City of Manhattan Beach

Information Systems Master Plan (ISMP)

April 2013

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NexLevel Information Technology, Inc. assisted the City of Manhattan Beach in the development of this IS Master Plan.

The Plan is intended to be used as a roadmap to help ensure information technology effectively supports the City's current and future needs.

NEXLEVEL Information Technology, Inc.

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1 Introduction

1.1 City Profile

The City of Manhattan Beach is dedicated to providing exemplary municipal services, preserving our small beach town character and enhancing the quality of life for our residents, businesses and visitors.

Manhattan Beach is a beachfront community located 19 miles southwest of Los Angeles on the southerly end of Santa Monica Bay. The City encompasses just under 4 square miles, with 2.1 miles of beachfront and 40 acres of recreational beach area available to residents and visitors. Manhattan Beach is primarily residential, with just over 49% of its land area zoned for housing, and has a population of approximately 35,000 residents.

Manhattan Beach was incorporated on December 2, 1912 as a general law city. The City Council is made up of five members, elected at large, serving four-year terms. The Mayor is selected for a nine-month term from among the members of the City Council. The City operates under a council-manager form of government. The City Council appoints the City Manager, City Attorney and City Clerk.

The City of Manhattan Beach has 274 authorized full-time employees and delivers municipal services through eight departments: Management Services; Finance; Human Resources; Parks & Recreation; Police; Fire; Community Development; and Public Works.

1.2 Background

Manhattan Beach has a history of being fiscally conservative. In recent years, when the economy deteriorated, the City reduced costs in ways that avoided major service impacts to residents and businesses. Today, the City continues to see overall economic stability and advancement. Property tax reversed the downward trend from two years ago and is improving slowly. Sales tax is growing with the general economy and consumer confidence. Building activity is returning, along with tourism and travel. Given this outlook, the City continues with the budget goals of maintaining the levels of service currently provided to residents, reducing expenses wherever practical, meeting employee obligations and maintaining adequate general fund reserves.

At the same time, technology in general has been progressing at breakneck speed, and citizens have become more technology savvy, expecting increased and more efficient services through the use of technology. Technology has the potential to improve citizen access to services, increase staff productivity, extend availability of services beyond the normal business hours, and provide more transparency regarding operations.

In 2012, Manhattan Beach established a set of Strategic Objectives to identify the City's top priorities and identified timelines for completion. Included in the Citywide Strategic Plan was the following technology related objective:

Assess the City's technology needs and develop and present to the City Council for action an Information Systems Master Plan, including funding.

In order to meet this objective, Manhattan Beach selected NexLevel Information Technology, Inc. (NexLevel) to assist in the development of an IS Master Plan (ISMP). NexLevel is a Technology Management Consulting company that specializes in helping California local governments plan for and implement technology. This document presents the resulting IS Master Plan.

1.3 Project Purpose and Benefits

Over time, local governments typically struggle to keep up with technology demands. Technology needs and reliance often exceeds what can be delivered by the supporting IT organization's resources and capabilities.

As shown in Figure 1, the IS Master Place provides a roadmap that will help Manhattan Beach close the gap between current and future technology needs compared to available resources.

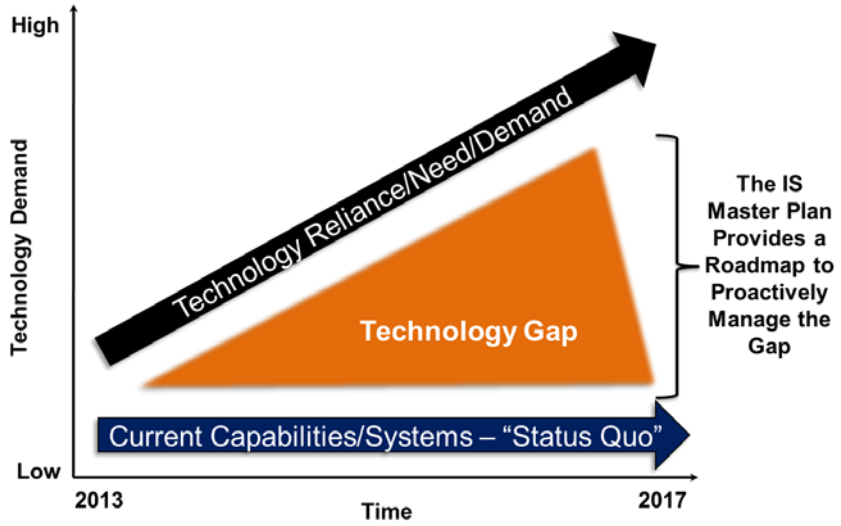

Figure 1 – Technology Gap

For Manhattan Beach, the ISMP addresses the key technology issues facing the City, describes the technology projects necessary to address the issues, as well as the IS Division's organizational changes and hardware lifecycle management approach that will provide for the successful technology operation for the next three to five years. The ISMP also includes a project timeline, which addresses project priorities by fiscal year budget cycles.

Implementation of the ISMP will provide the City with the following bottom-line benefits:

- Improved public safety delivery
- Improved business operations
- Improved customer service
- Reduced operational costs
- Increased staff productivity
- Improved succession planning
- Improved technology project decision making

Manhattan Beach will make annual updates to the ISMP. By evaluating progress, while also revisiting goals and objectives, annual updates help identify any adjustments necessary to keep Manhattan Beach focused on the best technology outcomes for its residents and businesses.

2 Approach

The ISMP development process was a Citywide effort involving more than 150 City staff from every department. It focused on identifying the current and future technology challenges and needs.

The use of a structured planning approach and methodology encouraged participation and buy-in from all stakeholders.

A goal of the planning process is to identify a "business driver" for each technology need. To support prioritization and planning, it is important that the business impact of any proposed project is well defined because ultimately the return on the investment in technology is defined in business terms.

The information gathered during the planning process, along with research regarding how other cities are addressing technology needs, was used to identify specific technology projects. In developing the ISMP, NexLevel provided expertise regarding best practices and industry standards.

Figure 2 identifies the major tasks and general timing of the activities performed to develop the ISMP.

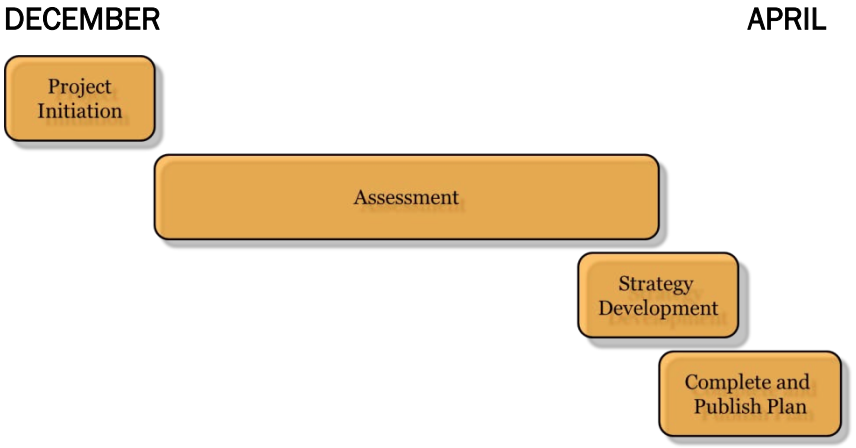

Figure 2 – Project Activities Timeline

At a summary level, the major activities included:

- Project Initiation – development of project materials and conducting the kickoff meeting.
- Assessment – administration of a user satisfaction survey; interviews with City management and staff; tours of City facilities; review of existing documentation; and development of a comprehensive assessment report.
- Strategy Development – development of a technology project listing through the facilitation of two prioritization workshops along with development of a prioritized project timeline.
- Complete and Publish Plan – completion of draft and final ISMP documents.

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3 Current Environment

A reliable and high performing technology infrastructure is critical to obtaining the maximum benefits from business and operations technologies (e.g. finance, payroll, permitting, document management, etc.). The responsibility for managing the City's technology infrastructure and applications primarily reside with the IS Division.

The City's current technology environment provides a solid foundation to build upon to realize the full benefits technology has to offer.

The IS Division reports to the Director of Finance and is staffed by a combination of full time and part time positions. Figure 3 – IS Division Organization Chart illustrates the approved staffing level of the IS Division.

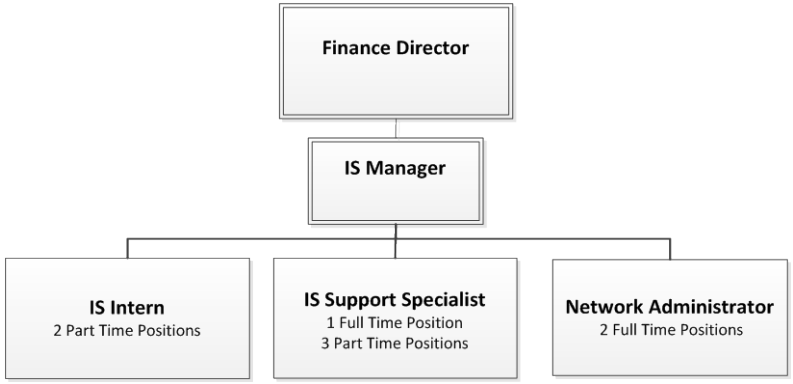


Figure 3 – IS Division Organization Chart

The City's IS Division supports 441 City technology users. Support hours are Monday through Friday from 8:00 AM – 5:00 PM, with on-call service available after hours. The IS Division staff scope of services includes:

- Hardware support and deployment (desktops, laptops, printers, servers, etc.)
- Communications (voice & voice mail, wide area network, wireless access, internet, network security, etc.)
- Help Desk services
- Website oversight, including integration with outside vendors
- Broadcasting of City Council and other public meetings

The IS Division participates in software installations and provides a limited role in software version upgrades, while the City departments generally manage the implementation of new technology, provide on-going application administration, and coordinate with vendor upgrades.

In addition to the technology services provided by IS Division, the City also relies on the following outside services:

- Fire and Police computer aided dispatch (CAD), records management system (RMS), radio services, and mobile data computer (MDC) support is provided through a joint powers agreement (JPA) with the South Bay Regional Public Communications Authority (SBRPCA) located at the Regional Communications Center (RCC). City IS Division staff is responsible for supporting Fire and Police technology needs outside of the scope of services provided by the RCC.

- Various applications are vendor hosted and supported through the Internet (referred to as "cloud" or Software as a Service (SaaS) applications).

Additionally, software applications are a critical component of the City's technology environment. The City relies on third party service providers to support core software applications. Table 1 identifies the City's core applications, the Department that owns the application and vendor responsible for maintenance support.

Table 1 – Core Application Support Responsibilities

Applications	Application Owner (Department)	Maintenance Support Vendor
Finance / Payroll	Finance	Tyler Eden
Permitting	Community Development	Accela Permits Plus
Geographic Information Systems	Finance / Information Systems	ESRI
Document Management	City Clerk	LibertyNet
Agenda Management	City Clerk	Granicus
Class Registration/Scheduling	Parks & Recreation	Active Network
City Website	Information Services	Vision Internet
Tiburon Computer Aided Dispatch (CAD) and Record Management System (RMS)	Fire Department Police Department	SBRPCA and Tiburon

4 Assessment

> *A comprehensive understanding of how an organization uses technology to support its business provides the foundation upon which to plan.*

In order to help the City maximize its investment in technology and provide the highest level of service to its customers, it is first necessary to assess the current state of the City's technology operations. To complete the assessment, NexLevel used the processes and data identified in Section 4.1 below. We compared this information against research regarding how other municipalities address technology needs, and against a series of operational best practices that represent the typical roles and responsibilities for a municipal technology service delivery organization including:

- Governance - The leadership, reporting structure, management overview, method of communicating with stakeholders, and consistent tracking of technology services that ensure end-user business needs and requirements are met.
- Service Delivery - The function of coordinating the processes involved in providing robust customer technology support including training, helpdesk, and service delivery management.
- Business Technology – The business and operational software applications supporting City departments.
- Infrastructure - The data center, hardware/equipment, storage area network (SAN), server virtualization, operating systems, support software, and communications network services used within the City to provide technology services to end users.
- Security - The effective application of policies and standards, user conduct, software tools (filtering, monitoring, etc.), and audits to validate that the City's material and software resources are used only for their intended purposes.
- Administration – The management of the technology in terms of budgets, maintenance agreements, and software licenses.
- Documentation – The development and maintenance of current and accurate documentation of all technology activities such that processes can be completed in the absence of any one individual while promoting cross training, enabling backup and recovery, and reducing the risk of change.

The Assessment provided a high-level view of each best practice area (dimension), as a weakness in any one can adversely impact the overall effectiveness of the organization. To achieve best practices for technology management, an organization needs to perform strongly in all dimensions.

4.1 Assessment Activities

The Assessment included the following activities:

- Individual interviews with Mayor Lesser and the City Manager
- Face-to-face interviews with the IS Manager and IS staff

- Face-to-face interviews with more than 45 City staff
- Web-based user satisfaction survey with 156 City staff
- Tour of IS Division offices and data centers
- Review of technology related documentation (e.g. budget, policies, procedures, etc.)
- Review of the findings of the Citywide website survey conducted with residents in fall 2012
- Follow up interviews and queries with IS Division staff to resolve or clarify issues
- Compilation of information regarding technology practices in similar organizations
- Research and analysis of findings
- Two project prioritization workshops attended by executive management staff

4.2 Findings and Recommendations

NexLevel evaluated the City's use and management of technology and plotted performance, by best practice area, on a diagram as presented in Figure 4. The diagram identifies areas requiring focus, as well as areas that are performing at or near best practice levels (as indicated by green).

In order to evaluate each best practice area, NexLevel used information gathered from a user satisfaction survey, department interviews, review of documentation, and site tours. The results were representative of the feedback and findings obtained during the department interviews. NexLevel evaluated all information compiled to arrive at the best practice ratings, and accompanying recommendations, as presented in the following pages.

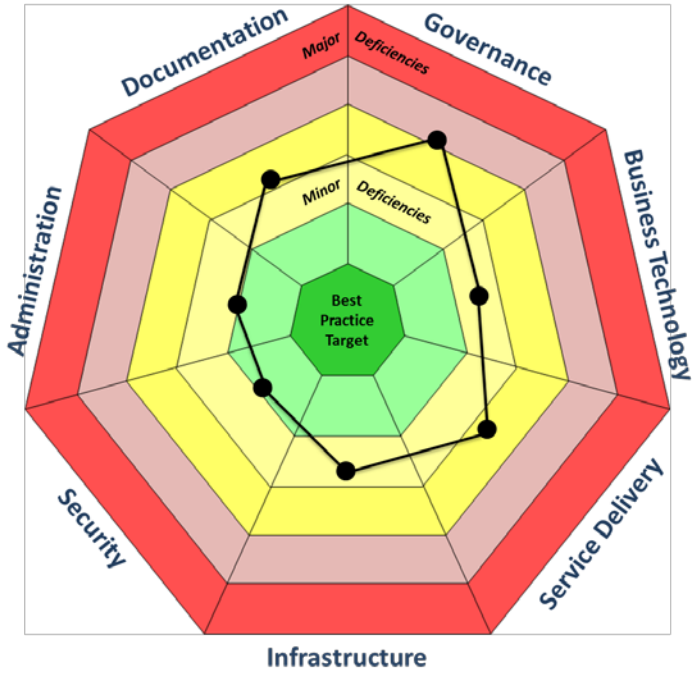


Figure 4 - Assessment Dimension Summary Results

The following sections (4.2.1 – 4.2.7) provide information on each of the 7 dimensions illustrated in Figure 4.

4.2.1 Technology Governance

The City's technology governance includes informal and formal processes associated with the daily operations of the IS Division and the City's strategic planning activities related to technology. The IS Division is challenged to keep up with the existing demands placed upon it, and is not adequately staffed to meet the growing department technology needs. The City's

overall technology governance would benefit from a more formal steering committee structure with active participation from department directors on a regular basis. NexLevel provides the following recommendations:

- Reorganize IS Division staffing to provide a higher level of customer service. Consider consolidating multiple part time positions into one or more full time positions to reduce continual loss of part time staff. Evaluate current reporting relationships within the IS Division and consider alternatives to the current reporting relationships, including the creation of a stand-alone IS Department.
- Augment IS Division staffing with outside contractors for major project implementations and projects.
- Reassign non IS-related duties to other City departments.
- Establish a Technology Steering Committee with top management representatives from each department.
- Implement a project management framework including tools, templates, and processes to guide staff functioning as project managers.
- Establish service level agreements, particularly for IS support of public safety after-hours needs.

4.2.2 Service Delivery

The City's technology service delivery is meeting most department needs. However, as with virtually any technology environment, opportunities for improvement exist. As such, NexLevel provides the following recommendations:

- Establish a training policy, and if feasible, set up an internal training room.
- Implement a periodic analysis of help desk calls to ensure user concerns are being resolved in a timely and efficient manner.
- Establish formal procedures for after-hours IS support.
- Create an IS Division service catalog that clearly identifies the technology services and associated performance levels to better manage user expectations.

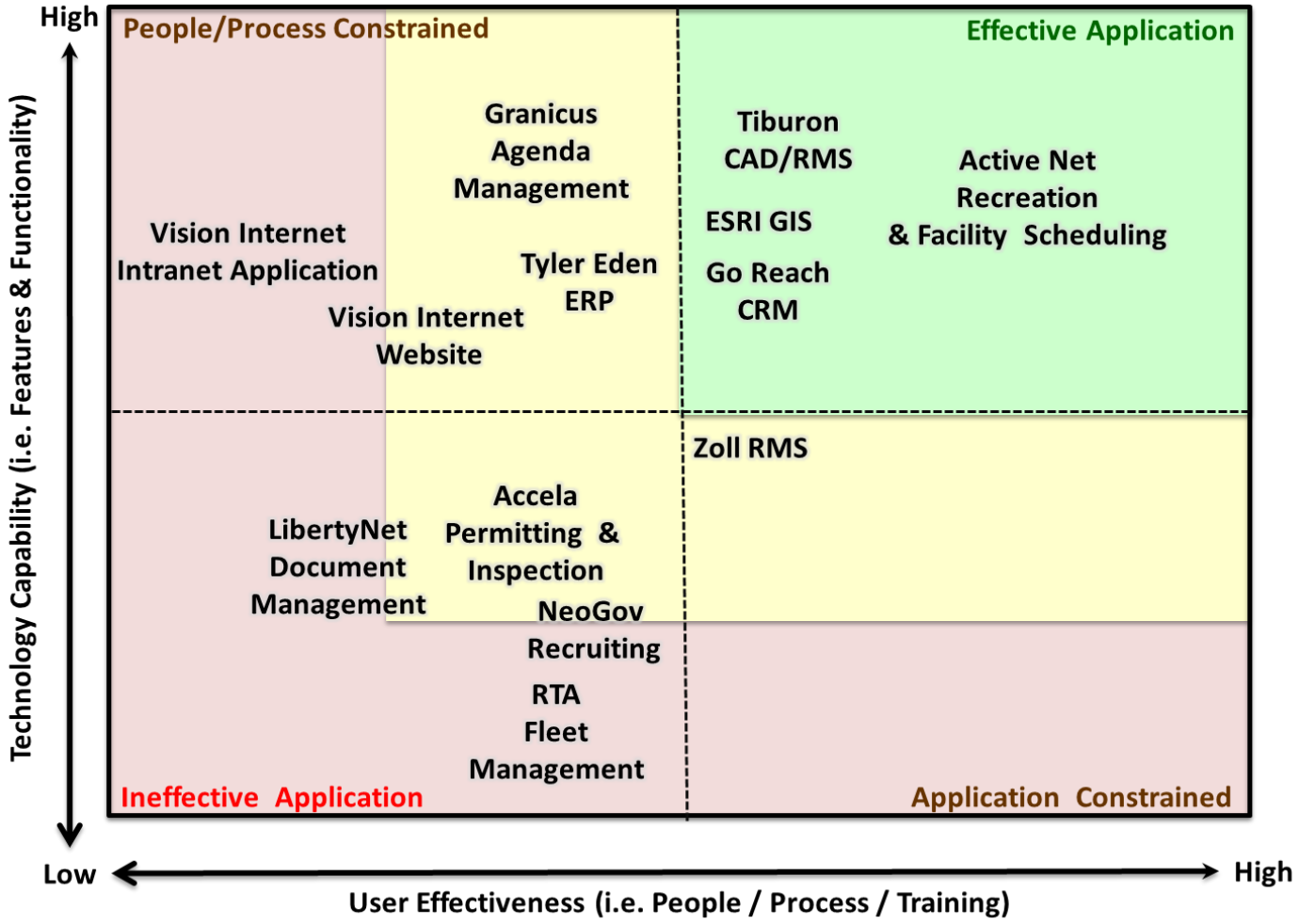
Note that the implementation of a formal governance structure will also help improve service delivery as it will help quickly identify and ensure focus on timely resolution of service delivery issues.

4.2.3 Business Technology

The effective selection, implementation, and management of department software applications is critical toward attaining a high-level of staff productivity, cost-effective service delivery, efficient business processes, and a return on the City's technology investment. The sum of the City's applications is called the Application Portfolio.

The City's Application Portfolio supporting the City's business and operational functions are providing the features and functionality consistent with similar size municipalities. However, it should be noted that some software applications are nearing the end of their useful life. In addition, there are several business and operational functions that are currently not leveraging applications or are relying on internally developed software that does not provide the functionality that is needed.

To help evaluate the effectiveness of Manhattan Beach's Application Portfolio, NexLevel plotted core applications on a chart where the vertical axis represented "Application Capabilities" (i.e. features and functionality) and the horizontal axis represented "User Effectiveness" (i.e. how effectively is staff at leveraging the application). The following figure plots Manhattan Beach's current application effectiveness.



Since the applications are critical to the City's ongoing success, NexLevel provides the following recommendations:

- Active Net (recreation class registration, facility reservations and point of sale) - Expand application to be available to staff working in all City locations.
- Tiburon Computer Aided Dispatch (CAD) and Police Records Management System (RMS) – Ensure the City remains current with software releases.
- GoReach Customer Relationship Management (CRM) - Continue use of the CRM module for citizens to submit requests for service, and acquire a separate work order management system to support City maintenance activities.
- ESRI GIS – Enhance the value of the GIS system by integrating GIS with other address-based applications; provide access to GIS in the public safety MDCs.
- Granicus (Agenda Management) – Provide additional training to increase the value of the applications.
- Vision Internet (Web site application) - Continue with periodic upgrades when new features are available.
- Vision Internet (Intranet application) – Implement the use of the Intranet services available to staff.
- Tyler Eden (Financials, Payroll and Utility Billing) – Determine if the system can provide additional functionality needed by departments; if not, procure additional systems and/or acquire a replacement financial system.
- Zoll Fire (Records Management) – Explore other options including working with other local fire agencies.
- Accela Permits Plus (Permitting System) - Seek replacement/upgrade as it does not adequately support department needs.
- LibertyNet (Document Management) – Replace the application with long-term viable solution. The vendor support ends in 2014.
- NEOGOV (Recruiting) – Replace the current version which is no longer supported; integration with a human resources application is desired.
- RTA (Fleet Management) – Replace the application with a solution that meets the current and long-term needs of the City.

Section 5 of the plan identifies projects to address the above recommendations.

4.2.4 Infrastructure

The City has developed a cost effective, reliable, and secure technology infrastructure. While the majority of the City's technology infrastructure is performing well, during the staff interviews and the user survey, some off-site staff indicated they are not satisfied with the network performance. As such, the City is currently taking steps to resolve the network performance issues and NexLevel provides the following recommendations:

- Expand the wide area network to be inclusive of all City facilities.
- Add a redundant network connection between City Hall and the City Yard.
- Publish a Remote Access policy with guidance from the Technology Steering Committee.

- Implement virtual server technology to replace current servers as they need to be replaced.
- Train IS Division staff on server virtualization and, if necessary, contract services to provide support.
- Publish a formal technology refreshment policy and establish an ongoing technology refreshment budget.
- Leverage temporary labor to install new equipment when needed.
- Establish a mobile technology refreshment policy and budget, and evaluate the mobile technology features and functions of current and future business applications to take full advantage of mobile computing.
- Implement security procedures, policies and tools to ensure mobile devices can be "wiped" if lost or stolen, including policies covering non-City owned devices (e.g. Bring Your Own Device or BYOD policies).
- Consider implementing recommendations for data center enhancements identified in the facilities study currently under way.

4.2.5 Security

The City has implemented security policies and practices that are performing well. However, in today's world, municipalities are prone to malicious attacks, and as such, NexLevel makes the following recommendations:

- Expand the annual network penetration testing to include an evaluation of current DOJ requirements.
- Implement a visitor sign-in policy and visitor badges.
- Implement the use of email encryption.
- Track and review department staff that have desktop administrative rights.
- Create and publish a Business Continuity Plan (BCP).
- Consider reinstating the Tyler Eden disaster recovery cold site.
- Establish a procedure to periodically install patches on laptops utilized in the EOC and document procedures for supporting the EOC and ensure staff is trained on the procedures.
- Implement procedures to install server patches on a more frequent basis.
- Centralize log files to prevent overwriting.

4.2.6 Administration

The City is effectively managing the administrative aspects of the City's technology operations. However, continued focus is required on administration of budgets, maintenance agreements, and software licensing to ensure continued effective operations. NexLevel makes the following recommendations:

- Review and update the current process whereby all technology expenditures across City departments are captured and reported on, to ensure total technology related costs are easily captured and reportable.
- Establish a process whereby major technology procurements are reviewed by the Technology Steering Committee.
- Review all maintenance agreements annually.

- Create a centralized repository of Citywide license and maintenance agreements, and implement a Citywide centralized license management role within the IS Division.

4.2.7 Documentation

Best practice organizations maintain current, accurate, and comprehensive documentation on all activities such that processes can be completed in the absence of one individual. NexLevel makes the following recommendations:

- Regularly review technical documentation for accuracy, and centralize documentation in the IS Division.
- Engage the Technology Steering Committee in the review of all existing policies.
- Distribute policies to staff on a regular basis.
- Establish processes whereby IS Division monitors compliance with policies.

4.2.8 Summary

The City performs effectively in many of the assessment dimensions. However, as shown by the recommendations, there are still opportunities for improvement, and as a result of the constantly changing technology and user needs, the City must continue to evolve technology management and support activities to ensure a secure, reliable, and robust technology environment.

It is important to note that some of the recommendations presented are incorporated into the IS Master Plan as strategic projects, while others will be addressed at a department level. The latter, considered "non-strategic project recommendations," will be addressed by staff over time. Some will be implemented quickly, while others may take significant planning, hardware/software purchases, and additional personnel resources to execute.

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5 Roadmap

The IS Master Plan focuses on the identification and definition of strategic projects. A strategic project is one that has the potential to provide significant benefits to the City and/or the citizens and businesses it serves. A strategic project may streamline existing processes, enable new capabilities to improve service delivery, improve operational processes to allow staff to be more productive, reduce costs to meet budget demands, and/or improve public safety. The primary focus of the IS Master Plan is to publish a roadmap that identifies strategic projects that will be implemented over the next three to five years.

The ISMP provides a roadmap, as well as a call to action, to take the City's technology from where it is today to where it needs to be to meet business needs.

5.1 ISMP Enablers

As discussed in the previous section, the Assessment recommendations that are not deemed to be strategic projects will be addressed by IS Division staff over time. However, NexLevel believes there are several recommendations that are critical to the overall success of the IS Master Plan and referred to as key enablers. The key enablers, as shown in Figure 6, include Governance, Infrastructure, Project Management, Standards, and Organization. They form the foundation upon which the plan is built and should be addressed as soon as possible to provide the best chance for a successful ISMP.

Figure 6 – IS Master Plan Enablers

In the remainder of this section, we discuss the plan enablers.

5.1.1 Governance

Industry studies completed by respected research firms have suggested that as high as 20% of all technology investment is wasted each year. When you factor in the potential wasted investment, along with the annual technology expenditure, the importance of IT governance in managing and ensuring an adequate return on investment is significant.

The City would enjoy significant benefits by implementing a formal technology governance structure to oversee and guide technology activities that are being performed at the IS staff level, and within other groups. A formal technology governance structure would create an effective forum to plan,

communicate, manage, and coordinate technology projects from an enterprise perspective.

The City should establish a Technology Steering Committee whose members are comprised of department heads and selected line staff from each department. The Technology Steering Committee will create an effective forum to plan, communicate, manage, and coordinate technology projects, as well as to ensure decisions about projects, resources, and priorities are made with an enterprise-wide view. The scope and responsibilities of the Technology Steering Committee will include:

- IS Master Plan – The Technology Steering Committee will provide input to, and review of, the technology project priorities and timelines.
- Strategic Direction/Alignment – The Technology Steering Committee will provide input and feedback relative to each activity. This dialog will ensure appropriate priority and efficient and effective use of technology systems and services.
- IS Division Project Review – The Technology Steering Committee will review IS Division projects for consistency and compliance with the ISMP to ensure the City's business systems are supported by the existing platforms and that they can be easily integrated, as needed, with other City applications. This will be a collaborative effort to ensure technology solutions are solving real business needs and that the requirements of all impacted departments are addressed.
- Policy Guidance – The Technology Steering Committee will review technology policies and guidelines provided by the IS Division staff. The Technology Steering Committee will approve these policies, communicate them to staff and ensure Citywide compliance.
- Platform Usage – The Technology Steering Committee will discuss how new technologies will be used and provide input to the IS Division staff relative to performance metrics, equipment utilization and hardware/software acquisitions.
- Technology Information – The Technology Steering Committee will receive updates and status reports relative to technology issues, information security and evolving technology trends from the IS Division staff. Members will disseminate this information, when appropriate, to their respective staffs.

The Technology Steering Committee will oversee the City's technology strategic direction; thus it is important that membership consist of department heads and selected line staff, and attendance and participation should not be delegated to others with less authority. Those with limited technical knowledge or experience may hesitate to participate in technology governance. However, technology impacts the delivery of business services, and participation in governance by senior executives of the organization is needed for effective service delivery to meet organizational needs. The City's IS staff will assist by providing input regarding technical requirements for implementation and support.

5.1.2 Infrastructure

To ensure a reliable, robust, and secure technology infrastructure, best practice encourages timely replacement (refreshment) of technology infrastructure hardware and equipment. Technology infrastructure includes all hardware and equipment (from the desktop to the data center) that

ensures the City's technology users are able to access software applications. As technology infrastructure hardware ages, it becomes less reliable, resulting in higher support costs and increased staff disruption. In addition, as software applications are upgraded or replaced, the new applications are generally optimized to run on the most current hardware. Technology infrastructure replacement cycles typically run three – five years depending upon the hardware.

5.1.3 Project Management

Project management is the discipline of planning, organizing, securing and managing resources to achieve specific goals. Ineffective project management can result in extended timelines, budget overrun, and project failure.

For each of the IS Master Plan projects that is initiated, the City should assign a project manager who has the skill set and authority to effectively perform the required project duties. The project manager should be accountable to the project owner, as well as the Technology Steering Committee for project updates.

Technology projects should be executed following basic standard project management methodologies, practices, and templates. Prior to initiating a project, a formal project charter should be completed to help ensure that the project is well defined. A project charter authorizes a project and ensures that necessary resources are provided to be successful. It is a document that provides an understanding of the role and responsibilities of all affected staff before the project starts. It simply provides a common understanding of what the project is about, why it is being done, who is involved, roles and responsibilities, schedule and delivery approach.

Once a project is initiated, the City should have standardized templates for the project manager to track and report on project progress. At a minimum, the project manager should complete the following templates throughout the project.

- Project Plan (inclusive of issues management, change management, risk management, etc.)
- Project Schedule
- Budget Tracking
- Project Status Reports

The use of a standardized project management framework will help ensure a comprehensive understanding of projects among stakeholders and impacted staff and help mitigate any risks to the project.

5.1.4 Standards

Establishing Citywide technology standards provides the following benefits:

- Promotes consistency in common infrastructure systems
- Minimizes duplicative efforts among departments
- Ensures or enhances continuity of ongoing technology operations
- Promotes efficiencies relating to ongoing support and problem resolution
- Promotes short or long-term cost savings or cost avoidance
- Streamlines the delivery of information or services by promoting consistency in the handling, collection, transport or storage of data information

- Protects and secures the City's technology infrastructure and/or data
- Increases productivity
- Enables greater workforce mobility
- Promotes ease in training new staff and support succession planning

The City currently has standardized the desktop and network environment. While standards may define or limit the tools, vendors, and software that is implemented, the tradeoffs are generally well worth it. Standards should be established, monitored and enforced by the City's technology governance structure.

General equipment standards include desktops, mobile devices (i.e. PDAs, Smartphones, Tablets, etc.), network equipment, data center servers, and printers. In addition, standards should be set for desktop software environment (i.e. versions of Office, Adobe, etc.) and database software (i.e. SQL, Oracle, etc.).

5.1.5 Organization

Effective leverage and organization of the City's technology resources is critical to the successful implementation of the IS Master Plan and in ensuring cost-effective ongoing support. Currently, the City's IS Division lacks adequate resources to provide its customers with the level of service expected by the organization. Staffing consists of several part time individuals without technology-related education or experience. This structure contributes to limiting the Division's ability to respond to and resolve technology issues, and also requires additional time and effort to mentor untrained staff.

In addition, the organization is not placing an appropriate level of focus on technology issues. Lack of a formal technology governance structure is resulting in constantly changing priorities and a lack of strategic technology direction.

The IS Assessment included the following recommendations that would improve the City's ability to support current and future technology.

- Increase the number of hours the IS Division staff is available by restructuring how the IS Division is staffed
- Assign a full time IS Division staff member to support public safety
- Procure services from experienced technology providers (private sector) to assist the IS Division in reducing the current service request backlog
- Implement a formal training plan and budget for IS Division staff training
- Re-focus IS Division staff meetings to place the highest priority on critical IS support issues
- Establish a formal Technology Steering Committee to oversee the City's technology strategic direction
- Consider creating a stand-alone IS Department in recognition of the prominent emphasis placed on technology, both in terms of financial investment and service provided to the public and internal customers

5.2 Projects

The technology planning process culminated in the identification and prioritization of technology projects that will help ensure the City's technology environment supports current and anticipated business needs. These projects span across all departments and will improve services, operations, and/or

increase the security and reliability of the existing technology environment.

Projects were prioritized based on criteria such as financial impact, health and safety impact, customer service impact, business operations impact, alignment to business vision and mission, and technology obsolescence. In addition to these criteria, the plan also considered the limited resources (both human and capital) available to implement and manage technology projects.

The IS Master Plan strives to set reasonable expectations as to when the projects will be completed. However, a project's ultimate start date will be based on funding or budget approval. It is the intent of the IS Master Plan to support the City's annual budgeting process by providing direction and input necessary to justify expenditure.

The IS Master Plan does not include detailed specifications, requirements, or recommended vendor solutions. When a project is initiated, the IS Master Plan assumes City department staff will follow traditional project planning and management processes that would include detailed requirements analysis, formal procurement and selection, and implementation processes. With the rapid change in technology and vendor solutions, City departments would be best served by carefully evaluating the market solutions available at the time a project is scheduled for procurement.

5.2.1 Project List by Department

Table 2 on the following pages lists each of the projects by department.

Table 2 – Projects by Department

ID #	Project Name	Sponsoring Department	Project Description
1	**Technology Governance**	City Manager's Office / Finance Department	**Description:** Establish a formal structure and process for the acquisition of technology, including submittal of requests, decision / prioritization processes, and ongoing oversight of technology implementations. **Objectives / Benefits:** Provides the organization with established processes for the acquisition and implementation of technology. Improves communication about technology projects, provides for organization-wide input into technology decisions, and establishes the process for prioritization of technology needs. Includes development of formal policies relating to technology (i.e. social media; BYOD (bring your own device); web page change approvals). **Drivers:** Staff in several departments indicated that they are not aware of the status of IS related projects throughout the year, are not regularly informed of major IS initiatives underway, and/or do not feel that their IS related issues are being addressed. A properly executed IT Governance structure will address these and other concerns.
2	**Granicus Implementation** In Process	Management Services	**Description:** Implementation of Granicus applications to automate agenda creation, distribution, and minutes creation. **Objectives / Benefits:** Automates agenda development and staff report review process. **Drivers:** Inefficiency of current manual processes.

ID #	Project Name	Sponsoring Department	Project Description
3	**Document Management System Replacement**	Management Services	**Description:** Replace the current document imaging/retention system (LibertyNet) with a more robust and comprehensive system that is fully supported by the selected vendor. **Objectives / Benefits:** Provides improved searchability of archived documents for both internal and public search functions, full integration with Granicus Legistar and I-Legislate systems, and document redaction capability. Promotes open government objective by providing a more robust search tool for the community to view public documents on the city's web site. **Drivers:** Time consuming process for addressing public records requests; difficultly posting public documents to city website; inability to search records using keywords; lack of document storage/management consistency between departments. Vendor support for LibertyNet ends in 2014.
4	**Public Records Request Software**	Management Services	**Description:** Software application to manage requests for public records. **Objectives / Benefits:** Improved service delivery to the public through automated tracking of requests. System will enable centralized tracking of requests throughout departments. **Drivers:** Current manual tracking of requests is cumbersome and time consuming for staff.

ID #	Project Name	Sponsoring Department	Project Description
5	**Contract Management Software**	Management Services	**Description:** Software application to centrally manage contracts and track certificates of insurance. **Objectives / Benefits:** Provides for centralized management of contracts to improve the creation, versioning and storage of associated materials including insurance certificates. Ensures vendors and contractors are properly insured, thus reducing risk to city. **Drivers:** Lack of consistent City-wide system for processing and recording contracts and maintaining certificates of insurance. Individual departments are responsible for their contracts and certificates, resulting in additional work to gather data when needed, along with potential exposure to City in the event a contract and/or insurance certificate has expired.

ID #	Project Name	Sponsoring Department	Project Description
6	**Permit System Replacement** **Two Phases**	Community Development	**Phase 1 Description:** Procurement of automated permit system for issuance and tracking of permits. Migrate Community Development's existing business functions to the selected product. **Objectives / Benefits:** Supports City-wide permit processes and allows information sharing across departments. Provides the ability to add a citizen access portal that allows citizens to obtain permit details and information 24/7 including requests for inspections. Promotes mobile technology for field access to allow inspectors to access information about permits, previous inspection results and to record results while working in the field. **Drivers:** Lack of information sharing and inability to easily access information among departments; manual inspection request processing; manual permit issuance process for many City permits; inability to maintain electronic repository regarding specific cases / permit history. **Phase 2 Description:** Expand the use of the selected automated permit system to include an enterprise-wide usage of the product to all affected departments, along with providing a public access portal through the City's website. **Objectives / Benefits:** Supports City-wide permit processes and allows information sharing across departments. Provides a citizen access portal that allows citizens to obtain permit details and information 24/7 including requests for inspections. Promotes mobile technology for field access to allow inspectors to access information about permits, previous inspection results and to record results while working in the field. **Drivers:** Lack of information sharing and inability to easily access information among departments; manual inspection request processing; manual permit issuance process for many City permits; inability to maintain electronic repository regarding specific cases / permit history.

ID #	Project Name	Sponsoring Department	Project Description
7	**Electronic Plans Submittal Software**	Community Development	**Description:** Accept plans electronically and allow electronic review, comments and routing. **Objectives / Benefits:** Reduce the storage and manual processing of paper documents. **Drivers:** Improved relationship with applicants, reduction in storage and manual processing of plans.
8	**Financial System Enhancements**	Finance	**Description:** Fully engage Tyler Technologies regarding the future sustainability of their Eden financial system product, and secure a written commitment from Tyler that provides for future support of the system. Subsequent to this, enter into discussions regarding available Eden enhancements (i.e. Human Resources module; integrated cashiering; remote employee time entry; CIP project budget tracking; fixed assets; inventory; purchasing; and workflow for the various financial system functions). If the Eden system cannot meet the City's requirements, procurement of a new system is recommended (see Financial System Replacement project). **Objectives / Benefits:** Provides increased productivity through electronic processes, reducing duplicative data entry in multiple stand-alone systems. **Drivers:** Human Resources uses manual processes for recruitment, benefits, workers compensation, liability, training, and other HR functions; fixed assets tracked manually; duplication of effort with employee time entry for payroll (versus remotely by employees); Public Works CIP projects tracked manually; payables, purchasing and other functions approvals performed manually (versus electronically through workflow).

ID #	Project Name	Sponsoring Department	Project Description
9	**Travel Approval / Reimbursement Software**	Finance	**Description:** Acquire software to manage business travel approvals and reimbursements. **Objectives / Benefits:** Automated system of tracking pre-travel approvals and post-travel expenses will eliminate current manual system, improve efficiency and reduce amount of time to reimburse employees for job-related travel. **Drivers:** Increased efficiency.
10	**CAFR Software**	Finance	**Description:** Acquire software to assist with the production of the City's CAFR (Comprehensive Annual Financial Report), an annual requirement. **Objectives / Benefits:** A software solution will reduce manual data gathering from multiple systems. **Drivers:** Increased staff efficiency.
11	**Finance System Replacement**	Finance	**Description:** The Eden financial system was implemented in 1996. While the vendor continues to maintain the application, analysis and possible replacement of the Eden system is a consideration for the IS Master Plan. **Objectives / Benefits:** The implementation of a new financial system affects the way information is processed throughout an organization. Rather than automating inefficient processes or continuing tasks that may not be necessary in the first place, business process re-engineering (BPR) provides the opportunity to review systems, procedures and methods of doing business to gain efficiencies. The use of available off-the-shelf tools (i.e. integrated document management, workflow, and employee self-service) offers additional benefits to staff productivity. The implementation of a new financial system is also the ideal time to modify the organization's chart of accounts to better accommodate budget and expense management to support decision-making. **Drivers:** Increased organizational efficiency and improved productivity.

ID #	Project Name	Sponsoring Department	Project Description
12	**Internet Connectivity Upgrade (including redundancy)** In Process	Finance / Information Services	**Description:** Increase bandwidth to improve the speed of the Internet. **Objectives / Benefits:** Slow performance limits the ability to access applications in the cloud and reduces staff productivity. **Drivers:** Staff efficiency.
13	**Web Site Enhancements** In Process	Finance / Information Services	**Description:** Enhance the City's current website to improve its ease of use and increase information to the public (i.e. provide direct links to additional information; standardize calendars and other resources; improve site search capabilities; provide capability for public to provide email address for notifications regarding city projects/programs). Refresh the design and layout and upgrade the content management system. **Objectives / Benefits:** Provides greater access to city information. Responds to open government accessibility goal. **Drivers:** Staff has indicated that the current website structure is cumbersome to use and modify. Additionally, it can be confusing for the public (i.e. web calendar of recreation activities does not look the same as the hard copy of the calendar, causing distrust of the web calendar). Further, a recently completed community survey of the website indicates dissatisfaction with the timeliness of the content and the searchability of the site.
14	**Telephone Use Expense Management** In Process	Finance / Information Services	**Description:** Software to track and report on telephone usage. **Objectives / Benefits:** Provides automated system to monitor telephone usage and provide reporting tools for management. **Drivers:** Appropriate use of City equipment / accountability.

ID #	Project Name	Sponsoring Department	Project Description
15	**Remote Network Access**	Finance / Information Services	**Description:** Provide the ability for City staff to access email, files, and other information residing on City equipment from locations other than City Hall. **Objectives / Benefits:** Increased efficiency, faster response to requests for information, and ability to access data while in the field. **Drivers:** Staff's need to access information from locations other than City Hall.
16	**Audio Visual Broadcast / Production Equipment Enhancement**	Finance / Information Services	**Description:** Refresh existing A/V broadcast and production equipment. Acquire portable production system for remote productions. **Objectives / Benefits:** Reduction in equipment failures, increased production quality, reduced staff time for transfer / posting of video productions, and ability for staff to record events at remote locations. Faster posting of City Council and other public meeting videos. **Drivers:** Updating equipment to current technology will reduce time spent on video production and potentially increase the quality of productions, along with reducing amount of time between video recording and posting of content for the public.
17	**Telephone System Replacement**	Finance / Information Services	**Description:** Replacement of current telephone system in City facilities. **Objectives / Benefits:** Existing system is at end of life and does not provide the features available in current systems. **Drivers:** Increased efficiency and reduction in down time, and system obsolescence.

ID #	Project Name	Sponsoring Department	Project Description
18	**Wide Area Network Expansion**	Finance / Information Services	**Description:** Provide network connectivity to all City facilities, and provide redundancy between City Hall and Public Works Services Center. **Objectives / Benefits:** Electronic communication to all City facilities increases productivity and supports electronic processes (i.e. email; access to applications and department share drives; future technology enhancements such as remote time entry and electronic workflow). Redundancy between City Hall and Public Works Services Center helps ensure continued communication between the facilities in the event of a service disruption or disaster. (Public Works and Purchasing staffs are located at the Services Center.) **Drivers:** Lack of connectivity or unreliable connectivity to Parks and Recreation remote locations; lack of redundant connectivity to the Service Center in the event of a service disruption.
19	**Project Management Software**	Finance / Information Services	**Description:** Software system to manage major projects on a city-wide basis. The stated need is for a project tracking software for projects that may cross department lines and which there is a need to track through a central location (i.e. – projects that the City Manager's office tracks in order to report back to the City Council on status). **Objectives / Benefits:** Provides an automated method to track projects, reduces redundancy and manual processes. **Drivers:** Need to timely track major / important projects city-wide.

ID #	Project Name	Sponsoring Department	Project Description
20	**Conference Room Equipment Upgrade**	Finance / Information Services	**Description:** Establish a City-wide equipment standard for all conference rooms, complete a comprehensive inventory of current equipment in conference rooms, and develop a project plan for procurement and installation of equipment for conference rooms citywide. **Objectives / Benefits:** Provides standardized conference room equipment throughout City; maximizes usage of all available rooms; increases efficiencies in supporting electronic devices. **Drivers:** The various conference rooms throughout City facilities have differing levels and types of equipment available to them, causing some rooms to be underutilized. Maintenance of divergent equipment and systems increases IS support time. Standardization of equipment in rooms makes utilization of rooms by staff less complex.
21	**Fire Scheduling Software** In Process	Fire	**Description:** Implementation of automated scheduling software for the Fire Department. **Objectives / Benefits:** Provides automated system to schedule fire coverage, along with automated calling for shift coverage in the event of employee absence. **Drivers:** Increased efficiency through reduction of manual processes.
22	**Smart Classrooms for Fire** In Process	Fire	**Description:** Funded through a grant, "smart classrooms" will be installed in Los Angeles area fire agencies and allow the agencies to connect for meetings and training. **Objectives / Benefits:** Efficiency through shared resources without requiring travel out of the City. **Drivers:** Efficiency through technology.

ID #	Project Name	Sponsoring Department	Project Description
23	**Fire Records Management System (RMS) Upgrade**	Fire	**Description:** The Fire Department Zoll Records Management System (RMS) provides fundamental information, but the inspection application is cumbersome and requires duplication of effort. Obtaining reports from the information gathered by the application is difficult. **Objectives / Benefits:** Improved productivity with the use of mobile devices to record inspection results and generate inspection invoices while in the field. **Drivers:** Other local fire agencies are implementing another RMS solution, and a global approach may offer advantages to the City.
24	**Emergency Operations Center Enhancements**	Fire	**Description:** Complete equipment purchases (i.e. wall mounted monitors; smart boards; dedicated laptops; printers; dedicated phones), along with implementation of software and systems (i.e. resource tracking software; redundant internet connectivity; automated application to contact staff) to fully outfit the City's Emergency Operations Center. **Objectives / Benefits:** Provides for a stable and reliable resource for responding to and managing a City emergency. Provides tools for tracking resources and keeping elected officials and the public informed during a disaster. Provides a plan for continuation of IT related services in the event of a disaster. **Drivers:** While the City has a dedicated EOC location and a strong City-wide EOC Team, the overall EOC response plan lacks all of the equipment and software that would provide the optimum response ability in the event of an emergency. Providing additional tools will help ensure an organized response to a disaster to maximize the benefit to the community.

ID #	Project Name	Sponsoring Department	Project Description
25	**Fire Scan-able First Aid Reports / Field Data Collection System**	Fire	**Description:** Provide the ability for Fire personnel to scan handwritten first aid reports for electronic storage, retrieval, and transmission. In the event this proposed project is not feasible, the department will need to transition from handwritten paper reports to an electronic format. This would include an interface from the CAD (computer aided dispatch) application. Patient information and procedures performed would be gathered electronically on a handheld device while with the patient. **Objectives / Benefits:** Reduce redundant work processes. **Drivers:** Improved efficiency.
26	**Human Resources Software**	Human Resources	**Description:** A Human Resources application tracks personnel action forms, performance reviews, job history, safety/certifications/training, disciplinary actions, dependents/emergency contacts, vacation/sick/leave tracking, benefits, etc. The application can include workflow for approval routing and web based employee self-service. **Objectives / Benefits:** This project is to implement a commercial-off-the-shelf (COTS) human resources management system to automate and streamline existing processes that are largely paper based or supported using desktop tools. The City does not have the Eden Human Resources module. The scope of this project would be to identify the department's requirements and evaluate whether Eden's Human Resources application will provide the desired features. The Human Resources application should be integrated with the Payroll application in order to eliminate duplication of effort. **Drivers:** Increased efficiency through reduction in manual and redundant processes. Faster access to data with comprehensive history.

ID #	Project Name	Sponsoring Department	Project Description
27	**Applicant Tracking Software**	Human Resources	**Description:** Acquire software system for job recruitments and applicant tracking. **Objectives / Benefits:** The City uses an older version of the Neogov recruiting application that is no longer supported by the vendor and does not provide many of the features available in current systems. **Drivers:** Efficiency for applicants, Human Resources and hiring managers.
28	**Risk Management Software**	Human Resources	**Description:** Identify and implement a solution to help the City manage claims activity and provide a centralized repository of information including photographs. **Objectives / Benefits:** Claims are submitted on paper managed using informal processes (i.e. email, file storage, hardcopies, etc.). **Drivers:** Increased efficiency.
29	**Tennis Reservation Software**	Parks and Recreation	**Description:** Acquire a software application to support tennis reservations, tennis lessons and payments. **Objectives / Benefits:** Increase staff efficiency and service to the community by acquiring an application to support tennis activities. **Drivers:** Increase staff efficiency and service to the community.

ID #	Project Name	Sponsoring Department	Project Description
30	**Dial-a-Ride Software Enhancements**	Parks and Recreation	**Description:** Enhance the existing software used for Dial A Ride services to provide additional information sharing between the office and vehicles, and additional data gathering of vehicle routes, calls, and stops. **Objectives / Benefits:** Increase efficiencies with the Dial A Ride service. Enhancements would provide dispatchers with real-time vehicle locations to assist with route optimization and additional features to enhance customer service. Automate production of the MTA report that is currently being completed by a contractor. **Drivers:** Improved staff efficiency and service.
31	**Active Network Expansion**	Parks and Recreation	**Description:** The City has successfully implemented the Active Network application to support class registration, membership and point of sale activities. However, access to the applications is not available at several of the City's recreation facilities. **Objectives / Benefits:** Expanded use of the Active Network application to support activity. This project would require expansion of the City's wide area network. **Drivers:** Improved staff efficiency and service to the community.
32	**Customer Satisfaction Survey Software**	Parks and Recreation	**Description:** The Parks and Recreation Department surveys recreation activity participants at the completion of a class to solicit feedback to ensure quality and satisfaction. A feature in Vision Internet (the City's web site application) is used to create customer satisfaction surveys; however, it is cumbersome to use. **Objectives / Benefits:** This project would research other options to determine if another survey tool is available to automate the survey and information gathering process. **Drivers:** Improved staff efficiency.

ID #	Project Name	Sponsoring Department	Project Description
33	**Active Network Integration with Tyler Eden**	Parks and Recreation	**Description:** Integrate the Active Network software application with the City's Tyler Eden financial system. **Objectives / Benefits:** Integration would provide immediate population of revenue data into the financial system when recreation data is entered into Active, thus reducing duplicative data entry of information. **Drivers:** Improved efficiency and reduction of redundant data entry.
34	**Police Time Reporting Software**	Police	**Description:** Acquire software to automate time reporting activities. **Objectives / Benefits:** Reduction of manual processes; increased accuracy and efficiency. **Drivers:** Improved efficiency.
35	**Mobile Fingerprint Identification System**	Police	**Description:** Provide mobile fingerprint technology. **Objectives / Benefits:** Increase efficiency in the field though the ability to identify suspects with fingerprints. **Drivers:** Increased productivity.
36	**Crime Analysis Tools**	Police	**Description:** An add-on to the City's geographic information system (GIS), the crime analysis application provides the ability to plot crime on the City's map. **Objectives / Benefits:** Crime analysis is an additional tool to support crime prevention. This project would expand the capabilities. **Drivers:** Community safety.

ID #	Project Name	Sponsoring Department	Project Description
37	**Internal Affairs Software**	Police	**Description:** Obtain an application to support internal affairs activity and record keeping. **Objectives / Benefits:** Automated tool to support centralized information. **Drivers:** Improved efficiency.
38	**Work Order Management Software**	Public Works	**Description:** Obtain a work order management system to support maintenance and operations activities. It should be noted that, depending on the selection of software systems, this project may be capable of meeting the needs for pavement management, facilities management, and fleet management. **Objectives / Benefits:** Provides for a fully integrated system that will improve scheduling of work and fully track costs for personnel, equipment and supplies associated with each work order. **Drivers:** Currently the online Citizen Relationship Management (CRM) application is used as a tool to support work order processing but it provides limited functionality for work order processing.
39	**Facility Management Software**	Public Works	**Description:** Facility management software supports building maintenance activity and budgeting. **Objectives / Benefits:** Improved expense tracking and budgeting. **Drivers:** Opportunity to reduce expenses through preventive maintenance.

ID #	Project Name	Sponsoring Department	Project Description
40	**Pavement Management Software**	Public Works	**Description:** The pavement application supports budgeting, planning and forecasting expenses through pavement condition assessment and maintenance. **Objectives / Benefits:** Explore the options available to replace the Stantec pavement management application. Considerations for replacing the application include ease of use, integration with the City's GIS application and reporting capability. **Drivers:** Improved efficiency to support street maintenance and budgeting.
41	**Fleet Management Software**	Public Works	**Description:** Fleet management software supports vehicle maintenance and provides cost information for budgeting purposes. **Objectives / Benefits:** The existing fleet management application (RTA) has limitations that limit the application's effectiveness for managing the City's fleet of vehicles, i.e. the application does not provide fixed asset information; does not include the cost to maintain each vehicle and vehicle expenses cannot be tracked by department. **Drivers:** The limitations of the RTA application affect Public Works and Purchasing because manual workaround processes are required to obtain information to assist with decisions about repair or replacement.

ID #	Project Name	Sponsoring Department	Project Description
42	**Geographic Information System Expansion**	Public Works	**Description:** Acquire hardware and software to increase the use of the City's existing GIS system for improved City-wide access to geo-based information. Includes procurement of hardware to allow enhancements to the hosted mapping application. Integrate GIS with other City applications (i.e. permitting; fire; police; finance). **Objectives / Benefits:** Provides a single GIS database for all departments, reduces redundancies, allows for information sharing between departments by using address link to data, and provides increased information to the public through the City's website. **Drivers:** Some departments utilize the City's GIS data, while other departments are unaware of the data that exists and how it could be utilized to improve efficiency and work product.
43	**Automated Metering Infrastructure (AMI) Study**	Public Works	**Description:** Conduct an evaluation of the benefits of AMI. **Objectives / Benefits:** AMI is an emerging technology designed to reduce operations costs, increase efficiency, and improve customer service. Implementation of this tool has City-wide impacts; thus a full evaluation of initial and on-going support costs, as well as changes to job descriptions and staffing, should be considered. **Drivers:** Potential for increased efficiencies for meter reading services, along with improved customer service.

5.2.2 Timeline and Costs

To be successful, the IS Master Plan must establish a realistic and achievable schedule as to when projects can be completed. The project timeline presented in Table 3 on the following pages provides a clear roadmap for the City in terms of project planning and budgeting.

During the two Prioritization Workshops, NexLevel facilitated a process that allowed Manhattan Beach to actively participate in establishing the project implementation sequence using a combination of needs, staff resources, risk to the city, and budget.

For each project, NexLevel included a planning and evaluation period, and it is during this time that City staff will define detailed requirements, develop and release a request for proposal (RFP), evaluate vendor solutions, complete the procurement, and oversee the implementation. In addition, several of the projects involve ongoing processes that will follow after the implementation period and these have been identified as such.

It will be critical for the City to identify and quantify any potential staffing or support requirements prior to implementing each project. This includes identifying necessary training of staff to ensure ongoing support of the technology implemented. To implement projects without addressing staffing requirements will jeopardize support and service levels.

Table 3 – Technology Project Timeline

Projects	Cost		FY 13/14				FY 14/15			
	Low	High	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Fiscal Year 13/14										
Technology Governance	0	25	Impl.							
Work Order Management Software	50	150	Procure	Impl.	Impl.	Impl.				
Permits System Replacement (Two Phases)	400	400	Procure	Impl. #1	Impl. #1	Impl. #1	Impl. #2	Impl. #2		
Fire Scan-Able First Aid Reports / Field Data Collection System	50	50	Procure	Impl.	Impl.	Impl.				
Form 700 Statement of Economic Interests Reporting Software	10	25	Planning	Procure	Impl.					
Geographic Information System (GIS) Expansion	50	100	Planning	Procure	Impl.					
Financial System Enhancements	100	200		Planning	Procure	Impl.	Impl.	Impl.		
Mobile Fingerprint Identification System	25	50		Planning	Procure	Impl.				
Wide Area Network Expansion	50	100		Planning	Impl.	Impl.				
Dial A Ride Software Enhancements	0	25		Planning	Procure	Impl.				
Telephone System Replacement	100	200			Planning	Procure	Impl.			
Tennis Reservation Software	0	25			Planning	Procure	Impl.			
Document Management System Replacement	100	200			Planning	Procure	Impl.	Impl.	Impl.	Impl.
Fire Records Management System Upgrade	50	100			Planning	Procure	Impl.	Impl.		
Total Estimated Cost Range for FY 13/14	**985**	**1650**								

Projects	Cost		FY 13/14	FY 14/15				FY 15/16			
	Low	High	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Fiscal Year 14/15											
Active Network Expansion	50	100	Planning	Impl.	Impl.						
Human Resources Software	50	100		Planning	Procure	Impl.	Impl.				
Project Management Software	0	10		Procure	Impl.						
Emergency Operations Center (EOC) Enhancements	25	50				Planning	Procure	Impl.			
Crime Analysis Tools	25	50				Planning	Procure	Impl.	Impl.		
Electronic Plan Submittal Software	50	100				Planning	Procure	Impl.	Impl.		
Total Estimated Cost Range for FY 14/15	**200**	**410**									

Table 3 – Technology Project Timeline (continued)

Projects	Cost		FY 15/16				FY 16/17			
	Low	High	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Fiscal Year 15/16										
Customer Satisfaction Survey Software	0	25	Planning	Procure	Impl.					
Total Estimated Cost Range for FY 15/16	**0**	**25**								

Projects	Cost		FY 15/16				FY 16/17			
	Low	High	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Fiscal Year 16/17										
Internal Affairs Software	25	50				Planning	Procure	Impl.		
Conference Room Equipment Upgrade	25	50					Planning	Procure	Impl.	Impl.
Total Estimated Cost Range for FY 16/17	**50**	**100**								
Future Projects										
Automated Metering Infrastructure (AMI) Study	25	50								
Financial System Replacement	500	750								
Total Estimated Cost Range for Future Projects	**525**	**800**								
Estimated Cost for Entire Plan	**1,760**	**2,985**								

6 Conclusion

At its most basic level, technology promises to reduce the costs associated with delivering services. At the next level, when technology is fully leveraged across an organization, it has the potential to significantly improve and enhance service delivery.

Like the City of Manhattan Beach's Six-Month Strategic Objectives process, this IS Master Plan is not only a call to action, but also a tool for ongoing accountability.

Manhattan Beach recognizes the importance of leveraging technology to meet the growing business and service delivery needs in the most cost effective manner. The IS Master Plan is a valuable tool to ensure technology is procured, implemented, and managed in a cost-effective approach that maximizes the benefits to the city and its customers.

The city has made progress by enhancing and improving its existing technology environment. However, it is evident from the number of projects in the IS Master Plan that the city faces a significant challenge over the next three to five years to implement and manage technology. As many organizations have come to realize, the cost and risk of implementing technology can be significant. The IS Master Plan recognizes this and places a high level of importance on implementing a formal technology governance process to help manage and provide oversight to technology implementations.

The IS Master Plan is a result of a comprehensive, city-wide planning effort that provided the opportunity for management and staff to review, discuss, and integrate their technology needs into a common framework. It provided a common understanding of the city's technology priorities, and served as a tool to provide an overall picture of what is to be accomplished and why.

Manhattan Beach's current technology environment represents a complex system that consists of numerous applications and infrastructure. As with any complex system, the addition or modification of any component has the potential to impact other parts of the system. This IS Master Plan includes projects that are aimed at improving business applications, technology infrastructure, and governance. As projects are implemented, it will take careful coordination and planning to manage the change introduced and to ensure the projects do not adversely impact other components within the city's technology environment.

While the creation of the IS Master Plan represents the culmination of only one step in the planning process, it also marks the beginning of another step – one through which city leaders must work together to create an environment that supports the IS Master Plan. The IS Division must now work closely with city management, leaders, and staff as they begin a journey to create an organizational sense of purpose that goes much deeper than any vision statement, mission statement, or plan can communicate.

The potential is significant, but so too are the challenges. Manhattan Beach has the opportunity to transform the enterprise into an environment that has the information it needs to function at peak performance, while it and its constituents are well connected in a seamless, effective manner.