

City of Oxnard

**Information Technology
Four-Year Master Plan
Final Report**

October 2015

Prepared by:



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1. Introduction and Overview

1.1 Purpose

This document, entitled Information Technology Four-Year Master Plan (ITMP) was prepared for the City of Oxnard, California (City) by NexLevel Information Technology, Inc. (NexLevel).

1.2 Document Organization and Contents

This report contains the following sections:

- ♦ **Section 1 – Introduction and Overview** provides background information, the scope and objectives of the Information Technology Master Planning effort, the methodology used in the development of the master plan, and the organization and contents of the plan.
- ♦ **Section 2 – Central IT Assessment Summary** provides a high-level overview of Central IT's present technology environment using a strengths, weaknesses, opportunities, and threats (SWOT) model. In addition, it provides an overview of the activities taken in the course of the development of the ITMP, including a summary of Central IT's current compliance with information technology best practices for governance, business technology applications, service delivery, infrastructure, security, and administration.
- ♦ **Section 3 – Project Prioritization and Scheduling** describes the process that was used to develop the plan. It also provides timelines for the current, planned, and requested projects identified by the City's stakeholders, along with a summary of the initial cost for each project by fiscal year and funding source when known.
- ♦ **Section 4 – Conclusion** provides perspectives on technology governance, laying a technology foundation for a

satisfactory return on investment, and technology planning success factors.

- ♦ **Appendix A – Project Detailed Descriptions** contains additional information relevant to this report.
- ♦ **Appendix B – ERP Alternative Analysis Report** contains additional information relevant to this report.

1.3 City of Oxnard Background

The City of Oxnard is located in Ventura County. It has a population of more than 203,000 and is the largest City in the County. It is nestled approximately 60 miles northwest of Los Angeles and 35 miles south of Santa Barbara. The city is defined by open spaces, beaches and coastline, and agricultural areas. Oxnard boasts some of the richest agricultural land in California.

The City has many diverse historic, cultural, performing arts and entertainment venues and activities. Two thriving military bases provide a strong employment base and are a major contributor to the regional economy. Oxnard is also a thriving center of commerce, tourism and industry and Oxnard prides itself on its rich diversity and culture.

It is the mission of the City government to ensure that Oxnard will have clean, safe, prosperous and attractive neighborhoods with open and transparent government.

1.4 Central IT Support Services

Central IT is the responsibility of the City Manager's office. For the past several years, the Deputy City Manager served as the primary executive for the management of the Central IT staff and the support of the City's technology infrastructures and service delivery.

Fifteen percent (15%) of the Deputy City Manager's position was charged to the Central IT budget (Source: City).

In July 2015, the City Manager recommended the establishment of an Information Technology Director position, and recruitment is currently underway to fill the position. In mid-August the City appointed an interim Information Technology Director to oversee information technology matters.

1.5 Scope and Objectives of the ITMP

The primary objective of the Information Technology Master Plan is to provide a roadmap that will help the City effectively close the gap between its current state and future technology needs. As depicted in Figure 1, Technology Gap, user expectations increase over time, while the capability of existing systems tends to actually decrease, thus further widening the gap. Other factors that contribute to the widening of the gap include staff reductions and challenges in the effective allocation of IT resources to support citywide needs. The technology gap leads to what one technology research firm has described as "friction" between the users and the IT organization, and in the absence of effective IT Governance, this friction tends to worsen over time.

The objectives of the ITMP include:

- ◆ Identification of technology improvements and solutions to improve customer service, productivity, public access and transparency.
- ◆ Development of acquisition/support costs associated with proposed technology solutions.
- ◆ Development of a four-year technology master plan that presents projects in a prioritized and phased approach.
- ◆ Review of the City's current Central IT Division structure, along with recommendations for potential improvements.

- ◆ Obtaining comprehensive customer input (internal and external) regarding technology needs and direction.
- ◆ Assessment of the City's current ERP system with subsequent recommendations regarding upgrade/replacement opportunities.
- ◆ Development of technology-related recommendations designed to provide the highest level of IT service delivery possible.

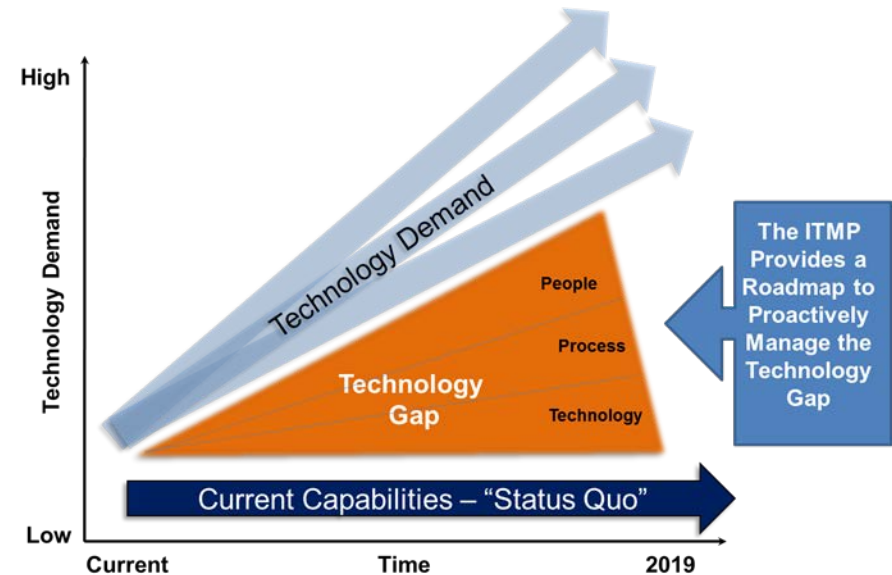


Figure 1 – Technology Gap

1.6 "Listen, Plan, Deliver," Methodology

The methodology used by NexLevel to develop the Information Technology Four-Year Master Plan process is depicted in Figure 2, Strategic Planning Methodology. The methodology is composed of three basic phases:

- ◆ Listen – During which NexLevel worked with the client to conduct a project kickoff meeting, configure and conduct two “Voice of the User Surveys,” conduct interviews with user stakeholders and IT management and staff, and facilitate a community meeting.
- ◆ Plan – During which NexLevel worked with Central IT to perform a detailed assessment of their current use of information technology. This included the completion of an IT Best Practices Self-Assessment. The resulting data is structured to provide realistic and achievable recommendations for the City and the Central IT organization to enable them to obtain greater value for their investment in information technology and realize improvements in the governance of information technology and the delivery of IT services. It should be noted that NexLevel did not conduct a comprehensive assessment of Police IT, Housing IT, or Library IT as a part of this Central IT Assessment.

As a result of the interviews conducted in the Listen phase, a Project List was developed and provided to all City IT groups and department heads for review. The Planning and Prioritization Workshop helped drive consensus in the prioritization of projects and an assigned timeframe for the project’s completion.

- ◆ Deliver – During which NexLevel worked with the client to utilize the results of the Project Prioritization Workshop to develop an Information Technology Master Plan.

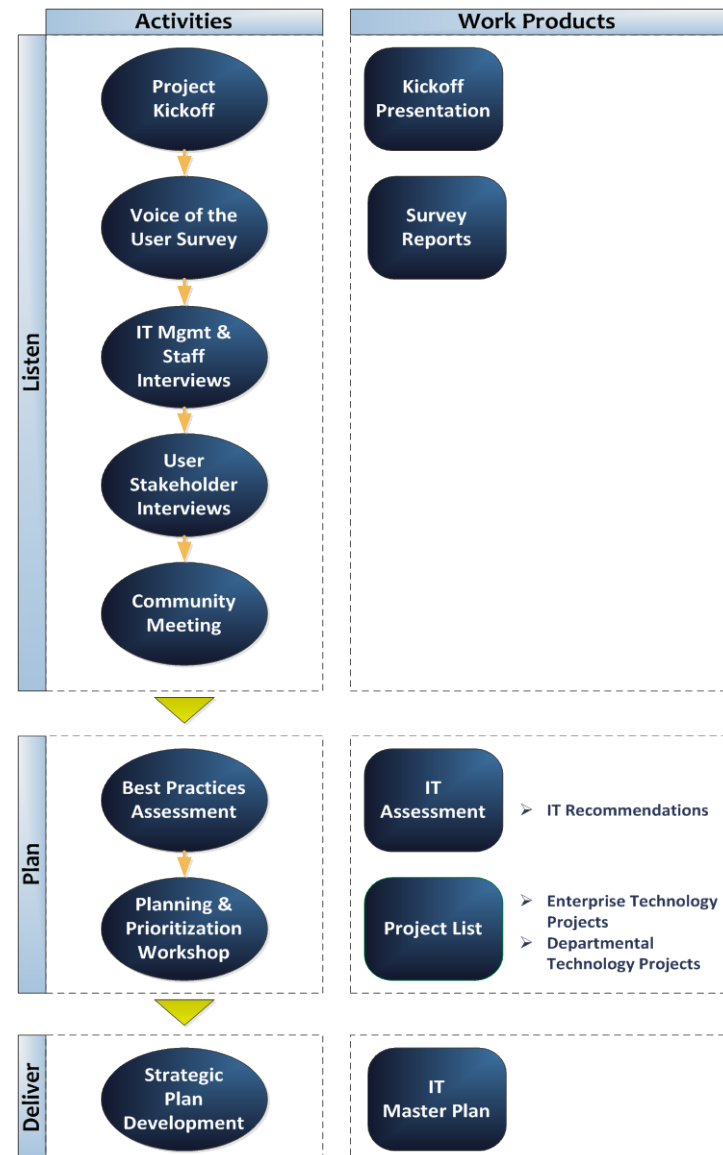


Figure 2 – Strategic Planning Methodology

2. Central IT Assessment Summary

2.1 Summary of Assessment

This section of the report provides a summary and recommendations resulting from the Central IT assessment. The IT Assessment focused on Central IT and how effectively the City is leveraging technology under its direction to attain its stated mission and vision, and evaluates whether the City's technology infrastructure, business technology software applications, security, service delivery, administration and support resources are prepared to meet the City's current and future technology needs.

From a high-level perspective, key findings include:

- ◆ The City currently lacks a common technology vision and direction due to lack of a single point of information technology leadership.
- ◆ The City has not had an Information Technology Director position since 1993. This responsibility was assigned to the Deputy City Manager, and 15% of their total time was charged to technology business. As of mid-August 2015 an interim IT Director has been appointed while a formal recruitment is underway.
- ◆ The City currently has four distinct IT support systems in place, including Central IT, Police IT, Housing IT, and Library IT. The individual IT support groups manage their specific department's technology, resulting in multiple platforms, systems, direction and standards, and periodically inhibiting staff's ability to function seamlessly across these multiple City Departments.
- ◆ Central IT staffing resources have decreased and impacts to service delivery resulted.

- ◆ While technology users expressed satisfaction with the willingness of Central IT to provide support and services, they stated that service could be improved. City departments are aware support resources are limited and have lowered their expectations in recent years.
- ◆ The technology infrastructure and supporting technology equipment is not maintained or replaced on a formal and consistent refreshment cycle.
- ◆ While Central IT has been innovative and has accomplished much with limited resources (human and dollars), this has often been achieved at the expense of conformance to some IT best practices for items such as change management, standardization, application life cycle management, project management, and governance.
- ◆ The City continues to invest in legacy systems that may not meet the department/enterprise needs, and the continued investment in these systems should be assessed.

NexLevel has developed a series of recommendations to remediate the key findings and to provide the City with an improved IT support service framework. NexLevel's recommendations are further detailed in Section 2.8 – Central IT Assessment Recommendations and include the following key items:

- ◆ Implement IT governance
- ◆ Complete an IT organization analysis
- ◆ Plan for IT operational improvements
- ◆ Address infrastructure and hardware modernization
- ◆ Adopt additional IT operational best practices
- ◆ Deliver cybersecurity and mobile device management

- ◆ Complete HTE functional assessment and implement subsequent recommendations, which may include system(s) replacement

2.2 “Voice of the User” Surveys

The original scope of work for the IT Master Plan project called for one Voice of the User Survey, to be utilized to gather input from Central IT customers. Subsequent to Project Kickoff, the City requested that NexLevel add to the scope of work for the project a second Voice of the User Survey for Police IT customers.

Between March 12, 2015 and March 26, 2015, NexLevel conducted an on-line survey of City employees to assess their satisfaction with the support they receive from the Central IT Division. Of the approximately 675 full-time City employees directly supported by Central IT and sent the survey, 362 employees participated, a 52% response rate. On April 17, 2015, a Central IT User Satisfaction Survey report was delivered to the City, outlining the results of the survey.

Between March 23, 2015 and April 9, 2015, NexLevel conducted an on-line survey of the City of Oxnard Police Department employees to assess their satisfaction with the support they receive from the Police IT Division. Of the approximately 378 Police employees supported by Police IT and sent the survey, 142 employees participated, a 40% response rate. On May 7, 2015, a Police IT User Satisfaction Survey report was delivered to Police management, and was subsequently provided to the City Manager’s office on May 15, 2015

2.3 User/Stakeholder Interviews

NexLevel conducted a series of individual and small group interviews to understand Central IT’s service delivery. Sessions

were held with City executives, department heads, managers, and key system users with the objectives of identifying:

- ◆ Barriers to the effective use of information technology
- ◆ Anticipated needs and priorities
- ◆ Areas where existing automation is not meeting the user’s needs
- ◆ Current and planned projects that should be factored into the Information Technology Four-Year Master Plan.

The interviews included:

- ◆ Central IT
- ◆ City Attorney
- ◆ City Clerk
- ◆ City Manager’s Office
- ◆ Deputy City Manager (PIO, Neighborhood Services)
- ◆ Development Services (Planning, Building & Engineering, Traffic Engineering , Operations & Transit Center)
- ◆ Economic Development
- ◆ Finance (Finance, Budget, CIP, General Accounting, Payroll)
- ◆ Fire (Administration, Disaster Preparedness/EOC CUPA)
- ◆ General Services (Streets, Parks & Facilities, Fleet, Utilities)
- ◆ Human Resources
- ◆ Housing and Housing IT
- ◆ Library and Library IT
- ◆ Police (Administration, Code Enforcement, Dispatch, Animal, Police IT)

- ◆ General Services (Solid Waste, Streets, Traffic Services, Waste Water Treatment Plant, Fleet)
- ◆ Recreation, Performing Arts and Convention Center
- ◆ Special Projects (Wi-Fi Task Force, Green Team, etc.)
- ◆ Transportation and General Services (Transportation, Risk Management, Engineering)
- ◆ Treasurer's Office (Utility Billing, Business License)
- ◆ Utilities (CIP, Design and Construction, Water, Wastewater, Environmental Services)

General themes and key issues identified by the user community in the course of the user/stakeholder interviews included:

- ◆ A general appreciation for the efforts and services provided by Central IT given the constraints in which it operates.
- ◆ A conflict between the desire to do more with less and for the City to invest in technologies.
- ◆ Lack of IT leadership, vision and direction with emerging technology.
- ◆ The age and lack of support for some of the business applications in place.
- ◆ The age of desktop computers and local systems.
- ◆ The multiple email systems used within the City and restrictive email retention policies in place.
- ◆ The lack of Wi-Fi and mobility in the field or City locations.
- ◆ Web site support and department desire to support their own pages and content in the future.
- ◆ The future sustainability of the City's current HTE ERP system.

- ◆ Current lack of ease of access to City data for citizens and community.

2.4 Central IT Staff Interviews

NexLevel conducted individual Central IT staff interviews and met with core functional service areas within the Central IT Division. General themes and key issues identified in these interviews included:

- ◆ Central IT staff members are loyal and committed to providing good customer service.
- ◆ Central IT staff has a good understanding of the City's technology environment and they want to do the best possible job in their support of technology within the City.
- ◆ Central IT would benefit from additional network monitoring and capacity planning tools to better manage the infrastructure.
- ◆ There are several legacy business applications at end of life that should be upgraded or replaced with new systems (MP2 - sewer management/maintenance, tree inventory, HTE green screen usage, solid waste management).
- ◆ Lack of funding has prevented staff participation in training and vendor user conferences, impacting IT staff from staying current on systems they support.
- ◆ Lack of user departments taking ownership of data, along with a large increase in requests for data analysis and reporting from user departments.
- ◆ Departments not regularly participating in system upgrade testing and heavy reliance on Central IT.

- ◆ Lack of a succession plan for IT staff. As several Central IT staff near retirement, the City may be impacted by the loss of significant amounts of historical/legacy knowledge that is not documented.
- ◆ Due to a key IT management staff absence over the past year, department support staff has stepped into areas of responsibility they may not have been adequately trained.
- ◆ Many of the City departments have had interim or acting department Directors leaving support staff to drive the technology needs for the departments.
- ◆ Limited resources have impact on the refreshment of desktops.
- ◆ No formal IT Director to provide true IT leadership for future technology direction.

2.5 Community Meeting

In addition to the traditional interview activities that are typically undertaken as a part of the IT assessment process, NexLevel facilitated a community meeting on May 28, 2015 from 6:00 – 7:30 pm. The meeting was designed to gather input from community members regarding the City's IT services. Approximately 15 community members, along with City staff, attended the meeting, with participants breaking into discussion groups and identifying the highest priorities for the community.

The outcome of the community meeting included items such as information dissemination and delivery, the City's current website, and the ability for residents to report issues utilizing mobile devices. Table 1 - Summary of Community Meeting Public Comments provides a summary of all of the items identified during the course of the meeting.

Table 1 – Summary of Community Meeting Public Comments

Discussion Group Comments	
NOTE: Discussion Group Comments are the verbatim comments out of the collective public groups that participated in the Community Meeting.	
1	City website should provide links to other important sites. (Adjacent Cities, County, State, Federal, etc.)
2	Make all documents available in a format residents can cut and paste from. (Example, the 2030 General Plan has some sections that cannot be copied to a Word document.)
3	Provide more mobile phone apps. (GAPS for All – Graffiti Reporting / Tourism and Driving Apps)
4	Increase range of Council Wi-Fi. (To at least the Service Building and the Annex.)
5	Provide Wi-Fi at Wilson Senior Center and South Oxnard Center. (Dead zones, old and slow pc's.)
6	Address slow Internet access in general at City Centers. Need auto-updates as well.
7	Advertise streaming of City Meetings and assure reliable provider. (Council, Planning, etc.)
8	Advertising of on-line resources in general at schools and provide a clearer web presence. (Such as Rec Services)
9	Conduct a Summer Community Resource event.
10	Provide multi-lingual web resources.
11	Conduct more E-Waste events.
12	Implement the use of Body Worn Cameras.
13	Implement e-911 for text and video submissions to Public Safety.
14	CAD to Twitter traffic alerts.
15	Implement something like NextDoor.com to engage and keep neighborhoods informed.
16	Address and update Wi-Fi / Wi-Max.
17	Provide public access to computers and Internet.
18	Google apps.
20	Publish an IT Service Catalog.
21	Look into moving some systems to the Cloud.
22	Measure the results of IT performance.
23	Increased awareness of web functionality. More intuitive navigation to different functions.
24	Social Media campaign for tips / tricks and general awareness.
25	Expand reach to Spanish speaking users.
26	More available Wi-Fi around City and at City facilities.
27	Reach out through the schools to raise awareness in the youth of City offerings.
28	Provide Kiosks to enable City services digitally at multiple locations and across several languages.
29	Provide City of Oxnard official news board. (Digital scroller.) Raise awareness of meetings.
30	Offer Newsletter / Push Notifications (RFS feeds) to Citizens. Sign up and customize the feed(s) you want to receive.
31	Crowdsourcing app to identify City problem areas.
32	Access to resources to help citizens learn English and multilingual crowdsourcing applications.

2.6 Best Practices Assessment

Best Practices Conformance and Maturity Level Model

NexLevel has found that Figure 3, Levels of Conformance to Best Practices, provides a useful graphic to depict the relative capabilities of IT service organizations. The model is based on five levels of maturity ranging from “Frontier” (where the IT organization is largely unstructured) to progressively higher levels striving for the “Value” state (where the organization is very structured and consistently follows best practices in all areas). Each level of maturity is associated with a degree of compliance with best practices.

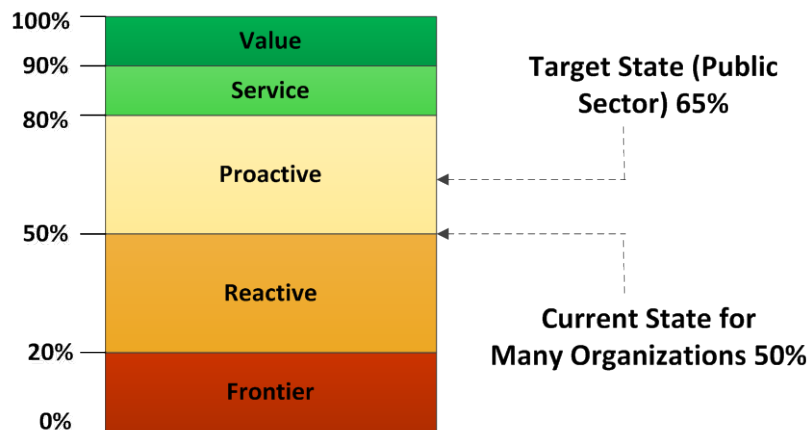


Figure 3 - Levels of Conformance to Best Practices

IT organizations at the Frontier level typically have fewer than 20% of their processes in compliance with best practices. This level of maturity is characteristic of new and/or re-organized IT organizations. The degree of compliance increases as organizations adopt well-defined and repeatable processes. In this model, 50% compliance with best practices is a key metric. Organizations with less than 50% compliance are generally reactive in responding to

user needs, while those with better than 50% compliance are generally proactive and are better able to anticipate user needs.

The Service level falls between 81 to 90% compliance with best practices. IT organizations at this level of compliance generally excel across all of the best practice dimensions and provide an optimum balance between total cost of ownership and return on investment.

The highest level of performance (Value) is generally applicable only to private sector firms that use technology as a competitive differentiator or as a profit center; although public sector organizations find that some components of the Value level are useful.

A number of factors can affect an IT organization's ability to adopt best practices. For example, IT organizations that have been under-funded or that are in transition from hosted service delivery models to hybrid or sourced service (outside assistance) delivery models, typically find themselves at the reactive level of the model. NexLevel has observed that many organizations achieve approximately 40% to 60% compliance with best practices resulting in their having some of the characteristics of both the reactive and proactive levels of the model. NexLevel recommends that organizations work to achieve at least 50% compliance with best practices, with 65% being a reasonable target.

Compliance with Best Practices

Based on NexLevel's experience, we have observed that many IT organizations, particularly those that have been under-funded, are struggling to adopt new technologies while supporting their existing base, and organizations that are in transition from decentralized service models to centralized or hybrid service models find themselves in a reactive state (less than 50% compliance with best practices). Organizations that have highly decentralized IT service models similarly find it difficult to achieve a consistent level of

conformance with best practices. Consequently, the current state of best practice compliance for many IT organizations is approximately 35% (the middle of the reactive level), while NexLevel recommends that IT organizations work to achieve at least 50% compliance with best practices, with 65% being the desired target.

The benefits to improving the degree of compliance with best practices include:

- ◆ Greater ability/agility to meet increased user needs for support and to meet increased public expectations for access to information and services.
- ◆ Deriving greater value (in areas such as increased effectiveness in the delivery of services to the user community for investments in technology - this is measured as a higher return on investment (ROI).
- ◆ Greater ability to sustain, if not further improve on, the level of IT service provided to the user community.

Caveat Regarding Best Practices

A word of caution about best practices is appropriate. An IT organization need not meet or exceed every best practice in order to provide excellent customer service; however, a higher degree of conformity to best practices generally enables an IT organization to sustain service delivery levels over time and to successfully cope with external and internal factors that have the potential to disrupt its ability to deliver services. The best practices are heavily weighted towards the development and use of formalized procedures and supporting documentation since these provide the basis for sustaining and improving services and service levels. If we were to compare two similar IT organizations, providing the same services and service levels, and with the same degree of user satisfaction, the organization that has more formalized processes and documentation will have a higher degree of compliance.

Compliance with Best Practices

NexLevel uses a comprehensive list of best practices that are categorized into six separate dimensions to evaluate the organization's compliance with best practices. The six dimensions include:

- ◆ Technology Governance – Practices related to the leadership and reporting structure of the IT organization, degree of management overview, and the consistent tracking of the delivery of technology services.
- ◆ Service Delivery – Practices related to coordinating the processes involved in providing customer support including training, help desk, and service delivery management, and the establishment of service level agreements (SLAs) and tracking of conformance with them.
- ◆ Business Technology Applications – Practices related to the management and support of the application information systems supporting business operations.
- ◆ Infrastructure – Practices related to acquisition, utilization, and maintenance of the technology equipment, operating systems, support software, and communications network services that are used.
- ◆ Security – Practices related to the effective use of policies and standards, user conduct, software tools (filtering, monitoring, etc.), and audits to validate that material and software resources are used only for their intended purposes.
- ◆ Administration – Practices related to the management of technology in terms of budgets, maintenance agreements, software licenses, and the development and maintenance of current and accurate documentation on all technology activities.

As part of the assessment, Central IT management and supporting staff was asked to complete activities including providing IT technical documentation, participating in assessment interviews, and completing NexLevel's IT Self-Assessment Questionnaire. The information gathering also included NexLevel's first-hand observations of Central IT staff, including IT service delivery processes and procedures. The IT Self-Assessment consisted of 183 data points, each of which required a determination as to whether the City was in compliance with the best practice, not in compliance, or in partial compliance.

The Central IT Self-Assessment Questionnaire response results are summarized and provided in Table 2, Central IT Self-Assessment Compliance with Best Practices below for each of the six dimensions:

Oxnard Best Practice Dimension	Items	Does Not Conform	Minimally Conforms	Fully Conforms	Percent Compliant	Maturity Level
Technology Governance	25	9	11	5	33%	Reactive
Service Delivery	34	15	12	7	32%	Reactive
Business Technology Applications	21	8	10	3	25%	Reactive
Infrastructure	45	15	21	9	34%	Reactive
Security	25	6	15	4	36%	Reactive
Administration	33	15	17	1	20%	Reactive
Total	183	68	86	29	30%	Reactive

Table 2 – Central IT Self-Assessment Compliance with Best Practices

These results were then taken into account along with the information developed through the interviews and the Central IT user survey to provide a holistic picture of the Central IT's compliance with best practices as depicted in Figure 4, Central IT Compliance with Best Practices:

- ◆ Each of the rings represents a level in the best practice conformance model, with the outer most (red) ring representing the Frontier level of organizational maturity (the lowest level of conformity with best practices) and the core of the diagram representing the Service and Value levels (the highest degree of conformity with best practices).
- ◆ The hexagon is segmented into two halves. The upper half of the hexagon is composed of the best practice dimensions that involve participants other than IT, such as executive management; while the lower half of the hexagon is composed of the best practice categories where the IT support groups are the principal parties involved in the delivery of the services.
- ◆ The results of the IT Self-Assessment have been plotted for each of the best practice dimensions within the rings (the gray target points) and then connected them together to depict where the City is from an overall perspective.
- ◆ The red dotted line represents Central IT's average compliance with best practices, which is 30%.

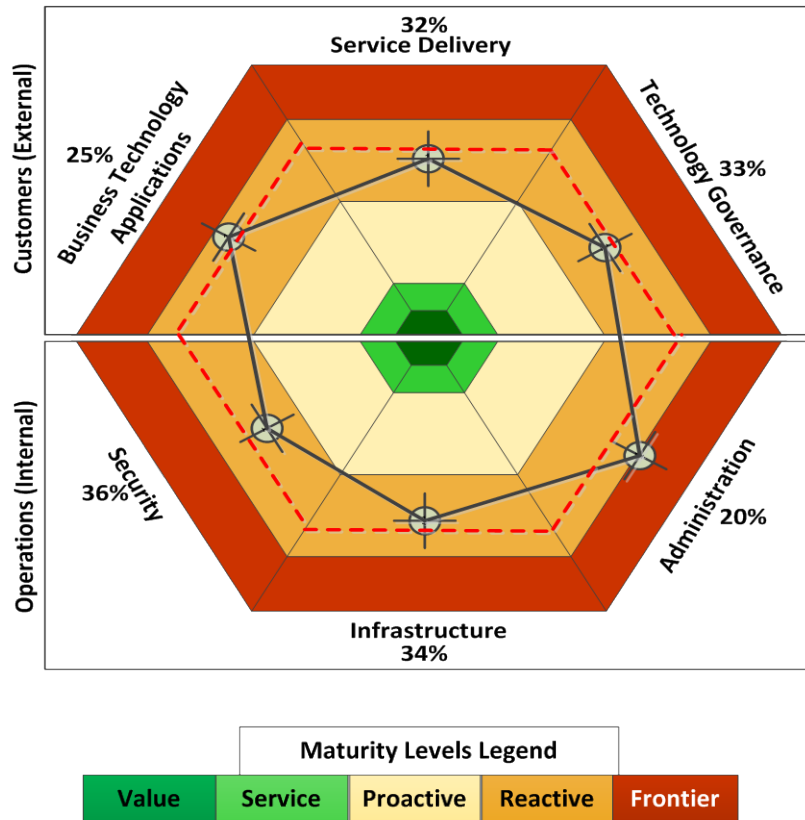


Figure 4 – Central IT Compliance with Best Practices

NexLevel's assessment of Central IT's degree of compliance with best practices is based on the following considerations:

- ◆ **Technology Governance:** The best practices assessment found that Central IT is approximately **33%** compliant with best practices in this dimension, and this is in the mid-tier of the reactive level in the maturity model. A key factor in this determination was that the City as a whole does not presently have an effective Technology Governance structure. Historically, a Governance Committee was

formed and comprised of delegated department support staff as members. Instead of department heads participating to provide the typical technology oversight and planning, the committee became a steering committee for researching potential departmental projects. The meetings diminished over time and the committee no longer meets. Other factors include the absence of key supporting elements for effective technology governance including an application portfolio, project management and reporting, standards, policies and procedures, and formal processes for communicating with the City's user community.

- ◆ **Service Delivery:** The best practices assessment found that Central IT is approximately **32%** compliant with best practices, and this is in the mid-tier of the reactive level in the maturity model. Key factors in this determination include number of current IT resources available, on-going training, the absence of service-level agreements and escalation procedures, and the absence of formal, well defined, change management procedures.
- ◆ **Business Technology Applications:** Central IT is approximately **25%** compliant with best practices in this dimension, and this is in the lower tier of the reactive level in the maturity model. The key factor in this determination is that Central IT is minimally compliant with best practices in application support, standards, and application effectiveness. Although the City makes use of commercial-off-the-shelf applications, the City does not have formal processes for regular evaluation of departmental systems and how they are meeting the needs of the users. Lack of funding impacts staff's ability to attend training or vendor user conferences to stay current on software releases. There are no formal release management procedures followed to assure user testing and acceptance takes place in a test environment prior to applying upgrades to the

production environment. Several current systems are at end of life or are no longer functioning, causing staff to revert to manual means to complete their day to day operations.

- ♦ **Infrastructure:** The best practices assessment found that Central IT is approximately 34% compliant with best practices in this dimension, and this is in the mid-tier of the reactive level within the maturity model. It indicates that Central IT is handling the traditional responsibilities of managing the infrastructure and provides a foundation for the City to build on. The cautionary items identified in the assessment for this dimension include the need to formalize planning to support the lifecycle and replacement of servers, routers, and network equipment. Focus should be on improving the speed of the network, addressing end of life operating systems, and providing adequate backup power to the primary data center.
- ♦ **Security:** The best practices assessment found that Central IT is approximately **36%** compliant with best practices in this dimension, and this is in the mid-tier of the reactive level in the maturity model. This is the strongest ranking dimension for the IT Assessment. Areas of concern include the need to routinely conduct network perimeter testing to identify network vulnerabilities posed by cyber security threats, addressing firewall equipment nearing end of life, improving citywide awareness of the steps that employees should take to safeguard City information and assets, and adopting a more formal approach to the management of mobile devices.
- ♦ **Administration:** The best practices assessment found that Central IT is approximately **20%** compliant with best practices in this dimension, and this is in the lower tier of the reactive level in the maturity model. In general, the findings in this dimension mirror other findings discussed above including an over-reliance on informal and ad-hoc procedures, particularly with regard to a professional development plan for Central IT staff, planning for staff succession in the event that key

employees leave the City, lack of formal policies and procedures being documented and adopted, and absence of a clear sense of technology leadership, vision, and direction.

Gap Analysis

The Gap Analysis, depicted in Figure 5, illustrates the difference between NexLevel's assessment of Central IT's current level of compliance with best practices and the recommended target maturity state, using the maturity level model as a scale.

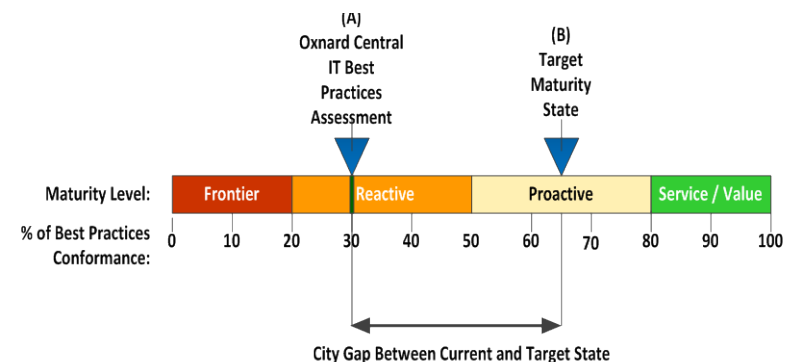


Figure 5 – Gap Analysis

NexLevel has plotted two points on this scale:

- (A) Oxnard Central IT Best Practices Assessment: Coincides with the average score of 30% for the six target dimensions in Figure 4;
- (B) Target Maturity State: Represents NexLevel's recommended level of best practices compliance of 65% for Central IT.

Typically, NexLevel recommends that organizations seek to achieve at least 50% to 65% compliance with IT best practices, based on its experience that organizations with higher levels of best practice compliance:

- ◆ Realize higher returns on their investment in technology (ROI);
- ◆ Are better able to sustain service delivery levels;
- ◆ Are better able to respond to new requirements and public expectations.

The recommendations identified in Table 3 on Page 21 represent best practice goals and provide direction for Central IT and the City.

2.7 SWOT Analysis

The Strengths, Weaknesses, Opportunities, and Threats (SWOT) diagram provided in Figure 6, SWOT Analysis provides a high-level summary of the assessment. This diagram provides a summary of the factors involved in the effective delivery of Central IT services. In this model, the strengths and weaknesses represent service delivery enablers and inhibitors for IT (the upper sections of the chart) and the information technology opportunities and threats facing the City as a whole (the lower portion of the chart).

	Positive	Negative
Internal	Strengths	Weaknesses
	<ul style="list-style-type: none"> ➤ Central IT staff has technical competence ➤ Willingness and “can do” attitude ➤ Strong customer-service orientation ➤ Strong GIS services ➤ Long-term employees have strong understanding of City systems ➤ Several departments have taken strong lead in support of technology 	<ul style="list-style-type: none"> ➤ Legacy business applications are dated and need to be upgraded or replaced ➤ Limited City funding ➤ Service levels not formalized ➤ Limited conformance to IT best practices ➤ Inconsistent management of technology projects ➤ Lack of IT staff and user training ➤ No citywide technology standardization for software and hardware
External	Opportunities	Threats
	<ul style="list-style-type: none"> ➤ Replace HTE functionality with best breed COTS (Commercial-off-the Shelf) systems ➤ Establish IT leadership ➤ Alternative sourcing of some IT services ➤ Improve business and operational processes ➤ Integration of disparate applications ➤ Mobile technology ➤ Community engagement and e-commerce 	<ul style="list-style-type: none"> ➤ Budget constraints ➤ Cybersecurity vulnerabilities ➤ Disaster and business technology continuity ➤ Resistance to change ➤ Absence of IT governance ➤ No single point of technology vision, leadership and direction ➤ No replacement funding mechanism

Figure 6 – SWOT Analysis

Looking at the City in this framework, NexLevel found that the City has both significant strengths and opportunities; however, it must act to remediate the weaknesses and the threats in order to meet its objectives:

- ◆ **Strengths:** Overall Central IT has worked hard to provide technology services in support of the City’s software and infrastructure investments and its delivery of IT services. Central IT staff is committed, has personnel with solid technical skills, a willingness to support the City’s technology infrastructure and day-to-day operations (although the latter has come at the expense of agility to respond to newer requirements), and all Central IT staff

have a positive attitude in response to meeting service requests. Staff in the Parks and Recreation, Fleet Services and Environmental Services areas have taken strong leadership in support of their technology.

- ◆ **Weaknesses:** While Central IT has been competent, it has done so in an ad-hoc manner without the adoption of the formal standards and processes that provides the foundation for the effective delivery of IT services. Several legacy business applications, (Hanson, MP2 - sewer asset management/maintenance, solid waste management) are dated, and several functional areas need to be updated and/or replaced in order to take advantage of improvements in features and continue to meet department needs citywide. The HTE system is up-to-date, but this application is not based on current technology available, Lack of consistent funding impacts Central IT staff and end-users from attending conferences and training. City-wide IT standards are not in place to provide uniformity in selected systems, take advantage of volume pricing and shared IT support knowledge. Technology project implementations do not follow a consistent or formal project methodology. No formal service levels are in place to gauge delivery of services.
- ◆ **Opportunities:** The City has a number of opportunities and is in a position to become innovative in its use of technology, improve business processes throughout the organization, integrate disparate computer systems, and expand the use of computer mobility for improved job performance in the field. The City's assessment of its current ERP solution, its approach to addressing those functional areas not meeting the City's needs, and its willingness to look at alternative methods to deliver services in the future, will better serve the staff and users.

- ◆ **Threats:** The threats to the City's use of technology include on-going budget constraints, the potential increase in vulnerability to cyber-attacks as a result of the City's greater use of mobile and web technologies, and the lack of continuity of IT support for City operations during emergency situations with lack of a business continuity plan. Future technology initiatives must be embraced by user departments and supported by IT staff in order to be successful. User departments look to IT for direction, planning and leadership, and this is currently lacking. Most critical is the lack of IT Governance to provide oversight and to assure IT initiatives follow the strategic and business goals of the City.

2.8 ERP Analysis

A component of NexLevel's project with the City included reviewing the City's current Sungard (HTE) system to develop recommendations regarding maintaining the current system, upgrading to the vendor's latest solution, or replacing the current system with a new ERP solution. This section provides a summary of the "ERP Alternative Analysis Report". The entire report is included as Appendix B to this ITMP report.

The HTE system has been in place since 1989 and has provided a robust and comprehensive solution that has served the City for many years. However, the system is now becoming obsolete, and many agencies relying on HTE are replacing it with new ERP systems that take advantage of current technologies to streamline processes, create better access to information, increase productivity, and improve decision making.

Since being implemented, HTE was purchased by SunGard, which continues to provide maintenance and support; however, ongoing investments into research and development appear to be minimal and the solution does not appear to be marketed any longer.

Rather, SunGard's new preferred solution offering is called ONESolution.

The HTE system supports many daily City business processes for several departments (e.g. Community Development, Finance, Treasury, and Police). More specifically, the HTE system supports the following functions:

- ◆ Financial Reporting/General Ledger
- ◆ Payroll
- ◆ Accounts Payable
- ◆ Accounts Receivable
- ◆ Purchasing
- ◆ Cashiering
- ◆ Building Permits
- ◆ Business Tax
- ◆ Code Enforcement
- ◆ IVR (Interactive Voice Response)
- ◆ Land Management
- ◆ Planning and Zoning
- ◆ Utility Billing

The HTE system has electronic interfaces with the following systems: Electronic Document Imaging System, Hansen, Socrata, GIS, CAFR, Assetworks, Realquest, Chameleon, AMR, CUPA, and other systems.

In addition, SunGard provides the City a Disaster Recovery "hot site" located in Florida.

The City's Central IT organization is responsible for maintaining the HTE system and interfacing with SunGard for ongoing maintenance and support. In addition, the Central IT organization has developed and supports several solutions that provide additional information to staff. The primary support of the system comes from a system administrator within the Central IT organization. This resource has

significant HTE system knowledge and is a key person in maintaining the system and supporting the users. Unfortunately, when that person is absent, the quality of service is adversely impacted.

Key findings resulting from this analysis include:

- ◆ The City needs to upgrade or replace its existing SunGard system for both functional and technical reasons. From a functional standpoint, the City is not receiving significant benefits for its continuing investment in this technology, while from a technical standpoint the underlying AS/400 technology is nearly obsolete and the application is considered by many to be nearing the end of the product life cycle. As a result, it neither meets the City's current needs nor will be able to support future requirements.
- ◆ The City is undergoing significant organizational, policy, and process changes. The implementation of a new ERP system is capable of not only supporting, but driving best practice adoption to provide a number of key benefits, including streamlined operations, improved internal controls, and enhanced access to timely decision information. As a result, the City will need to embark on a focused and carefully planned approach to effectively manage these significant organizational and cultural changes.

At a high level the following are concerns:

- ◆ Most staff continues to use the "green-screens" interface that is similar to DOS, though an enhanced user interface experience is offered, most staff stay within the older version.
- ◆ HTE offers an enhancement, NaviLine, which is a web-based interface that provides a more intuitive user interface. Unfortunately, staff indicates that NaviLine does not provide the same functionality as the green-screen version.

- ◆ The age of the system makes it difficult to use. In particular, the lack of configurability in the user interface and the need to develop and apply custom modifications to the software reduce its usability and agility.
- ◆ The system is based on IBM AS/400 technology which is now more than three decades old, and the current hardware is due for replacement (eight years old).
- ◆ The application is nearing end-of-life support by the vendor.
- ◆ The existing system does not provide functionality to support analytics or the creation of dashboards for the City's managers and executives, leaving them with only paper reports, various online queries, and ad-hoc databases to manage operations and performance. User need to engage Central IT to extract data and/or setup reports.
- ◆ The application is not as "open" as newer software suites, thus restricting the City's ability to integrate key productivity tools.
- ◆ The City users are supplementing the functionality provided by the application through the use of spreadsheets and ad-hoc databases.
- ◆ The HTE system lacks a robust security and audit solution that adequately supports data security, separation of roles and responsibilities, and audit logging.
- ◆ Testing of the current system by end-users is limited and increases the risk when change is introduced. Central IT is responsible for installing updates, which are periodically installed directly into the production system.
- ◆ Staff reported that the HTE system is not effective or efficient in supporting the business tax function.

- ◆ Staff reported that the HTE system does not provide a solution to track developer deposits and/or meet future eService functionality desired by Development Services.

In addition to the above issues, the HTE system lacks features and functionality to adequately support the following:

- ◆ Reporting
- ◆ Project Accounting
- ◆ Chart of Accounts (COA)
- ◆ Position Control
- ◆ Workflow
- ◆ Time and Attendance Reporting
- ◆ Human Resources
- ◆ Budget
- ◆ Security and Audit Trail
- ◆ CAFR
- ◆ Grant Management
- ◆ Developer
- ◆ Business Tax
- ◆ Training and Documentation

The attached analysis report provides extensive details of what NexLevel believes are the City's three alternatives:

- A. Continue As-Is
- B. Upgrade the Existing System
- C. Replace the Existing System

NexLevel believes the City will see significant value in replacing the HTE system with an industry-recognized, proven ERP system. For this reason, Alternative A is an option only if the City does not have the staff and financial resources to take on an ERP replacement project. Alternative A should be viewed as a stop gap solution, as it will not allow the City to address current needs and issues.

While Alternative B is a viable option, the level of effort, cost, and risk of this option approaches what would be expected if the City pursues Alternative C. It is for this reason that NexLevel recommends that the City pursue Alternative C. Alternative C provides the City the ability to take a measured and deliberate approach to procuring and selecting a long-term solution (potentially 15+ years). With Alternative C, the current vendor (SunGard) could still propose their flagship product, ONESolution, and the City could fairly evaluate the costs and benefits of that solution with other solutions available in the market.

Procuring and implementing a new ERP system, while time consuming and expensive, should be viewed as a 15+ year commitment that will impact virtually every department. It involves identifying and entering into a long-term partnership with a vendor that is committed to continuous improvement and innovation.

If the City selects to pursue Alternative B or C, it may still wish to explore short-term improvements in the current ERP system via training and enhanced reporting. The timeline to implement Alternative B and C would be 24 – 36 months. In the meantime, a greater understanding of the system design, reports, and application solutions will allow the City to get more value out of the existing system and reduce staff frustration.

2.9 IT Staffing

A component of NexLevel's project with the City included a high-level review of the IT support services being provided by Central IT, Police, Housing and Library Departments. The intent of this review was to identify opportunities for improved efficiencies and coordination between IT support organizations, along with potential opportunities for IT service delivery consolidation. NexLevel has delivered the results of this review to the City in the form of a Memorandum entitled IT Support Services Memorandum.

Subsequent to the completion of NexLevel's IT support services review and delivery of the resulting Memorandum, the City Manager recommended, and the City Council approved, the establishment of an Information Technology Director position. The July 21, 2015 Report to City Council requesting approval of the IT Director position stated, "The Management Partners report found that compared to its peer cities, Oxnard was below average in the number of I.T. employees and expenditures for a city its size."

As discussed in the IT Support Services Memorandum, the City currently has four distinct IT groups supporting the technology needs of the organization, as follows: Central IT; Police IT; Library IT; and Housing IT. The total number of budgeted positions across these four IT groups is 27, but the actual number of current employees is 21.

Based on a study conducted by NexLevel in 2013, the average percentage of full-time employees (FTEs) supporting information technology is 2.6%, with a range of 1.9% to 3.4%. Using the City's current payroll data, there are 1,043 full time equivalent (FTE) employees and 550 Limited Benefit Employees (LBE), for a total of 1,593 total staff currently employed at the City. Utilizing this number as the basis to calculate the number of IT staff needed to support the total employee base, the City should have between 30 and 54 information technology FTE positions, with an average of 42. As discussed previously, the City presently has an IT staff of 21 employees supporting information technology across the four IT

groups, which supports the Management Partners report which found that compared to its peer cities, Oxnard was below average in the number of I.T. employees and expenditures for a city its size.

NexLevel recommends that the City complete the recruitment of an IT Director and task the individual appointed to the position with conducting an IT organization analysis, as more fully described in Recommendation 2 on Page 21 of this report.

2.10 Central IT Assessment Recommendations

The recommendations provided in this report were developed by NexLevel based on our experience in working with local government agencies. Our goal was to identify activities that have high value, some of which can be accomplished with existing resources, while others will require augmentation of City resources. By necessity, these recommendations are highly pragmatic and conditioned by real-world considerations. NexLevel understands that it is much easier to prescribe change than to implement it, and that no public or private sector organization has sufficient resources to safeguard against all possible risks.

Consequently, NexLevel's approach is to help our clients maximize the use of resources to feasibly reduce the most common and probable obstacles faced by IT organizations.

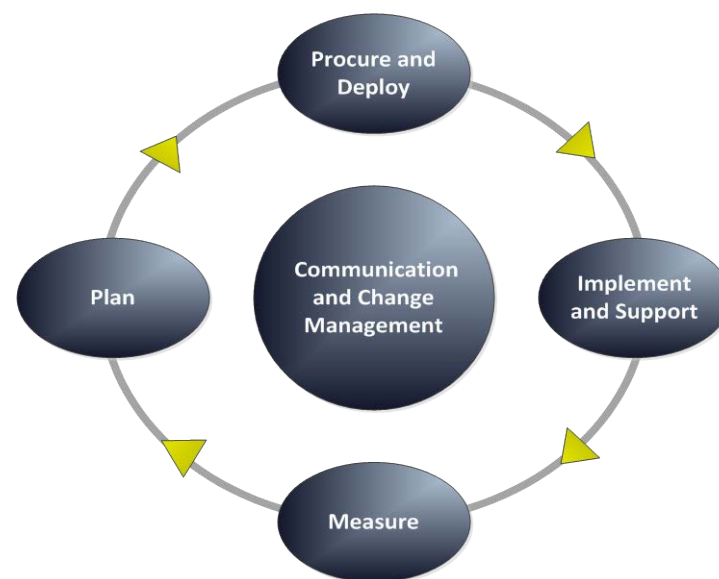


Figure 7 – Process for Implementation of Recommendations

As depicted in Figure 7, Process for Implementation of Recommendations, NexLevel believes that communication with all internal and external stakeholders is central to the effective delivery of technology services. All other factors being equal, IT organizations that foster communication and collaboration perform better than those that do not. Planning and measurement also play key roles: planning provides the baseline for performance; and measurement provides vital feedback to improve future planning, procurement, and implementation. This commitment to continuous improvement enables IT organizations to progress to higher levels of maturity and performance.

The successful implementation of organizational procedural change must take into account behavioral and organizational culture factors as well. Change, even change that is ultimately beneficial, is subject to resistance and skepticism. Ultimately, the changes that prevail are those that:

- ◆ Have strong executive sponsorship.
- ◆ Have immediate and tangible benefits and are “owned” by management and staff.
- ◆ Become anchored in the culture of the organization (what might be called the “new normal”).

Specific recommendations to enable the City to close the gap between its present level of best practices conformance and the target state are discussed in further detail in the Central IT Assessment report, which was provided to the City previously.

NexLevel has outlined seven major recommendations and provided specific operational recommended actions within each recommendation. These recommendations are intended to help the City improve Central IT service delivery and to prepare the IT organization as a whole to be better able to meet the technology

advances it will be faced with in the future. Table 3, Strategic Recommendations, presents the summarized recommendations and the actions needed to implement them

The major recommendations have been further assigned an action ranking based on the following definitions:

- ◆ **Immediate** - Recommended Action to take place within:
 - **3 to 6 months**
- ◆ **Short-Term** - Recommended Action to take place within:
 - **6 to 18 months**
- ◆ **Mid-Term** - Recommended Action to take place within:
 - **18 to 36 months**
- ◆ **Long-Term** - Recommended Action to take place within:
 - **36 to 48 months**

RECOMMENDATION 1	Implement IT governance (Immediate)
Recommended Actions	<ol style="list-style-type: none"> 1. Establish a Technology Steering Committee (TSC) with senior level department executives as members 2. Complete a formal TSC Charter that defines the committee scope, membership, chairman role, roles and objectives, duties, meeting frequency, decision process, etc. 3. The TSC will define technology sub-committees (permanent and temporary as needed) 4. The City Manager's Office should schedule and conduct regular (minimum quarterly) meetings of the TSC
RECOMMENDATION 2	Complete an IT organizational analysis (Immediate)
Recommended Actions	<ol style="list-style-type: none"> 1. Create and fill an Information Technology Director position 2. Consolidate silo IT service groups 3. Conduct a citywide IT organizational assessment 4. Consider alternative methods for meeting service delivery 5. Develop and implement succession plans for IT staff 6. Implement a professional development plan for IT staff 7. Identify training opportunities for staff and end-users
RECOMMENDATION 3	Plan for IT operational improvements (Short-Term)
Recommended Actions	<ol style="list-style-type: none"> 1. Consider opportunities for cloud computing 2. Central IT should work with City management/PIO to develop a strategy for eGovernment and Community Outreach and future web site design/management 3. Complete Disaster Recovery Plans and Business Continuity Plans for information technology 4. The City should consider leveraging its current fiber infrastructure and resources, including shared resources available through agreements with other public agencies, in order to position itself to become a "Fiber City" 5. Prepare a fiber strategy to address network speed issues at the remote locations 6. Prepare a Wi-Fi plan to address the remote locations, field operations staff and mobile office requirements 7. Include Public Wi-Fi considerations when looking at other City facilities and buildings 8. Identify and implement network monitoring and capacity planning tools to help manage and forecast future IT needs

Table 3 – Strategic Recommendations

Recommended Actions	9. Adopt enhanced backup and recovery processes, including periodic testing 10. Allocate the time to create the necessary tactical plans for technology operation, including a technical blueprint that documents the existing and planned information technology city-wide architecture
RECOMMENDATION 4	Address infrastructure and hardware modernization (Immediate)
Recommended Actions	1. Adopt a formal refreshment policy for desktops and servers with confirmed recurring funding source 2. Continue to implement server virtualization technology when physical servers are due to be replaced 3. Consider utilizing the generator outside the Service Center as a power source for extended emergency operations in the Central IT data center 4. Complete the immediate replacement of end-of-life equipment and look at best practice replacements; including core applications servers, end of life switch equipment, older firewall equipment, and non-supported WIN2003 servers 5. Complete the rollout of 300 replacement desktops and consider external assistance
RECOMMENDATION 5	Adopt IT additional operational best practices (Immediate)
Recommended Actions	1. Identify and adopt citywide Technology Standards Plan 2. Create and manage an Application Portfolio 3. Establish Vendor Management procedures 4. Establish and manage SLA's (Service Level Agreements) 5. Implement more formal Help Desk procedures 6. Adopt a formal Project Management Methodology 7. Adopt and implement Change Management 8. Adopt and require departments to participate in formal Acceptance Testing Plans 9. Implement a Quality Management Plan 10. Review current policies and procedures and update where needed
RECOMMENDATION 6	Deliver cybersecurity and mobile device management (Mid-Term)
Recommended Actions	1. Contract with an independent, certified, firm to conduct an external network vulnerability and penetration test to identify security gaps and identify areas for improvement 2. Develop a security plan to remediate the identified vulnerabilities and to provide a continuing approach to security management including periodic threat assessments and the development of plans to detect and respond to security breaches

Table 3 – Strategic Recommendations (continued)

Recommended Actions	<ol style="list-style-type: none">3. Adopt a City-wide security policy which requires annual review and acknowledgment by all employees4. Develop a plan for continuing vulnerability assessments on an every two-year basis5. Implement data encryption on City hardware vulnerable to being lost or stolen, including laptop computers and other mobile devices6. Educate users, especially those using mobile devices, regarding security risks, safe networking practices, and their responsibility to protect City information and assets7. Adopt rules for the use of mobile devices and ensure that all staff members using them receive periodic security training and adopt a proactive approach to mobile device management8. Work with City departments to determine areas where mobile applications for staff and the public will provide efficiencies and save time
RECOMMENDATION 7	Complete HTE functional assessment and implement subsequent recommendations, which may include system(s) replacement (Immediate)
Recommended Actions	<ol style="list-style-type: none">1. NexLevel has provided to the City a separate document titled “ERP Alternatives Analysis Report” that provides detailed information regarding the current ERP system along with recommended alternatives. The “ERP Alternatives Analysis Report” is attached as Appendix B.

Table 3 – Strategic Recommendations (end)

3. Information Technology Master Plan

3.1 Introduction

Change is a constant concern for public sector executives who must often respond to increased public expectations and new mandates with limited resources and information technology environments that may not be agile. Without a strategic plan to manage and respond to change, organizations tend to become reactive rather than proactive and, as a result, obtain reduced benefits for their investments in information technology. Strategic planning enables organizations to find a balance between immediate, short-term, mid-term and long-term needs. It follows that the process for the development of a strategic plan needs to take the same considerations into account.

3.2 Technology Strategic Direction

This Information Technology Four-Year Master Plan (ITMP) sets forth a roadmap for the City of Oxnard that identifies current technology projects and, to the extent possible, future technology needs identified through collaborative efforts by department management and stakeholders. The plan lays out the strategy and steps to meet those needs and to make City IT resources more effective in delivering high quality services to internal and external customers. The plan is based on the premise that the City will continue to support information technology services and tools that reflect a focus on excellence, repeatability, standardization and innovation.

NexLevel recommends the City continuously review evolving technology trends and carefully consider their use throughout the information technology planning process. Successful

implementation can enable the City to improve its ability to deliver Central IT and overall IT services and provides more value (i.e., quality and productivity) from existing staff resources and external service providers.

3.3 ITMP Development

NexLevel is committed to the concept that information technology needs and priorities should be aligned with business needs and priorities. While there are a number of means to accomplishing this alignment, the most effective is to integrate business planning and technology planning within a common framework, and this is the basis for the project prioritization workshop where technology priorities are set by the organization's business stakeholders.

Figure 8, Planning and Prioritization Process, depicts the methodology that was used in the development of the project plan schedule that is the core of the Information Technology Four-Year Master Plan.

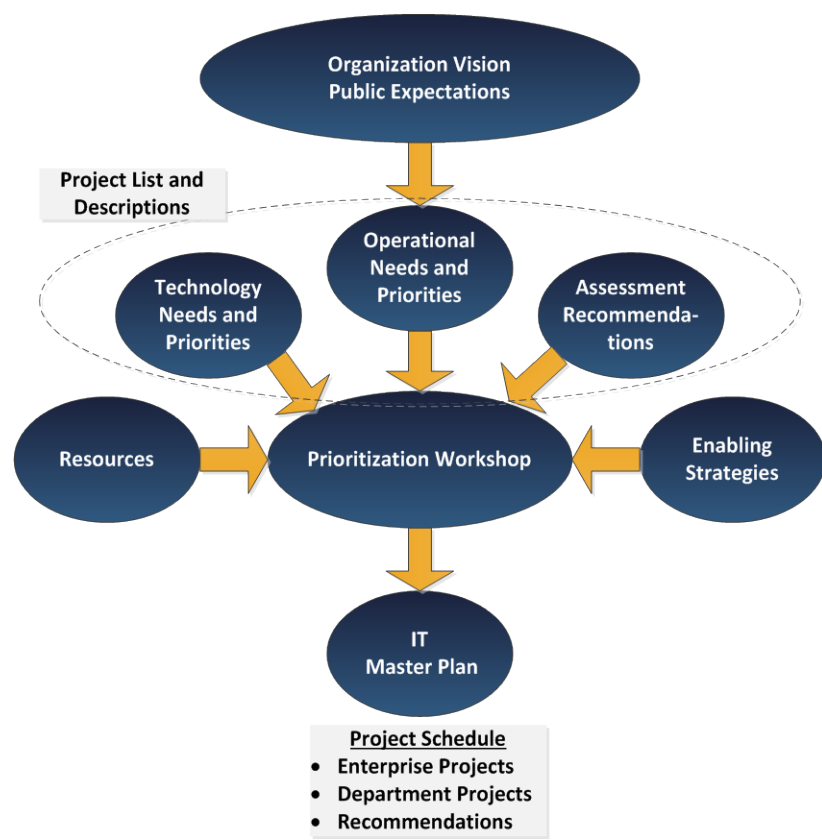


Figure 8 – Planning and Prioritization Process

The inputs to the prioritization process in developing the ITMP included:

- ◆ The organization's vision (business direction and priorities) and public expectations.
- ◆ Available resources. Although staff resources most commonly come to mind (and indeed, staff resource availability is often a critical limiting component in

planning technology projects); project funding, and particularly the ability to provide stable funding for information technology over the course of the ITMP, is similarly critical.

- ◆ The technology and operational needs and priorities that were identified by the City's users/stakeholders, IT and management.
- ◆ The identified gaps/recommendations defined through the assessment process.
- ◆ Enabling technology strategies and trends such as the integration of operational and technology planning, resource management, user-centric service delivery, and strategic sourcing, that can facilitate the achievement of the City's priorities.
- ◆ The prioritization workshop collaborative forum to collectively determine projects priorities.

3.4 Oxnard Project List

The Oxnard technology projects/initiatives identified throughout the planning and business assessment processes are provided below in Table 4, Oxnard Project List, which provides summary information for each proposed project including:

- ◆ The project status (IP – In-Process or N – New)
- ◆ The project's title and the department owner/project sponsor
- ◆ The relative level of effort (high, medium, or low)
- ◆ The estimated range of cost (low to high) in thousands of dollars
- ◆ The potential funding source if known
- ◆ The departments that would be impacted by the project

Note: The project list included here in the ITMP has gone through a series of vetting processes. All projects identified during the requirements gathering phase were documented and assigned a character letter and number to show if a project was considered IP – In-Process or N – New.

Numbering may be non-sequential or missing due to Project Prioritization Workshop activities. Projects were removed, combined or may have moved from IP to N or N to IP as well during these activities.

The list provided here represents the final projects list. Further details regarding the project Description, the project Benefits, and the Post Workshop Outcome activities (provides information on what projects were removed, combined, moved, etc.) are included as Appendix A of this document.

Table 4 – Oxnard Projects List

Status (IP = In-Process / N = New)	Project Titles (Numbering may be non-sequential or missing due to Project Prioritization Workshop activities. Projects were removed, combined or may have moved from IP to N or N to IP.)	Department Owner / Project Sponsor	Level of Effort (H - High, M - Med, L - Low)	Total Cost to Implement - Low Range (in thousands)	Total Cost to Implement - High Range (in thousands)	Pontential Funding Source	Impacted Departments
IP1	Public Works Integrated Master Plan Project	Utilities / Water	H	\$ 7,000	\$ 10,000	Operations	All
IP2	GIS Upgrade ESRI Version	City Manager's Office / Central IT	L	\$ 10	\$ 25	Internal Funds	All
IP3	Citywide Video Surveillance/Access Security	Police / Police IT	H	\$ 300	\$ 350	TBD	All
IP4	Technology Hardware Replacements and Future Funding	City Manager's Office / All IT	M	\$ 75	\$ 100	CIP Project	All
IP5	Housing Infrastructure Upgrades	Housing	M	\$ 50	\$ 75	TBD	Housing
IP7	Mobile Data Computers (MDCs) for Police Vehicles	Police / Police IT	M	\$ 650	\$ 700	Measure O	Police
IP8	Upgrade Current 9-1-1 to Next Generation 9-1-1	Police	H	\$ 150	\$ 200	Measure O	Police / Public
IP9	New Fire Station (IT Requirements)	Fire / Central IT / Police IT	M	\$ 100	\$ 150	Measure O	Fire / Police
IP10	New World Systems CAD/RMS v. 11 Upgrade	Police / Police IT	M	\$ 25	\$ 50	Measure O	Fire / Police
IP11	OnSSI Video Management Replacement	Police / Police IT	M	\$ 150	\$ 175	Cops Grant	Police
IP12	Recycled Water Billing	City Treasurer / Utilities/ Finance	M	\$ 25	\$ 50	Internal Funds	Treasurer / Utilities / Finance
IP14	Storage Network Upgrade - Police	Police / Police IT	M	\$ 50	\$ 75	Cops Grant	Fire / Police
IP15	Sturgis Network Video Recording (NVR) System Replacement	Police / Police IT	H	\$ 25	\$ 50	Cops Grant	Police
IP16	Valve Management and Maintenance System	Utilities / Water	M	\$ 75	\$ 100	TBD	Utilities / Water
IP18	Wide Area Network / Fiber Connection Upgrades	City Manager's Office / Central IT / Police IT	H	\$ 300	\$ 350	CIP Project	All
IP19	Facilities Work Order System - GPS Phones	General Services	M	\$ 25	\$ 50	Internal Funds	General Services / IT
IP20	Intelligent Transportation System (I.T.S.) Software Upgrades	Development Services	M	\$ 225	\$ 250	TBD	Development Services / Others

Table 4 – Oxnard Projects List (continued)

Status (IP = In-Process / N = New)	Project Titles (Numbering may be non-sequential or missing due to Project Prioritization Workshop activities. Projects were removed, combined or may have moved from IP to N or N to IP.)	Department Owner / Project Sponsor	Level of Effort (H - High, M - Med, L - Low)	Total Cost to Implement - Low Range (in thousands)	Total Cost to Implement - High Range (in thousands)	Pontential Funding Source	Impacted Departments
IP21	Credit Card Processing (Remote Locations)	Police / Finance / Development Services	L	\$ 10	\$ 15	Internal Funds	Finance / Other Depts.
IP22	Mobile Connectivity for Housing Inspectors	Housing	M	\$ 50	\$ 75	TBD	Housing
IP23	PACC Technology Upgrades	City Manager's Office / PACC	M	\$ 50	\$ 75	CIP/Internal Funds	PACC / Public
IP24	Utility Billing Enhancements	City Treasurer	M	\$ 75	\$ 100	Internal Funds	City Treasurer / Finance / Public
IP25	Video Surveillance at Environmental Resources Remote Sites	Utilities / Environmental Services	L	\$ 50	\$ 75	Internal Funds	Environmental Services
Total In Process Projects				\$ 9,520	\$ 13,165		
N1	Agenda Management Software	City Manager's Office	H	\$ 75	\$ 100	Internal Funding	All
N2	AssetWorks for Fleet PIER	General Services / Fleet	M	\$ 50	\$ 75	TBD	Fleet / Finance
N3	Automated Materials Handling for Library	Library	M	\$ 250	\$ 400	TBD	Library / Patrons
N4	Automated Meter Reading for Water	Utilities / Water	H	\$ 200	\$ 300	TBD	Utilities / Water / Central IT / Public
N5	Backflow Inspections for Water	Utilities / Water	M	\$ 50	\$ 75	TBD	Water
N6	Body Cameras and Supporting Infrastructure	Police	H	\$ 300	\$ 400	Cops Grant/ TBD	Police
N7	Business Tax System	City Treasurer	H	\$ 100	\$ 125	TBD	City Treasurer / Finance / Public
N8	Chameleon Animal Safety PIER	Police / Animal Safety	M	\$ 75	\$ 100	TBD	Animal Safety / Dispatch
N9	City Website Redesign/Replacement	City Manager's Office / Public Information Office	H	\$ 150	\$ 200	CIP/Internal Funds	All / Public
N10	Hansen CMMS (Customer Maintenance Management System) Review	Utilities / General Services and Others	H	\$ 750	\$ 1,250	TBD	Utilities, General Services and Others
N11	Compuweigh Billing Integration with H.T.E.	Utilities / Environmental Resources	M	\$ -	\$ 25	TBD	Environmental Resources / Finance
N12	Contract and Insurance Certificate Management	Finance / Purchasing	L	\$ 75	\$ 100	TBD	All

Table 4 – Oxnard Projects List (continued)

Status (IP = In-Process / N = New)	Project Titles (Numbering may be non-sequential or missing due to Project Prioritization Workshop activities. Projects were removed, combined or may have moved from IP to N or N to IP.)	Department Owner / Project Sponsor	Level of Effort (H - High, M - Med, L - Low)	Total Cost to Implement - Low Range (in thousands)	Total Cost to Implement - High Range (in thousands)	Pontential Funding Source	Impacted Departments
N14	Customer Relationship Management (CRM)	City Manager's Office / Communication and Public Information Office	M	\$ 75	\$ 100	Internal Funds	All / Public
N15	Cube Traffic System Upgrade	Development Services / Traffic Engineering & Operations	L	\$ 5	\$ 15	Operational	Traffic Engineering
N16	Document Management for Housing	Housing	M	\$ 75	\$ 100	TBD	Housing
N17	Documentum Post Implementation Evaluation Review (PIER) and Expansion	City Clerk	M	\$ 100	\$ 150	TBD	All
N18	EOC (Emergency Op Center) / Public Safety Satellite Connectivity	Police / Police IT	M	\$ 75	\$ 100	TBD	All
N19	Enterprise Recourse Planning (ERP) System Assessment	Finance / Purchasing	H	\$ 100	\$ 150	TBD	All
N21	Facility Maintenance System	General Services / Parks and Facilities	M	\$ 100	\$ 150	Internal Funding	Parks and Facilities
N22	Facility Park Rentals	General Services/Parks and Facilities	M	\$ 25	\$ 50	TBD	Parks and Facilities / Public
N23	Front Counter Kiosks for Police Department	Police / Police IT	L	\$ 5	\$ 10	TBD	All
N24	Grant Compliance Management	Finance / Purchasing	L	\$ 25	\$ 50	TBD	Housing / Finance / Police
N25	Green Team Projects	Development Services / Green Team	M	\$ 75	\$ 100	TBD	All
N26	GroupWise Email Evaluation, Email Archive Requirements and Consolidation	City Manager's Office / Central IT and Others	H	\$ 50	\$ 75	Internal Funding	All
N27	Human Resource Application	Human Resources	H	\$ 100	\$ 150	TBD	All
N28	IT Infrastructure Upgrades for Central IT	City Manager's Office / Central IT	H	\$ 150	\$ 200	CIP Project	All
N29	IT Infrastructure Upgrades for Police IT	Police / Police IT	M	\$ 150	\$ 200	TBD	All
N30	Internal Affairs Software	Police	M	\$ 50	\$ 75	TBD	Police
N31	Intranet Redesign/Replacement	City Manager's Office / Communication and Public	H	\$ 50	\$ 75	CIP/Internal Funds	All

Table 4 – Oxnard Projects List (continued)

Status (IP = In-Process / N = New)	Project Titles (Numbering may be non-sequential or missing due to Project Prioritization Workshop activities. Projects were removed, combined or may have moved from IP to N or N to IP.)	Department Owner / Project Sponsor	Level of Effort (H - High, M - Med, L - Low)	Total Cost to Implement - Low Range (in thousands)	Total Cost to Implement - High Range (in thousands)	Pontential Funding Source	Impacted Departments
N32	Land Management and Permitting System	Development Services / Planning	H	\$ 750	\$ 1,000	TBD	Development Services / Planning
N33	Library & HR Meeting Room A/V Equipment	Library / Human Resources	L	\$ -	\$ 25	Internal Funding	Library / All
N34	Library Self Checkout	Library	M	\$ 75	\$ 100	TBD	Library / Public
N35	License Plate Recognition	Police	M	\$ 75	\$ 100	TBD	Police
N36	Establish a Makerspace at the Library	Library	L	\$ 50	\$ 75	TBD	Library / Public
N37	Recreation Membership Management	Recreation and Community Services	L	\$ -	\$ 25	TBD	Recreation and Community Services / Seniors
N40	PC / Laptop Replacements for Police IT	Police / Police IT	H	\$ 50	\$ 75	TBD	Police
N42	Public Permit Search	Development Services / Planning	L	\$ 10	\$ 25	TBD	Development Services / Planning / Public
N43	Implement Tools for Public Communications	City Manager's Office / Communication and Public Information Office	L	\$ 25	\$ 50	TBD	All
N44	Radio Infrastructure Assessment and Support	Police / Fire	M	\$ 100	\$ 150	TBD	Police / Fire / Others
N45	Radio Frequency ID (RFID) for Library Materials	Library	M	\$ 75	\$ 100	TBD	Library / Public
N46	SCADA Upgrade for Water	Utilities / Water	H	\$ 300	\$ 350	CIP Project	Water
N47	Scheduling Application for Police	Police	M	\$ 50	\$ 100	TBD	Police / Utilities
N48	Solid Waste Management System	Utilities / Environmental Resources	M	\$ 100	\$ 125	TBD	Environmental Resources
N50	Citywide Time and Attendance System	Finance	H	\$ 50	\$ 100	TBD	All

Table 4 – Oxnard Projects List (continued)

Status (IP = In-Process / N = New)	Project Titles (Numbering may be non-sequential or missing due to Project Prioritization Workshop activities. Projects were removed, combined or may have moved from IP to N or N to IP.)	Department Owner / Project Sponsor	Level of Effort (H - High, M - Med, L - Low)	Total Cost to Implement - Low Range (in thousands)	Total Cost to Implement - High Range (in thousands)	Pontential Funding Source	Impacted Departments
N51	Traffic Accident/Incident Data	Development Services/Traffic Engineering & Operations	L	\$ 25	\$ 50	TBD	Traffic Engineering
N52	Tree Management System	General Services / Parks and Facilities	L	\$ 50	\$ 75	TBD	Parks and Facilities / Public
N55	Video Conferencing at Library	Library	L	\$ 25	\$ 50	TBD	Library / All
N56	Virtualization & Storage Area Network (SAN)	City Manager's Office / Central IT	M	\$ 75	\$ 100	CIP Project	Central IT / All
N57	Waste Vehicle GPS / Dash Camera Enhancements	Utilities / Environmental Resources	L	\$ 50	\$ 75	TBD	Environmental Resources
N58	Waste Vehicle Routing System	Utilities / Environmental Resources	M	\$ 75	\$ 100	TBD	Environmental Resources
N59	Downtown Wi-Fi Pilot Project	City Manager's Office / Central IT	H	\$ 25	\$ 50	TBD	Central IT / All
N60	Sewer Asset Management and Maintenance System	Utilities	M	\$ 50	\$ 75	TBD	Utilities
Total New Projects				\$ 5,520	\$ 8,100		
Total In-Process Projects				\$ 9,515	\$ 13,160		
Total In-Process and New Projects				\$ 15,035	\$ 21,260		

3.5 Project Prioritization Workshop

The Project Prioritization workshop was conducted on July 8, 2015 with all City departments represented at the 3 hour session. The agenda included briefing the participants on the methodology to be used and the “ground rules” for the workshop including:

- ◆ That the participants were all working from a common framework.
- ◆ That each participant would have the opportunity to voice their opinions, and that the group would openly consider each other’s concerns and suggestions.
- ◆ That the participants would actively support the group’s decisions.
- ◆ That the participants were prepared and committed to working together.

In addition, the workshop activities included confirming participants understanding of the projects identified in the project list and that they would have the opportunity to add any missing projects during the course of the workshop

The prioritization process of the projects was guided by a number of key factors including:

- ◆ Need/business value.
- ◆ Dependencies on other projects.
- ◆ Availability of the resources needed to complete the project.
- ◆ Projects identified as Enterprise projects: High-priority IT initiatives that were identified by City stakeholders and that benefit the operation of the City as a whole.
- ◆ Establishing the high-level timeline using NexLevel’s “Bluewall” methodology and the collaborative development

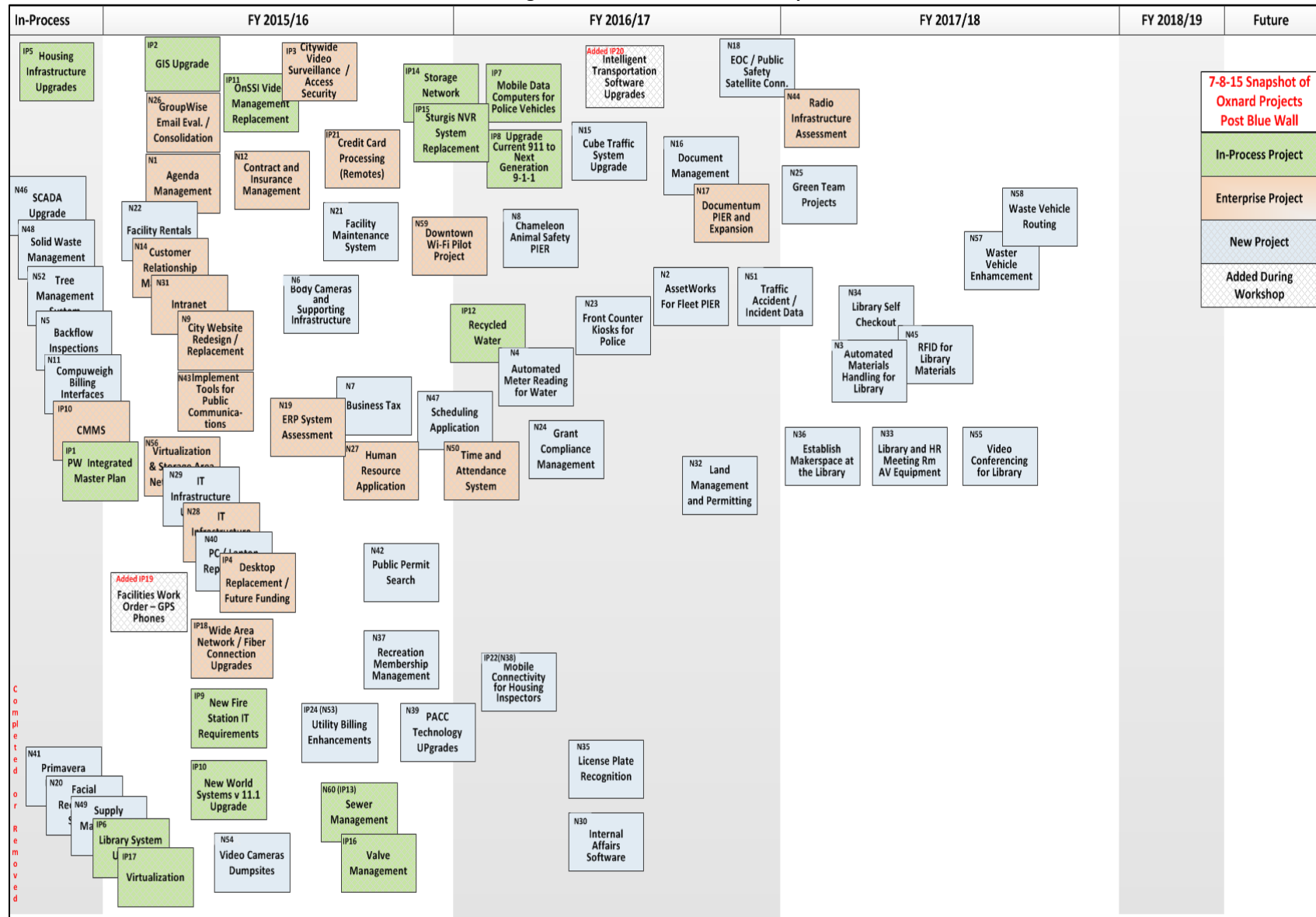
of the project timeline on a project-by-project basis to the satisfaction and agreement of all participants.

- ◆ Reviewing the next steps.

Figure 9, Oxnard “Bluewall” Snapshot, depicts the results of the workshop based on initial input from participants during the “Bluewall” activities on July 8th. Projects were plotted by the participants along a timeline that depicted “In-Process” projects, those projects identified to take place within specific fiscal years (FY 2015/2016 to FY 2018/2019,) and projects that could not be placed in a timeframe by the participants, which were scheduled for “Future.”

Please note that during the prioritization workshop participants identified projects that could be consolidated, and these are identified within the following graphics. Please refer to the project detailed descriptions in Appendix A for Post Workshop Outcome information and full details of combined projects, removed projects and projects that moved from In-Process to New or New to In-Process.

Figure 9 – Oxnard “Bluewall” Snapshot



3.6 ITMP Roadmap

The resulting strategic information technology master plan project timeline is detailed below in the following figures and tables:

Figure 10, Projects by Fiscal Year, represents the City's projects prioritization based on the fiscal year the projects are slated to start. Organized by:

- ◆ By fiscal year order
- ◆ Within fiscal year projects were ordered first by projects that were identified to be Enterprise (Peach color)
- ◆ Then by In-Process projects (Green color)
- ◆ And last by New projects (Blue color)

Table 5, Project Schedule for Enterprise and Department Projects, for each project the schedule shows:

- ◆ The name of the project
- ◆ The estimated duration of the project in months
 - Inclusive of Project Planning, Project Work and Project PIER (Post Implementation Evaluation Review)
 - Symbols are used in the timeline for each project to identify the above activities
- ◆ The timeline includes Fiscal Year 2015/16, Fiscal Year 2016/2017, Fiscal Year 2017/2018, Fiscal Year 2018/2019 and Future for those projects that would be scheduled beyond FY 2018/2019 or whose start date could not be determined by the participants at this time

Figure 10 – Projects by Fiscal Year

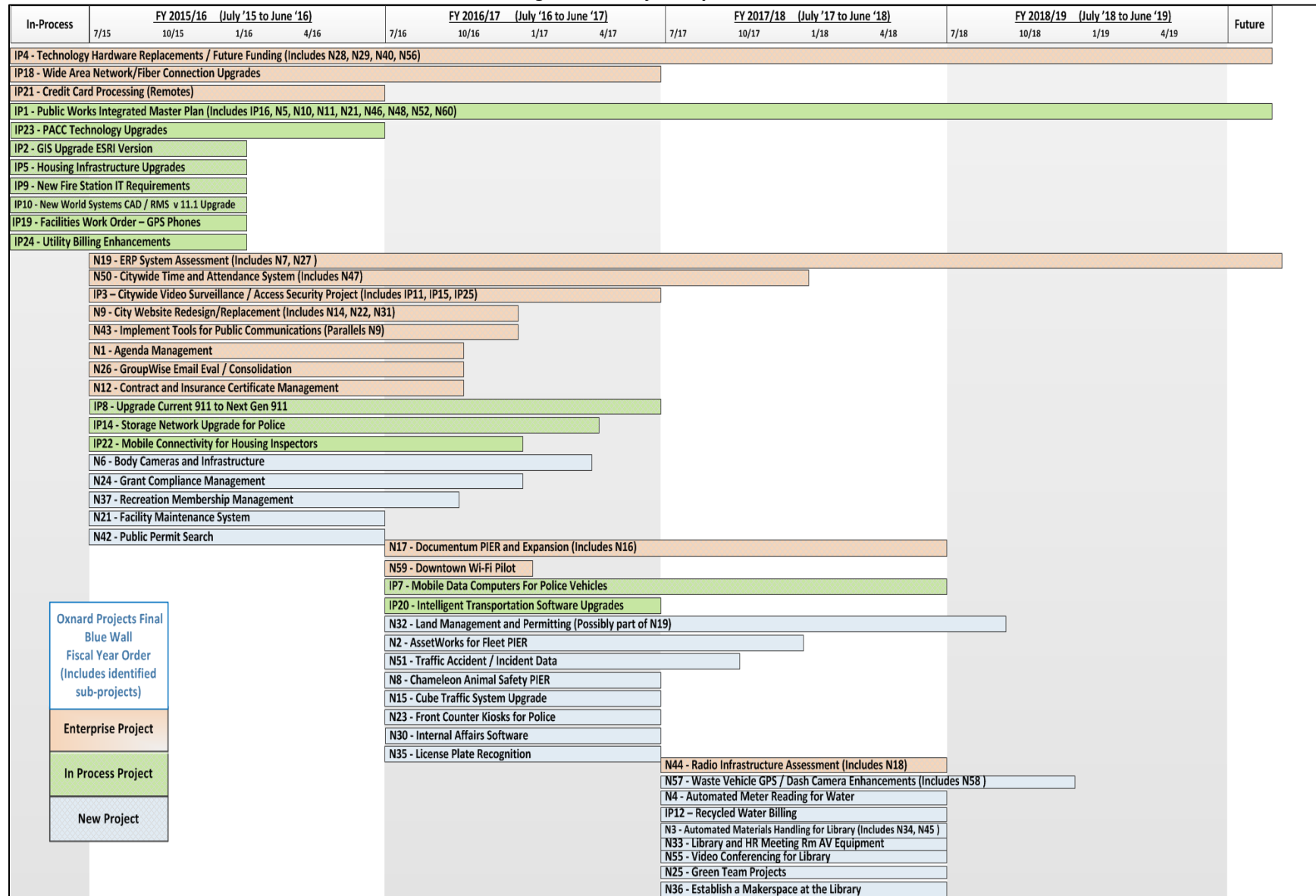


Table 5 – Project Schedule for Enterprise and Department Projects

IP = In-Process / N = New	LEGEND: ♦ Project Planning ■ Project Work ○ Post Implementation Evaluation Review ■																					
	The projects identified as starting in a Fiscal Year in Figure 10 have been further broken down by Project Planning, Project Work and Post Implementation Evaluation Review phases.																					
		FY 14/15				FY 2015/16				FY 2016/17				FY 2017/18				FY 2018/19				Future
	Project Names (Includes Projects #'s that were identified as part of a primary project)	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	
IP4	Technology Hardware Replacements and Future Funding (Includes N28, N29, N40, N56)																					
IP18	Wide Area Network / Fiber Connection Upgrades																					
IP21	Credit Card Processing (Remote Locations)																					
IP1	Public Works Integrated Master Plan Project (Includes IP16, N5, N11, N21, N46, N48, N60)																					
IP23	PACC Technology Upgrades																					
IP2	GIS Upgrade ESRI Version																					
IP5	Housing Infrastructure Upgrades																					
IP9	New Fire Station (IT Requirements)																					
IP10	New World CAD / RMS Systems v. 11 Upgrade																					
IP19	Facilities Work Order System - GPS Phones																					
IP24	Utility Billing Enhancements																					
N19	Enterprise Resource Planning (ERP) System Assessment (Includes N7, N27, possibly N32)																					
N50	Citywide Time and Attendance System (Includes N47)																					
IP3	Citywide Video Surveillance/Access Security (Includes IP11, IP15, IP25)																					
N9	City Website Redesign / Replacement (Includes N14, N22, N31)																					
N43	Implement Tools for Public Communications (Parallels N9)																					
N1	Agenda Management Software																					
N26	GroupWise Email Evaluation, Email Archive Requirements/Consolidation																					
N12	Contract and Insurance Certificate Management																					
IP8	Upgrade Current 9-1-1 to Next Generation 9-1-1																					
IP14	Storage Network Upgrade - Police																					
IP22	Mobile Connectivity for Housing Inspectors																					

Table 5 – Project Schedule for Enterprise and Department Projects (Continued)

P = In Progress / N = New	LEGEND: ♦ Project Planning ■ Project Work ○ Post Implementation Evaluation Review ■																						
	The projects identified as starting in a Fiscal Year in Figure 10 have been further broken down by Project Planning, Project Work and Post Implementation Evaluation Review phases.																						
		FY 14/15	FY 2015/16					FY 2016/17					FY 2017/18					FY 2018/19					Future
	Project Names (Includes Projects #'s that were identified as part of a primary project)	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4					
	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J	J A S	O N D	J F M	A M J						
N6	Body Cameras and Supporting Infrastructure		♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	■	■	■	○										
N24	Grant Compliance Management		♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	■	■	■	○										
N37	Recreation Membership Management		♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	○																
N21	Facility Maintenance System		♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	○																
N42	Public Permit Search		♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	○																
N17	Documentum (PIER) and Expansion (Includes N16)					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	■	■	■	■	○						
N59	Downtown Wi-Fi Pilot Project					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	○													
IP7	Mobile Data Computers (MDCs) for Police Vehicles					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	■	■	■	■	○						
IP20	Intelligent Transportation System (I.T.S.) Software Upgrades					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	○													
N32	Land Management and Permitting System (Possibly part of N19)		♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	■	■	■	■	■	■	■	■	○					
N2	AssetWorks for Fleet PIER					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	○										
N51	Traffic Accident / Incident Data					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	○										
N8	Chameleon Animal Safety PIER					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	○										
N15	Cube Traffic System Upgrade					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	○										
N23	Front Counter Kiosks for Police Department					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	○										
N30	Internal Affairs Software					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	○										
N35	License Plate Recognition					♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	○										
N44	Radio Infrastructure Assessment and Support (Includes N18)									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	○							
N57	Waste Vehicle GPS / Dash Camera Enhancements (Includes N58)									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	■	■	○						
N4	Automated Meter Reading for Water									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	○								
N3	Automated Materials Handling for Library (Includes N34, N45)									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	○								
IP12	Recycled Water Billing									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	○								
N33	Library & HR Meeting Room A / V Equipment									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	○								
N55	Video Conferencing at Library									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	○								
N25	Green Team Projects									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	○								
N36	Establish a Makerspace at the Library									♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦	■	■	■	■	○								

4. Conclusion

In closing, it is appropriate to comment on the nature of information technology and the establishment of a foundation for the effective use of business application systems. Figure 11, Technology Expenditures and Return on Investment – presented on the following page, depicts the relationships between the components of an organization's information technology infrastructure, the organizations cumulative total cost of ownership (TCO) for information technology, and the return on investment (ROI) for those expenditures.

The implementation of any end-user business application (and the ability for an organization to realize its benefits) is dependent on the successful implementation and support of all of the supporting components of the information technology infrastructure. This includes the shared infrastructure (including servers, storage devices, and network capabilities), user infrastructure such as desktop computers and other enabling technologies. The ROI is proportional to the total cost of ownership.

Weaknesses in any of these supporting components can significantly impede the effectiveness of a business application by reducing availability, performance, and reliability. Faced with an application that is slow or not available due to infrastructure issues, users often resort to the use of ad-hoc databases and spreadsheets. These "shadow IT" applications defeat the basic reasons for implementing an integrated business suite in the first place and further reduce the organization's ROI while introducing significant security and data consistency issues.

Therefore, it is important for the City to look at its overall technology environment at a high (strategic) level and ensure that the foundation for all applications remains solid. The IT 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 ITMP is a result of a comprehensive, planning effort that provided the opportunity for management and staff to review, discuss, and integrate their technology needs into a common framework. It provides a common understanding of the City's technology priorities and serves as a tool to provide an overall pictures of what is to be accomplished and why.

While the creation of the Information Technology Four-Year Master Plan represents the culmination of one step in the planning process, it marks the beginning of another step – one through which City leaders must work together to create an environment that supports the plan. Central IT and the other IT service groups must now work in concert 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.

Support of the ITMP will need to come in terms of priorities, funding, policies and practices. Successful implementation may mean making compromises, and it will mean exercising patience, taking an organization-wide perspective, and maintaining a continued focus on revising the plan as events take place. And finally, it will take cooperation, communication and flexibility to adapt to changing needs, technologies and resources.

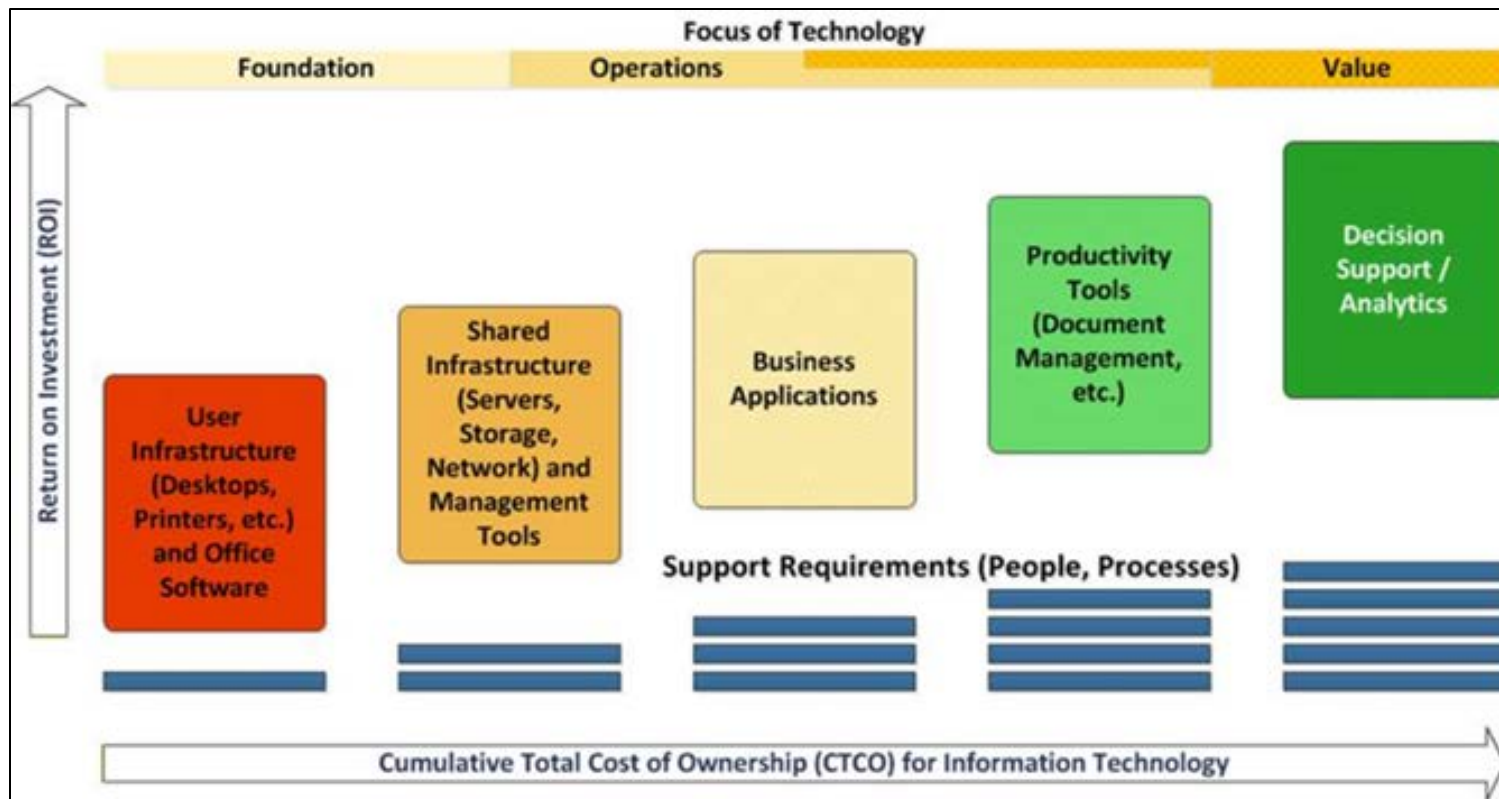


Figure 11- Technology Expenditures and Return on Investment

5. Appendix A – Project Detailed Descriptions

City of Oxnard - In-Process Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
IP1	Public Works Integrated Master Plan <i>Department Owner - Water / Wastewater</i> <i>Status: In-Process</i>	<p>Description: The City is just completing the Public Works Integrated Master Plan project. The driving force besides updating the General Plan was to look at the current CMMS (Computer Maintenance Management System) in place at the City. The new plan will provide direction to address the City needs and to help streamline work flow, improve cost-effectiveness, and improve performance of Public Works functions. The resulting plan is expected to identify and recommend areas for technology improvements to better meet the service needs of the City, including Capitol Improvement Planning system, Modeling and Simulation (water, wastewater, storm water, and pavement condition), Project Management/Construction Management system, and a document management system with GIS interface. The first phase will focus on CMMS and will be followed by possible additional modules that could take advantage and leverage the same system for Tree Management, Solid Waste Management, etc.</p> <p>Benefits: Improvements to processes through technology systems, integrated solutions and automated workflows.</p> <p>Post Workshop Outcome: The following In-Process Projects were identified during the Prioritization Workshop as possible components of the Public Works Integrated Master Plan project: N4 - Automated Meter Reading for Water, N5 - Backflow Inspections, N10 - Hansen CMMS (may include N21 - Facility Maintenance System, N60 - Sewer Management System and IP16 Valve Management), N46 - SCADA Upgrade, N48 - Solid Waste Management System, N11 - Compuweigh Billing Interfaces, and N52 - Tree Management System.</p>
IP2	GIS Upgrade ESRI Version <i>Department Owner - City Manager's Office / Central IT</i> <i>Status: In-Process</i>	<p>Description: This project is to complete the GIS (Geographic Information System) upgrade to the current ESRI version (10.3.1 server). Migration includes moving from ArcGIS 10.0 SQL2008 to ArcGIS 10.3.1 SQL2012 databases along with a web based application interface for users. The ESRI upgrade also includes migrating python scripts that perform nightlight updates of HTE data that is mapped and displayed in the GIS and also supports the New World CAD / RMS.</p> <p>Benefits: Resolves limited number of licenses issue; dated technology will be replaced with current versions.</p>
IP3	Citywide Video Surveillance / Access Security <i>Department Owner - Police IT</i> <i>Status: In-Process</i>	<p>Description: This project is to review facility access (need to move to one single facility access control system), update and replace video cameras throughout the City, add video storage and other security initiatives. The project was initiated and then placed on hold due to limited funding. In addition, viewing of video from the Security Operations Center (SOC) of the Oxnard Transit Center (OTC) is at risk due to hardware failures on the Oxnard Transit Center Network Video Recording.</p> <p>Benefits: Increased security and safety for public facilities.</p> <p>Post Workshop Outcome: During the prioritization workshop IP11 - OnSSI Video Management Replacement, IP15 - Sturgis NVR System Replacement, and IP25 (was N54) - Video Cameras (Dumpsites) were identified to be part of the citywide security project. The City renamed the project Citywide Video Surveillance / Access Security.</p>

City of Oxnard - In-Process Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
IP4	Technology Hardware Replacements and Future Funding Department Owner - City Manager's Office / All IT Status: In-Process	<p>Description: This project is to complete the rollout of refreshment PC's currently underway within Central IT and to reestablish the replacement policies for all City desktops and future annual funding for PC replacements. This should be an on-going annual budget line for all (City, Fire, Housing and Library) future desktop refreshments, infrastructure enhancements, and other ongoing technology hardware needs.</p> <p>Benefits: Reduction in equipment down time; improve user productivity; migration of operating software to current versions; eliminate the existing obsolete Microsoft operating system (XP) security risk. Ensure that City infrastructure continues to support City technology requirements.</p> <p>Post Workshop Outcome: During the prioritization workshop, the following projects were identified to be part of the over-all City approach to address current and future replacement and funding for city-wide desktops, infrastructure, servers, storage and peripheral hardware needs: N28 & 29 - IT Infrastructure Upgrades, N40 - PC / Laptop Replacements, N56 - Virtualization & Storage Area Network (SAN).</p>
IP5	Housing Infrastructure Upgrades Department Owner - Housing Status: In-Process	<p>Description: Infrastructure upgrades are underway including server virtualization, operating system upgrades and firewall upgrades. This project is to complete the identified upgrades.</p> <p>Benefits: Maintaining core infrastructure results in efficiency and security.</p> <p>Post Workshop Outcome: This project is underway and is expected to be completed by December 2015. Future infrastructure upgrades should fall under IP4 - Technology Hardware Replacements and Future Funding.</p>
IP6	Library System Upgrade Department Owner - Library Status: In-Process	<p>Post Workshop Outcome: This project was removed during Prioritization Workshop by the department.</p>
IP7	Mobile Data Computers (MDCs) for Police Vehicles Department Owner - Police IT Status: In-Process	<p>Description: The current fleet of Police MDC's is over 4 years old. This effort includes replacing approximately 150 aging Police and Fire Mobile Data Computers. This project is to replace the identified equipment with new mobile data computers (MDCs) and move 80 Police MDCs to front vehicle mounts.</p> <p>Benefits: Replaces old equipment with current technology.</p> <p>Post Workshop Outcome: This project though noted as In-Process prior to the workshop was assigned a December 2016 start time.</p>
IP8	Upgrade Current 9-1-1 to Next Generation 9-1-1 Department Owner - Police Status: In-Process	<p>Description: Next Generation 9-1-1 (NG9-1-1) is an initiative to improve public emergency communications services and is intended to replace the existing 9-1-1 system. NG9-1-1 will enable the public to transmit text, images, video and data to 9-1-1 call centers. This project is to complete the remaining project items, including software upgrades to New World Systems to support NG9-1-1 features as the Federal Government completes and rolls out the standards. The data will be stored on storage devices within the Public Safety network that is accessible to the New World Systems servers and 911 phone system.</p> <p>Benefits: Enhanced public safety.</p>

City of Oxnard - In-Process Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
IP9	New Fire Station (IT Requirements) Department Owner - Fire / Central IT / Police IT Status: In-Process	<p>Description: A new City Fire station is under construction. This project is to identify and implement the necessary technology to address the information technology requirements (i.e. voice and data lines, fire station alerting system, computers and printers).</p> <p>Benefits: Provision of technology tools for new fire facility.</p>
IP10	New World Systems CAD/RMS v. 11 Upgrade Department Owner - Police IT Status: In-Process	<p>Description: This upgrade is required for continued GIS compatibility with the City ESRI software. The recent City GIS changes require the next iteration of New World Systems CAD / RMS / MDC software. This project is to complete the software upgrade.</p> <p>Benefits: Required for continued GIS compatibility.</p>
IP11	OnSSI Video Management Replacement Department Owner - Police Status: In-Process	<p>Description: The OnSSI Video system requires replacement at the City Police Headquarters. This project is to replace existing OnSSI video management system within a Milestone Video Management Solution to integrate with Security Operations Center, Oxnard Transit Center and others.</p> <p>Benefits: Provides advanced equipment.</p> <p>Post Workshop Outcome: During the Prioritization Workshop project IP11 - OnSSI Video Management Replacement was identified to be part of IP3 - that was renamed Citywide Video Surveillance / Access Security Project.</p>
IP12	Recycled Water Billing Department Owner - City Treasurer / Utilities / Finance Status: In-Process	<p>Description: A new City program will offer recycled water. This project is to complete the necessary data billing processes and technology needed to successfully implement this new program.</p> <p>Benefits: Potable water conservation for the community; tools to manage the consumption billing.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified to be included as part of N4 - Automated Meter Reading project and then subsequently separated.</p>
IP13	Sewer Asset Management and Maintenance System Department Owner - Utilities Status: New	<p>Post Workshop Outcome: During the Prioritization Workshop project IP13 - was changed from an In-Process project to a New project. See N60 - Sewer Asset Management and Maintenance System.</p>
IP14	Storage Network Upgrade - Police Department Owner - Police Status: In-Process	<p>Description: The Police storage network requires upgrading and associated training to support. This project is to upgrade the storage network to 10Gb with Juniper equipment, cabling, necessary labor, future maintenance and training for support staff.</p> <p>Benefits: Address current and future data storage requirements.</p> <p>Post Workshop Outcome: Future infrastructure upgrades should fall under IP4 - Technology Hardware Replacements and Future Funding.</p>

City of Oxnard - In-Process Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
IP15	Sturgis Network Video Recording (NVR) System Replacement Department Owner - Police Status: In-Process	<p>Description: The Sturgis NVR (Network Video Recorders) system has not been running all video feeds for several years. This project is to address the thirteen of the thirty-four video feeds that have been down at Sturgis with a replacement system.</p> <p>Benefits: Replaces non-functioning network video recording.</p> <p>Post Workshop Outcome: After Prioritization Workshop project IP15 - Sturgis NVR (Network Video Recorders) System Replacement was identified to be part of IP3 - that was renamed Citywide Video Surveillance / Access Security Project.</p>
IP16	Valve Management and Maintenance System Department Owner - Utilities / Water Status: In-Process	<p>Description: The City is working with a consultant to complete a Valve Management program. This project is to complete the recommended solution and address the future use of field laptops to capture valve maintenance and GPS (Geographic Positioning System) coordinates to associate all data with GIS.</p> <p>Benefits: Implementation of these enhancements will improve efficiency for field staff and overall valve management.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was associated with N10 - CMMS.</p>
IP17	Virtualization Department Owner - Police / Police IT Status: In-Process	<p>Post Workshop Outcome: This project was removed during Prioritization Workshop by the department.</p>
IP18	Wide Area Network / Fiber Connection Upgrades Department Owner - City Manager's Office / Central IT / Police Status: In-Process	<p>Description: The Traffic division installed fiber cabling throughout the City for traffic signal management. Additional fiber strands were installed to provide high-speed access to add City / Police / Fire facilities to the wide area network. This project will upgrade wide area network connectivity to the locations that currently have slower network speeds. Phase 1 includes Wastewater and the Performing Arts Convention Center, and will be followed by Phase 2 to complete additional Fire locations and City facilities.</p> <p>Benefits: Increased staff productivity through access to internal systems.</p>
IP19	Facilities Work Order System - GPS Phones Department Owner - General Services Status: In-Process	<p>Description: The assignment of work orders for maintenance of City facilities, parks, etc. is currently manual. This project is to complete the in-house system that will provide work order assignment via City assigned GPS phones. The system provides mobile access to the work orders and staff will be able to capture pre and post work pictures of work via mobile phones.</p> <p>Benefits: Increased staff productivity and management of completed activates.</p> <p>Post Workshop Outcome: This project was added during the Prioritization Workshop as In-Process.</p>
IP20	Intelligent Transportation System (I.T.S.) Software Upgrades Department Owner - Development Services Status: In-Process	<p>Description: The City completed the initial 8 million dollar project to install the fiber infrastructure for the City. This project is to provide the remaining \$250,000 funding to complete connectivity and to enable use of the system as planned to meet the department needs.</p> <p>Benefits: Will provide full utilization of installed network.</p> <p>Post Workshop Outcome: Added as an In-Process Project to be completed during Prioritization Workshop.</p>

City of Oxnard - In-Process Projects

(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)

IP21	Credit Card Processing (Remote Locations) <i>Department Owner - Finance</i> <i>Status: In-Process</i>	<p>Description: Currently all credit card transactions are centrally processed for the City. This project is to consider accepting credit card payments at remote city locations. The initial request was for the Police front counter, but additional City needs and locations should be considered.</p> <p>Benefits: Staff and public efficiencies and time savings.</p> <p>Post Workshop Outcome: This project was previously labeled N13 - Credit Card Processing and moved to an In-Process, IP21 during Prioritization Workshop.</p>
IP22	Mobile Connectivity for Housing Inspectors <i>Department Owner - Housing</i> <i>Status: In-Process</i>	<p>Description: Housing uses the Yardi System to manage 772 housing units under the City's responsibility. This project is to provide mobile access to allow the housing inspectors to create and close work orders remotely.</p> <p>Benefits: Increase staff efficiency.</p> <p>Post Workshop Outcome: Project was previously labeled N38 and was moved to an In-Process project during the Prioritization Workshop and is now IP22 - Mobile Connectivity for Housing Inspectors.</p>
IP23	PACC Technology Upgrades <i>Department Owner - City Manager's Office / Performing Arts and Convention Center</i> <i>Status: In-Process</i>	<p>Description: This project is to upgrade the technology that supports the Performing Arts Community Center (PACC). The software is used to schedule banquet rooms, theater events, print tickets, etc. The hardware is obsolete and cannot support the software application updates. There is no acceptable Wi-Fi signal in the facility and customers expect Wi-Fi to be available when they rent the banquet and meeting rooms.</p> <p>Benefits: Upgrade technology to support PACC activities and provide expected rental amenities.</p> <p>Post Workshop Outcome: Project was previously labeled N39 and was moved during the Prioritization Workshop to an In-Process project and labeled IP23.</p>
IP24	Utility Billing Enhancements <i>Department Owner - City Treasurer</i> <i>Status: In-Process</i>	<p>Description: The HTE system is used to support customer utility billing processes and management. Desired enhancements include paperless billing, monthly electronic auto-pay, the ability to email bills and to provide payment kiosks. Phase 1 of the project is to complete the upgrade to Click2Gov component.</p> <p>Benefits: Improve billing efficiency and payment processing.</p> <p>Post Workshop Outcome: Project was previously labeled N53 and was moved during the Prioritization Workshop to an In-Process project and labeled IP24.</p>
IP25	Video Surveillance at Environmental Resources Remote Sites <i>Department Owner - Utilities / Environmental Services</i> <i>Status: In-Process</i>	<p>Description: The City routinely has to clean up common dump areas that are not authorized by the City. This project is to continue to provide the necessary equipment to post cameras at identified locations to capture the parties who are dumping illegally.</p> <p>Benefits: Assist in preventing illegal dumping and provide a means to identify and prosecute guilty parties.</p> <p>Post Workshop Outcome: Project was previously labeled N54 and was moved during the Prioritization Workshop to an In-Process project and labeled IP25. Additionally, IP25 - Video Cameras (Dumpsites) was renamed as Video Surveillance at Environmental Resources Remote Sites and identified to be part of IP3 - that was renamed Citywide Video Surveillance / Access Security Project.</p>

City of Oxnard - New Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
N1	Agenda Management Software <i>Department Owner - City Manager's Office</i> <i>Status: New</i>	<p>Description: A cost saving measure and in-house method was developed to support the creation of staff reports for the City Council agenda. The process is supported using restricted access to shared folders and manual file transfer to simulate an automated workflow. This project would identify a commercial-off-the-shelf (COTS) system to provide electronic report creation, automated workflow review, electronic approval processing and automated generation of the City agendas.</p> <p>Benefits: Reduce department staff time required to support agenda creation; ensures consistency in managing creation and approvals of agenda items.</p>
N2	AssetWorks for Fleet PIER <i>Department Owner - General Services / Fleet</i> <i>Status: New</i>	<p>Description: The AssetWorks fleet management software successfully tracks the maintenance and repair of the City's fleet of vehicles (Fire, Police, Public Works, Facilities Maintenance). The system has a custom interface with the on-site NAPA parts vendor. The 25 plus laptops originally purchased by the department and used by the mechanics are at end of life. This project would conduct a PIER (post implementation evaluation review) of the application's additional features, possible enterprise interfaces and would include an evaluation of the AssetWorks hosted (cloud) solution. In addition, the laptops should be added to the future refreshment cycle. It is expected that a software upgrade and new servers will be needed.</p> <p>Benefits: Ensure the system is being leveraged to its capacity; refresh hardware; evaluate the in-house and hosted models to determine the better solution for the City.</p>
N3	Automated Materials Handling for Library <i>Department Owner - Library</i> <i>Status: New</i>	<p>Description: Automated Materials Handling (AMH) technology reduces the amount of time required to re-shelve library materials. Each item in the collection has an RFID (Radio Frequency ID) tag and automated sorters replace manual sorting.</p> <p>Benefits: Efficiency; reduced staff hours required to re-shelve materials allowing staff to be reallocated to other activities; materials available to patrons faster; lower risk of repetitive motion injury.</p> <p>Post Workshop Outcome: During the Prioritization Workshop the following projects were identified as subsets of this project: N34 - Library Self Checkout, and N45 - Radio Frequency ID (RFID) for Materials Handling projects.</p>
N4	Automated Meter Reading for Water <i>Department Owner - Utilities / Water</i> <i>Status: New</i>	<p>Description: The current automated meter reading (AMR) system is failing and approximately 10,000 re-reads are required each year. This project is to identify the options available and determine how the City will proceed with replacing the aging AMR meter reading system with consideration of the capital costs, installation requirements and technical requirements.</p> <p>Benefits: Roadmap to upgrade the current meter reading solution. Automates the collection of water usage electronically, provides early detection of unusual water usage and provides the customer ability to see usage.</p> <p>Post Workshop Outcome: During the prioritization workshop this project was identified to include IP12 - Recycled Water project. N4 - Automated Meter Reading for Water was further identified to be part of IP1 - Public Works Integrated Master Plan.</p>
N5	Backflow Inspections for Water <i>Department Owner - Utilities / Water</i> <i>Status: New</i>	<p>Description: To support backflow inspections and fees, a method was developed using the Hansen CMMS and HTE utility billing systems. In addition, an Access database is used for inspection scheduling. This project would procure a COTS (commercial-off-the-shelf) system to support backflow inspections and fee collection within a single solution.</p> <p>Benefits: Increased efficiency by reducing the processes required to support backflow inspection activity.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified to be part of IP1 - Public Works Integrated Master Plan Project outcome recommendations.</p>

City of Oxnard - New Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
N6	Body Cameras and Supporting Infrastructure Upgrades Department Owner - Police Status: New	<p>Description: This project would implement Police officer body-worn cameras to capture and support evidence and increase both public and officer safety. The project scope may include network infrastructure upgrades to support storage of the additional audio / visual recordings and on-going maintenance.</p> <p>Benefits: Increased transparency, expedite resolution of citizen complaints or lawsuits and improve evidence for arrest and prosecution.</p>
N7	Business Tax System Department Owner - City Treasurer Status: New	<p>Description: The HTE business tax functionality is used as the basis for processing applications and renewals, but the application is inflexible and requires extensive manipulation and workarounds in order to meet processing requirements. This project would begin with an analysis of the City business tax structure and recommendation and follow with a formal procurement to identify a COTS (commercial-off-the-shelf) system that will better meet the needs of the City. Desired enhancements include a web interface to provide customers with the convenience of online applications, payment processing and electronic renewals.</p> <p>Benefits: Efficiency for the customers and staff.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified to be included in N19 - ERP System Assessment. May result in a system to support this functional area or remain part of current / future ERP system.</p>
N8	Chameleon Animal Safety PIER Department Owner - Police / Animal Safety Status: New	<p>Description: Animal Services uses the Chameleon system to support animal licensing and enforcement activity. This project would complete a PIER (post implementation evaluation review) of the system and identify additional features and functionality available. Desired system enhancements include automated electronic renewals and online payments, hand-held ticketing and the ability for staff to accept payments remotely.</p> <p>Benefits: Enhanced customer service and Police staff efficiency.</p>
N9	City Website Redesign/Replacement Department Owner - City Manager's Office / Public Information Office Status: New	<p>Description: During interviews, many departments mentioned that the current City website is not easily updated due to staff reductions. The departments have no means to edit or add to the their department pages within the customized, in-house managed website. This project will analyze the long term strategy for the City website to move to a COTS (commercial-off-the-shelf) solution, providing departments the ability to edit and update their pages without assistance. The analysis should result in direction on standardization to www.oxnard.org, address future e-commerce requirements, determine if the website support should move back to IT and the potential need for a dedicated support resource. During evaluation of a future COTS solution, consideration should include consolidation to a single COTS system, include a CRM, and provide the City with an Intranet tool. The Inter-department Public Communications Team (out of the City Manager's office) will run in parallel to set policies and procedures for city wide Public Communications.</p> <p>Benefits: A COTS system will allow departments the ability to maintain their own pages and provide the City an opportunity to update the website.</p> <p>Post Workshop Outcome: During the Prioritization Workshop the following projects were identified to be included in this project: N14 - Customer Relationship Management (CRM), and N22 - Facility Rentals, N31 - Intranet. The N43 - Public Communications project is currently starting and will run parallel.</p>

City of Oxnard - New Projects		
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N10	Hansen CMMS (Computer Maintenance Management System) Review <i>Department Owner - Utilities / General Services and Others</i> <i>Status: New</i>	<p>Description: The Hansen CMMS (Computer Maintenance Management System) application supports work order management for potholes and sidewalks. The application is an older version of Hansen. Other maintenance management system needs include streets, parks, medians, facilities, playgrounds and graffiti. Integration with GIS is required and integration with the ERP/HR/Payroll system is desired. This project would begin with an assessment of the CMMS needs, followed by a determination if the current Hansen system is a viable solution. If it is determined that the Hansen application cannot meet the City's needs, the project would continue with a CMMS system procurement to meet all City department needs. (Note: This will work in tandem with the activities and results of the in progress Carollo project.)</p> <p>Benefits: Increased efficiency and ability to track and manage asset activities, resource scheduling, preventive maintenance work orders, capital planning/budgeting, reporting, field / mobile access, inventory management and timekeeping.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified as part of expected recommendations based on IP1 - Public Works Integrated Master Plan Project. N10 - Hansen CMMS may include IP16 - Valve Management and Maintenance System, N5 - Backflow Inspections, N21 - Facility Maintenance System, N60 - Sewer Management System, and N52 - Tree Management System.</p>
N11	Compuweigh Billing Integration with HTE <i>Department Owner - Utilities / Environmental Resources</i> <i>Status: New</i>	<p>Description: The City now manages the Del Norte Waste Facility. This project is to review the manual billing processes to determine if the HTE system can support billing activity. Integration with the Facility's point of sale system to Treasury to replace manual reconciliation is desired.</p> <p>Benefits: Increased efficiency through automation to eliminate manual billing processes.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified to be part of IP1 - Carollo Engineers Project.</p>
N12	Contract and Insurance Certificate Management <i>Department Owner - Finance / Purchasing</i> <i>Status: New</i>	<p>Description: Contract expiration is currently tracked using a custom Access database. This project is to establish the systems and procedures to manage and track the expiration of contracts and certificates of insurance. The Documentum document management system may provide a limited solution. Integration with the purchasing module in the ERP system would further support procurement best practices, i.e. a purchase order could not be issued if an approved contract was not on file.</p> <p>Benefits: Consistent contract and insurance certificate management.</p>
N14	Customer Relationship Management (CRM) <i>Department Owner - City Manager's Office / Communication and Public Information Office</i> <i>Status: New</i>	<p>Description: The City currently is using an in-house developed system to "Report a Problem" on the City's website. The City Manager's office oversees the system and directs the reported problems to the responsible department(s). This project is to identify a citywide CRM (Customer Relationship Management) solution that would manage the activity. Integration between the CRM application and the work order systems used by departments would eliminate duplication of effort.</p> <p>Benefits: Centralized and standard system to manage and respond to reported issues.</p> <p>Post Workshop Outcome: Identified during the Prioritization Workshop to be a part of project N9 - City Website Review. CRM solutions typically are part of new web content systems.</p>

City of Oxnard - New Projects		
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N15	Cube Traffic System Upgrade <i>Department Owner - Development Services / Traffic Engineering & Operations</i> <i>Status: New</i>	<p>Description: The Cube system is used by Traffic Engineering for travel forecasting. The application is a stand-alone system that uses real traffic data to support "what- if's" for future traffic needs and CIP projects. The current version runs on the obsolete Microsoft XP operating system. This project is to update or replace the system to allow integration with data from the Southern California Association of Governments (SCAG) and Caltrans.</p> <p>Benefits: Continued access to analytical data to assist with future transportation planning.</p>
N16	Document Management for Housing <i>Department Owner - Housing</i> <i>Status: New</i>	<p>Description: The Housing Department does not have a document management system. All department documents are paper and managed manually. This project is digitize historic paper files, identify a COTS (commercial-off-the-shelf) system to manage the electronic files and to identify ways to eliminate paper files where possible and use electronic forms.</p> <p>Benefits: Simpler access to documents; reduction or elimination of need for paper file management.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was suggested for consolidation with N17 - Documentum PIER and Expansion project.</p>
N17	Documentum Post Implementation Evaluation Review (PIER) and Expansion <i>Department Owner - City Clerk</i> <i>Status: New</i>	<p>Description: The Documentum records management system maintains electronic versions of vital City records. The system is not fully implemented for use by all of the departments and is not being leveraged to its full capabilities. Many departments maintain paper records and would benefit from digitizing their documents. This project is to additionally leverage the current system to provide all departments access to the centralized electronic repository for records management, retrieval , retention, management and future access of public records via the web.</p> <p>Benefits: Leverage current City system for all departments and the opportunity to provide public access via the web to public documents.</p> <p>Post Workshop Outcome: During the Prioritization Workshop project N16 - Document Management for Housing was identified to be reviewed within this assessment project. Need to determine if City's current Documentum system is capable of meeting the needs of Housing and interfacing to Yardi.</p>
N18	EOC (Emergency Op Center) / Public Safety Satellite Connectivity <i>Department Owner - Police / Police IT / Fire</i> <i>Status: New</i>	<p>Description: The City currently has established Emergency Operations Centers. This project is for the City to consider backup satellite solutions for the EOC sites and Police / Fire HQs. Implementation of satellite connectivity provides additional disaster preparedness in the event that a disaster event results in consequences such as fiber cuts and cell tower failures.</p> <p>Benefits: Provides an additional layer of protection in the event of a disaster resulting in loss of Internet connectivity.</p> <p>Post Workshop Outcome: During the Prioritization Workshop project N44 - Radio Infrastructure Assessment and Support was grouped with this project based on possible project oversight by Fire EOC staff.</p>

City of Oxnard - New Projects		
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N19	Enterprise Resource Planning (ERP) System Assessment <i>Department Owner - Finance / Purchasing</i> <i>Status: New</i>	<p>Description: The City first implemented the HTE financial applications (accounts receivable, accounts payable, payroll, purchasing, general ledger, cashiering and utility billing) in 1989. Limitations of the HTE system include lack of support for CIP projects or fixed assets and limited self-reporting abilities. This project would entail a formal assessment and possible procurement of functional area solutions. The project recommends assessment services, possible software, hardware, additional interfaces, training, data conversion, project management and business process improvements.</p> <p>Benefits: Implementation of current technology and opportunity to address current system limitations.</p> <p>Post Workshop Outcome: The following projects were identified during the Prioritization Workshop to be part of this ERP Assessment: N7 - Business Tax System, and N27 - Human Resource Application.</p>
N20	Facial Recognition <i>Department Owner - Police / Police IT</i> <i>Status: New</i>	<p>Post Workshop Outcome: This project was removed during Prioritization Workshop by the department.</p>
N21	Facility Maintenance System <i>Department Owner - General Services / Parks and Facilities</i> <i>Status: New</i>	<p>Description: The work order system used for facility and park maintenance failed in October 2014 and because of the age of the system, it could not be restored. The system generated preventive maintenance work orders and tracked activity. This has had an impact on the level of support staff can provide. This project would obtain a work order management system to support maintenance and operations activities for City facilities. The replacement system should include a mobile interface so field staff could receive work assignments, update the status of assigned work orders while working in the field and perform other work while in the field.</p> <p>Benefits: Ability to track repair history and preventive maintenance activity.</p> <p>Post Workshop Outcome: Possibly part of future N10 - CMMS (which is part of IP1), however the division has resorted to a manual process due to failed hardware and software. This should be looked at as an immediate need for correction.</p>
N22	Facility Park Rentals <i>Department Owner - General Services / Parks and Facilities</i> <i>Status: New</i>	<p>Description: City facilities are available for rent to the public. This project is to provide the public with information about the facilities (i.e. locations, amenities, rental rates) and the requirements (i.e. insurance, rules, application) on the City's website.</p> <p>Benefits: Provides the public with facility rental information on the website; reduce the amount of staff time required to answer inquiries from the public.</p> <p>Post Workshop Outcome: Identified during Prioritization Workshop to be part of project N9 - City Website Review.</p>
N23	Front Counter Kiosks for Police and Dev Services <i>Department Owner - Police / Development Services</i> <i>Status: New</i>	<p>Description: Currently all front counter activities require Police and / or Development Services staff involvement. This project is to implement self-service front counter kiosks for the public to use to retrieve reports, pay fines / fees, print traffic collision documents, etc. for Police dealings without waiting in line for assistance. Front counter kiosks may greatly assist Development Services, Licensing, and Utility Billing areas in the service center depending on features available. Recommend considering other customer service departments in this project for viability assessment.</p> <p>Benefits: Provides self-service, saving staff and public time.</p>

City of Oxnard - New Projects		
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N24	Grant Compliance Management Department Owner - Finance / Purchasing Status: New	<p>Description: Each department is responsible for the regulatory requirements, administrative reporting and project tracking of grants they have obtained. This project is to obtain a software application to provide tools to assist with compliance for all grant-related reporting activities.</p> <p>Benefits: Automation of grant management activity through the end of the term of the grant funds.</p>
N25	Green Team Projects Department Owner - Development Services / Green Team Status: New	<p>Description: The Green Team was created to work on state directives for energy and drought conservation and all items related to this effort. This project is to identify the projects in place (Utility Management System, Greenhouse Gas, etc.) and the software technology requirements to collect and maintain the data in the future using advanced GIS capabilities and geodesign concepts. Will help model Oxnard corridor project.</p> <p>Benefits: Assures resources and technology can support these efforts at end of the term of the grant.</p>
N26	GroupWise Email Evaluation, Email Archive Requirements and Consolidation Department Owner - City Manager's Office / Central IT and Others Status: New	<p>Description: The GroupWise email and calendaring system is used by City departments with the exception of Housing and Police. The users report issues with email communications and calendaring when interacting with those using Microsoft Exchange. This project would determine if GroupWise remains a viable solution or if the email and calendaring needs would be better served with a different solution. In addition, an email archive solution is needed to efficiently store, manage and discover information. The evaluation should consider the advantages and disadvantages of cloud-based systems and a possible common approach for all City departments.</p> <p>Benefits: Standardization of email programs within the City; reduce required storage and required management.</p>
N27	Human Resource Application Department Owners - Human Resources Status: New	<p>Description: The City does not have a Human Resources application, which would manage a variety of information, including electronic personnel action forms, automated performance reviews, job history, certification and training requirements oversight, on-line training, etc. There is no automation or electronic workflow for approval routing or web-based employee self-service. This project is to procure a Human Resources application for implementation to meet the needs of departments and HR support staff.</p> <p>Benefits: Convenience and operational efficiency; automate administrative functions required to support human capital management.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified to be included in N19 - ERP System Assessment.</p>
N28	IT Infrastructure Upgrades for Central IT Department Owners - City Manager's Office / Central IT Status: New	<p>Description: Several key network infrastructure components are nearing end of life or require newer technology. This project is to procure and replace the core switches and firewall equipment (Cisco 4500 / 4510 and Cisco ASA 5520). In addition, the City internet connection is slow and an upgrade from 20 mb/sec to 300 mb/sec is desired. The internet upgrade requires changing vendors, new IP addresses and firewall configuration changes.</p> <p>Benefits: Maintain network reliability and improve network speed.</p> <p>Post Workshop Outcome: During the Prioritization Workshop several hardware and infrastructure projects were combined within IP4 - renamed Technology Hardware Replacement and Future Funding project. Projects now grouped include N28 & N29 - IT Infrastructure Upgrades, N40 - PC / Laptop Replacements, and N56 -Virtualization & Storage Area Network (SAN).</p>

City of Oxnard - New Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
N29	IT Infrastructure Upgrades for Police IT Department Owners - Police IT Status: New	<p>Description: Replacement of all critical public safety technology infrastructure should be considered as it reaches end of life. Specifically, aging network infrastructure will need to be updated and replaced proactively in the future. This project is to identify and allocate funding for future requirements.</p> <p>Benefits: Continue to maintain a robust and reliable public safety network infrastructure.</p> <p>Post Workshop Outcome: During the Prioritization Workshop several hardware and infrastructure projects were combined with IP4 - renamed Technology Hardware Replacement and Future Funding. Projects now grouped include N28 & N29 - IT Infrastructure Upgrades, N40 - PC / Laptop Replacements, and N56 -Virtualization & Storage Area Network (SAN).</p>
N30	Internal Affairs Software Department Owner - Police Status: New	<p>Description: The Police Department currently utilizes Excel spreadsheets to track internal affairs activity and record-keeping. This project would procure a COTS (commercial-off-the-shelf) solution to replace the current Excel spreadsheets.</p> <p>Benefits: Automated tool to support centralized information.</p>
N31	Intranet Redesign / Replacement Department Owner - City Manager's Office / Communication and Public Information Office Status: New	<p>Description: The current City Intranet is not accessible via the web for Police, Housing or the Library staff. (This is not an impact to Central IT supported staff within the main City network.) A citywide intranet would provide a tool for sharing information. This project is to implement a citywide intranet for all departments to utilize to share information.</p> <p>Benefits: Improve internal communication; centralize forms.</p> <p>Post Workshop Outcome: The N31 - Intranet project was identified during the Prioritization Workshop to be combined within project N9 - City Website Review.</p>
N32	Land Management and Permitting System Department Owner - Development Services / Planning - Building Status: New	<p>Description: The HTE system is used to manage development activity. The system does not provide the features and functionality needed to effectively support the activities associated with the development process, reporting on performance measures, and customer accessibility to information. The solution needs to support as close to real time financials as possible if stand alone system. This project would procure a new permitting application with the most current technology including automated workflow and public on-line services.</p> <p>Benefits: Staff efficiency, improved service to the community via customer portals for status tracking and inquiry. Will provide support of project N42 - Public Permit Searching</p> <p>Post Workshop Outcome: Project N32 - Land Management and Permitting System was identified as a stand alone project though currently functions are part of the City HTE ERP system. As part of project N18 - ERP System Assessment Land Management and Permitting requirements will drive if this remains part of the larger ERP or is best of breed solution stand alone project.</p>

City of Oxnard - New Projects		
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N33	Library & HR Meeting Room A / V Equipment <i>Department Owner - Library / Human Resources</i> <i>Status: New</i>	<p>Description: The audio / visual equipment at the Library and Human Resources (HR) meeting rooms (projector, sound system, TV, etc.) are in need of upgrades or replacement.</p> <p>Benefits: Improved audio / visual equipment for the internal meeting room and increased level of service for the community renting the Library and HR meeting rooms.</p>
N34	Library Self Checkout <i>Department Owner - Library</i> <i>Status: New</i>	<p>Description: The Main Library does not have patron self checkout units and the self-checkout equipment at the South Oxnard branch is in need of replacement. This project would install self checkout units at the Main Library and refresh the equipment at the South Oxnard Branch.</p> <p>Benefits: Allow patrons to check out materials without assistance from staff; allow staff to focus on other duties.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project and N45 - Radio Frequency ID (RFID) for Materials Handling were identified as subsets of N3 - Automated Materials Software.</p>
N35	License Plate Recognition <i>Department Owner - Police</i> <i>Status: New</i>	<p>Description: This project would upgrade the current LPR (License Plate Recognition) system, which is at end of life.</p> <p>Benefits: Implement advanced law enforcement tool to identify stolen vehicles, lost plates and vehicles with more than five parking citations.</p>
N36	Establish a Makerspace at the Library <i>Department Owner - Library</i> <i>Status: New</i>	<p>Description: Makerspace is an area in libraries that offers patrons an opportunity to create content through various resources such as computers, 3-D printers, audio and visual services and arts and crafts materials. This project would determine the tools, technology and materials to establish a Makerspace and builds on the Makerspace Grant awarded to Calabasas and Ventura County Libraries.</p> <p>Benefits: Encourage hands-on learning by providing design and activities to teach and empower patrons.</p>
N37	Recreation Membership Management <i>Department Owner - Recreation and Community Services</i> <i>Status: New</i>	<p>Description: The senior center provides numerous free events and daily activities for the senior community. This project would identify a technology solution to record event participation through a membership and tracking system.</p> <p>Benefits: Provides analytical data and reports to better serve the senior population.</p>
N38	Mobile Connectivity for Housing Inspectors <i>Department Owner - Housing</i> <i>Status: In-Process</i>	<p>Post Workshop Outcome: Project was previously labeled N38 and was moved to an In-Process project during the Prioritization Workshop and is now IP22 - Mobile Connectivity for Housing Inspectors.</p>

City of Oxnard - New Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
N39	PACC Technology Upgrades <i>Department Owner - City Manager's Office / Performing Arts and Convention Center</i> <i>Status: In-Process</i>	Post Workshop Outcome: Project was previously labeled N39 and was moved during the Prioritization Workshop to an In-Process project and labeled IP23.
N40	PC / Laptop Replacements for Police IT <i>Department Owner - Police IT</i> <i>Status: New</i>	Description: Numerous Police personal computers (PCs) are end of life and cannot be upgraded to newest operating systems required to function with newer public safety systems. Traditional PCs and Zero / Thin clients with virtual PC solutions can be deployed for many of these locations. This project is to upgrade and replace the end of life equipment and maintain an annually funded refreshment schedule in the future. Benefits: Provides current equipment to Police staff. Post Workshop Outcome: During the Prioritization Workshop several hardware and infrastructure projects were combined with IP4 - renamed Technology Hardware Replacement and Future Funding.
N41	Primavera <i>Department Owner - General Services</i> <i>Status: New</i>	Post Workshop Outcome: This project was removed during Prioritization Workshop by the department.
N42	Public Permit Search <i>Department Owner - Development Services</i> <i>Status: New</i>	Description: The City has an ordinance that requires buyers be provided with complete permit history on properties they are purchasing. This project would provide the public with the ability to research permit history and to look up current status of building permits. Future goals include customers accessing property data (zoning, planning permits, code cases, and building permits) on the City's website via a future Land Management System or via a public GIS layer with associated public permit data. Benefits: Reduction in calls to the City and the amount of staff support required to provide permit history; provide access to the information 24/7.
N43	Implement Tools for Public Communications <i>Department Owner - City Manager's Office / Communication and Public Information Office</i> <i>Status: New</i>	Description: Providing transparency and open communications with the public is a primary goal of the City. This project is to identify tools to better communicate with the City residents including methods for general discussion, distribution of information and data based on area, topic, specific requests and mass distributions (i.e. Next-door, Constant Contact, Socrata, etc.). Benefits: Provide the City an avenue for consistent and continued communications with the City residents. Post Workshop Outcome: During the Prioritization Workshop this project was identified to run in parallel with N9 - City Website Review. The newly formed Inter-department Public Communications Team (out of the City Manager's office) will take a lead role in this project and the future City Website.

City of Oxnard - New Projects

(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)

N44	Radio Infrastructure Assessment and Support <i>Department Owner - Police / Fire</i> <i>Status: New</i>	<p>Description: The City's radio infrastructure is aging and consists of separately managed segments. Support is not centralized, meaning each department (i.e. fire, police, utilities, public works) maintains separate systems and radios. The Police department has been using a radio console system installed in 1999, running on XP, and which will no longer be supported in 2018. The Fire department uses equipment from the mid-1980's and there are no parts to continue to support the system. This project would entail an assessment of the citywide radio system(s) to identify needed enhancements of the shared frequency channel, address current dead spots, and identify equipment replacement requirements. This project would create centralized radio support, with consideration of obtaining a maintenance agreement and determining a road map for future upgrades.</p> <p>Benefits: Reduce the duplication of effort with radio support through centralization; establish a roadmap for future radio infrastructure improvements.</p> <p>Post Workshop Outcome: During the Prioritization Workshop project N18 - EOC / Public Safety Satellite Connectivity was grouped with this project based on possible project oversight by Fire EOC staff.</p>
N45	Radio Frequency ID (RFID) for Library Materials <i>Department Owner - Library</i> <i>Status: New</i>	<p>Description: RFID chips are newer technology replacing traditional barcode systems for library materials check-in /check-out. RFID allows materials to be checked-in / checked-out more quickly because the book doesn't need to be opened to read the bar code. RFID is also a security mechanism; an alarm will sound if materials are carried through the exit that are not checked out. RFID is required in order to implement automated materials handling (AMH).</p> <p>Benefits: Staff efficiency, inventory security.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project and N34 - Library Self checkout were identified as subsets / components of N3 - Automated Materials Software at the Library.</p>
N46	SCADA Upgrade for Water <i>Department Owner - Utilities / Water</i> <i>Status: New</i>	<p>Description: The SCADA system at the Water Plant was first implemented in 2002. The SCADA system and the Microsoft operating system (XP) are at end of life. SCADA is currently supported by ProUsys. This project is to conduct a tactical SCADA Assessment and prepare a future SCADA Master Plan that addresses the current and future needs for the SCADA network infrastructure, hardware, system configuration, physical and system security and remote access. This would include an upgrade for the Water Plant SCADA to Rockwell SE, which is the application that supports SCADA at the Wastewater Plant.</p> <p>Benefits: Address the long-term support and leveraging of the SCADA system to provide enhanced ability to manage facility operations and capture data for reporting.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified to be part of IP1 - Public Works Integrated Master Plan Project recommendations.</p>
N47	Scheduling Application for Police <i>Department Owner - Police / Utilities</i> <i>Status: New</i>	<p>Description: The Police Department currently uses various systems to complete staff scheduling. This project is to implement a commercial-off-the-shelf (COTS) scheduling and time-keeping system. Integration with payroll time reporting is desired.</p> <p>Benefits: Operation efficiency with automated scheduling of staff.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified to be considered when project N50 - Time and Attendance System begins.</p>

City of Oxnard - New Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
N48	Solid Waste Management System <i>Department Owner - Utilities / Environmental Resources</i> <i>Status: New</i>	<p>Description: The City provides waste services for approximately 40,000 residential and 23,000 commercial accounts. The Solid Waste Management System (SWMS) used by Environmental Resources was purchased several years ago and the vendor has since gone out of business. The City maintains the database but does not have source code for the application. This project would replace the SWMS system. In the future, there is interest in implementing an RFID (radio frequency ID) system on the waste containers to assist with inventory management.</p> <p>Benefits: Implement current technology to manage the City Solid Waste program and improve oversight.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified as a component / recommendation of the IP1 - Public Works Integrated Master Plan Project.</p>
N50	City Wide Time and Attendance System <i>Department Owner - Finance</i> <i>Status: New</i>	<p>Description: Currently, staff report hours worked on paper timesheets and the hours are then entered into the payroll system by the department timekeeper. This project would procure an electronic time reporting system. A web based system would allow for employees to enter hours worked, electronically route the timesheet to management for approval, then upload / interface the information to payroll for paycheck issuance. The system should also support vacation request approvals.</p> <p>Benefits: Eliminate manual entry and tracking of hours worked to generate payroll; increase efficiency and accuracy.</p> <p>Post Workshop Outcome: During the Prioritization Workshop project N47 - Scheduling Application was identified as a component of a citywide Time and Attendance system.</p>
N51	Traffic Accident/ Incident Data <i>Department Owner - Development Services / Traffic Engineering & Operations / Police</i> <i>Status: New</i>	<p>Description: Collision and traffic incident data collected by the Police Department is used by Traffic Engineering for analysis and to obtain data for grant applications. Previously, Traffic Engineering could access the Police Department's database. The Police Department obtained a different system and Traffic Engineering is no longer able to access the system. This project is to identify how Traffic Engineering can access the Police Department's collision database (currently Crossroads) to analyze the data.</p> <p>Benefits: Access to collision data for analysis and review to support accident prevention and to apply for grants.</p>
N52	Tree Management System <i>Department Owner - General Services / Parks and Facilities</i> <i>Status: New</i>	<p>Description: The City's tree inventory is contained in an Access database and provides limited information. A tree inventory application would support tree trimming preventive maintenance, health, presence or absence of insects or diseases, photos, work orders, etc. The tree inventory application should interface with GIS to allow the inventory to be displayed and analyzed spatially.</p> <p>Benefits: Tree management tool to promote efficiency.</p> <p>Post Workshop Outcome: During the Prioritization Workshop this project was identified to be part of IP1 - Public Works Integrated Master Plan Project recommendations.</p>
N53	Utility Billing Enhancements <i>Department Owner - City Treasurer</i> <i>Status: In-Process</i>	<p>Post Workshop Outcome: Project was previously labeled N53 and was moved during the Prioritization Workshop to an In-Process project and labeled IP24.</p>

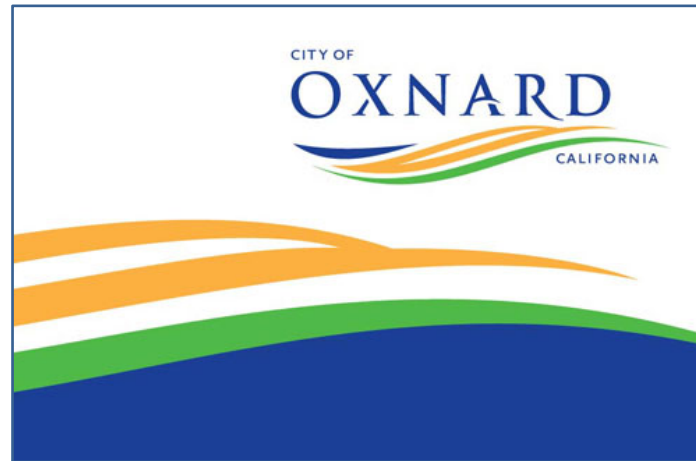
City of Oxnard - New Projects		
(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)		
N54	Video Cameras (Dumpsites) <i>Department Owner - Utilities / Environmental Services</i> <i>Status: New</i>	Post Workshop Outcome: This project was combined with IP3 - Citywide Video Surveillance / Access Security project during the Prioritization Workshop .
N55	Video Conferencing at Library <i>Department Owner - Library</i> <i>Status: New</i>	Description: Video conferencing provides live transmission of audio and video to allow participants in multiple locations to communicate with each other. The Southern California Library Cooperative may install equipment in the Oxnard Library, and it will need to be supported by Library IT. Benefits: Provide video conferencing capability to the community.
N56	Virtualization & Storage Area Network (SAN) <i>Department Owner - City Manager's Office / Central IT</i> <i>Status: New</i>	Description: Central IT has been working to migrate physical servers to virtual servers in the VMware environment. The project(s) requires funding for a storage area network (SAN), VMWare licensing and consulting services to complete the implementation. Benefits: Addresses the issue of replacing 20 physical servers with the Microsoft Windows Server 2003 operating system that is at end of life; the SAN provides additional data storage and simplifies management tasks. Post Workshop Outcome: During the Prioritization Workshop several hardware and infrastructure projects were combined with IP4 - renamed Technology Hardware Replacement and Future Funding.
N57	Waste Vehicle GPS / Dash Camera Enhancements <i>Department Owner - Utilities / Environmental Resources</i> <i>Status: New</i>	Description: The City operates approximately 57 waste vehicles for refuse collection within the City. This project is to install GPS devices and dash cameras to the City waste vehicles to capture slip and fall claims, accidents, etc. Benefits: Automated vehicle locating and reporting of vehicle travel data. The cameras would capture incidents and activity. Post Workshop Outcome: During the Prioritization Workshop this project was linked to N58 - Waste Vehicle Routing project.
N58	Waste Vehicle Routing System <i>Department Owner - Utilities / Environmental Resources</i> <i>Status: New</i>	Description: The City's larger bin refuse pick-ups are based on a set schedule and not on need. This project is to identify a commercial-off-the-shelf (COTS) solution that would help evaluate scheduling based on customer need (fullness of bin) versus a set schedule. Systems are available that capture bin weight using a weighting chip (RFID) and fullness minimums to generate a pickup request. Daily routes are then coordinated through the system. Benefits: Effective pickup and routing of waste vehicles based on need. Post Workshop Outcome: During the Prioritization Workshop this project was linked to N57 - Waste Vehicle Enhancements project.

City of Oxnard - New Projects

(Post Workshop Outcome information provides a narrative if a project(s) are to be part of another project, have moved from IP to New or vice versa or been removed as a project.)

N59	Downtown Wi-Fi Pilot Project <i>Department Owner - City Manager's Office / Central IT Status: New</i>	<p>Description: This project would be a first step toward providing the community with Wi-Fi access. The project would establish a pilot area for deployment (Downtown / City Hall) of a single Wi-Fi hotspot controller which, if successful, could then be expanded incrementally across multiple locations.</p> <p>Benefits: Support residents, the business community and school districts. Expanded Wi-Fi access for the City staff, public, business, visitors and vendors.</p>
N60	Sewer Asset Management and Maintenance System <i>Department Owner - Utilities Status:- New</i>	<p>Description: The City uses the MP2 system for Sewer Asset Management and maintenance schedules. The system is running on old equipment and an outdated version of the software. This project is to determine whether to pursue a replacement solution or an upgrade of the current software version. (MP2 was purchased by Infor and is now part of a larger CMMS solution.)</p> <p>Benefits: Current technology will better assist the department in sewer management.</p> <p>Post Workshop Outcome: During the Prioritization Workshop, IP13 - Sewer Asset Management was identified to include IP16 - Valve Management and was moved from an In-Process Project to a New Project status and project name changed to N60 - Sewer Asset Management and Maintenance system. Subsequently the projects were separated.</p>

6. Appendix B – ERP Alternative Analysis Report



Information Technology 4-Year Master Plan Project

ERP Alternatives Analysis Report



Prepared by:

July 2015

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NexLevel was tasked with reviewing the City’s current Sungard (HTE) system to develop recommendations regarding maintaining the current system, upgrading to the vendor’s latest solution, or replacing the current system with a new ERP solution. This report presents the outcome of NexLevel’s efforts on this assignment.

◆ 1 – Introduction

Introduction

This report, entitled ERP Alternatives Analysis Report, was developed for the City of Oxnard (City) by NexLevel Information Technology, Inc., (NexLevel) as a component of the four-year Information Technology Master Plan (ITMP) project. To complete this report, NexLevel conducted a series of focused interviews with City staff to evaluate the effectiveness of the City’s current ERP system (HTE). The purpose of these interview sessions was to gather specific information about the HTE system, to identify potential alternatives for the City to consider, and to recommend which alternative the City should pursue.

This report provides the City with information regarding:

- ◆ The characteristics of ERP (Enterprise Resource Planning) solutions, including the relationship between technology investments and benefits in ERP projects, ERP product offerings, the typical application architecture of ERP applications, considerations regarding “Best in Breed” vs. single solution strategies, the shift in commercial off-the-shelf (COTS) products from customization to configuration, and the emergence of “cloud-based” ERP solutions.
- ◆ An analysis of the overall situation, including an evaluation of the current strengths, weaknesses, opportunities, and threats related to the existing HTE system.
- ◆ The potential alternatives available to the City to address current needs, and recommendations for next steps.

Although the City will face considerable challenges in upgrading or replacing its current SunGard (HTE) system, the continued evolution of the products in the public-sector ERP market and associated service offerings provide considerable opportunities.

- ◆ Critical success factors in the implementation of ERP solutions, particularly with regard to the definition, rationalization, and prioritization of business requirements and the procurement and selection of an ERP solution.
- ◆ The challenges facing the City in the replacement of its HTE system, and the City’s readiness to face these challenges, including: organizational change management, long-term project management, and ensuring the continuing success of the ERP solution.

Synopsis

The City implemented the HTE system in 1989. The current HTE system supports daily business processes in the Community Development, Finance, Treasury, and Police Departments. The HTE system provided a robust and comprehensive solution that has served the City for many years. However, the system is now becoming obsolete, and many agencies relying on HTE are replacing it with new ERP systems that take advantage of current technologies to streamline processes, create better access to information, increase productivity, and improve decision making.

Since being implemented, HTE was purchased by SunGard, which continues to provide maintenance and support; however, ongoing investments into research and development appear to be minimal and the solution does not appear to be marketed any longer. Rather, SunGard's new preferred solution offering is called ONESolution.

Key findings resulting from this analysis include:

- ◆ The City needs to upgrade or replace its existing SunGard system for both functional and technical reasons. From a functional standpoint, the City is not receiving significant benefits for its continuing investment in this technology, while from a technical standpoint the underlying AS/400 technology is nearly obsolete and the application is considered by many to be nearing the end of the product life cycle. As a result, it neither meets the City's current needs nor will be able to support future requirements.
- ◆ The City is undergoing significant organizational, policy, and process changes. The implementation of a new ERP system is capable of not only supporting, but driving best practice adoption to provide a number of key benefits, including streamlined operations, improved internal controls, and enhanced access to timely decision information. As a result, the City will need to embark on a focused and carefully planned approach to effectively manage these significant organizational and cultural changes.
- ◆ NexLevel's analysis and findings are consistent with those identified in the Management Partner's "Oxnard Strategic Plan: Phase 1 – Corporate Support, Accountability and Value Systems" as it relates to the City's ERP. The implementation

of a new ERP system is capable of supporting the "Building Blocks of Good Government."

Despite the findings, a number of factors are working in the City's favor including:

- ◆ The number of product offerings in the ERP market and the scope of functionality they provide for public-sector entities have increased, providing the City with a variety of alternatives to consider. A new ERP would bring features and functionality out of the box to support critical areas such as budgeting, position control, cost tracking and controls.
- ◆ Modern ERP systems include, or integrate with, enterprise content management/document management (ECM/EDM) functionality. This would allow the City to aggressively move towards a paperless environment that uses electronic workflow technologies to improve internal controls, policy enforcement, and processing cycles. The range of productivity tools provided "out of the box" has increased, including workflow management tools, tools to create interfaces with other business applications, tools to extract and load data from existing business applications, and reporting tools that support "paperless" standard and ad-hoc queries, including "dashboards" to manage organizational performance.
- ◆ Modern ERP systems now adapt to user requirements through "configuration" rather than "customization." This evolution has reduced the risks and costs associated with the implementation and long-term support of ERP solutions.

NexLevel's report outlines the following three potential alternatives:

- ◆ Alternative A - Continue As-Is
- ◆ Alternative B - Upgrade the Existing System
- ◆ Alternative C - Replace the Existing System

We discuss the merits of each alternative, but ultimately recommend that the City pursue Alternative C, Replace the Existing System. It should be noted that the City should only pursue Alternative C if it is a top priority City-wide project, has the necessary funding, and there is an acknowledgement to ensuring the necessary staff will be committed to the project and its implementation. The implementation of a new ERP system requires the City to commit significant staff (both department and technical) time over the entire lifespan of the project, from the development of the ERP roadmap through requirements definition and process re-engineering, procurement, configuration, training, testing, acceptance, and post-implementation activities.

2 – ERP Overview

It is important that the City have a common and comprehensive understanding of today's ERP systems, as this provides the foundation for the ERP Alternatives Analysis Report. The recommendations made in this report are based on current ERP system capabilities and evolving trends.

Technology Investment and Benefits

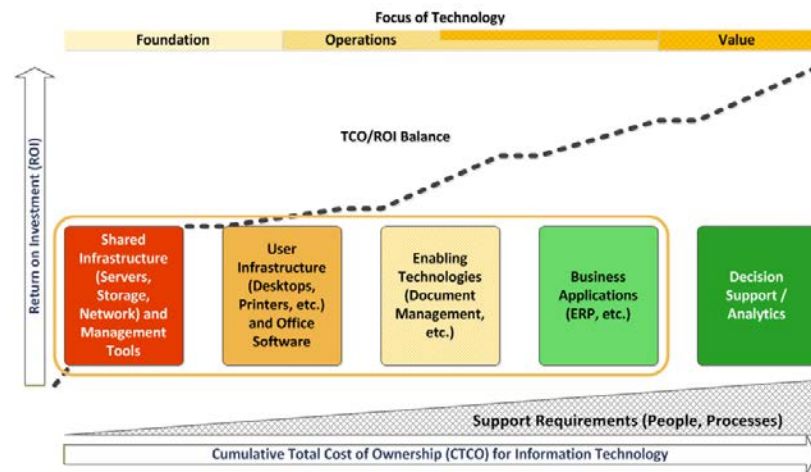


Figure 1 – Technology Expenditures and Return on Investment

Figure 1, Technology Expenditures and Return on Investment, depicts the relationship between the components of an organization's information technology infrastructure, the organizations cumulative total cost of ownership (TCO) for information technology, and its return on investment (ROI) for those expenditures. In today's world, the implementation of an ERP software suite (and the ability for an organization to realize its benefits) is dependent on the successful implementation and

support of all of the supporting components of the information technology infrastructure including the shared infrastructure (servers, storage devices, etc.), user infrastructure (desktops, etc.), and enabling technologies.

Weaknesses in any of these supporting components can significantly impede the effectiveness of a business application by reducing availability, performance, and reliability. Faced with business applications that have cumbersome or non-intuitive user interfaces, applications that are slow or not available when needed, users often resort to the use of ad-hoc databases and spreadsheets. These "shadow IT" applications reduce the effectiveness of the business applications, further reducing the organization's ROI and introducing significant security and data consistency issues.

Thus organizations need to consider the cost for implementing and supporting an ERP system in more holistic terms, looking at the total cost of ownership for not only the ERP system, but all ancillary systems (i.e. document management, GIS, etc.) and integration points (i.e. permitting & planning systems, billing systems, scheduling and reservation systems, cashiering, etc.). Attaining the full value out a modern ERP system is only achieved when the application works in concert with other City technology and business/operational systems.

ERP Product Offerings

ERP software is typically provided as commercial-off-the-shelf (COTS) software. Only those organizations with significant financial and technology resources can develop and support their own ERP software suite, and even these organizations are challenged to keep pace with the rapid development and evolution of COTS ERP offerings. The scope, functionality, complexity, and cost of ERP

products are a function of the intended user organizations and are generally classified by “tiers” as follows:

- ◆ Tier 1 products are generally focused on the business requirements of very large enterprises, often with multiple locations, cost centers, and lines of business, with revenues of approximately \$1 billion¹ and a large number of users. From the standpoint of systems architecture, Tier 1 systems provide greater opportunity for the use of third-party and custom software to provide extended functionality. Tier 1 solutions are not specifically developed for government, but have been adapted to the needs of local government, although often with higher support and maintenance costs. The primary vendors in this tier are SAP, Oracle and Baan.
- ◆ Tier 2 products account for the majority of ERP implementations in the public sector. The solutions are generally focused on the business requirements of the “mid-market,” a wide swath of organizations with annual revenues ranging from \$50 million to less than \$1 billion. Tier 2 includes products that have been developed specifically for government. Firms providing solutions to California municipalities include: Harris Computer Corporation (solutions include GEMS, Innoprise, Cayenta, and Select), New World Systems Logo.NET, Springbrook, SunGard HTE (ONESolution), MS Dynamics, JD Edwards, Tyler Technologies (solutions include MUNIS, Incode, and EDEN), Caselle Inc., and Infor (Lawson).
- ◆ Tier 3 products are generally focused on the business requirements of smaller enterprises with revenues of less

than \$50 million and fewer than 50 users. Examples include QuickBooks and Sage 50, formerly known as Peachtree.

The tiers are not absolute and there is generally some overlap between them, the difficulty being that while a mid-sized enterprise could procure and implement a Tier 1 solution, they may find that their ROI is limited by the costs to implement and the long-term support the ERP software suite. Broadly, Tier 1 products are more suitable for organizations that need significant customization of the ERP suite to support their business needs, and have dedicated teams (including user SMEs and IT personnel) and/or contracts with system integrators to implement and support their ERP projects, while Tier 2 products are more suitable for organizations that are able to use the product “out of the box” and rely on the vendor for support.

¹ Top 10 Enterprise Resource Planning (ERP) Vendors, CompareBusinessProducts.com, 2014

ERP Application Architecture

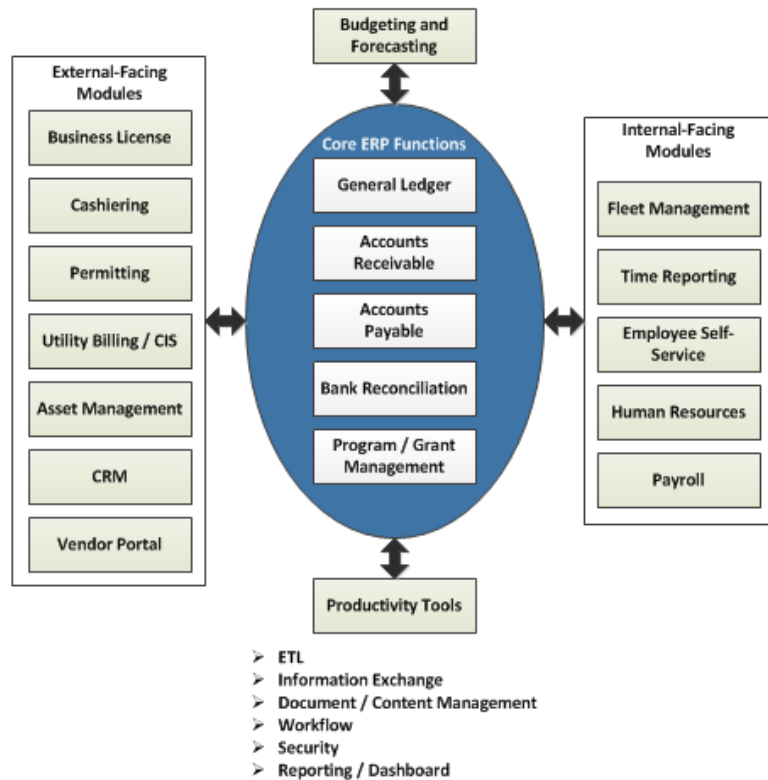


Figure 2 – ERP Public Sector Application Architecture

Figure 2, ERP Public Sector Application Architecture, provides a logical view of the organization of the modules in a “typical” ERP software suite. This diagram does not include features of the technical architecture such as the database management system or the user interface. The “Core ERP Functions” are shown in the middle of the diagram since these comprise the financial “heart” of the system, including the modules that provide support for General

Ledger, A/R, A/P, Bank Reconciliation, and Program/Grant Management functions. Please note that while Budgeting can be included within the core, some organizations prefer to utilize a third-party or custom-developed budgeting module that is a closer fit for their requirements.

ERP software suites typically include productivity features including:

- ◆ **Workflow** – Supports the automation of processes (including both document-driven and data-driven events) including the ability to distribute work among multiple staff members, generate alerts, manage work queues, and to re-direct work as needed.
- ◆ **Enterprise Content Management/Document Management (ECM/EDM)** – Supports a paperless environment, allowing agencies to use workflow technologies to improve internal controls, policy enforcement, and processing cycles.
- ◆ **Dashboards** – Provides information to system users as well as providing information to executives and unit managers regarding the performance of their business units to support performance management, resource allocation and re-allocation. An additional advantage of a dashboard is that it allows executives and managers the ability to see information without having to navigate through the system.
- ◆ **Information Exchange** – Supports the exchange of information with other information systems based on pre-defined triggers. A major advantage provided by current technology is the ability to “API-enable” an input or update screen so that information entered manually or received automatically is subject to the same editing and verification.

- ◆ ETL (Extract/Transform/Load) – Tools that provide the ability to migrate information from legacy applications to the ERP suite.
- ◆ Ad-hoc Queries and Reporting – Supports the generation of queries without the need for third-party reporting packages.
- ◆ Role-based Security – Supports the tailoring of user’s access to ensure that the staff members have access to only that information and those functions that are needed to perform their work functions.

A significant proportion of an organization’s return on investment (ROI) for its investment in ERP software is related to the effective use of these productivity tools. For example, some organizations independently procure an ECM/EDM solution (which may include workflow functionality) and then integrate it with the ERP system. Alternatively, since ECM/EDM functionality has been largely commoditized/standardized, some ERP vendors provide “plug ins” to facilitate the integration of industry-leading solutions with their products. Thus, fully utilizing the productivity tools provided with an ERP solution is a key factor to maximizing return on investment.

Other modules available with ERP software suites include customer-facing modules (such as business license, permitting, etc.) and internal-facing modules (such as employee self-service and time reporting). These modules may or may not be licensed with the core of the system depending on how the ERP vendor “bundles” their software suite, and this often encourages organizations to pursue a “best in breed” strategy (see below) and procure a mix of different modules from different software providers.

“Best in Breed” vs. Single Solution

ERP solutions provide a wide-range of functionality, and some of the modules are better designed and architected than others. As a result, one vendor may have a more capable A/R module while another vendor may have a more capable Permitting or Utility Billing module. “Best in Breed” refers to the process of licensing individual modules from ERP solution providers. The viability of the resulting hybrid ERP system depends on the compatibility of the technical architectures of the respective modules, the degree to which they support information exchange, and the ability of the user organization to initially integrate the modules and maintain that integration through successive new release and revision cycles. Although it is possible to achieve the best possible requirements fit for each business unit by assembling such a system, the costs to establish and maintain the hybrid environment are considerable, and this generally limits the approach to user organizations having substantial IT resources.

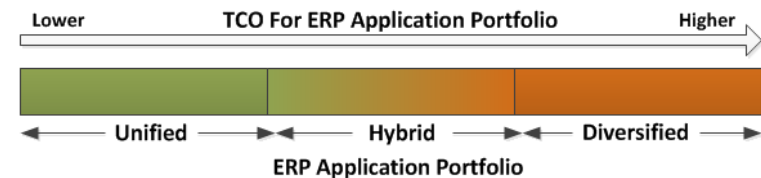


Figure 3 – Typical TCO as a Function of the Diversity of an Organization’s ERP Application Portfolio

Figure 3, Typical TCO as a Function of the Diversity of an Organization’s ERP Application Portfolio, illustrates the relationship between Total Cost to Own and the complexity of the ERP Application Portfolio. Other factors being equal, complexity has a significant impact on TCO. The maintenance of interfaces between multiple applications is a daunting challenge, as software patches

and new versions can have an impact on the information stored in the applications and the complexity of exchanging information with other applications.

In the balance between TCO and ROI:

- ◆ Hybrid and diversified ERP portfolios provide the opportunity to realize higher ROI (through a better fit for the organization's business processes) at the expense of increased TCO; however, a hybrid solution mitigates one of the main benefits of a single solution; that being, the ability to have a solution with a similar look and feel across the user organization (thus lowering training and support costs)
- ◆ Unified solutions have a lower TCO. Those organizations that can effectively adapt their business processes to the functionality provided by the ERP solution have the opportunity to realize both lower TCO and higher ROI, while other organizations realize lower benefits.

Shift from Customization to Configuration

One of the more difficult challenges facing organizations in the implementation of ERP solutions has been the fit between the functionality provided by the software (which is typically based on market needs and best practices) and the organization's existing business processes. In the past, organizations were faced with the choice of either managing the organizational change resulting from the need to modify long-established business processes (whether they added value or not), or having the vendor modify the software for them.

Having the vendor modify the software (typically a "custom" modification to the ERP solution) can be problematic for both the

user organization and the vendor. User organizations are faced with the prospect of incurring additional costs in the future to re-apply the modifications when installing new system releases, or alternatively, foregoing new releases and either paying for additional support from the vendor or running an unsupported version of the product. Vendors found themselves challenged to provide support for clients whose software performed differently than other installed sites, and it is typically not feasible for vendor product planners and managers to accommodate custom modifications in the design of new releases.

The solution to this problem, for both the vendor and user organizations, has been the move to system configuration. Once confined to simple table entries that enabled users to change the names of screen fields, configuration options have evolved to the point that organizations can modify the layout of input and update screens, field level edits, create standard and ad-hoc queries, and other functions to their needs. Two caveats apply: (1) configuration adds a degree of complexity for the user organization since it then becomes responsible for the management of changes to the configuration including the re-application of the configurations following system upgrades; and (2) not all ERP solutions are equally configurable.

Software-as-a-Service

Software-as-a-Service (SaaS), the delivery of system functionality from a remote location through the internet, has become an increasingly appealing choice for both user organizations and vendors across all ERP solution tiers. User organizations find that SaaS enables them to obtain leading-edge ERP solutions without having to perform expensive infrastructure refreshments, while ERP solution providers find that support is much easier to provide to the

extent that some ERP solutions are provided only as SaaS. An additional benefit for many organizations is that using SaaS simplifies their disaster recovery and business continuity planning since they can quickly resume operations from a facility that is connected to the internet.

Compared to the costs for the on-premises hosting of ERP solutions, SaaS offers the potential to:

- ◆ Lower initial costs (approximately 30% to 50% of an on-premises solution) since the solutions are typically priced on a subscription basis (thus eliminating perpetual license fees), and the user organization does not have to incur hardware acquisition and installation costs. “Pay as you go,” options permit user organizations to scale based on actual needs.
- ◆ Lower recurring costs by reducing solution support requirements, as well as the need for the user organization to maintain on-premises hardware and systems software or to perform system administration tasks.
- ◆ Lower cost and complexity related to the development and maintenance of business continuity and disaster recovery planning.
- ◆ Reduced timeframe required for implementation.

The potential disadvantages include:

- ◆ Reliance on connections to the Internet to access the solution and organization information (although this risk can be reduced by a so-called “private cloud” where although the ERP solution is still browser-based, the

connection to the remote facility is provided by a direct link rather than through the Internet).

- ◆ Reliance on the performance of the solution provider, although this risk can be partially mitigated through the development of a Service Level Agreement (SLA).
- ◆ Less control over when version upgrades and new releases are installed. One option to lessen this risk is to procure a “single-tenant” where the user organization is the sole user of an instance of the ERP solution versus a “multi-tenant” solution where the user organization shares the software with other organizations (but the data is stored separately). Typically, due to the reduced economies of scale for the software host, single-tenant solutions are more expensive.
- ◆ Concerns regarding the security of information and the security of the locations used to host the solution. In some cases, this may be off-shore, and this is not always preferable for some user organizations.
- ◆ Additional complexities in implementing and maintaining interfaces and integration with systems that are hosted at the organization’s site or other hosted providers.
- ◆ The complexity and cost related to maintaining information exchanges between the “cloud hosted” ERP solution and business applications hosted on City premises.
- ◆ Additional costs for processor use and network bandwidth incurred for running queries, etc., although these can also be mitigated by keeping a reporting database on-premises.

User organizations that choose on-premises hosting of their ERP solution are motivated to do so if:

- ◆ They already have a substantial investment in on-premises hardware or software and need to leverage that investment.
- ◆ They have skilled and capable on-site resources to support the application.
- ◆ They need to ensure connectivity with legacy systems.
- ◆ They need to comply with regulatory or other requirements that would make SaaS difficult to justify.

The fundamental decisions that most organizations need to make in evaluating whether SaaS is a viable solution for them are:

- ◆ Do they wish to minimize the large, initial capital and resources costs associated with an on-premises installation at the expense of potentially paying more for the solution over its lifetime?
- ◆ Are they prepared to accept less flexibility in adapting the solution to meet their specific needs in order to reduce the risk and complexity of the implementation and operation of the ERP solution?

◆ 3 – Situational Analysis

The HTE system was implemented in Oxnard in 1989. Since then, the HTE system was purchased by SunGard, which continues to provide maintenance and support functions under contract. The long-term viability of HTE is questionable, as it does not appear that SunGard is continuing to evolve the HTE solution or actively proposing it to new clients. As further evidence of the questionable long-term viability, SunGard is actively encouraging current HTE clients to migrate to the latest SunGard offering, ONESolution.

The HTE system supports many daily City business processes for several departments (e.g. Community Development, Finance, Treasury, and Police). More specifically, the HTE system supports the following functions:

- ◆ Financial Reporting/General Ledger
- ◆ Payroll
- ◆ Accounts Payable
- ◆ Accounts Receivable
- ◆ Purchasing
- ◆ Cashiering
- ◆ Building Permits
- ◆ Business Tax
- ◆ Code Enforcement
- ◆ IVR (Interactive Voice Response)
- ◆ Planning and Zoning
- ◆ Utility Billing

The HTE system has electronic interfaces with the following systems: Electronic Document Imaging System, Hansen, Socrata, GIS, CAFR, Assetworks, Realquest, Chameleon, AMR, CUPA, and other systems.

In addition, SunGard provides the City a Disaster Recovery “hot site” located in Florida.

The City’s Central IT organization is responsible for maintaining the HTE system and interfacing with SunGard for ongoing maintenance and support. In addition, the Central IT organization has developed and supports several solutions that provide additional information to staff. The primary support of the system comes from a system administrator within the Central IT organization. This resource has significant HTE system knowledge and is a key person in maintaining the system and supporting the users. Unfortunately, when that person is absent, the quality of service is adversely impacted.

In Figure 4 on the following page, NexLevel presents an Application Effectiveness diagram to help the City assess where it is today and what strategies or alternatives is available going forward. The diagram plots three points, as outlined below.

- ◆ The first point identifies the current HTE system in two areas:
 - Technological capabilities – how do the HTE system’s features and functionality compare to the capabilities offered in modern ERP systems?
 - User effectiveness - how well are users taking advantage of the current system capabilities?
- ◆ The second point identifies where NexLevel believe the HTE system could move to if it were upgraded to the current release, users were trained further, and processes were modified to more fully leverage the system.
- ◆ The third point is where a modern ERP system would be if fully implemented and City business processes were

designed to take full advantage of the system – a fully optimized implementation.

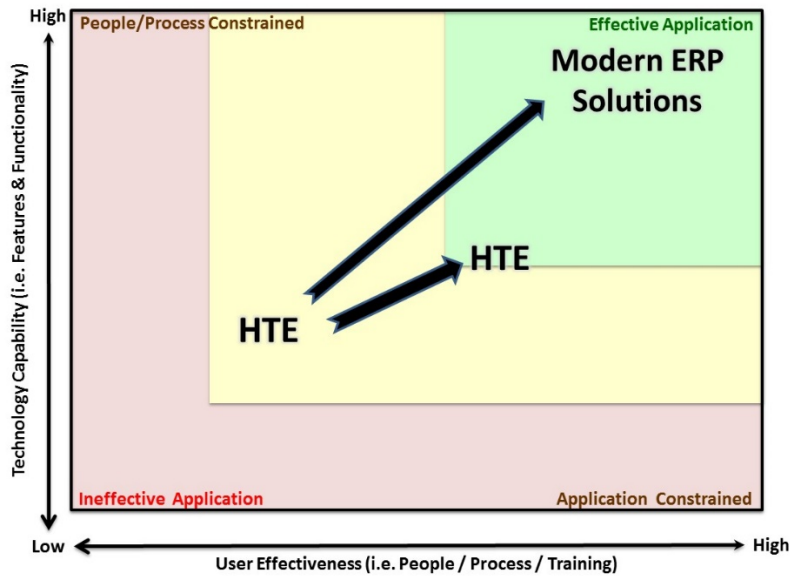


Figure 4 – Application Effectiveness

As depicted in Figure 4, compared with a modern ERP system, NexLevel views the HTE system as an application which is almost ineffective. It is constrained both in terms of technological capabilities and user effectiveness. If the HTE system were upgraded to the current release and more fully leveraged, we believe it could be a marginally effective application. However, even if the HTE system was fully leveraged, it still does not provide the full value that a modern ERP system is capable of providing.

Our placement of the HTE system on the Application Effectiveness diagram is based on interviews with staff, knowledge of other systems, and related municipal finance experience and includes

factors such as technical capability of the application, its usability, the supporting technology infrastructure, functional support, and how the system was implemented. A highly capable system that is implemented in a way that causes more work and/or does not meet the business process requirements leads to user frustration, users working outside of the system, and inconsistent business processes.

Figure 5 provides another method to evaluate the City's HTE system. This figure illustrates a typical product lifecycle for complex business applications such as the HTE system.

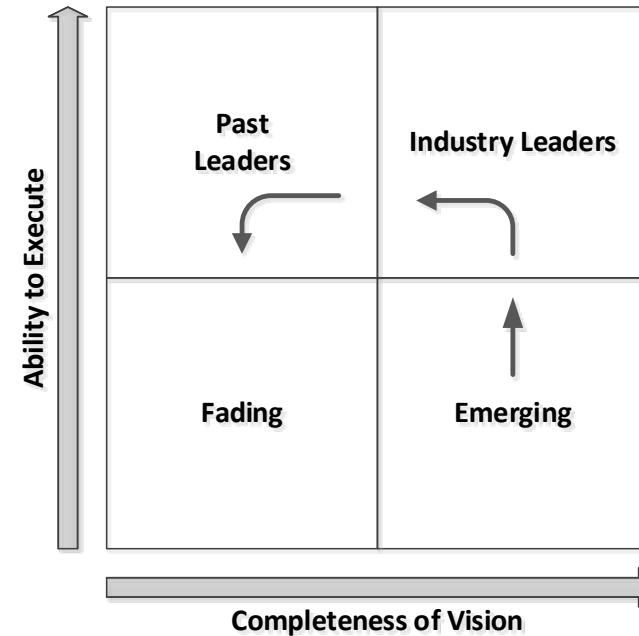


Figure 5 – Solution Evaluation

It is important to note that industry leaders change frequently due to factors including the evolution of business and technical requirements and the time and cost to design and deploy new products. Users are challenged to find a balance between vendor vision (features and functionality), ability to deliver (performance and services), product lifespan, and having a system that supports and stays current with best practices. Based on these factors, NexLevel would place the HTE system in the “Fading” quadrant.

As a result of our interviews with staff, along with our knowledge of other systems and our municipal finance experience, we became aware of the following issues:

- ◆ The system is described by staff as having “green-screens” similar to DOS, the first widely installed operating system for personal computers. HTE offers an enhancement, NaviLine, which is a web-based interface that provides a more intuitive user interface. Unfortunately, staff indicates that NaviLine does not provide the same functionality as the green-screen version. As a result, the NaviLine version is more effective for casual (occasional) users. Staff that uses the system on a daily basis continues to use the DOS-based version.
- ◆ The age of the system makes it difficult to use. In particular, the lack of configurability in the user interface and the need to develop and apply custom modifications to the software reduce its usability and agility. Without an intuitive user interface and self-help features and tutorials, users are unable to develop new competencies in the use of the application or maintain existing competencies.
- ◆ The system is based on IBM AS/400 technology which is now more than three decades old, and the current

hardware is due for replacement (eight years old with a replacement cost of approximately \$80,000).

- ◆ The application is nearing end-of-life. While SunGard continues to provide maintenance and support, it does not appear that they are continuing to invest in the solution through ongoing research and development (R&D). SunGard is presently proposing its new solution, ONESolution, which is based on current web technology and specifically designed for public agencies.
- ◆ The existing system does not provide functionality to support analytics or the creation of dashboards for the City’s managers and executives, leaving them with only paper reports, various online queries, and ad-hoc databases to manage operations and performance.
- ◆ The application is not as “open” as newer software suites, thus restricting the City’s ability to integrate key productivity tools such as workflow and document management for financial management and reporting and human relations. The absence of these tools complicates the completion of approval processes for items such as personnel action forms, invoices, and requisitions.
- ◆ The City users are supplementing the functionality provided by the application through the use of spreadsheets and ad-hoc databases. This proliferation of information represents significant problems for the organization, in terms of data integrity and consistency and the effort required to reconcile separate data sources, as well as in terms of planning for, and ensuring, business continuity. As a result, the information contained in the HTE system may be considered to be inaccurate or out of date.

- ◆ The HTE system lacks a robust security and audit solution that adequately supports data security, separation of roles and responsibilities, and audit logging to confirm who made a particular change, when the change was made, and what data was changed. The current system allows staff in some cases the ability to change information (including fees and pay rates, for example) that should not be changed by those individuals.
- ◆ Testing of the current system by end-users is limited and increases the risk when change is introduced. Central IT is responsible for installing updates, which are periodically installed directly into the production system. Following best practices would require installing and testing updates in a test environment. However, Central IT indicates that departments are short staffed and therefore are unable to provide the resources to complete testing. To date, Central IT reports minimal consequences of installing updates directly to the production environment; however, this is a risky approach and increases the risk of instability, data corruption, or unavailability.
- ◆ Staff reported that the HTE system is not effective or efficient in supporting the business tax function.
- ◆ Staff reported that the HTE system does not provide a solution to track developer deposits.

In addition to the above issues, the HTE system lacks features and functionality to adequately support the following:

- ◆ **Reporting** – City staff consistently cited the need for improved information access and reporting. In an effort to compensate for the lack of reporting, Central IT has created

a process that copies information on a nightly basis from the HTE system to a Microsoft Access database for reporting and inquiry. Unfortunately, there is a perception that reports do not balance, which could be because of a lack of understanding of when updates process (i.e. immediately or overnight) and the source of the information (Access database or a financial report).

- ◆ **Project Accounting** – The HTE system does not adequately support the City’s Capital Improvement Projects (CIP) that crosses multiple years. In an effort to track CIP budgets, some departments have resorted to using an Access database that provides high-level information but lacks detail. Limited accurate financial information hinders managing to the CIP budget.
- ◆ **Chart of Accounts (COA)** – The HTE system’s COA does not adequately support the growing needs of the City. The COA structure, as currently designed, has run out of numbers to support the implementation of new accounts. This limits the ability to analyze financial information or to track information at the desired level of detail.
- ◆ **Position Control** – Position control refers to system functionality which provides the ability to track information based on positions rather than employees. Implemented correctly, it creates a framework of positions for all the jobs within the organization without regard to whether or not there is currently an incumbent in a specific job. The HTE system has position control, but it was not implemented properly. As a result, it is possible to have duplicate authorization numbers for the same position.
- ◆ **Workflow** - The HTE system does not support workflow capabilities, which would provide more streamlined and

efficient processes when handling common financial activities. Workflow has the ability to automate the review, approval, and tracking of common financial tasks. In addition, workflow would replace the movement of hardcopy documents and support a paperless environment.

- ◆ **Time and Attendance Reporting** – The HTE system does not provide automated time and attendance reporting. In today's environment, staff submit paper timesheets to a department level timekeeper who then keys the information directly into the system. Moving to an automated system would create efficiency and improve reporting. In some cases, separate manual and reporting processes are used to track staff hours for code enforcement or permitting rather than using a single automated system.
- ◆ **Human Resources** - The HTE system does not include an HR module. As a result, the city uses manual processes to support and track HR activities. The HR Department needs a system to track many activities, including certification and training, performance evaluations, FMLA, and hours worked for PARS.
- ◆ **Budget** – The HTE system does not support the City's budget activities. In today's environment, the budget is created in Excel using data exported from the system to Access. Once the budget is finalized in the Excel models, then it is manually entered into the HTE system.
- ◆ **Security and Audit Trail** - In order to compensate for system limitations, users have the ability to override fees, pay rates, etc. The system does not provide an audit trail identifying the override and the user who made the change.

- ◆ **CAFR** - The CAFR Unlimited application is used to create the CAFR. An application created by Central IT extracts financial data from the system into a CSV file. However, the user must perform significant manipulation in the CAFR Unlimited application.
- ◆ **Grant Management** - The City has successfully obtained multiple grants. Regulatory compliance is the responsibility of the department that obtained the grant. Grant management software could assist with tracking grant-related activity and reporting.
- ◆ **Developer Deposits** - Staff hours worked on a project are maintained outside of the system using Excel and Access. Invoices are generated using Microsoft Word. The manual process is time consuming and cumbersome. The ability to track developer deposits in the system is desired. Ideally, the staff hours would also transfer to timekeeping for payroll.
- ◆ **Business Tax** - There are approximately 10,200 active Business Tax Certificates. The HTE business tax system is used to process applications and renewals, but the application is inflexible and requires extensive manipulation and workarounds in order to meet processing requirements.
- ◆ **Training and Documentation** - Staff reported there was little to no training available when the system was initially installed. The lack of training has continued since initial implementation, with new City employees shown how to use the system by others who may not have a strong depth of understanding themselves. In addition, inadequate training is exacerbated when City positions are not filled until after the

previous employee is gone and unavailable to answer questions.

Although there are limitations, the HTE system is effectively supporting Utility Billing and Code Enforcement as follows:

- ◆ **Utility Billing** - The City has approximately 44,000 utility accounts. While enhancements are desired, the application effectively supports billing and payment processing.
- ◆ **Code Enforcement** - The Code Enforcement staff use the HTE system effectively. The system supports case entry, initial notification, and further activity including inspection recheck, citation issuance, court action, referral to City Attorney and abatement. Functionality includes the ability to generate and attach letters and notes, and the officer can specify the desired date for the status check. Code Enforcement is able to view all building permit activity and flags, and this information is of value to the officers.

4 – Alternatives Analysis

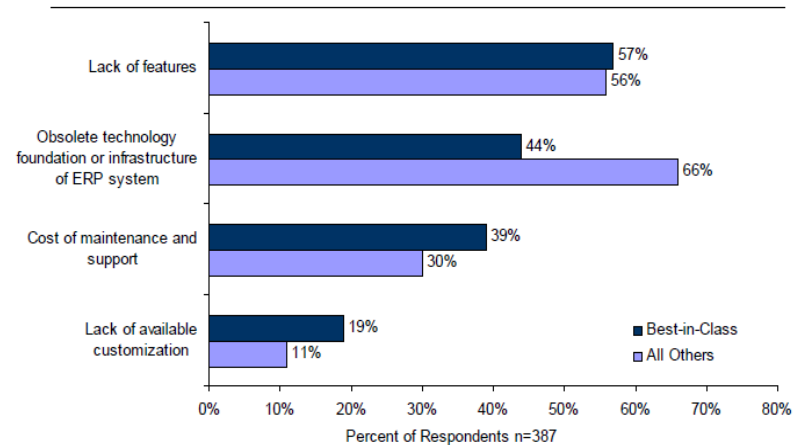
The primary objective of an ERP system must be to provide the features and functionality to accurately report the City’s financial and business transactions, streamline business processes, improve customer service, reduce costs, and improve decision making. Because of the cost and organizational impact of implementing a new ERP system, a replacement should only be considered when significant value can be attained by a change of system. It is with this understanding that NexLevel is providing possible alternatives and making our final recommendations.

Industry research has shown that there are several common reasons why an organization looks to change an ERP system. According to the Aberdeen Group’s 2011 research, the common reasons for an ERP system change include:

- ◆ Organizations are concerned with the lack of features and functionality to fully support their business and operational needs, and in a 2011 survey over half of those polled identified this as a top reason for replacing their ERP system
- ◆ The second driving factor was to keep current with modernizing technology infrastructure and replacement of obsolete back-end architecture and applications
- ◆ Third, many have been driven to change based on the cost to maintain and support the current solution. With the Tier 1 and 2 solutions bridging the gap of features and functionality, the annual costs to support are comparably different

- ◆ Lastly, others have considered change because their system has lacked the available customization to meet the business requirements

Figure 6 is taken from the Aberdeen Group study.



Source: Aberdeen Group, July 2011

Figure 6 - ERP Replacement Reasons

Having this understanding of the industry helps the City identify the reasons why it is considering a new system, and what are the next best steps to meet the City’s current and future ERP system needs.

NexLevel believes that the City has the following three alternatives:

- ◆ Continue As-Is
- ◆ Upgrade the Existing System
- ◆ Replace the Existing System

In the following pages we discuss each alternative.

Alternative A - Continue As-Is

The HTE system is meeting the basic needs of the City and it can be a viable solution for the next 3 – 5 years. However, as outlined in this report, there are significant benefits that can be realized by moving to a more current and modern ERP system.

This alternative should be considered if the City has other competing priorities that would erode the focus and resources required for a successful new ERP system implementation. The complexity and risk of replacing the HTE system is significant. The City should only launch an ERP replacement project if it is a high priority project. If there are competing priorities that will make key staff unavailable to assist with replacement, then this alternative should be considered.

If the City determines that continuing with the HTE system is the best course of action, then the City should make an investment in the following areas to ensure the most value is received from system:

- ◆ Perform additional user training
- ◆ Implement reporting enhancements
- ◆ Establish a succession plan for key system support resources and/or cross training personnel
- ◆ Consider opportunities to re-engineer existing processes to help streamline operations
- ◆ Take steps to address or minimize the concerns identified in the Management Partners Organizational Assessment and Audit report

Alternative B - Upgrade Existing System

This alternative would be to upgrade the HTE system to SunGard's most current solution, ONESolution. SunGard recognized the limitations of the HTE system and now offers the ONESolution system, which was first released in 2010. To encourage clients seeking a change from the HTE system, SunGard may offer its clients significant discounts for licensing and other fees to reduce the cost of migrating to ONESolution.

The City should recognize that this alternative is much more than a software upgrade; instead, it should be treated as essentially a new ERP system implementation, which would include planning, gap analysis, process re-design, conversion, integration, testing, and training. The implementation of ONESolution would be a significant change for all users, since the implementation includes a new user interface, reporting tools, processes, and procedures. Because of the magnitude of the change that will be introduced, this alternative should include a comprehensive change management program to encourage staff change and acceptance.

The primary advantage of this alternative is that SunGard has significant knowledge of the City and the current solution (HTE). This helps reduce the risk associated with the fit gap assessment and with data migration. However, this alternative shares many of the complexities and risks associated with a new ERP system implementation.

Alternative C – Replace the Existing System

This alternative is to replace the HTE system with an industry-proven, long-term solution. This alternative would be initiated by following a best practices procurement and selection approach to

ensure careful evaluation of vendor solutions to identify the best fit solution. The replacement of an ERP system should be viewed as an enterprise effort with a focus on obtaining the support and buy-in from the users. It should also be conducted to ensure the City takes full advantage of modern technology, including workflow, content management, reporting/business intelligence, web services and portals, dashboards, and mobile technology.

The benefits of this alternative include the ability to:

- ◆ Incorporate fully integrated “best business practices”
- ◆ Develop a system that is user friendly and empowers departments to improve their business processes
- ◆ Add and improve functionality in back-office functional areas
- ◆ Improve quality and accessibility of information to support business planning and decision support
- ◆ Streamline processes by eliminating paper-based workflow processes and forms
- ◆ Improve information access by reducing redundant “shadow systems”, data entry, storage and paper processing
- ◆ Improve operational effectiveness and productivity of staff
- ◆ Enable strategic planning initiatives (e-Government, etc.) including enhanced customer service and web self-service
- ◆ Increase remote access to information through the use of mobile applications and devices

The cost of implementing a new ERP system is much more than just software. The following table identifies cost components that must be considered to arrive at a total cost to implement.

Table 1 – ERP Cost Components

ERP Vendor Cost Components	Additional Cost Components
<ul style="list-style-type: none"> ◆ Software licensing ◆ Third Party Software Licensing ◆ Ongoing Maintenance and Support ◆ Vendor Implementation Services <ul style="list-style-type: none"> ○ Implementation Support ○ Integration ○ Conversion ○ Training ○ Documentation 	<ul style="list-style-type: none"> ◆ Staff Backfill ◆ Server and Storage ◆ Database Licenses ◆ Project Management ◆ Integration with other systems (i.e. permitting, utility billing, etc.) ◆ Documentation

The timeframe to implement a new ERP solution can vary significantly based on:

- ◆ The degree to which current business processes need to be re-engineered
- ◆ The availability of technical and user resources (allowing for the fact that current applications must be supported during the implementation timeline and that operations must be similarly supported)
- ◆ The organization’s experience in the implementation of enterprise applications
- ◆ The number and complexity of external dependencies (such as the testing and implementation of interfaces with

external organizations or the approval of regulatory agencies)

Based on NexLevel's experience, the timeline for a new ERP system procurement and implementation in an organization similar to Oxnard would be 24 – 36 months. Typically, the timeline is broken out into five phases:

1. **Project Planning and Preparation:** A 1 -2 month phase that includes all of the activities related to laying the foundation for the successful management of enterprise projects. In addition to the customary project planning activities such as the development of the project schedule and the assignment of resources to the tasks in the schedule, the successful and timely completion of enterprise projects is highly dependent on the development and implementation of effective processes for change management, risk management, and communication management.
2. **Requirements Definition:** A 2 - 4 month phase that includes all of the activities related to the gathering, consolidation, and refinement of requirements for the new enterprise system. Critical success factors in this phase include focusing on the elimination of siloed and/or non-value added activities and on the specification of requirements in terms of "what" the organization needs to accomplish rather than "how," since the "how" will largely be determined by the selected solution. Organizations will sometimes either rush through this phase or omit it entirely, and often find that they do not procure the best solution for their needs or implement the solution in a way that minimizes the benefits that they receive. The worst-case scenario is that the enterprise project fails. The critical point being that time spent in getting the requirements right reduces project risk and increases the value that the

organization ultimately obtains for the considerable investment in resources associated with enterprise projects.

3. **RFP and Selection:** A 4 - 6 month phase that includes all of the activities related to the solicitation of proposals, their evaluation, and the detailed evaluation of the various solutions to select the solution best suited to meeting the City's needs, and the negotiation of the contract with the vendor.
4. **Implementation:** The implementation will likely involve three major phases (e.g. Finance; Payroll/HR; Other). Each phase typically entails 9 – 12 months. Activities involved in the implementation of the solution include the initial configuration of the solution, development of training and testing plans, development of the data conversion plan and the conversion of data from the present solution, initial testing and refinement of the configuration, and acceptance testing.
5. **Post-Implementation:** A 3 – 6 month phase that is often neglected in project planning and includes the activities related to completing any components of the project that have been deferred until after implementation, such as resolving defects that were previously deemed non-critical, reviewing the implementation and documenting lessons-learned, and performing an operational review to identify any further configuration changes or training that may be needed to enable the users to be as effective as possible. This phase often also includes planning for future phases of the project.

There are additional considerations that must be addressed if the City chooses to replace the HTE system. The City is currently

supporting several department level functions with the HTE system including the following:

- ◆ Business Tax
- ◆ Land Development
- ◆ Utility Billing
- ◆ Code Enforcement

While some industry proven ERP systems can address the above department needs, the City might find it most beneficial to consider separate solutions. The City should carefully evaluate the benefits of taking a “single system” approach (like what is done today with the HTE system) versus a “best of breed” approach (implementing the best functional solution for the City, possibly outside of the ERP system). It is common for cities the size and complexity of Oxnard to select the functional software solution that most closely aligns with their needs – maximizing the value.

NexLevel Recommendation

NexLevel believes the City will see significant value in replacing the HTE system with an industry-recognized, proven ERP system. For this reason, Alternative A is an option only if the City does not have the staff and financial resources to take on an ERP replacement project. Alternative A should be viewed as a stop gap solution, as it will not allow the City to address current needs and issues.

While Alternative B is a viable option, the level of effort, cost, and risk of this option approaches what would be expected if the City pursues Alternative C. It is for this reason that NexLevel recommends that the City pursue Alternative C. Alternative C provides the City the ability to take a measured and deliberate approach to procuring and selecting a long-term solution (potentially 15+ years). With Alternative C, the current vendor (SunGard) could still propose their flagship product, ONESolution, and the City could fairly evaluate the costs and benefits of that solution with other solutions available in the market.

Procuring and implementing a new ERP system, while time consuming and expensive, should be viewed as a 15+ year commitment that will impact virtually every department. It involves identifying and entering into a long-term partnership with a vendor that is committed to continuous improvement and innovation.

If the City selects to pursue Alternative B or C, it may still wish to explore short-term improvements in the current ERP system via training and enhanced reporting. The timeline to implement Alternative B and C would be 24 – 36 months. In the meantime, a greater understanding of the system design, reports, and application solutions will allow the City to get more value out of the existing system and reduce staff frustration.

◆ 5 - Critical Success Factors to Consider

NexLevel has conducted a wide range of ERP selections for public agencies. This work often involves performing an assessment of an existing ERP implementation to understand why that system is no longer meeting the organization's needs. Out of this experience, NexLevel has identified the following critical success factors:

(1) ERP requirements should be gathered in a collaborative manner

All departments and stakeholders should participate in the development and review of the requirements for the ERP system. Dialog at this point in the project is critical since requirements are much easier to refine and revise at this point than later in the project. Taking the time to establish the correct requirements at the outset will return significant benefits later in the project. For example, although the finance unit is generally the “owner” of the financial requirements, processes such as budget creation, time entry, and invoice approval must also work for the rest of the organization.

(2) Beware of the “automation boundary”

The “automation boundary” is a term used by NexLevel to describe the relationship between automated and manual processes. Organizations with older applications often find that individual groups of users develop different manual “workarounds” over time. These workarounds can be developed as a result of a lack of understanding of system functionality or due to limitations in system functionality. In either case, these are often “institutionalized” over time and become the “way we do business,” and separate units within the organizations may have their own way of performing the same tasks. Left alone, this can result in the development of

user requirements that are overly complex and based on non-value added business processes. The “prime directive” for the team members assigned to facilitate the development of user requirements should always be to ask “why” and not to accept “because we’ve always done it that way.”

(3) Willingness to change business processes

As we have addressed previously, the readiness of an organization to embrace procedural change is critical to the development of requirements for a new ERP system. People are often reluctant to change processes; some are unable to conceptualize how a process can be improved, and some fear the loss of hard-won competencies or the imposition of additional accountability. Whatever the motivation, an organization must be prepared to work with the user community to overcome these obstacles.

(4) Make a good, long-term technical decision

Organizations are often tempted to make technical decisions that are based on minimizing short-term disruptions and risks, or on what is “trendy” - and subsequently incur the cost for these decisions in the long run. Considering that enterprise systems in the public sector are generally used for fifteen to twenty years, making an informed long-term technical decision is critical. For most organizations, this comes down to the decision to either use a cloud-based solution or host the ERP system on-premises. Considerations related to both of these options have been discussed previously in this report.

(5) Plan for the Long-Term

The implementation of enterprise solutions requires a significant commitment from the organization over a long

period of time. The implementation plan should carefully consider how functionality can be phased in over time to minimize organizational impact and risk. Organizations should also plan to conduct post-implementation evaluations after each phase, to document lessons learned and to “clean up” any issues that remain from implementation, before proceeding with the next phase.

(6) Carefully consider the long-term total cost of ownership (TCO) and the organization’s return on investment (ROI) for the ERP system

As noted previously, ERP solutions have both direct and indirect costs, and anyone determining the true cost of an ERP solution should take into consideration the costs related to the improvements needed in the supporting technology infrastructure including desktop computers, servers, storage systems, and the City’s network.

(7) Prepare for obstacles and contingencies

Although project sponsors and project planners often spend a good deal of time in risk management and in crafting highly resilient and realistic project plans, the reality is that no plan can ever anticipate every possible contingency. Therefore, organizations embarking on the implementation of enterprise technologies such as an ERP system should be prepared to cope with and overcome unplanned obstacles and contingencies.

(8) Streamline and rationalize report generation

Current processes are often based on the generation and dissemination of paper reports, and organizations need to work with the user community to break the “paper habit” and transition users to obtaining information directly from the ERP

system so that they have access to the most current information. Similarly, users are accustomed to exporting information into spreadsheets and ad-hoc databases for reporting purposes, and to the maximum extent possible, these separate documents should be replaced with on-demand queries that are generated directly from the ERP system.

(9) Plan to make maximum use of system features and functionality from the outset of the project

Organizations implementing ERP software suites often pay more attention to how the product can support their business requirements and overlook features and functionality in the new system that extend beyond their immediate requirements. It is very important to look for those opportunities. Planning to get the most use from the product can improve the ROI for the expenditure involved, as well as create opportunities to improve service delivery. This includes making better use of “dashboard” functionality to focus on effectiveness and performance. Planning to make use of these features and functionality from the outset of the project is preferable to attempting to implement them on an ad-hoc basis in the midst of other project priorities.

(10) Utilize system demonstrations rather than checklists

Often, procurement processes rely on vendors responding to long checklists of requirements and indicating whether the requirement would be supported by the baseline functionality of the application, through a configuration change, or through a custom modification. At best, these indicate “what” the application can do rather than how well the functionality provided conforms to the user’s expectations. Over-reliance on checklists can result in an organization spending precious time and resources investigating what may turn out to be “dead

ends.” A better approach is the development of use cases in which the vendor must demonstrate the “how” to the selection committee. The development of use cases is a “win - win” scenario for organizations – despite the effort involved to generate them, they can be used to refine requirements, to evaluate alternative solutions, and in the acceptance testing process.

◆ 6 –ERP Readiness Assessment Considerations

NexLevel has worked with a variety of government clients that are engaged in ERP projects. Some of these clients have sought an ERP solution to replace a mix of custom applications that have become prohibitively expensive to support and that no longer meet the organization's business needs. Others, similar to the City, are seeking to replace an existing ERP system that is becoming obsolete or that is no longer a fit for the organization's needs.

In either case, NexLevel has found that the success of any new ERP project is largely dependent on whether the organization is prepared to handle the challenges associated with the implementation of an enterprise system. The City's ERP readiness assessment should include consideration of the following factors:

(1) The City's management team must be fully committed to the success of the project and to providing the resources that are needed

The success of a new ERP implementation is dependent on the committed and active support for the project from the City Council, the City Manager's Office, and the department directors. The implementation of the new ERP system will affect every department within the City and require the participation of staff in a range of activities including the definition and confirmation of requirements, the identification of opportunities to improve business processes, cleaning up data in the existing application, and in the testing and acceptance of the new modules, all of which must be done in a manner that does not significantly impact customer service and operations.

(2) The City must be committed to reviewing and re-engineering existing business processes to take advantage of the features and functionality provided by the new ERP system, and to adopting a formal approach to change management

The City's ability to realize significant benefits through the implementation of the new ERP system is directly related to its willingness to embrace operational and organizational change. Michael Hammer's landmark study "Reengineering Work: Don't Automate, Obliterate," noted that organizations often fail to realize the benefits of significant expenditures for automation because they use technology to automate existing business processes, some of which date back to largely manual environments. These processes often "promote tunnel vision oriented towards narrow goals of individual functions or departments, rather than the goals of the process as a whole."²

As a result, while new technology may improve an organization's ROI, the ability of an organization to more fully realize the benefits from their investment in technology is related to their willingness to accept and embrace changes in how the organization conducts business. The City's stakeholders must be prepared to overcome the obstacles frequently encountered in the implementation of new enterprise software, including resistance to change.

Typically this requires the adoption of formal approaches to both business process reengineering (BPR) (which Hammer defines as "the fundamental rethinking and radical redesigning of business processes to achieve dramatic improvement in... cost, quality, services, and speed"), and organizational change

² Hammer, M. "Reengineering Work: Don't Automate, Obliterate," Harvard Business Review, July-August, 1990, pp. 104-112.

management (OCM). The adoption of formal processes for OCM is critical since resistance to change has been consistently ranked high as one of the factors contributing to the failure of enterprise system implementations. Together, these approaches will enable the City to:

- ◆ Adapt the City's organizational structure and procedures to take advantage of the features of the new system, particularly with regard to taking advantage of best practices, streamlining processes though the elimination of non-value added tasks, the adoption of standard processes across the enterprise, and the elimination of manual document processing and handling.
- ◆ Adapt functional requirements in response to external factors (such as statutory or regulatory changes), but also as a result of the users obtaining greater experience in how technology can best be used to improve operations. Changes in functional requirements can also lead to changes in policies and procedures and expectations, particularly regarding the availability, timeliness, and accuracy of information.
- ◆ Adapt technical requirements to the performance and availability of the system, the underlying technologies supporting the system, and the new technology offerings that can potentially provide additional performance or costs benefits.
- ◆ Adapt contractual requirements and the implementation plan to organizational, procedural, functional, and technical changes, and changes to the availability of resources.

- ◆ Mitigate project risks including:
 - potential delays in implementation that can impact operations and result in cost-overruns,
 - user dissatisfaction with the new system, and
 - difficulties in realizing the intended benefits from the implementation of the new ERP suite.

(3) The City must have a well-defined roadmap for the replacement of its current financial system

The roadmap needs to identify and document:

- ◆ How the new financial system will integrate with other components of the City's application portfolio.
- ◆ Which business processes and modules will be included in the ERP project, and their relative priorities.
- ◆ The resulting application architecture indicating which modules will be replaced, renovated, or retired in the course of the project.
- ◆ Whether information from existing applications will be carried forward to the new ERP system, and the measures required to ensure the accuracy and consistency of that information.
- ◆ The impact of the implementation on the City's information technology environment and steps that must be taken to upgrade it.
- ◆ The plan for the acquisition and implementation of the new ERP system including how the modules will be phased into use and the City's preferred approach regarding on-premises hosting vs. SaaS. The City will need to plan to

implement the features and functionality that are most needed and provide the greatest benefit.

- ◆ The finances, personnel and other resources required to support the implementation of the new ERP system.

(4) The City must identify the goals and metrics that will be used to measure the business benefits of the new ERP system

Goals and metrics provide tangible reference points to indicate whether the desired benefits are being obtained from the new ERP system, and serve as the foundation for the implementation of a program for continuous improvement in the delivery of services to internal and external customers. Key performance indicators (KPIs) that are presently in use are a good starting point for these metrics, with the caveat that some process changes may make some of these KPIs less relevant. Nonetheless, the publication of information regarding improvements in performance helps justify the effort being expended on the implementation of process changes and the new ERP system.

(5) The City must be prepared to effectively manage the scope and objectives of the ERP project

It is likely that the City will implement the ERP system over multiple years and phases. As a result, it may have to make compromises to make the overall project more successful. For example, the City might have to push some functionality to a later phase, consider using third-party products to provide needed functionality, or remove one or more system functions from the project altogether. The City must be prepared to make informed decisions to ensure that, during the “crunch” that often accompanies implementation, these decisions are made based on realistic, long-term operational considerations,

and do not result in the implementation of products which fall short of the organization’s needs and expectations and that diminish organizational support for the project.

(6) The City must have a long-term plan to ensure that users can obtain the greatest value from the new ERP system through an ongoing approach to training

Training is often sacrificed in the rush to get a new system implemented, and then becomes a secondary concern in the face of the immediate tasks related to the day-to-day business of organizations. Even if adequate training is provided in the course of the implementation of the new ERP system, users often forget how to use functions and features that they do not use frequently, and user competence can also be diminished over time by staff attrition and re-assignments. The City must be prepared to provide ongoing training and to ensure that all staff members are sufficiently trained in the use of the new ERP system.

(7) The City must have a long-term approach to project planning and management

Project planning often ends with the completion of the last planned implementation phase; however, the City should consider its long-term requirements for project planning in order to:

- ◆ Effectively implement changes to the new ERP system in response to new or changed functional requirements or the availability of new or improved functionality from the system provider.
- ◆ Plan for and implement additional modules that were not part of the original implementation plan.

- ◆ Monitor vendor performance. If the City elects to utilize a remotely hosted solution, it will need to designate staff members to monitor vendor performance and ensure compliance with the terms of the Service Level Agreement (SLA), and advise City management in the event that the vendor is not meeting the agreed upon SLA levels and actions are required.