Requirements, Figure 2.5.4.3 Departmental Software Requirements, Figure 2.5.4.4 Enterprise Software Requirements, and Figure 2.2.4.5 E-Government Requirements) were included in the final recommendations shown in the following pages.

The figures noted above captured solutions discussed in various discovery / requirements activities. The mere fact that a solution was mentioned by a City staff or constituent in one requirements definition task does not automatically constitute a recommended technology. This document removed initial recommendations that lacked sufficient justification. (Therefore, there is not a one-to-one relationship with items in the figures listed above and final recommended solutions in the following pages.) The City can use this document as a reference document and revisit all identified solutions in the future.



## 3.2 ITSP Initiatives

This section provides an overall view of IT solutions identified in various tasks of the ITSP project, including on-line surveys, focus groups with IT staff and management, focus groups and workshops with stakeholders.

### 3.2.1 Technology Recommendations

This set of enterprise-wide technology recommendations is based on all phases of discovery and requirements definition of the ITSP project. In general, the findings identified here relate to technology issues. In some cases, operational and management issues are also referenced in these findings where they relate specifically to technology recommendations.

#### I Infrastructure

The ITSP project assessed various infrastructure, networking, and communications technologies. Various IT operational opportunism was also assessed as part of the project. Our findings and recommendations on infrastructure issues are provided below.

#### I 1 Communications / Networks

#### I 1.1 Broadband Connectivity

A lack of broadband coverage was the most often mentioned challenge for the City of Westlake Village residents, businesses, related government agencies and City staff. The following provides the findings for all of the above end user groups.

**Findings:**

- The City lacks high reliability and cost effective broadband connectivity from vendors (i.e. ATT, Verizon, Sprint, Time Warner, etc.);
- The Time-Warner service lacks speed to buffer video, resulting in:
  - Slow network speed; and,
  - Relying on a competitive market to come to WLV for connectivity but it's not going to happen. (The City has worked with the carriers to address this.)
- The City has Time Warner & AT&T, resulting in potentially requiring multiple internet connections at higher costs;
- Residents are streaming Netflix which falls back in its quality. If the City does not have a system ready for high speed, the residents will not have an option.
- Lack of cellular access in other areas resulting in:
  - Cell phones not working on the other side of the hill (Westlake Point, Oak Forest);
  - Citizens have a feeling of insecurity because they can't access emergency services;
  - Business cannot provide services, which leads to a loss of revenue;
  - Not having the ability to respond to business calls, which adversely affects the ability to get a job; and
  - Lost business opportunities.



- Connectivity for community members and public agencies: lack of availability and consistency of network bandwidth which results in:
  - Downtime;
  - Lost opportunity to communicate;
  - Businesses can't compete;
  - Resulting in economic retardation;
  - Increased costs; and,
  - Hinders attracting business.
- Limited connectivity which results in:
  - Workforce in the area can't telecommute;
  - Can't bring a business here if there is a lack of connectivity;
  - Small businesses can't afford to bring in these services, so they have to send staff home to get access;
  - "Westlake Village is a black hole" when it relates to connectivity; and,
- Telecommuting is hindered by a lack of broadband service resulting in increased traffic; Waste of time; Lost opportunities.
- The school district has limited connectivity, which can result in:
  - VUSD (16 schools are currently using microwave);
  - Lack of efficiencies; and,
  - Students can't access content or access content quickly.

### **Recommendations:**

- Design and implement a multi-phased City Information and Communication Technology (ICT) infrastructure strategy, policies, and standards that provides City coverage across public and open spaces utilizing a Fiber Backbone topology throughout the City with a Wi-Fi / WiMAX mesh network that provides wireless coverage across the City's remote areas. The Wi-Fi / WiMAX can also be leveraged as a failover to minimize connectivity disruption in the advent of a Fiber backbone failure (i.e. if a fiber line is severed).
    - Phase 1: Retain a consultant with experience and expertise in executing regional infrastructure master plans to do an analysis of the Westlake community, assess requirements and determine the options, costs and feasibilities of a Broadband Enhancement Strategy.
    - Phase 2: If feasible, adopt the most appropriate broadband strategy, i.e., a City Wi-Fi / WiMAX Mesh Strategy to provide coverage for citizens with the lowest possible deployment cost and timeline.
    - Phase 3: Implement the broadband strategy that connects every residence (approximately 3,300 homes) and office buildings (number unknown as of this writing) within the City.
- Note:** *The amount of fiber required throughout the WLW is estimated at 29.5 miles. Working with consultants who participated during the ITSP workshops, the cost of laying fiber is estimated at ~\$6 / foot or \$30,000 / 5,000 feet with a fiber count of 144 strands. Based on 29.5 miles, the total estimated cost is ~\$934,560, which does not include termination costs at each point. Fiber backbone capital costs can be amortized over 5 years.*
- Leverage the fiber backbone to increase revenue for the City by charging a connection / hookup fee.



### **Benefits:**

- Support the City's 2015 Strategic Plan Core Values for Responsive Local Government and Quality of Life, including:
  - Getting business done, easier, makes city more attractive;
  - Engaged Life style, educational growth, accessibility;
  - Collaborative Approach, Improves community across the board;
  - Responsive Local Government;
  - Enhanced service delivery;
  - Improves communication across the board; and,
  - Draw and retain businesses, increase property values.
- Strategic Objectives, Sense of Community:
  - Support gathering spaces, more people will come;
  - Strong economy: draw and retain businesses, increase property values;
  - Quality environment: allow people to live and work in the communication;
  - Improved ease of access to technology; and,
  - Lowered costs.
- Meet future needs of residents;
- Reliable service and growth, bandwidth is the same as water, could positively affect home values;
- Do a better job of leasing business properties;
- Benefits to lifestyle access to online entertainment, information and services;
- Supports the City's 2015 Plan core values and strategic objectives; and,
- Support Digital City / e-government.

## **I 1.2 Internet Access**

### **Findings:**

The City currently has 10 mb Time-Warner fiber line. According to staff, there are speed issues with internet access. According to City staff, this results in:

- Staff spends extra time on certain tasks, i.e., pages do not load;
- Applications stall out, i.e., the ECMS, which is remotely hosted;
- There is not a published course of action to deal with this, who to contact; problem can take a day to fix; and,
- Sometimes, staff is not aware that there is a technical problem affecting one or all City staff; staff may see a technical issue as something affecting only one individual.

### **Recommendations:**

- Enhance the Internet connection to the City to 100 mb;
- Evaluate the Local Area Network configuration to ensure that the connection to Time Warner is optimized, and,
- Establish a standard process, i.e., submit or post an announcement that there is a problem so all staff are aware of it.

### **Benefits:**

- Improved staff efficiencies;
- Reduced staff hours; and,
- Increased staff communication.



### I 1.3 Regional Networking Group

**Findings:**

Lack of a technology networking group and summit, which can result in:

- Duplication of efforts across government agencies;
- Lack of shared information and knowledge; and,
- Higher costs all around for government agencies.

**Recommendations:**

- Establish a Regional Technology Working Group or a JPA, to address regional infrastructure challenges;
- Meet once per quarter to discuss and coordinate technology initiatives;
- Hold monthly City IT Managers meetings; and,
- Establish a Conejo Valley Connectivity initiative.

**Benefits:**

- Identify regional technology opportunities;
- Foster knowledge and resource sharing;
- Would allow for project forecasting and Visioneering; and,
- Better leverage technology innovation and shared costs.

### I 1.4 Cell Phone Services

**Findings:**

- Several stakeholders noted various locations City wide that lack adequate cell coverage. This varies depending on location and carrier. According to the responses received, this can result in:
  - Inability to call out or respond to calls;
  - Some areas within commercial areas without cell service;
  - Lost business opportunities; and
  - May affect public safety response.

**Recommendations:**

- Accelerate the process of all carriers enhancing the growth and upgrade of their infrastructure in Westlake Village;
- Continue to work with City consultant ATS to develop new or additional sighting locations for telecom facilities; and
- Expansion of fiber network could result in additional sighting opportunities.

**Benefits:**

- Improved ability to make calls;
- Increased business opportunities; and,
- Improves public safety.



### I 1.5 Telecommuting

#### **Findings:**

Telecommuting is hindered by a lack of broadband service, which can result in:

- Increased traffic;
- Waste of time;
- Lost opportunities.

#### **Recommendations:**

- Define a City wide Wi-Fi strategy, policy, and standards;
- Develop a comprehensive funding plan;
- Develop and implement funding policies and set priorities;
- Install broadband;
- Lay City dark fiber and lease it; and,
- Implement Municipal Wi-Fi.

#### **Benefits:**

- Happy work force;
- Reduced stress;
- Enhanced efficiencies;
- Better quality of life for the residents of Westlake Village;
- Fuel savings;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Eliminate dead zones;
  - Attract people to the City;
  - Could sell more homes;
  - Continue to enhance the City's infrastructure, providing real time communications for businesses and travelers who have come to expect it;
  - Enhance recreation activities and coordinating facilities;
  - Support the increased use of cell phones by the public/businesses;
  - Provide for resident to find information, i.e., trolley schedule, other functions, events, road closures, special events;
  - Improved use of new and emerging technologies; and,
  - Improved service delivery.

### I 2 Telephone Systems

#### **Findings:**

The reception desk cordless phone does not work properly. It takes 5 steps to transfer a call to an employee's voice mail. This results in:

- Phones not working throughout the entire City Hall building and courtyard;
- Frustrating for the caller and staff;
- Impacting productivity;
- Reducing customer service; and,
- Delays getting to the next call.

#### **Recommendations:**

- Replace phone system with one that works properly.



**Benefits:**

- Improved customer service;
- Productivity; and,
- Staff and caller frustration would be reduced.

**I 3 Consultant Remote Access**

**Findings:**

Consultant access privileges and/or knowledge to data on City systems do not match the City staff's, which results in:

- Not being able to access information;
- Delayed access to information; and,
- There is a burden on internal staff to provide required information.

**Recommendations**

- Provide access / remote access to consultants (and staff);
- Document the process for getting access to City systems;
- Provide training to Consultants; and,
- Identify minimum technology requirements for Consultants to have.

**Benefits**

- Remote access would allow consultant to work remotely;
- Time savings by not having to come into the office to do work;
- Lessen burden on internal staff; and,
- Increased communication between City staff and Consultants projects.

**HW Hardware: Servers, Desktops, Mobile Devices, Peripherals**

**HW 1 Desktop Computers**

**Findings:**

Older residents do not have access to computers or the City Website, which may be because:

- They do not like to use computers;
- A lot of people do not own computers;
- Lack adequate training on technology; and,
- Residents are not aware of City services and what is offered.

**Recommendations:**

- Have seniors who do not use computers register with the City, so the City can communicate with them via other means;
- Provide information at the beginning of classes held at the City, available services, what they would like the City to do for them, requests, and pass on the information;
- Interactive TV could solve some of these issues; and,
- Establish wireless access for everybody.

**Benefits:**

- Home Owner Association members could come to speak on several issues;
- Information could be disseminated to HOA members; and,
- Enhanced service delivery.



## HW 2 Standalone Printers

**Findings:**

Some desktop printers are reaching end of life, and are limited in what they can do, which may result in:

- Not being as productive;
- Frustration; and,
- Staff time.

**Recommendations:**

Implement a consolidated printer strategy with networked high-end copiers that include faxing and scanning capabilities that are either leased / purchased:

- Assess the current peripherals inventory to determine which devices are at end of life;
- Assess the current expenses based on annual hardware maintenance and support costs;
- Assess the current print / copy volumes based on monthly and annual cartridge replacement costs;
- Research the potential vendors that support leasing of high-end copiers including the costs for replacement cartridges;
- Perform a cost benefit analysis of the assessment and research results mentioned above;
- Present the results of cost benefit analysis results to management and obtain budget approval; and,
- Upgrade printers to offer larger sizes and color output.

**Benefits:**

- Cost savings; and,
- Enhanced staff productivity.

## HW 3 Desktop Scanners

**Findings:**

The City is currently using multi-purpose machines (copiers) as scanners. In some cases, more robust capture devices would be more appropriate (working as part of an Enterprise Content Management System).

**Recommendations:**

- Carry out a more detailed assessment / inventory of imaging requirements and deploy a properly sized capture device tied to an ECMS.

**Benefits:**

- Enhanced document and records management capabilities; and,
- Enhanced service delivery.



### HW 4 Mobil Devices

The use of smart phones can be predicted to grow substantially over the next 5 years (the lifespan of the ITSP) and continue to accelerate with the introduction of web applications at the City.

#### **Findings:**

- According to City staff, cell phones are underutilized, which can result in impacting City Council productivity;
- Not realizing the best use of the functionality or Return on Investment on smart phones;
- Messages from iStore / iPads (and all mobile devices) on phones fill up, which results in wasted staff time;
- There is a large amount of staff time spent solving mobile device / IT problems for the City Council, which results in:
  - Staff spending a large amount of time fixing the problems;
  - City Council and staff frustration; and,
  - City Council's ability to communicate with constituents and staff is compromised.
- Lack remote access to the City's radio-based irrigation system, which results in Inspectors having to physically go out to the field, or come into City Hall, after hours.

#### **Recommendations:**

- Identify business units / service delivery functions that require mobile computing, and prioritize the deployment of tablet devices per the ITSP initiatives, for instance tablets to Inspectors and remote web-connectivity to the system (PC or mobile device) in addition to training;
- Determine a City standard for all mobile devices: hardware, software licensing, maintenance, and support (i.e. patches, updates),, and security;
- Incorporate mobile devices as part of the technology toolset for staff;
- Incorporate a standard specification for mobile devices (as appropriate), as part of every software procurement initiative where the application being implemented is web-enabled. Mobile devices can include a variety of formats, as necessary and appropriate to the task, including smart-phones, tablets, and other emerging mobile devices;
- Establish a policy on the use of mobile devices;
- Provide city-wide awareness of the mobile strategy, policies, and practices;
- Provide training on the use of cell phones to City staff and the Council members; and,
- Implement a mobile device help desk.

#### **Benefits:**

- Reduce frustration of City Council Members;
- Frees up staff resources to do other things;
- Staff and Inspector time savings and Increased productivity;
- Water savings;
- Cost savings;
- Improved PR. Irrigation problems would be fixed;



- Improved communications; and,
- Enhanced customer service.

### D SW Software: Departmental

In general, small cities tend to have a decentralized approach to the procurement and deployment of departmental applications, i.e., application software meeting specific or unique department functionality. The lack of an enterprise approach typically results in disparate departmental information systems, and various home grown stand-alone “shadow” systems (unsupported, one-off applications). To its credit, this does not appear to be the case at Westlake Village. This may be due to the small size of the City, or sound technology procurements. A small number of departmental applications were identified in the ITSP project.

### D SW 1 Asset Management

#### **Findings:**

- Responses in the staff survey noted that the City lacks an automated asset management application. While this requirement was not explored in detail, a lack of this technology typically results in the following issues:
  - Wasted staff time and a loss of productivity;
  - Some City assets are not being tracked;
  - Locating assets is problematic;
  - Asset valuation is problematic;
  - Asset prioritization (ranking) is problematic;
  - Categorizing assets is problematic;
  - The use of mobile devices in the field is curtailed;
  - It may prohibit the City from developing standard policies for managing assets City-wide;
- Difficult or inadequate financial planning;
- Cannot depreciate assets, which has a financial impact;
  - Loss of asset and a potential for fraud;
  - Don't know true value of City assets for bond investments; and,
  - Different to do modeling analysis; can't maximize asset replacements schedule.

#### **Recommendations:**

- Develop a detailed business, functional and technical specification for the evaluation, procurement and implementation an asset management application meeting the City's unique requirements:
  - Asses a final list of applications using the following criteria;
  - Graphical User Interface (GUI);
  - Functionality;
  - Reports;
    - Asset Management;
    - Asset attribute (categorized by type);
    - Changes to assets;
    - Maintenance on assets;
    - Valuation end-of-life;
    - Budget forecasting;



- What if analysis;
- Customizable reports;
- AD HOC reports;
- Performance;
- APIs, and the ability to talk to other applications;
- Web enablement and the ability to work with mobile devices; and.
- Explore the use of a hosted solutions (Software As A Service model).

**Benefits:**

- Efficient use of resources, stewardship of public resources; and,
- Control the use and maintenance of City assets, know what the City has.

**D SW 2 Traffic Operations Center**

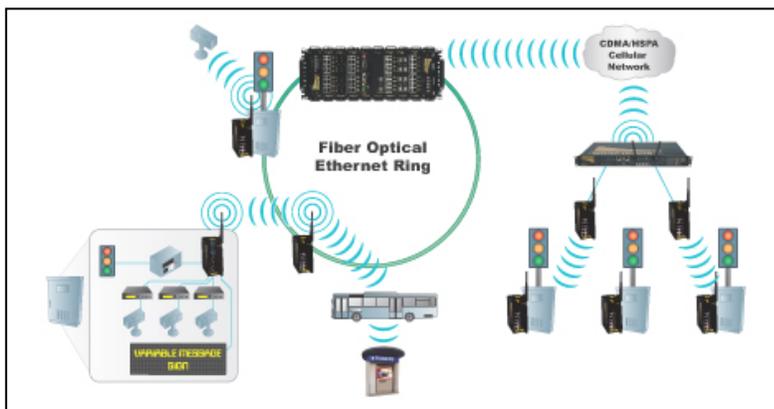
**Findings:**

According to City staff, there is a lack of telemetry to the City's traffic signals, which results in:

- Community frustration;
- Impacted responsiveness to traffic signal problems;
- Inefficient staff time;
- Traffic congestion; and.
- Public safety.

**Recommendations:**

- Implement a traffic operations center (Software package); and,
- Implement wireless / fiber connect for Traffic Signal Control and Video Cameras. A conceptual design is provided below:



**Benefits:**

- Improved public safety;
- Cost savings;
- Reduced technician field trips;
- If this was a web-enabled application, it could be accessed over the Internet, from anywhere;
- Enhanced service delivery;



- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Improved use of new and emerging technologies;
  - Improved service delivery;
  - Responsive Local Government, Improved emergency services;
  - Strong Economy;
  - Reduce congestion and optimized traffic movement, efficient, movement of goods / service, improved safety; and,
  - Quality Environment.

### E SW

#### Software: Enterprise

Enterprise Software denotes application software used by all departments, by all key departments, or many departments across the City. An enterprise technology vision, which the ITSP proposes, typically adheres to the following:

- Benefits several business units across the organization, taking advantage of economies of scale;
- Pools financial resources from one or more business units to procure systems that otherwise might not be affordable by one business unit;
- Avoids the purchase of technically disparate systems that provide the same functionality;
- Procures systems that meet an Enterprise Architecture and established technology standards to minimize operational costs and maximize investments in technology; and,
- Decreases the overall workload on IT staff who do not have to provide technical support on numerous redundant applications.

### E SW 1

#### Enterprise Resource Planning System

##### ***Findings:***

According to staff, the City lacks an Enterprise Resources Planning (ERP) System, which results in:

- Lack of productivity;
- Takes time to find data;
- Lack of organization;
- Produce and keep a lot of paper;
- Do not have a feel of what things are costing the City; and,
- Hinders interaction between departments, staff, and contract staff.

##### ***Recommendations:***

- Implement an ERP:
  - Time sheets;
  - AP/AR;
  - Budgeting;
  - HR Functions;
  - Contract Management;
  - Invoicing;
  - Grant Management;
- Provide remote access to staff and consultants; and,
- Provide training on ERP.



**Benefits:**

- Better cost management;
- Reduce the use of paper;
- Staff time savings;
- Enhanced efficiencies;
- Efficient use of time and staff resources, provide access to business opportunities, sends a message of competency;
- Enhance asset inventory, management and maintenance;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Improved use of new and emerging technologies;
  - Improved service delivery;
- Show innovative technology use, enhance business controls, reduces waste, improved efficiencies; and,
- Provide online business opportunities, self-service for business, Business Intelligence (BI).

**E SW 2 Enterprise Content Management System**

**E SW.2.1 Imaging**

**Findings:**

The City currently does not have commercial imaging scanners/software in place. Instead, City staff is primarily using multi-function devices (copiers with scanning capabilities) for scanning. This results in:

- A time consuming process to obtain a scanned image; and
- A lack of consistent taxonomy (naming convention for imaged documents), which makes document management and records management (the disposition of City records per a retention schedule) difficult if not impossible.

**Recommendations:**

The imaging software (which should be incorporated as a part of the ECMS described above) will provide the following minimum features and functions:

- Image Capture: with the ability to import hard copy and existing electronic documents from the same interface;
- Automatic conversion of scanned documents to standardized TIFF, JPEG, or full text searchable PDF formats;
- Image Enhancement: de-skew, de-speckle, crop, rotate, and remove border;
- Quality Assurance / Quality Control features: verify image quality and, if necessary, provide the ability to enhance images;
- Data Extraction: automatic forms recognition, data capture, and Zonal Optical Character Recognition (where applicable);
- Indexing / Validation: associate attributes with documents;
- Automatic Image Storage: ability to automatically release and store images (hard copy scans) into assigned ECMS libraries without having to prompt the scan operator for an ECMS storage location, document security etc.);
- Paper Size: accommodate different types and sizes of paper in the scanning process, varying from 3.5" up 11x17 size documents, and large document scanning for engineering documents;



- Virtual Cleanup: provide the scan operator the ability to touch-up and / or improve the quality of the scanned documents in “real time” (while scanning) prior to being released to the ECMS libraries, eliminating the need for the operator to re-scan documents;
- Automatic Forms Processing capabilities: structured documents (documents that use standard forms) can be processed using electronic forms or forms processing to reduce manual data entry and improve data accuracy. Use indexing scripts and zones that allow the incorporation of customized forms processing and data validation into the capture and index process; and
- Support barcode, Optical Character Recognition (OCR), forms recognition, and (Optical Mark Recognition), which detect the presence, or absence, of marks in defined areas; used for processing questionnaires, and standardized tests.

**Benefits:**

- Enhanced business controls and business process efficiencies;
- Reduces paper waste, improved efficiencies, curtailing the use of hardcopy documents; and
- Cost savings in paper, toner, and file cabinets to store hardcopy.

**E SW.2.2 Enterprise Content Management**

**Findings:**

The City does not currently have an Enterprise Content Management System in place. Instead, City staff is primarily using multi-function devices (copiers with scanning capabilities) for scanning and then releasing the scans via emails to themselves. This results in:

- A time consuming process to obtain a scanned image; and,
- A lack of consistent taxonomy (naming convention for imaged documents), which makes document management and records management (the disposition of City records per a retention schedule) difficult if not impossible.

**Recommendations:**

- Assess and procure a state-of-the-art ECMS appropriate for the size and functional requirements of the City, that can support the enterprise needs of the City, but is sized appropriately, to meet the needs of a very small city;
- All departments adopt and use ECMS to carry out imaging, content management, and workflow automation as required for business process improvement;
- The ECMS should support the following features and functions:
  - Imaging;
  - Content Management;
  - Records Management;
  - Email Management;
  - Automated Workflow;
  - Collaboration Management;
  - E-Forms;
  - Key Interfaces;
    - Web Access to documents;
    - Leading ECMS systems;
    - ESRI GIS;
    - E-Signatures;



- Adhere to industry best practices in the implementation process;
- Develop a standard taxonomy (document indexing scheme) and updated records retention schedule for storing and accessing documents / records in a fast and easy manner - prior to rolling out the systems (both best practices);
- Implement the systems infrastructure, i.e., Disaster Recovery, to fully support the system back-up and E-signature requirements;
- Publish appropriate ECMS content to the City's Website and Mobile devices;
- Use a structured / best practice methodology, including standards, and do a formal roll out;
- Fully implement the ECMS, get paper documents/records into an electronic format as quickly as possible;
- Implement the Records Management module and adopt a program to keep the document inventory up to date;
- Integrated ECMS and Website, using the ECMS as the storage for content and provide easy web access to documents / records, to City staff and public with appropriate security levels;
- Provide sustainability resources;
- Provide training as appropriate;
- Scan hardcopy documents, after taxonomy and standards have been developed;
- Carry out day-forward scanning, as appropriate; and,
- Carry out backfile conversion for documents deemed to be important enough for the investment.

### **Benefits:**

- Enhanced business controls and business process efficiencies;
- Reduces paper waste, improved efficiencies, curtailing the use of hardcopy documents;
- Cost savings in paper, toner, file cabinets to store hardcopy;
- Provide online business opportunities, self-service for business and the public; and,
- Enhanced public convenience, meet the expectations, happier citizens.

## **E SW.2.3 Records Management**

### **Findings:**

According to staff, the City lacks a proper records management system for City records, and more specifically, permits and addresses, which can result in:

- Lack of productivity;
- Takes time to find data on network;
- Need to check old ledger from 30 years ago to view permit history;
- Produce and keep a lot of paper; and,
- Poor organization of existing digital files.

### **Recommendations:**

Implement an integrated electronic records management system appropriate for the size and functional requirements of the City, providing the following functionality:

- Create, edit and manage a corporate "file plan" which contains information used to classify records;
- Create and manage the record folders (and folder volumes) that are available to help organize the file plan;



- Configure the system to easily declare objects as records in native authoring tools and specify which object classes and properties to manage;
- Create and manage records retention rules;
- Create and manage physical boxes, folders and records;
- Search for categories, folders and records;
- Place holds against record categories or search results;
- Identify appropriate metadata for all formats and sources;
- Manage various record image / formats in an integrated manner including:
  - Scanned hardcopy images;
  - Office automation software suites;
  - Electronic Forms;
  - Web content;
  - Digital and audio files;
- Maintain the relationships between records and files, between file series and the file plan and support E-Discovery requirements;
- Retrieve information for personal use or to comply with Freedom of Information Act / discovery requests;
- Associate the contextual and structural data within a document;
- Construct and manage audit trails and track system usage by department and user;
- Manage the integrity and reliability of records once they have been declared as such;
- Identify records that are due for disposal when their prescribed retention periods elapse, managing the disposal process;
- Views file plans and retention and disposition policies;
- Participate in automated workflows, seamlessly integrated with the ECMS via a desktop client or Web browser;
- Provide intelligent barcoding of physical objects;
- Reports:
  - Ready for Destruction report;
  - Future Disposition Schedules report;
  - File Plan and Retention Codes report;
  - User Profiles and Activities report;
  - Records Status report;
- Provide inherent security mechanisms for the protection of confidential information:
  - Create and manage records' security profiles, object stores, services and to enable auditing;
- Meet the State of California's requirements for compliance with electronic records: California Government Code Section 16.5, which states in part:
  - *16.5. (a) In any written communication with a public entity, as defined in Section 811.2, in which a signature is required or used, any party to the communication may affix a signature by use of a digital signature that complies with the requirements of this section. The use of a digital signature shall have the same force and effect as the use of a manual signature if and only if it embodies all of the following attributes:*
    - (1) *It is unique to the person using it.*
    - (2) *It is capable of verification.*



- (3) *It is under the sole control of the person using it.*
- (4) *It is linked to data in such a manner that if the data are changed, the digital signature is invalidated.*
- (5) *It conforms to regulations adopted by the Secretary of State. Initial regulations shall be adopted no later than January 1, 1997.*
- Adhere to industry best practices (e.g., the ISO 15489, the International Records Management Standard, U.S. Department of Defense's 5015.2, and Model Requirements for the Management of Electronic Records (MOREQ))

**Benefits:**

- Provide access to other departments for information sharing;
- Digitally track progress of projects and permits; and,
- Less paper and files.

### E SW.2.4 E- Forms

**Findings:**

The requirement for E-Forms was identified in the Public Online Survey and would be a common component of on-line applications identified throughout the ITSP project. Electronic forms can be used to build applications for many departments across all City departments, including on-line / E-Government applications for the public.

**Recommendations:**

- Implement an E-Forms application to work as a seamless component of the ECMS solution, allowing the use of electronic forms to meet various requirements. Provide the following features:
  - Retain the look and feel of paper forms, if required;
  - Provide variable length fields for data entry, eliminating blank spaces when printed;
  - Enhance / simplify forms processing with automatic calculations / data validation;
  - Support electronic signatures;
  - Support database integration;
  - Expedite forms submission via a browser;
  - Interact with other applications, including initiating an ECMS workflow process, updating other systems, or authenticating signatures;
- Provide ability to attach associated documents to the form (e.g., documents, photographs, plans or drawings);
- Be accessible from within the City as well as externally via the Internet; and,
- Meet the State of California's Government Code Section 16.5 requirements for authenticated signatures.

**Benefits:**

- Online 24/7 access to information;
- Easy access to information/services;
- Facilitate dynamic relationship with the public, enhanced service delivery;
- Reduce traffic / driving; and,
- Efficiency, public convenience, meet the expectations, happier citizens, provides opportunity for branding/revenue stream.



### E SW.2.5 E- Signatures

#### **Findings:**

E-Signatures are commonly used to support the use of E-Forms, which was identified in the Public Online Survey and public outreach workshops. Electronic forms can be used to build applications for many departments across all City departments, including on-line / E-Government applications for the public.

#### **Recommendations:**

- Implement an E-Signature solution for E-Forms used with or without automated workflow processes. The business E-Signature solution will provide the following minimum functionality:
  - Be a seamless component of an ECMS or work as a stand-alone solution;
  - Work seamlessly with the proposed E-Forms application;
  - Ensure the authenticity, integrity, and non-repudiation of its electronic documents;
  - Meet the State of California's requirements for authenticated signatures; Government Code Section 16.5 supporting Digital Signatures, including other Secretary of State Regulations regarding the use of digital signatures by public entities include the following:
    - Section 22000 Definitions
    - Section 22001 Digital Signatures Must Be Created By an Acceptable Technology
    - Section 22002 Criteria for State to Determine If a Digital Signature Technology is Acceptable for Use by Public Entities
    - Section 22003 List of Acceptable Technologies
    - Section 22004 Provisions for Adding New Technologies to the List of Acceptable Technologies
    - Section 22005 Issues to be Addressed by Public Entities When Using Digital Signatures
  - Support E-Signature approvals, either from an E-Forms on a Web browser or from within an ECMS; and,
  - Use Change Management to transition to the use of E-Signatures.

#### **Benefits:**

- Easy access to information/services;
- Facilitate dynamic relationship with the public, enhanced service delivery;
- Reduce traffic / driving; and,
- Enhance recreation reservations / payments.

### E SW3 Geographic Information Systems

#### E SW3.1 Online GIS Applications

#### **Findings:**

There is a lack of Integration of GIS with online applications, which results in:

- Citizens are not able to fully use GIS, which has become a common resource available to the public and business communities, provided by many cities;
- Agencies are not making the best use of GIS;
- A lack of efficiencies;



- Lack of standardization; and,
- Inability to leverage the investment in GIS technologies.

### **Recommendations:**

- Local agencies work together to develop PC and web-enabled GIS applications.

### **Benefits:**

- Could share Public Works data;
- Lowered costs for participating agencies;
- Standardized apps would save costs on training;
- Spatial data accessibility, land use;
- Economies of scale for IT purchases;
- Support planning and resource management; and,
- Support the analysis and planning of open space.

## E-GOV

### Software: E-Government

E-Government technologies provide the most significant opportunity for operational cost containment, enhancing service delivery levels and meeting growing customer expectations. Leading E-Government cities are those that evolve towards online service delivery with interactive, transactional and integrated functionality. ***This framework maximizes the use of the Internet, enhances customer service while at the same time reduces operating and staffing costs.***

The following two lists describe the on-line services that can be moved to the web for access by businesses and residents. The list includes web-enabled applications that are internal and public-facing initiatives. ***Where developed internally, these applications would use a standard development tool set and adhere to design / development best practices.***

## E-GOV 1

### City Website Design

#### **Findings:**

The City website lacks intelligence, i.e., contact the City with a problem without knowing who the appropriate person to contact, which results in:

- Constituents may stop communicating with the City;
- Frustration;
- Disgruntled residents; and,
- Service request that are not fulfilled.

The City's website is not mobile responsive (i.e., do not have "liquid pages" that automatically size to the mobile device being used), which can result in:

- Constituents cannot communicate in the fastest growing segment of online technologies;
- Diminishes the public's perception of the City; and,
- Constituent frustration.



### **Recommendations:**

- Redesign the website GUI, allow users better, easier, and faster navigation;
- Redesign the City's website to provide one enterprise visual design solution with a consistent look and feel - and menu system across all City web-pages. (The desires for visual differentiation across some City departments notwithstanding, customers are more concerned with learning one GUI than the unique visual design solution of departments. **Award winning E-Government cities place the customer experience above numerous, varied corporate identity programs.**) The redesign should address the following issues:
  - Website Organization: consistent, easy to use site organization and layout;
  - Website Navigation: including top level / main menus with intuitive categories (i.e., online payments, services, events, activities, committees) using navigation best practices;
- Implement one standard Web Content Management solution with the following minimum features:
  - Mandatory completion of specific fields, such as metadata;
  - HTML code in which the content will be presented;
  - Navigation structure in which the content will be embedded;
  - Support of Mobile Web;
  - Security, Active Directory user authentication and multiple user levels;
  - Webpage (CSS) layout;
  - Workflow engine;
  - Site mapping;
  - Multi-site deployment;
  - Site indexing;
  - Interoperability / Web services support, does not have pluggable APIs;
  - WebDAV support;
- Implement web applications that walk you through them;
- Make training available to citizens who want to use it;
- Adopt a smart search engine for items related to customer services, i.e., pot holes, street lights out, contextual searches, permits, sidewalk repairs, complaints (dogs, etc.);
- Build the website platform on Open Standards technology, which will requires cell service;
- Populate the site with useful information and services;
- Provide compelling, original content, update, topical information – create a “virtual town square”;
- Adopt a mobile responsive website;
- Review the wording used on the City's website; and,
- Implement online E-Learning Tools.

### **Benefits:**

- Reduce frustration on the part of the citizen;
- Reduce workload;
- Improved quality of services and response;
- Builds the sense of community and a more desirable community;
- Promote communication engagement, tourism, businesses / economic development;
- Reflects the community;
- Could attract business, visitors, tourists, economic development / marketing tool;



- Provides a positive image of the City;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Attract constituents to the City's website;
  - Continue to enhance the City's infrastructure, providing real time communications for businesses and travelers who have come to expect it;
  - Enhance recreation activities and coordinating facilities through online applications;
  - Provide for resident to find information, i.e., trolley schedule, other functions, events, road closures, special events;
  - Improved use of new and emerging technologies;
  - Improved service delivery;
- Improved communication;
- Reach more people, people with access on a cell phone not a computer;
- Online 24/7 access to information/services;
- Facilitate dynamic relationship with the public, enhanced service delivery; and,
- Reduce traffic / driving.

### **E-GOV 2 City Website Content Management**

#### ***Findings:***

The need for Web Content Management solutions was identified in the City Staff Survey. While this issue was not addressed in detail (because it was only brought up in the survey and not in any of the workshops) we can say that good Web Content Management tools are user friendly and allow non-technical staff the ability to carry out content management on the City's website.

#### ***Recommendation:***

- Explore the implementation of a leading Web Content Management tool that allow non-technical staff to maintain the City's website;
- Provide appropriate training to all staff with content posting responsibilities;
- The Web Content Management solution should provide the following minimum features:
  - Mandatory completion of specific fields, such as metadata;
  - HTML code in which the content will be presented;
  - Navigation structure in which the content will be embedded;
  - Support of Mobile Web;
  - Security, Active Directory user authentication and multiple user levels;
  - Webpage (CSS) layout;
  - Workflow engine;
  - Site mapping;
  - Multi-site deployment;
  - Site indexing;
  - Interoperability / Web services support, does not have pluggable APIs; and,
  - WebDAV support.

#### ***Benefits:***

- Provide non-technical staff to update content on the City's website in real time;
- Enhance the timeliness of information posted on the City's website; and,
- Communication engagement, promote tourism, business, and economic development.



### E-GOV 3 Public E-Government Applications

The following list of E-Government applications was identified in several tasks of the ITSP project, e.g., the Public Outreach Workshops, the Online Public Survey, the City Staff Survey, and the Visioneering workshops.

#### E-GOV 3.1 Online Mobile Applications

##### **Findings:**

The lack of mobile applications was identified in the Staff and Online Public Survey. Although no specific applications were identified, it is safe to say that the present trend is towards the use of mobile applications. This trend is sure to become more pronounced over the next five years.

##### **Recommendations:**

- Adopt an E-Government Strategy posture with regards to the City's use of Internet, specifically web-enabled service delivery, i.e., use E-Government applications to deliver various on-line services to the public, tourist and business community. Use a variety of technologies, e.g.:
  - Interactive Applications: (E-Forms);
  - Transactional Applications (Stand-alone E-Commerce); and,
  - Integrated Applications (i.e., interfaced to permitting, work order systems and/or ERP systems).
- Deliver information and innovative government services through web solutions to provide the highest value and convenience to constituents;
- Identify E-Government specific initiatives to raise the City's E-Government Maturity Model (E-Government Maturity Model is a method for judging the effectiveness of E-Government strategies and initiatives and identify future growth);
- Align E-Government service delivery around the City's logical customer sets, including development permitting, parks and recreation, public safety, etc.;
- Develop and roll out public facing interactive E-Government applications that compliment internal City applications provided by commercial-off-the-shelf applications or developed as complimentary applications to applications recommended in the ITSP;
- Develop and implement Web standards: Architecture, development tools, development methods and databases;
- Implement one common Content Management System. Enforce website uniformity by employing a robust Content Management Systems (CMS): Provide appropriate training to all staff with content posting responsibilities; and,
- Implement one customer service portal; customizable by citizens, i.e. "information for my neighborhood" and provide customer reports, one stop shopping, with drill down options.

##### **Benefits**

- Service, convenience;
- Facilitate dynamic relationship with the public, enhanced service delivery;
- Reduce traffic / driving;
- Enhance recreation reservations / payments;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Attract people to the City;



- Continue to enhance the City's infrastructure, providing real time communications for businesses and travelers who have come to expect it;
- Enhance recreation activities and coordinating facilities;
- Provide residents the ability to find information, i.e., trolley schedule, other functions, events, road closures, special events;
- Improved use of new and emerging technologies;
- Improved service delivery;
- Efficiency, public convenience, meet the expectations, happier citizens;
- Doors would remain open longer, foster citizen participation, provide auto-response to the community/prioritized; and,
- Allow e-marketing and analytics.

### **E-GOV 3.2 Online Information / Records Access Services**

#### ***Findings:***

Lack online access (internal / the public) to records management, which can result in:

- Staff time searching for paper files;
- Downtime while waiting for retrieval of offsite storage;
- Increase storage requirements;
- Lack of transparency; and,
- More phone calls to the City.

#### ***Recommendations:***

- Provide online access to documents on the city's website;
- Search by key words; and,
- Provide records online.

#### ***Benefits:***

- Staff time savings;
- Reduced physical storage space requirements;
- Increased transparency and improved perception by the public; and,
- Reduced phone calls to City staff.

### **E-GOV 3.3 E-Commerce Applications**

#### ***Findings:***

The City currently has two or three E-Commerce applications running on its website. The internal requirements definition did not identify additional E-Commerce applications, as the City has limited instances where it takes payments. However, staff did note the inability to service applicants electronically, which can result in:

- Inefficiency;
- Slows down ability to move a project forward due to distance; and,
- Lower productivity.

The Public Online Survey identified E-Commerce applications as the top rated and most important web-enabled solution in the Public Online survey. Possible E-Commerce applications include the following:

- Online payments;
- E-Signatures: currently difficult to implement;



- Online GIS Services;
- Web-enabled WO / Maintenance Management; and,
- Service Requests: get service requests from persons who are not residents of Westlake Village.

The current condition results in:

- Customer frustration;
- Inconvenience;
- Staff time to process business transactions with manually processes;
- Not being able to offer services due to limited staff;
- Marketing is all done with ads and paper products;
- Affects the image of the City as not being current with technology; and,
- Affects the turn-around time to provide services to the public.

**Recommendations:**

- Implement E-Commerce applications;
- Adopt the use of E-Signatures tools to satisfy the City's legal counsel and the laws of the State of California;
- Explore appropriate areas to use Facebook and Twitter;
- Allow electronic payments;
- Establish electronic forms and accept e-signatures not needing to be notarized;
- Allow applicants to video chat during City Council meetings to answer questions; and,
- Allow for conference call screen sharing so talk to absent applicants while being able to view the same information.

**Benefits:**

- Ability to reach more people / constituents;
- Create new audiences using the City's website, and increase the website utilization;
- Improved customer service and service delivery on 7x24 self-serve basis;
- Improved convenience to the customer;
- Improved image of the City;
- Easy access to information/services;
- Improved internal efficiencies;
- Allows applicants from other areas to attend meetings virtually; and,
- Reduce the use of paperwork, and its inherent costs.

**E-GOV 3.4 Online Civic Engagement Applications**

**Findings:**

Lack ability to effectively review and consider effectiveness of on-line Civic Engagement applications (open data, mind mixer) due to size of City, which can result in:

- Staff cannot compare the applications to other cities and their use;
- Hard to demonstrate to City Council;
- Lack of transparency;
- More phone calls to the City;
- Neighboring (larger) cities are adopting; and,



- Data hard to obtain and interpret by residents.

**Recommendations:**

- Train staff and City Council on these applications and benefits vs. costs; and,
- Develop a policy for reviewing these types of applications.

**Benefits:**

- Staff time savings;
- More knowledgeable staff and City Council;
- Increased transparency and improved perception of the public; and,
- Reduced phone calls to City staff.

### E-GOV 3.5 Online Grant Applications

**Findings:**

- An Online Grant Application was identified as a requirement in the online Staff Survey.

**Recommendations:**

- Implement an online Grant Application.

**Benefits:**

- Online 24/7 access to information;
- Easy access to information and services;
- Enhanced efficiencies; and,
- Enhanced Gov 2 Gov interaction and simplified processes.

### E-GOV 4 Social Media

Social media entails the use of web-based tools that allow the interaction between people / organizations where users create, share or exchange information and/or content over the Web. Social media includes a group of rapidly growing Internet-based applications that build on the technological foundations of Web 2.0, Facebook, Twitter, Instagram, etc. Social media depends on mobile / web-based technologies to produce interactive platforms where individuals and groups share, collaborate, and discuss user-generated content. According to recent statistics, Internet users continue to spend more time with social media sites than any other type of website. Social media has many flavors including magazines, Internet forums, weblogs, social blogs, microblogging, wikis, social networks, podcasts, photographs, video, rating and social bookmarking.

#### E-GOV 4.1 Facebook

**Findings:**

- The ITSP project used the community outreach workshops and public survey to gauge the perceived need for Facebook solutions. Thirty-eight percent (38%) of residents that took the public inline survey use Facebook. Paradoxically, however, the majority of constituents (64.63%) rated Facebook as “Not Important.” One survey respondent noted: “I personally hate Facebook and Twitter but you have them for those who use it.”



- Workshops with members of the business community (specifically technology companies) reflected a completely different perspective, a requirement and opportunity to use dynamic social media.

### **Recommendations:**

- Explore the most effective way to implement a City Facebook page(s), for instance a Facebook page for the City to advertise special events and activities;
- Demonstrate to the Westlake Village community that Facebook can serve as an effective communication tool between it and its constituents;
- Develop and implement a Twitter platform and Standard Operating Procedure on two fronts:
  - First, for staffing and disaster response, a format to blast information regarding City needs and conditions to all employees; and,
  - Second, a format to reach the public to inform and give directions during times of expected or pending large-scale response needs (floods, drought, and excessive heat) as well as in emergencies (i.e., fires, earthquakes, terror attacks) that can be accessed by phone and/or mobile devices.

### **Benefits:**

- Improved City / constituent engagement;
- Ability to be responsive;
- Improved services;
- Online communication with public, collaborate online, civic engagement;
- Facilitate dynamic relationship with the public;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Support the increased use of cell phones by the public/businesses;
  - Provide for resident to find information, i.e., trolley schedule, other functions, events, road closures, special events; and,
  - Improved use of new and emerging technologies.

## **E-GOV 4.2**

### **Twitter**

#### **Findings:**

- The ITSP project used the community outreach workshops and public survey to gauge the perceived need for Twitter solutions. Thirty-eight percent (38%) of residents that took the public inline survey use Twitter. Paradoxically, however, the majority of constituents (76.25%) rated Twitter as "Not Important," the lowest rated of all social media.
- Constituent noted in the online survey: "Twitter would be good for emergency postings."; and,
- Workshops with members of the business community (specifically technology companies) reflected a completely different perspective, a requirement and opportunity to use dynamic social media.

#### **Recommendations:**

- Develop and implement social media tools to make the City website dynamic;
- Develop and implement a Twitter platform and Standard Operating Procedure on two fronts:
  - First, for staffing and disaster response, a format to blast information regarding City needs and conditions to all employees;



- Second, a format to reach the public to inform and give directions during times of expected or pending large-scale response needs (floods, drought, and excessive heat) as well as in emergencies (i.e., fires, earthquakes, terror attacks) that can be accessed by phone and/or mobile devices; and,
- Provide training to City staff in the design, development and management of Gov 2.0 solutions or outsource the development of these solutions.

**Benefits:**

- Engagement with Westlake Village residents;
- Ability to be responsive, particularly with emergency services;
- Online communication with public, collaborate online, civic engagement;
- Facilitate dynamic relationship with the public, enhanced service delivery;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Support the increased use of cell phones by the public/businesses;
  - Provide for resident to find information to residents, i.e., trolley schedule, other functions, events, road closures, special events;
  - Improved use of new and emerging technologies;
  - Improved service delivery; and,
  - Build community in the digital environment to inform and connect with the Westlake Village community.

### **E-GOV 4.3 Instagram / Tumblr**

---

**Instagram** is an online mobile photo-sharing, video-sharing and social networking application that allows users to take pictures and videos, apply digital filters, and share them on a variety of social networking services, such as Facebook, Twitter, Tumblr and Flickr. A unique feature is that it limits photos to a square shape, versus the 4:3 aspect ratio typically used by mobile devices. Users can also record and share short videos lasting for up to 15 seconds.

**Tumblr** is a microblogging platform and social networking website owned by Yahoo! Inc. Users can post multimedia and other content to a short-form blog, can follow other users' blogs, and make their blogs private. The website's features are accessed from a "dashboard" interface, where users can post content and posts of followed blogs. As of July 1, 2014, Tumblr hosts over 192.9 million blogs.

**Findings:**

- The City is not currently using Instagram or Tumblr;
- Approximately 5% of those who responded to the Online Public Survey noted they use Instagram; and,
- No person responding to the Online Public Survey uses Tumblr blogging platform.

**Recommendations:**

- Instagram is an application the City might use as part of a social media communication / marketing strategy in promoting events planned and held at the City; and,
- Tumblr provides the City the ability to produce a City blog to communicate with the younger demographic of the Westlake Village community. (It should be noted that blogging requires constant updating and keeping the content fresh, or else utilization drops off.)



**Benefits:**

- Provide a low cost online communication platform to connect with the residents of Westlake Village;
- Facilitate dynamic relationship with the public, enhanced service delivery;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Attract people to the City;
  - Provide real time communications for businesses and travelers who have come to expect it;
  - Improved use of new and emerging technologies; and,
  - Improved service delivery.

**E-GOV 4.4 YouTube Online Videos**

YouTube is a video-sharing website allowing users to upload, view, and share videos, and it makes use of Adobe Flash Video and HTML5 technology to display a wide variety of user-generated and corporate media video. Content includes video clips, TV clips, music videos, and amateur content such as video blogging, short original videos, and educational videos. YouTube is often used by government organization as a marketing / communications tool to showcase tourism and/or physical amenities of their communities.

**Findings:**

- The City is not currently using YouTube as a social media tool, and,
- Two of those who responded to the Online Public Survey noted they use YouTube.

**Recommendations:**

- Explore the most effective way to utilize YouTube for:
  - The City to advertise special events and activities; and,
  - The City to showcase the physical amenities of the "City in the Country".

**Benefits:**

- Online communication with public, collaborate online, civic engagement;
- Facilitate dynamic relationship with the public, enhanced service delivery;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Attract people to the City;
  - Provide real time communications for businesses and travelers who have come to expect it;
  - Improved use of new and emerging technologies; and,
  - Improved service delivery.

**E-GOV 5 E – Learning Tools**

**Findings:**

- Citizens participating in the Public Outreach Workshops noted that the City website lacks intelligence, i.e., using the website to contact the City with a problem without knowing who the appropriate person to contact is a challenge. This results in:
  - People stop communicating with the City;
  - Frustration;
  - Disgruntled residents; and,
  - Service request are not fulfilled.



### **Recommendations:**

- Implement an E-Learning Tool, web applications that walk you through;
- Make training available to citizens who want to use it;
- Redesign the website GUI, allow people better, easier, faster navigation;
- Smart search engine: pot holes, street lights out, contextual searches, permits, sidewalk repairs, complaints (dogs, etc.); and,
- Review the wording used on the City's website.

### **Benefits:**

- Better, more informed community and customers;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Attract people to the City's website;
  - Continue to enhance the City's infrastructure, providing real time communications for businesses and travelers who have come to expect it;
  - Provide for resident to find information, i.e., trolley schedule, other functions, events, road closures, special events;
  - Improved use of new and emerging technologies;
  - Improved service delivery; and,
- Online health & wellness programs, engage the community.

## **E-GOV 6**

### **Online Notification of Events**

#### **Findings:**

- Citizens participating in the Public Outreach Workshops noted that there is a lack of awareness and knowledge of City projects; development, events, etc., and there is an inability for the residents to provide feedback. This results in:
  - Frustration based on a lack of knowledge; and,
  - If not aware of street closings, residents may be inconvenienced, and frustrated.

#### **Recommendations:**

- Implement email notifications to citizens of upcoming events (this already exists);
- Smart Texting System, driven by where one lives, geo-references;
- Electronic bill boards, simple, be monitored so it is driven by events on a calendar;
- The City has to do a better job at communicating existing web tools;
- Email notifications with citizen sign-ups; and
- Provide citizens the ability to sign-up for different types of notifications, i.e., on Facebook or Twitter.

#### **Benefits:**

- Better, more informed community and customers;
- Business development events, celebrations (could sell tickets);
- More information to citizens;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Eliminate dead zones;
  - Attract people to the City;
  - Continue to enhance the City's infrastructure, providing real time communications for businesses and travelers who have come to expect it;
  - Enhance recreation activities and coordinating facilities;



- Support the increased use of cell phones by the public/businesses;
- Provide for resident to find information, i.e., trolley schedule, other functions, events, road closures, special events;
- Improved use of new and emerging technologies; and,
- Improved service delivery.

### **E-GOV 7 Video Chat at Council Meetings**

#### ***Findings:***

Participants in the IT Focus Groups noted there is a certain amount of effort that it takes for citizens to attend City Council meetings. This results in:

- Customer time to travel to City Council meetings; and,
- Time spent driving.

#### ***Recommendations:***

- Implement a video chatting component to the City Council Chambers.

#### ***Benefits:***

- Better, more informed community and customers;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Support community meetings and interaction between public/council, town hall, , virtual public hearings.



### 3.2.2 Operational Recommendations

This section of the report provides operational recommendations for enhancing the ability of the City's IT resources to support its internal and external customers. These recommendations will support the IT initiatives identified in the ITSP.

The following recommendations are not specifically related to technology but rather IT operational policies, practices, methods and procedures.



#### O Operational Sustainability

##### O 1 Network Security

**Findings:**

- The City lacks network security protocols and policies that outline the rules for computer network access, how policies are enforced and a basic architecture of the City security / network security environment.

**Recommendations:**

- Develop standardized security protocols / policies requirements in order to protect citizens, systems, and data; and,
- The City needs to carefully consider the types of network connectivity that will be acceptable given the risk, likelihood, and impact of a malicious attack such as for PCs / laptops / tablets / smartphones, servers, storage, networks, applications, website (i.e. online payment transactions), e-signatures, remote connectivity, social media, traffic lights, etc.

**Benefits:**

- 2015 Strategic Plan Core Values, fostering responsive Local Government; and,
- Enhanced Service Delivery.

##### O 2 Training

##### O 2.1 City Staff Office Application Training

**Findings:**

- Responses in the Staff Survey identified the need for additional Office Automation application training.

**Recommendations:**

- Implement a formal training program for City staff, as needed, for office automation software; and
- This training could be outsourced to firms that will come to the City to provide this training.



**Benefits:**

- Better use of technology could benefit developers;
- Enhanced service delivery;
- More efficient use of staff time through technology ;
- Allows for staff to be more accessible and efficient.

**O 2.2 Citizen Training**

**Benefits:**

- Improved knowledge of technology and use could enhance community;
- More connectivity;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Provide for resident to find information, i.e., trolley schedule, other functions, events, road closures, special events;
  - Improved use of new and emerging technologies;
  - Improved service delivery;
- Creates increased quality of life for aging residents;
- Supports goal of raising level of technology use in City; and,
- Engages City to participate electronically in City process.

**O 3 Technical Support**

**Findings:**

Most City consultants (i.e. Engineering Department) have limited access to City OT environment and same level of technical support which results in:

- Down time; and,
- Frustration.

**Recommendations:**

- Establish a policy articulating mutual roles and responsibilities; and,
- Expand support contract with Lanspeed (or possibly other vendors).

**Benefits:**

- Eliminates down time;
- Improved service delivery;
- Improved staff productivity;
- Well versed staff in use of technology will help to foster increased technology use; and,
- Allow staff to be more accessible and efficient.

**O 4 Disaster Recovery**

**Findings:**

- Participants in the City Staff Survey noted that the City's Disaster Recovery capabilities need strengthening, which if not corrected, could result in the City being exposed in the event of a man made or natural disaster. This can result in a lack of disaster recovery and the major loss of data and information.



### **Recommendation:**

- Based on the City's Business Continuity Plan, which should indicate key metrics of recovery point objective (RPO) and recovery time objective (RTO) for various business processes (such as the process to run payroll, generate an order, etc.) the City should carry out a Disaster Recovery (DR) audit. Common strategies for data protection include the following:
  - Backups made to disc and sent off-site at regular intervals;
  - Backups made to disk on-site and automatically copied to off-site disk, or made directly to off-site disk;
  - Data replicated to an off-site location, which replaces the need to restore the data (only the systems then need to be restored or synchronized), using Storage Area Network (SAN) technology;
  - Replicate both on-site and to off-site data centers with Hybrid Cloud solutions; and,
  - Use high availability systems that keep both the data and system replicated off-site, enabling continuous access to systems and data, even after a disaster.

### **Benefits:**

- Meet the City's Business Continuity Plan; and,
- Allow the City to operate in a more responsive manner during a recovery.

## **O 5 Business Connectivity**

### **Findings:**

As the City does not require a business license, there may be a lost opportunity to connect with business community. According to City staff, this can result in:

- Public safety impacts, emergency preparedness;
- The City is not as effective in serving the business community;
- The City is not aware of the talent in the business community;
- Loss of revenue for businesses;
- Does not support City / business collaborative opportunities;
- Inefficiencies within businesses, things can take longer or cost more money; and,
- Hinders the effectiveness to attract business that could fill a niche, affects economic development, and affects the talent pool.

### **Recommendations:**

- Adopt the use of social media
- More outreach;
- More outreach meetings with the business community, 3 or 4 times per year; and,
- Take these meetings, and engage them online, video tape the meetings and post them.

### **Benefits:**

- Enhance the awareness of City programs and events;
- Improve the quality of connection for the City;
- Improve retaining business; and,
- The more you know about the customer, the more you attract good businesses.



## O 6 Cell Phone Help Desk

### **Findings:**

Participants in the IT Focus Groups noted that City staff are currently underutilizing their cell phones. This results in:

- Impacting staff productivity; and
- Management does not get the best use of the functionality or Return on Investment.

### **Recommendations:**

- Implement a cell phone help desk;
- Standardization of equipment, identify minimum requirements; and,
- Training on the use of cell phones.

### **Benefits:**

- Increased productivity and functionality;
- Improved communications;
- Enhanced customer service;
- Better use of mobile device/less staff time training;
- Provides leadership in the importance of advanced use of technology; and,
- Allows for easier access to elected officials.

## O 7 GIS System Administration

### **Findings:**

Not sure existing remotely hosted GIS system is the most cost effective approach. The City may not be getting the functionality the City hoped they would, which may result in:

- Not seeing the savings in staff time;
- Spending more money than the City should; and,
- Only Planning staff using GIS.

### **Recommendations:**

- Investigate bringing the GIS System Administration in-house;
- Consider other external solutions;
- Investigate methods for increasing the use across all City departments; and,
- Open up functionality to the public.

### **Benefits:**

- Possibly decreased costs;
- Improved functionality;
- Enterprise-wide benefits for multiple departments; and,
- Enhanced customer service.



### 3.2.3 Management Recommendations

The ITSP management recommendations relate to initiatives that can be taken to support the implementation of the City's ITSP, which are not related to information technology, hardware, software, or changes to business processes.

These management recommendations are based on information gained from a thorough review and assessment of the City's 2015 Strategic Plan, Community Outreach Workshops and the IT Focus Group with City staff and management.



#### M 1 Regional IT Government Consortium

The following recommendations came from the community outreach workshops with regional government agencies. Based on the limited resources available to the agencies who attended the workshops, the notion of economies of scale came up, which resulted in a number of potential recommendations related to forming a regional group to address a number of opportunities.

##### M 1.1 Regional Consulting Working Group

**Findings:**

Regional government agencies surrounding Westlake Village are not sharing technology planning across agencies, which results in:

- Lost opportunities;
- Duplication of efforts across government agencies; and,
- Higher costs all around for government agencies.

**Recommendations:**

- Establish a Regional Technology Working Group (or a JPA);
- Meet once per quarter to discuss and coordinate technology initiatives;
- Hold monthly City IT Managers meetings;
- Establish a Conejo Valley Connectivity initiative; and,
- Establish an online communication tool, i.e., Facebook page / Twitter account.

**Benefits:**

- Could leverage technology innovation and expenses;
- Would allow for project forecasting and Visioneering;
- Identified opportunities for shared costs;
- Identify regional technology opportunities;
- Foster knowledge and resource sharing; and,
- Share ideas, resources, and technology applications.

##### M 1.2 Regional Infrastructure Group

**Findings:**

The regional government outreach workshop identified a lack of commonality and standardization, including Infrastructure, hardware, etc., across government agencies in the Conejo Valley, which results in:



- Increased costs;
- Increased training;
- Lack of compatibility;
- Increased cost of development; and,
- More difficult for the public to access online information and services.

**Recommendations:**

- Establish a list of standard technologies;
- Increase the communication between agencies; and,
- Establish Volume Purchase Agreements with Value Added Resellers.

**Benefits:**

- Better training for higher level equipment;
- Improved systems consistency;
- Interagency ability to swap equipment;
- Reduced costs;
- Attract businesses;
- Improved coordination between agencies;
- Improved services attract business;
- Economies of scale for IT purchases;
- Could produce a regional plan to enhance communication, reduce driving, increase transactions;
- Share ideas, resources, and IT applications;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Continue to enhance the City's infrastructure, providing real time communications for businesses and travelers who have come to expect it;
  - Improved use of new and emerging technologies; and,
  - Improved service delivery.

**M 1.3 Aerial Imagery**

**Findings:**

The regional government outreach workshop identified that the City is not leveraging joint costs on aerial imagery, which can result in:

- Spending more money than agencies should; and,
- Lack of aerial data consistency across cities.

**Recommendations:**

- Get together as a regional group and combine resources to cover the cost of shooting aerials.

**Benefits:**

- Cost savings to each participating agency; and,
- Consistent data.



**M 2 Management Policies**

**M 2.1 Telecommuting Policy**

**Findings:**

Some staff may want to occasionally access work or complete projects from home. Staff noted that they might be as, or more, productive from home. The existing condition results in:

- City staff not being as productive as they could be;
- Less than desirable service levels;
- Affects the access for staff to be while out of the office;
- Inspectors cannot do work in the field; can require double the work (manually writing down information and entering the same information into a system). This would apply to any staff who works in the field or travels; and,
- Staff frustration.

**Recommendations:**

- Establish a policy of working remotely or from home;
- Identify the required equipment / systems to work remotely;
- Provide connectivity to allow for remote access; and,
- Provide training to staff on web-enabled applications and mobile devices.

**Benefits:**

- Be more responsive to community needs;
- Provide ability to measure out what to respond to;
- Staff time staff time;
- Cost savings; and,
- Improve staff morale.

**M 2.2 Granicus Support**

**Findings:**

The City currently has technical support issues with Granicus, which results in:

- Council Member complaints;
- Staff is blind-sided by problems;
- Residents can be impacted; and,
- The City loses the opportunity to educate and inform residents.

**Recommendations:**

- Articulate the existing problems with the Granicus system, and determine what the best course of action is: Lanspeed or Granicus; and,
- Have a representative from Lanspeed meet at the City on Wednesdays, or some regularly identified frequency to review technical problems.

**Benefits:**

- Improved level of support provided to the City Council;
- Maximize the investment in Granicus; and;
- Better informed public.
- Raise the effective level of new and emerging technologies; and,



- Easier to access government services for the public.

### **M 2.3 Mobile Computing Policy**

**Findings:**

According to City staff, the City does not currently have formal mobile Standard Operating Procedures, which results in:

- A lack of clear direction to staff in the use of this technology;
- Potential for the use of dissimilar devices and security exposures; and,
- Increased technical support requirements, staff and associated costs.

**Recommendations:**

- Develop a formal mobile computing policy; and,
- Provide training to City staff on the new policy.

**Benefits:**

- Online 24x7 access to information;
- Easy access to information and services;
- Leads to more and effective use of mobile devices;
- Lead to more and effective use of mobile devices; and,
- Leads to more and effective use of mobile devices.

### **M 2.4 Online Application Policies & Standards**

**Findings:**

According to City staff, the City does not currently have formal online web-enabled application policy, which results in:

- A lack of a clear definition of how web apps will be developed, deployed and used; and,
- Increased development and associated maintenance costs.

**Recommendations:**

- Develop formal online application policy, including a technical specification for the development platform, programming tools, database engines and browser support to be used; and,
- Provide the policies and standards to contracted firms developing online apps for the City.

**Benefits:**

- Improved convenience to the public;
- Enhanced efficiencies;
- Meet 24x7 services delivery demand;
- Support the City's 2015 Strategic Plan core values and strategic objectives:
  - Attract people to the City's website;
  - Continue to enhance the City's infrastructure, providing real time communications for businesses and travelers who have come to expect it;
  - Enhance recreation activities and coordinating facilities;
  - Support the increased use of cell phones by the public/businesses;
  - Assist resident in acquiring information, i.e., trolley schedule, other functions, events, road closures, special events;



- Improved use of new and emerging technologies; and,
- Lead to more and effective use of mobile devices.

### M 3 IT Staff Resources

#### M 3.1 IT Staff & Technical Support

##### **Findings:**

- The City currently contracts its IT technical support to a third party, Lanspeed. There are key individuals at Lanspeed that know the City. Currently, one City staff member coordinates with Lanspeed, which results in:
  - Staff frustration;
  - Staff time;
  - Delays the correction of the problem; and,
  - Might impact the relationship with the vendor.
- A high level review of Lanspeed's professional and technical capabilities, as presented in their corporate website, revealed that they do not have the experience and expertise in a number of key initiatives identified in the ITSP, i.e., Enterprise Resource Planning, Enterprise Content Management, Web Development, E-Government Application Development, Systems Integration, and so on.

##### **Recommendations:**

- Formalize the City's relationship with Lanspeed, clearly identifying those technical areas they can support;
- As the City proceeds with the implementation of the ITSP, it will be necessary to:
  - Redefine and/or negotiate additional services with Lanspeed;
  - Identify technical support needs that go beyond Lanspeed's capabilities and negotiate those with other service providers; and,
- Create a flow chart and formal published policies and practices for technical support services.

##### **Benefits:**

- Roles and responsibilities would be clarified;
- More efficient use of staff resources; and,
- More efficient use of technical support vendors.

### M 4 Change Management

Change Management is the process, tools and techniques used to manage the people-side of changed business processes and new technologies to achieve the required outcomes. Change Management ensures effective change with staff and the wider organization.

##### **Findings:**

- The ITSP project identified a number of technology initiatives, which if implemented correctly, will transform how City services are provided. This type of technology and organizational change will require effective change management to ensure the highest likelihood of success.



**Recommendations:**

- Adopt and implement Change Management Best Practices as ITSP initiatives are implemented; and.
- Retain the services of an outsourced firm to provide Change Management training, services and management.
- There are a number of Change Management models which can be considered. The one illustrated below is a common model which incorporates the key components of an effective Change Management program:

**Figure M 4.1: Best Practice IT Change Management Model**



**Outputs:**

- *Identify Sponsor Structure, Stakeholder Roles & Responsibilities*
- *Change Management Plan*
  - *Communication Plan*
  - *Sponsor Roadmap*
  - *Training Plan*
  - *Resistance Management Plan*

**Outputs:**

- *Carry out ongoing Change Management Activities*

**Outputs:**

- *Compliance Audit*
- *Corrective Action Plans*
- *After Action Reviews*

- Implement a formal Change Management Process, with the following activities:
  - **Sponsor Roadmap:** Identify the sponsor structure, stakeholder roles and responsibilities;
  - **Communication Plan:** Establish and execute a communication plan to support ITSP initiatives; possible components could include (but not be limited to) the following:
    - Publish a ITSP Newsletter posted on the City’s Intranet, highlighting current and planned IT initiatives, highlighting how suggestions made by staff in the ITSP Project are being carried out. Celebrate End User and IT successes;
    - Publish an ITSP Newsletter posted on the City’s Website, notify the public of planned and ongoing initiatives that will improve customer service. Celebrate E-Government success stories;
    - Establish End User Groups of newly deployed technologies;
    - Encourage and recognize the participation of “Super Users” (staff who become highly proficient in the use of new technologies);
    - Establish City, Community, Business, Regional Government forums to discuss ongoing and planned ITSP initiatives;



- **Training Plan:** Implement the training recommendations in the ITSP, formalizing an ongoing IT training program for City staff. Develop a curriculum of classes, prerequisites, and course descriptions.
- **Resistance Management Plan:** Provide feedback mechanisms for staff and management, such as:
  - Suggestion Box or User Tips on the City's Intranet;
  - End User Groups (Quality Circles) for different technologies and / or disciplines;
  - Implement the recommendation to adopt Business Process Improvement techniques where end users can work with an IT Business Analyst to identify new requirements and / or shortcomings and feed-back loops on newly deployed technologies;
  - Carryout a **Post Implementation Evaluation of the ITSP on a yearly basis;**
  - Utilize performance measurement techniques to gauge the progress of the ITSP implementation;
  - Make necessary adjustments to planned initiatives based on changing business and / or service delivery requirements; and,
  - Make necessary changes to planned initiatives based on changes or innovations in technology that significantly affect the return on investment.

### **Benefits:**

Change management will allow the City to achieve the following:

- Implement a formal process for facilitating the most efficient implementation of the ITSP initiatives, via clear executive sponsorship and leadership;
- Foster enterprise communication and coordination;
- Provide a mechanism to identify and address staff objections and resistance early, allowing the City to take steps to mitigate concerns and reduce risk before they become significant issues; and,
- Provide the highest likelihood of success.