Information Technology Strategic Plan

City of Mission Viejo

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Executive Summary & Phase I Action Plan

Introduction and Overview

Increasingly information technology (IT) is becoming an integral part of local government operations and must be viewed as strategic to the City's long-term planning efforts. With this imperative in mind, the City of Mission Viejo retained Civic Resource Group (CRG), an information technology planning and development firm focusing exclusively on the public sector, to develop a plan for the current and future implementation of IT in the City. The resulting plan—titled the Information Technology Strategic Plan to underscore the growing importance of information technology in the delivery of government services—serves as a roadmap for the strategic and tactical implementation of IT infrastructure and electronic government ("e-government") services over the next two-three years and beyond. It provides a framework for introducing new technology in a phased approach that takes into consideration organizational needs, city budget, as well as current capabilities, technology trends and citizen expectations.

The Plan was developed based on input from City staff including current IT staff, City departments and management, as well as all members of the City Council. The process also included a comprehensive internal technology assessment as well as an analysis of best IT practices by other city governments. Previous studies and reports were cross referenced and used as additional background information, and in specific cases the project team worked directly with consultants and teams on related planning processes underway to coordinate effort and information sharing. In addition to the IT Strategic Plan the City is undergoing a citywide disaster recovery planning and security analysis. To avoid duplication of efforts IT related disaster recovery issues were not evaluated in depth as part of the IT Strategic Plan process.

The foundation for the Plan was based on three overarching goals identified during the planning process:

1. *Risk Mitigation and Preparedness*: Provide an environment that is conducive to effectively, and safely, implementing new technology and City services including proper alignment of resources, skills and policies; disaster preparedness and information security; and baseline IT infrastructure and operations.

2. *Citizen Services*: Enhance customer service to the residents and businesses of Mission Viejo by providing information and public services online in a cost-effective manner.

3. *City Efficiency*: Realize operational efficiencies, increases in productivity and potential cost savings/cost avoidance within the City—of growing importance given the current state and municipal budget environment.

These goals require a well supported, citywide effort that will have a significant impact on current City operations. The plan identifies a series of Critical Success Factors that

are essential to achieving these goals including sustainability, security, commitment, coordination and planning, continuous improvement, and finally, policy and risk assessment.

The planning work conducted by the project team, which consisted of the City IT staff along with the principals and senior consultants from CRG, included the following key components:

- Assessing the City's current technology infrastructure, software applications and adoption of new web and wireless technologies;

- Reviewing City staff, management and Council priorities for business technology projects and online services, and conducting follow-up meetings with key staff, managers and elected officials;

- Conducting research on current and emerging technology and e-government best practices;

- Conducting an organizational review of IT services within the City, including the structure and placement of IT; and

- Performing background vendor and product reviews where appropriate to make recommendations with cost estimates as part of the Implementation Plan.

Overall, the City has done a commendable job developing and managing its information technology network given past and current levels of staffing and resources. The City is well prepared from an infrastructure standpoint to utilize technology to better deliver services and information to the public. However, the City will need to make important changes to the organizational structure of IT—including creating a properly resourced IT Department and a new IT Director Position—and make a number of strategic investments to insure that critical public information and assets are secure and plans for enhancing City services and operations will be successful. The table below presents a top level summary of the key strengths and areas for improvement identified by the project team.

Summary: Strengths & Areas for Improvement

Strengths
1. IT Infrastructure in Very Good Shape Considering Current/Past Investments and Staffing
2. Current Major Business Applications Good/Adequate
3. Opportunities for Strategic Investment in New Business Applications as Part of IT Strategic Plan
4. Competent City Staff Open to Utilizing Information Technology
5. City Culture--Willingness, Desire to Continue Moving Information and Services Online, Utilize IT for Enhanced Business and Customer Service
Areas for Improvement
1. Disaster Preparedness not Adequately Addressing/Integrating Information Technology
2. City Information, Documents, Records at Risk
3. No Citywide IT Decision Making/Governance Process
4. City IT Services as Currently Positioned within the Organization Not Positioned to Implement IT Strategic Plan
5. Supporting Far Too Many Software Applications, Systems, Databases, Etc.; Lack of Standardization
6. Not Leveraging Key Applications/Systems Across the City
7. No Coordinated Plan/Strategy for Delivering Services Online
8. Lack of Information/Data Sharing Between Departments

Implementation

The plan examines the current technology environment from an organizational and technology perspective and takes a systemic approach to recommendations. The key to success for the City of Mission Viejo will be to manage the entire implementation as an integrated program, including the essential work of establishing an IT Department with the appropriate staff resources—rather than simply as a series of stand-alone IT projects. By doing this, the City will be able to provide a foundation from which it can realize cost-efficiencies and even savings over time, ensure information security and disaster preparedness, leverage current technology investments for new purposes, and successfully manage technology investments in a strategic manner. Should the City fail to take the steps to properly position and resource IT within the organization, and not follow the integrated, strategic approach for IT decision making and implementation recommended in this plan, then it faces the very real risk of falling behind other cities in the delivery of services and information to the public, and could end up spending more money in the long run for a much lower return.

Summary: Information Technology (IT) Action Plan

The Plan provides an incremental approach to technology: Implement key technology components and applications that can deliver high value in the near term, but that also will work together to create a foundation for continued successful development in the City. The recommendations address e-government planning, management, technology, services and processes. The specific recommendations have been grouped into the following four strategic initiatives—or "pillars"—which organize the recommendations along related subject and timing dimensions:

1. *Organizational Preparedness/IT Governance Initiative:* Develop and establish organizational processes and procedures for IT decision making that are essential to ensuring successful implementation of IT projects. Major initiatives include:

   - Adopt IT Strategic Plan
   - Establish director level IT position/IT Department in the City
   - Develop IT governance structure and decision making process
   - Address technical skills gap with focused training programs and employee recruitment/retention policies

2. *Infrastructure Preparedness & Planning:* Create a secure, stable technology foundation to support the optimal implementation of current and future applications. Major initiatives include:

   - Strengthen, consolidate City IT standards, policies, procedures
   - Integrate IT into Citywide Disaster Preparedness/Recovery planning
   - Prepare for new technologies (e.g., WiFi, VOIP, Web Services)
   - Continue platform/system upgrades and rollout of IT support tools
   - Initiate citywide document/records management project (digitization, storage, retrieval, business processes, etc.)

3. *Business Improvements & Process Automation Initiative:* Develop more efficient government through the effective use of technology for operating efficiencies, staff productivity and process improvements. Major projects include:

- Plan for citywide GIS coordination/projects
- Begin development of citywide data warehouse/decision support system
- Implement citywide complaint tracking/service request project
- Continue planning and implementation of automated permits process (including online customer service)

4. *E-Services & Online Applications Initiative:* Enhance customer service by moving information, services and communications online. Major projects include:

- Implement website redesign/enhancement project including web content management
- Begin planning and implementation of initial set of e-services (e.g., online service requests/complaints; electronic information subscription/alerts)
- Enhance city intranet, including departmental training to optimize utilization
- Standardize web platform and all web related application development; develop citywide web policies

The IT Strategic Plan is segmented into Phase I and Phase II. Phase I encompasses a series of interrelated projects along with a detailed budget covering years one and two of implementation. Phase II projects, spanning year three and beyond of the implementation, are discussed at a more general level for planning purposes. The Summary Action Plan on the following pages highlights the Phase I recommended actions; the primary benefits and business value of each action; top level estimates of the required resources; an indication of the timing for each of the actions; and a total budget estimate for each initiative. A detailed Phase I implementation budget is included in Section 8 of the Plan.

These assessments, figures and timelines are dealt with in detail in the specific recommendations provided in the body of the IT Strategic Plan. Checkpoints will be built into the implementation process as well, and individual projects may proceed on a faster or slower schedule than estimated at this time. This Action Plan should be utilized as a summary guide for implementation of technology in general and e-government in particular in the City, and updated periodically as part of the actual implementation process.

Information Technology Initiative 1: Organizational Preparedness

Goal: Set in place an effective IT organizational structure and decision making framework for managing current and future IT implementation within the City.

Recommended Action	Benefits/Value	Cost Factors/Notes
Action 1.a: Strategic Plan Adopt IT Strategic Plan and Vision	• Essential first step to roll out plan and begin implementation • Ensures support throughout the organization • Leads to more effective decision making and support	**Cost/Resources** • No Direct Costs • Internal Staff Time **Timing:** 2nd Quarter-2006
Action 1.b: Strengthen IT Authority/Support (i) Establish IT Department and Director level position (ii) Revise IT manager position description; hire additional IT Specialist Position	• Properly align IT Department with changing City needs, citywide business goals, and changing IT market trends and opportunities • Provide appropriate staff skills, resources, and executive level support to successfully implement IT Strategic Plan • Increases business and strategic focus of IT throughout the City organization • Provide stronger, more effective IT decision making and project management	**Cost/Resources** • Labor costs associated with additional headcount • Recruiting efforts/ resources **Timing:** Third-Fourth Quarter-2006
Action 1.c: IT Governance Establish IT advisory board for setting citywide IT goals and strategy (recommend current executive group to serve as advisory board) Develop clear decision making guidelines for assessing future IT investments and projects	• Provides the City with a framework for strategic IT decisions • Assists in IT decision making and assigning project ownership • Increases accountability and ensures that projects are well planned and meet City business needs • Avoids costly duplication of efforts by individual departments. • Ensures a citywide, strategic view of technology decisions • Increases project success rate and return on IT investments	**Cost/Resources** • No Direct Costs • Internal Staff Time **Timing:** Fourth Quarter-2006
Action 1.d: IT Training and Skills Development Develop an ongoing program for technology training citywide and development including customer service related functions	• Improve productivity/staff effectiveness • Improve staff morale and employee retention • Results in better decision making and better allocation of IT resources • Helps ensure successful rollout of new technologies	**Cost/Resources** • Increase Current Training Budgets by $20,000 • Internal Staff Time **Timing:** Ongoing

Estimated Phase I Cost for Organizational Preparedness/IT Governance: $20,000 (Not including personnel related costs--TBD).

Information Technology Initiative 2: Infrastructure Preparedness & Planning

Goal: Create a secure and stable technology foundation to optimize enterprise systems and implement e-government applications and services.

Recommended Action	Benefits/Value	Cost Factors/Notes
Action 2.a: IT Policies and Procedures Strengthen, consolidate City IT standards, policies, and procedures	• Update policies to better reflect new developments in IT • Educate employees on the importance of IT policies for the stability and effectiveness of the City Network and business processes • Mitigate business risks from improper use of the network by City employees	**Cost/Resources** • No Direct Costs • Internal Staff Time **Timing:** Ongoing
Action 2.b: Integrate IT into Disaster Recovery Planning Align IT disaster planning process with greater Citywide disaster planning initiative	• Ensure that mission critical IT systems are addressed as part of the City's overall disaster plan • Avoids duplication of efforts and addresses key dependencies among City departments for disaster planning • Increases communication and coordination in the City	**Cost/Resources** • $22,500 • Internal Staff Time **Timing:** Ongoing
Action 2.c: Prepare for New Technologies Begin planning process to leverage new technologies including WiFi, VOIP, and the Internet to improve City Services	• Take advantage of important new technologies that can have a major impact on City services • New technologies require advance planning and preparation for successful rollout • Will benefit from a formal IT governance/decision making process • Ensures that business and policy issues are addressed early on	**Cost/Resources** • Estimate $45,000 in consulting/planning costs • Public WiFi Project already planned/budgeted • Internal Staff Time **Timing:** Fourth Quarter-2006
Action 2.d: Continue platform/system upgrades and rollout of IT support tools Establish technology platforms and standardized system architecture and introduce new systems and tools to improve IT effectiveness	• Generate cost efficiencies through server consolidation process • Improved system performance and reliability • Lower training costs • Improved interoperability between City systems • Take advantage of new tools for managing IT systems, security, and infrastructure • Help increase effectiveness of IT staff and focus on high value add services • Generate long term cost savings • Provide better reporting and analysis of IT systems to improve decision making	**Cost/Resources** • Estimate $50,000 • Internal Staff Time **Timing:** First Quarter-2007
Action 2.e: Document/Records Management System Initiate a document/records management system (DMS) for creating and managing digital versions of important public records and documents	• High value project impacting all City departments • Paper reduction—cost savings • Process efficiencies/streamlining • Risk mitigation: Reduces risk of permanently losing vital city records • Enhanced customer service: Timely distribution of information to public	**Cost/Resources** • Related Document Management Projects already Planned/Budgeted • Internal Staff Time **Timing:** Ongoing

Estimated Phase I Cost for Infrastructure Preparedness & Planning: $117,500

Information Technology Initiative 3: Business Improvement & Process Automation

Goal: Gain operating efficiencies, staff productivity and process improvements through the effective implementation of technology.

Recommended Action	Benefits/Value	Cost Factors
Action 3.a: Plan for Citywide GIS coordination/projects Introduce new Citywide GIS initiative to improve City Services	• Improve use of key technology in Government--GIS • Take an enterprise approach to leveraging GIS across multiple departments • Increase City's geographic analytic capabilities • Widespread benefits for nearly all City departments	**Cost/Resources** • Estimate $40,000 • Internal Staff Time **Timing:** Second Quarter-2007
Action 3.b: City Data Warehouse/Decision Support System Implement a centralized system for accessing vital City business information utilizing a centralized City database	• Improved business decisions • Better support for policy decisions • Improved fiscal management • Decreased time for preparation of management/staff reports • Important first step towards data consolidation/database rationalization • Increased productivity—some staff time freed up	**Cost/Resources** • Estimate $40,500 • Internal Staff Time **Timing:** First Quarter-2007
Action 3.c: Implement Citywide Complaint Tracking/Service Request System Streamline City Service Inquiries and build a foundation for creating a robust City Communications Relationship System (CRM)	• Enhanced and more responsive customer service • Convenience of submitting City service requests online • Process efficiencies/streamlining • Re-orient services with a customer facing approach rather than department centric	**Cost/Resources** • Estimate $45,000 • Internal Staff Time **Timing:** Fourth Quarter-2006
Action 3.d: Automated Permit Process System Planning for new permit processing system w/online customer service capabilities	• Automate major line of business function • Improved customer service • Process efficiencies/streamlining • Help mitigate project risk with proper upfront planning	**Cost/Resources** • Project already Planned/Budgeted • Internal Staff Time **Timing:** Second Quarter-2007

Estimated Phase I Cost for Business Improvement/Process Automation: $125,500

Information Technology Initiative 4: E-Services and Online Applications

Goal: Enhance customer service by moving information and services online

Recommended Action	Benefits/Value	Cost Factors
Action 4.a: Website Redesign Redesign City website to provide an easy to use, customer centric site Upgrade web technologies for online services and managing the website	• Enhanced public perception: Provide a face to the public • Improved online citizen services and responsiveness • Provide citizens timely access to more and better information and documents • Facilitate community spirit and civic engagement • Provides a new site architecture that will support the addition of new online services over time.	**Cost/Resources** • Estimate $15,000 in Additional Planning • Additional Website Redesign Budget already Planned • Internal Staff Time **Timing:** Fourth Quarter-2006
Action 4.b: Planning and Implementation of E-Services Provide initial set of e-services to improve customer service	• Leverage the new website for improving customer service • Initial applications to focus on cost effective impact services (e.g. electronic notifications/e-alerts, online self service) • Improved customer service • Reduce costs and project risk by taking a phased approach to web based applications	**Cost/Resources** • Estimate $40,000 • Outside Service Provider **Timing:** First Quarter-2007
Action 4.c: City Intranet Upgrade City's internal web based business/communication system (City intranet)	• Generate internal efficiencies • Increase information sharing and internal communications • Utilize key technology for integrating City business applications into a central location (web portal) • Leverage City's web based platform to develop new applications	**Cost/Resources** • Estimate $32,500 • Internal Staff Time **Timing:** Second Quarter-2007
Action 4.d: Web Technology Standardization Establish formal technology standardization program for key technologies including web programming languages and platforms	• Adhere to best web/IT practices in Government • Business driven approach to technology adoption • Drive system component reuse and interoperability • Help ensure that future City IT investments leverage existing capabilities • Deliver services to citizens more effectively • Increased systems reliability/mitigate IT project risk • Reduce IT training costs	**Cost/Resources** • Estimate $40,000 • Internal Staff Time **Timing:** Fourth Quarter-2007

Estimated Phase I Cost for E-Services and Online Applications: $127,500

1.0 City of Mission Viejo Information Technology Implementation Overview

1.1 City IT Vision and Approach

As an overall context for this Plan it should be noted, and emphasized, that the City has done a commendable job overall in keeping up with its IT infrastructure. This presents a major opportunity for the City: the ability to plan for and utilize IT strategically in the future for enhanced operations and delivery of public services and information. Rapid changes in technology and the wide array of solutions and approaches make information technology in general and e-government decisions in particular a daunting task for even the most tech savvy municipality. Effective planning must ensure that the recommendations are in line with the City's internal capabilities and willingness to incorporate new technology into the organization. Setting a clear information technology vision provides a valuable tool to set the general direction for e-government recommendations and help clarify which solutions are most appropriate for the City.

There is no one clear definition of e-government. What is clear, however, is that e-government is much more than simply establishing an organizational website and offering some citizen services online. This limited—and limiting—approach to e-government, however, is where many municipal governments find themselves today, primarily because they did not strategically plan for e-government as part of overall information technology, and set out a plan and vision for e-government in their city.

The real power and potential of technology is to improve overall how an organization conducts its business, including how it delivers external public services, how it operates and manages internal business processes, and finally how it governs. The City has adopted and is making the effort to implement IT in this broader sense, that of changing the way the City operates, provides services and information to the public, and engages its citizens. This vision, however, cannot be achieved overnight, and will not be achieved with some easy purchase and implementation of a specific technology "platform." It entails a much more strategic approach to the implementation of information technology throughout the City, an approach that will take careful planning, management oversight, and resources. The City of Mission Viejo's Information Technology Strategic Plan detailed herein represents the initial two-three years of planning in this effort.

There will be opportunities for "quick wins" that can be implemented immediately—a number of these are included in this plan. Should the City focus solely on speedy, seemingly "easy" technical implementations, or fall prey to the lure of simplistic "e-gov-in-a-box" solutions, it will inevitably fall far short of its overall IT vision. The quick route will also potentially lead to severe problems regarding security, disaster preparedness, technology integration, training and skills development, and general
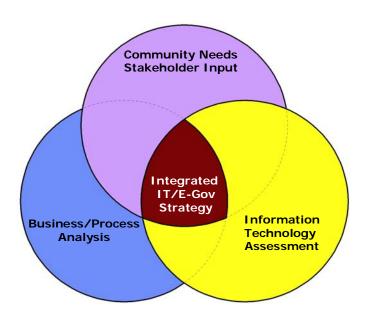
support and maintenance issues that will be far more costly to the City in the long run. A critical component of this plan is the reorganization of IT services within the City, including the creation of an IT Department with a new IT Director position and one addition IT Specialist position. Without establishing, and supporting, this organizational foundation, the City will be in danger of failing in its ability to implement its IT Strategy. Of greater consequence the City will no doubt fall behind other cities in the provision of public services to residents and businesses—basically faltering in its job.

The City's commitment to the preparation of this IT Strategic Plan and the allocation of staff and budget resources to a phased implementation of IT infrastructure and services is clear evidence that it is on the right path to achieve the goals of technology. Based on current best practices in city e-government, discussions with City management and staff, and the consultant's experience in the field, the key elements of a quality IT vision/approach include:

- **Goals Driven** – Technology is simply a tool, albeit a potentially powerful tool, for government. E-government/technology implementation must always be aligned with clear customer service and citizen engagement goals, operational efficiency goals, and ultimately good government goals.

- **Leverage Current Infrastructure –** New applications and services should work to the greatest extent possible with the City's current network, server, and computer infrastructure, thus leveraging current technology investments.

- **Continuous Improvement/Incremental Approach** – The City's technology decisions are best approached from an incremental perspective. This will help avoid costly/failed projects, and will build in time for knowledge transfer and skill enhancement by City staff.

- **Business Driven** – The City's e-government and technology decisions should be driven by business needs; new technology should not be implemented unless there is a sound business case.

- **Balance Open Technology Standards with Standardization** – The City should be open to technology solutions that meet specific needs, as long as they work within the overall technology framework, while at the same time working toward standardization wherever possible; the key is not to be wedded to a single platform or vendor, but to have enough standardization that all applications and platforms work together as a system.

- **Pragmatic Approach** – The City should take a pragmatic approach to implementing new technology and use technology in a cost effective manner.

The diagram on the following page illustrates the overall approach required for developing a plan that will result in a successful IT system for the City. Each of the elements identified above are addressed in one of the three dimensions: Community Needs/Stakeholder Input; Business/Process Analysis; Information Technology Assessment. By thoroughly considering these separate but related dimensions the project team and the City will best be able to develop an integrated IT strategy that encompasses central e-government services.

City of Mission Viejo

Information Technology Strategy Approach

1.2 Return on Investment & Benefits Overview

The initial 2 year (Phase I) investment in IT infrastructure, applications and e-government services is estimated at $350,000-$450,000, most of which will be expended on hardware/software and professional services for development and integration services. This is a very reasonable budget for a City the size and character of Mission Viejo making this kind of service commitment, and the project team prepared this implementation plan with these budget numbers as guiding parameters.

Additionally, every information technology project considered by the City going forward should be assessed from the standpoint of IT using the frameworks and other analytical processes developed as part of this plan. While these information technology investments are considerable, the potential returns, especially in the long-term, are substantial and City staff where feasible should attempt to identify and measure these returns.

1.2.1 Developing a Business Case – Return on Investment

IT is not a single project. It is an ongoing process and must be evaluated taking into consideration a Return on Investment (ROI) approach. The following are key ROI areas that provide a framework for recommendations and prioritization of projects.

- **Risk Mitigation ROI:**
    - Does the project help reduce the City's business risk relating to such items as business downtime, breaches of security, policy or legal requirements, and possible financial loss relating to unforeseen events?
- **Citizen ROI**:
    - What tangible customer service enhancements are created for City residents through the proposed e-government project or initiative?
- **Business/Economic Development ROI:**
    - What tangible customer service enhancements are created for the local businesses in Mission Viejo through the proposed e-government project or initiative?
    - Does the project or initiative enhance the City's ability to attract, retain or facilitate the growth of businesses in the community?
- **Community/Social ROI:**
    - What benefits help foster Community building in Mission Viejo that contributes to the long-term quality of life in the City.
- **Productivity & Efficiency ROI:**
    - Does the project implementation potentially create opportunities for increased operational efficiency and/or employee productivity through business process and/or workflow changes?
- **Enterprise/Backbone ROI:**
    - Does the project or initiative have the potential to be used for other projects or services?
    - Does it fit in with the enterprise approach/path chosen for the City? Can it be integrated?
    - Does it support or fulfill one of the identified IT Backbone Components?
- **Leadership ROI:**
    - What immediate and long-term benefits can elected officials and City leaders point to in support of good governance and continued IT implementation?
- **Public Perception/Image ROI**:
    - Does the project or initiative enhance the City's image, thus helping to create an attractive environment for economic and community development?
    - Does the project or initiative lend itself to the City's objective of serving as a model for municipal e-government implementation?

For any given project, certain criteria will be more relevant, and in various contexts some criteria will be more measurable than others. Under any circumstances, however, each of the ROI criteria should be evaluated for any given IT project.

1.2.2 Benefits Overview

Once the general business case and ROI have been assessed, development of specific benefits to support the project is essential. For example, a project that rates a High for Citizen ROI should have a number of specific benefits detailed to support the High rating. Often at this stage the benefits, if well developed, can serve as measurable indicators for the ROI and evaluation.

Citizen and Community Benefits

The sample benefits outlined in the table below relate directly to the following three Return on Investment categories described above: Citizen ROI, Business/Economic Development ROI, and Community/Social ROI. Generally, these benefits are difficult to translate into dollar values, but they are often the overriding reasons for investment in IT services, and the indirect economic benefits to the City can be substantial.

Sample Citizen and Community Benefits

Benefit	Sample Description
Convenience	• Basic City information available online 24 hours a day, 7 days a week, 365 days a year • Find information for multiple/different needs at one place/at one time
Customer Service	• Allowing citizens/business self service opportunities online; freeing up counter service time by transitioning some users online • Creating online opportunities for certain key services; improving response times and accuracy rates for information and service requests; providing better/more frequent follow up and customer input
Access	• More public information, records and documents available online • Information made available in timely manner
Accountability	• Increased transparency of government • Opportunities for general and specific public input and participation
Community/Social	• Enhanced quality of life • Positive social impact
Business/Economic Development	• Improved economic competitiveness • Facilitate doing business with the City • Improved business related services, such as permits, licenses, approvals, business taxes

City Operational, Governance and Technology Benefits

The sample benefits outlined in the table below relate directly to the following Return on Investment categories that focus on the City organization rather than the Citizen: Productivity and Efficiency ROI; Enterprise/Backbone ROI; Leadership ROI; and Public Perception/Image ROI. Some of these benefits lend themselves readily to estimating dollar values and measurement. Focusing solely on measurable benefits, however, can lead to missed opportunities.

Sample City Operational, Governance and Technology Benefits

Benefit	Sample Description
Risk Avoidance	• Reduction of costly system downtime • Protection of electronic records, information, data
Disaster Preparedness	• Enhances communications and information sharing capabilities in emergency situation • Provides emergency information to the public
Productivity	• Process automation increases productivity of staff • Freed up staff time can be reallocated
Technology Standardization	• Lower total cost of ownership • Increased uptime and reliability
Strategic Alignment	• Project aligns directly with other articulated City strategies, e.g., General Plan, City Council Goals, Other Strategic Plans
Paperwork Reduction	• Cost savings in paper, printing/copying, postage • Reduced administrative overhead
Cost Savings	• New process saves costs of labor, supplies, transaction costs, other generally identifiable costs
Cost Avoidance	• Project allows City to defer/cancel costs of other project implementations
Time Efficiencies	• Reductions in time spent to complete processes • Information distributed/published in a faster/more timely manner
Internal and External Communications Efficiencies	• Increased internal/external user and customer satisfaction • Better response/input times • More timely dissemination of information
Public Perception/Leadership	• Immediate implementation of high-profile online citizen service—good City service, responsiveness, successful implementation • Leadership can easily point to benefits, explain the project, promote the value of the project
Compliance	• Supports or satisfies identified regulatory/policy/legal compliance • Supports or satisfies internal security standards, policy goals
Decision/Policy Support	• Better informed decisions leads to more efficient use of resources • Closer fiscal/business management leads to increased productivity, potential cost savings
Intergovernmental/Agency Cooperation	• Increase in government effectiveness • More efficient multi-agency processes and transactions • Potential cost savings among agencies
Personnel	• City staff gaining/applying new skills • Raised feeling of professionalism; morale builder
Workflow/Process Improvements	• Improved staff productivity • Improved processing times • More responsive government

Benefit	Sample Description
	• Process innovation
Intellectual Capital	• Ensure knowledge transfer within organization • Facilitate information and knowledge capture
Organizational Competitiveness	• Enhanced ability to recruit, retain quality employees • Perceived organizational leverage with vendors, contractors, other governmental agencies
Revenue Generation	• Project generates new/greater revenues for City

1.2.3   IT Solution Decision Framework

Once key assumptions and business benefits have been determined, solution alternatives must be developed with concrete recommendations. The following key factors provide a framework for determining the appropriate solution for the City, and can be applied at the solution (e.g., preferred model/approach), product and/or vendor level:

- **Technical Specifications** –
  - o Does the solution adequately provide the features and functionality to deliver the desired solution?
  - o Is the product overly complex, or too limited?
  - o Is the solution/product usable for the average or targeted user?
- **Total Cost of Ownership** –
  - o Are external factors included in the purchase decision, such as outside technical skills, the need for additional hardware, and training?
  - o Will the solution require future upgrades to integrate with other applications or to add functionality?
- **Organizational Impact** –
  - o Does the solution require new processes and additional skills that may impact the success of the project?
  - o Is the solution flexible enough to work with the organization's current processes, if desired?
  - o Does the solution require new levels of authority, management or departmental cooperation?
- **Vendor Risk Analysis** –
  - o How sound is the technology provider?
  - o How long has it been in business and what is its track record?
  - o What are the vendor's long-term prospects for remaining independent and is it investing in product development?
- **Service Quality** –
  - o Does the vendor provide quality customer service, support, and training?
  - o Is the vendor's corporate culture one of flexibility and partnering, or simply "up-selling?"
  - o Is the vendor responsive?
- **Technology Risk** –
  - o Does the proposed solution lock the customer into a solution that may not be viable in the future?

- To what degree does the proposed solution allow for interoperability/compatibility with existing and emerging technologies?
- Is the product/solution designed, documented and tested to industry standards?
- Can the City and other contractors work with the product, or does the original vendor have to be brought in for all work?

- **Special Factors –**
    - Are there other specific factors unique to the project, such as increased security vulnerability, that may arise from the proposed solutions?
    - Are there policy requirements such as accessibility that must be considered in the selection process?
    - What are the usability issues?
    - What are the cost/benefits of open vs. proprietary solutions?

1.3 City Information Technology Needs and Opportunities

While a number of key information technology project recommendations detailed in this plan can be characterized as "needs," especially in the areas of infrastructure enhancements and business improvements, the majority really can be viewed as "opportunities" to improve customer service or achieve operational efficiencies. For the most part, the City is starting down the path to e-government with a fairly clean information technology slate, and thus has not boxed itself into technology models or e-government approaches that "need" to be fixed or unraveled before moving forward. Additionally, the City has already addressed a number of pressing needs including network enhancements, PC upgrades, and a new email system. In the sections below, the major Needs and Opportunities are highlighted for each of the initiatives.

1.3.1   Initiative 1: Organizational Preparedness

Organizational Preparedness Needs

- Establish appropriate organizational structure for IT functions within City

- Establish decision making framework/ownership for citywide IT decisions

- Strengthen IT authority/support: Elevate IT to department level, create IT Director Position, and plan for additional resources including IT Specialist Position

- Identify key IT related skills required to manage technology implementation within City

Organizational Preparedness Opportunities

- Acquire through hiring, training and/or position reallocation necessary IT skills and knowledge

- Address technical skills gap with focused training programs and employee recruitment/retention policies

- Gain citywide input and buy-in on key IT decisions and projects

- Provide a long-term sustainable program for IT initiatives

1.3.2   Initiative 2: Infrastructure Preparedness and Planning

Infrastructure/Security Needs

- Establish baseline network system connectivity, and security

- Integrate IT into Disaster Preparedness/Recovery planning

- Put in place essential information technology components (building blocks) that are required for implementation of e-government applications and services

- Plan for inventorying, securing and digitizing City documents and records

Infrastructure/Security Opportunities

- Continue standardization process for technology infrastructure, platforms and applications

- Maintain current standard of network infrastructure for optimal IT deployment

- Optimize/enhance performance and usability of City's financial system

- Leverage/optimize current City business systems and key technology component investments for improved city operations and future IT development

- Continue rollout of IT support tools

- Prepare for new technologies (e.g., WiFi, VoIP, Web Services)

1.3.3 Initiative 3: Business Improvement and Process Automation

Business/Process Needs

- Analysis/understanding of key business processes – an essential first step before introducing any enterprise software system in the City

- Better access to geographic information including analytic capabilities; plan for citywide GIS coordination/projects

- Standardization and more effective use of online/interactive City forms

- Electronic system for managing vital city business records

- More effective means of creating management information reports from City business/financial data located in various databases/systems

- Begin development of citywide data warehouse/decision support system

- Initiate citywide document/records management project (digitization, storage, business processes, etc.)

Business/Process Opportunities

- Automate key processes for productivity and reduction in paperwork, labor and costs over time

- Develop integrated enterprise GIS system

- Create an internal business intranet/communications platform for improved communication, collaboration and information sharing

- Implement citywide complaint tracking/service request project

- Continue planning and implementation of automated permits process (including online customer service)

- Create a centralized online location and common user interface for management of IT/e-government applications and services

1.3.4 Initiative 4: E-Services and Online Applications

E-Services Needs

- Create an Internet foundation for continued development and implementation of online public services in the future

- Make more City information available on the City's website

- Utilize the web as a business tool for the City

- Implement website redesign/enhancement project including content management

- Begin planning and implementation of initial set of e-services (e.g., online service requests/complaints; electronic information subscription/alerts)

- Standardize web platform and all web related application development; develop citywide web policies

E-Services Opportunities

- Establish a web presence that projects a positive and professional image of the City of Mission Viejo

- Utilize the public website as a marketing, outreach and economic development tool

- Implement high value, low risk/low resource online service applications for use by citizens and City staff

- Enhance city intranet, including departmental training to optimize utilization

1.4 Creating an Information Technology Infrastructure

1.4.1 Discussion

The thrust of any information technology implementation plan should be to design the optimal component architecture for implementing e-government that meets the specific needs of an organization. It must address a host of interconnected systems and provide the underlying foundation for all electronic services. This integrated architecture serves as a sort of "backbone" for all external and internal IT systems and applications.

1.4.2 Implementing an IT System Architecture

The City IT System Architecture will need to incorporate and optimize current major technology investments the City has in place, while at the same time guiding the configuration of technology/e-government projects underway, and the acquisition and implementation of new technology and e-government applications. This is a balancing act of sorts—maintaining as a key objective over the long-term the gradual standardization of the City's technology infrastructure and assets to create a manageable, reliable and flexible e-government system.

The table below outlines the key components that will be required to develop an effective IT System Architecture for the City of Mission Viejo. Some of the components are already in place in some form within the City; others will need to be implemented in order to effectively support internal and external IT processes and applications. Still others can be put off for future implementation, but should be considered alongside the others for strategic planning.

City of Mission Viejo
Key IT/E-Government "Backbone" Components

Key Backbone Components	General Description/Value	Status/Notes
Disaster Preparedness	Enhance emergency communication and information sharing within City and to the public	Under consideration as part of Citywide Disaster Preparedness Planning
Security	Standard level of security must be maintained for all e-government technology, services and applications.	Security policies and baseline architecture addressed in Plan
Network Infrastructure	Solid, stable network infrastructure serves as the underlying platform for all e-government projects.	Baseline network currently in place; enhancements recommended in plan
Database Structure	Gradual move to applications and services that utilize database approach for information management requires consistency and open database standards.	SQL standardization recommended for database platform and web enablement
Website	The foundation for delivery of all public services and information over the web.	Redesign and key enhancements recommended in Plan
Intranet/Group Platform	The internal foundation/platform for internal collaboration, workflow and web-based applications.	Recommended in Plan
Communications/ Messaging	Internal and external electronic communications form the basis for information sharing and distribution.	City recently implemented MS Exchange; opportunities to leverage for additional value
E-Commerce	Any services and applications that potentially require online payment should be implemented with similar process, requirements and underlying technology.	E-Commerce pilot projects underway; strategically expand and standardize
Core Financial System/Enterprise Resource Planning	Most important business system within the City; potential utilization for online services, and for more effective management of information.	Plan recommends continued utilization and optimization of current IFAS system
Geographic Information Systems (GIS)	Enterprise GIS has potential tie-ins with/value to numerous business applications; trend toward not limiting GIS to engineering/planning applications (Note: in general, approximately 70%-80% of municipal information is geographic based).	Elevate role/position of GIS to allow for citywide planning and coordination
Document Management	Paper documents are the most prevalent form of information in the municipal context, and the main form of information on City website; potentially impacts/ties-in with numerous internal and external processes and services.	Document Management System (DMS) recommended (note: budget already allocated); should be implemented only **after**

Key Backbone Components	General Description/Value	Status/Notes
		preliminary planning, digitization work underway
Web Content Management	As public website and City intranet expand and become more valuable, ability to more effectively manage content and web publishing will become critical for productivity, efficiency and customer service.	Basic content management tools recommended in Plan as part of website redesign project
Electronic Forms/ Workflow	Majority of processes and transactions in municipal context involve paper-based forms and processes; major productivity enhancement, operational efficiency, potential cost savings; ties-in with virtually any internal/external online application or process.	Under consideration as part of other projects (e.g. data warehouse, document management)
Decision Support/ Performance Management Systems	Single largest issue with business managers and departmental staff in most government agencies is difficulty of getting quality business/ management information and reports in a timely manner; web-based (intranet) systems leverage current major technology investments.	Initial management reporting/decision support system recommended in plan as part of data warehouse implementation
Telephony/IVR	Potential to integrate voice and web access in centralized system; integrate phone, counter and web requests and services.	Under consideration
Wireless: Access, Networking, Communications	Emerging trend with high value potential, especially for organizations with remote facilities, field workers, and transient workers. Standards and technology in flux.	Citywide wireless (Public WiFi) project in planning stages

1.5 Implementation Approach

1.5.1 Assumptions and Constraints

Following are the key baseline assumptions and constraints within which the project team developed the Implementation Plan.

- **Budget**: The general budget parameters for Phase I (years 1 and 2) projects is approximately $350,000-$450,000, which is in addition to previously planned and budgeted projects. Budget availability for Phase 2 (years 3 and beyond) is unknown at this time. Other budget that could tie-in and add value to information technology projects include general IT operations, planned hardware/software upgrades, departmental budgets that may be used for specific e-government business applications, communications budget that may be used to enhance website programs.

- **Targeted Skills/Staff Acquisition**: The City desires IT to increase productivity and efficiency, and requires that e-government applications and services implemented as part of this plan be manageable without significantly increasing staff resources. New and/or enhanced staff skills and

experience specifically in IT resources and GIS, however, will have to be acquired for e-government to be effective over time.

- **Security and Reliability**: As with all government agencies at all levels, security and system reliability concerns can no longer be an afterthought, especially in technology implementation. At both the foundation level—the architecture—and the specific application and service level, security has to be built into every project implementation. The creation of threshold security and system standards and a security architecture will go far toward the City's goal of establishing a secure and stable IT system.

- **Manageable**: The IT story for far too many organizations, including many municipalities, is one of over-engineered solutions requiring new skills and resources to manage, or implementation of proprietary solutions that require the services of the original vendor to manage. Information technology has to include empowering City staff—not only IT staff—to confidently manage much if not all of their overall e-government application and system.

- **Work with Current Major Technology Investments where Feasible**: The City has already made a number of major technology investments. To the extent possible, IT implementation in the City should attempt to leverage these investments, and either add value to them or gain additional value from them.

1.5.2   Implementation Approach

The implementation approach is a framework made up of a number of guiding principles, outlined below. Each of these guiding principles was considered along with the above described assumptions and constraints to assist the project team make both strategic and tactical decisions regarding the implementation of IT in the City. These principles should continue to be used and refined as the implementation of the various e-government components proceeds.

- **Phased/Evolutionary Approach**: E-government is young and still evolving. As such, a phased approach to implementation will allow City staff to gain knowledge and skills, will ensure greater integration of different applications and components, and will allow the City to gradually adjust and refine the implementation plan if required with little or no impact to the organization.

- **Best of Breed Products and Services**: The City desires a high quality e-government implementation to serve the people and businesses of Mission Viejo, as well as to serve the City organization. Best of Breed products and services should be chosen wherever possible as long as they fit within the City's overall IT framework. Best of Breed includes those vendors who provide top customer service, have the resources for research and development, and the willingness to work closely with the City. In this dynamic technology environment it does not necessarily mean the most costly product or service.

- **Standardize and Integrate**: At one level or another—from maintaining a similar look and feel, to the ability to "talk" to each other, to true interoperability—all e-government applications and services should work together in an integrated fashion. Standardization of technology, approaches, security and other key elements will facilitate the integration process.

- **Look to Leverage**: Generally there is more than one solution or approach for each e-government project. Given the City's desire to develop an integrated and standardized technology infrastructure, the City should look first to leverage current and planned technology investments wherever possible, before considering solutions that require entirely new or stand-alone infrastructure.

- **Management and Oversight**: E-government is new and different from traditional technology implementation. It therefore requires close project oversight/management from City IT staff and outside experts, if desired or required.

- **Utilize Current City Staff**: Wherever feasible, City staff should be intimately involved in the development and implementation of IT in general and e-government in particular. This will ensure valuable knowledge transfer, built-in user testing, access to City-specific knowledge, and confidence in City staff. Additionally, input will be required from users, including management input from business management, not only technology management.

1.5.3   Resource Requirements

Proper resource planning is at the heart of good technology implementation and budgeting. For every project and/or solution, the following resource categories should be assessed from a hard cost standpoint, for example the quoted cost for a hardware device or software license, and a soft cost standpoint, for instance the level of effort required of City staff in the planning, design and development of a business process application.

- Hardware

- Software—Including required add-ons, real costs based on required number and/or types of licenses

- Professional Services—Planning, development, management, implementation

- City Information Technology Personnel—Configuration, planning, development, project management, troubleshooting, internal maintenance and support

- City Management/Dept. Staff—Input and feedback on business application functionality and design; user requirements and testing; business process design and modeling

The implementation process will require close partnering with numerous vendors, especially for training, ongoing support, coordination for future product developments, and service level agreements. This will require oversight by the City, and probably by third party technology professionals to ensure best value, optimal integration, future flexibility, and most important, proper alignment with strategic and business goals and priorities.

These resource requirements are reflected in the project recommendations and in the detailed implementation budget.

2.0 Initiative 1: Organizational Preparedness and IT Governance

2.1 Overview and Summary Recommendations

Addressing the organizational issues surrounding information technology is a requirement for successfully implementing new IT initiatives and e-government services. An effective decision making process that is well communicated throughout the organizations provides the foundation for deploying IT initiatives. The focus of the work performed within this initiative is to prepare the City for the implementation of an integrated information technology plan.

**Initiative 1: Organizational Preparedness/IT Governance
Implementation Summary**

Recommended Projects	Description	Required Resources
Adopt IT Strategic Plan and Vision	• Publish, promote and communicate Vision internally and externally • Educate public on IT/E-Government and its impact on Citizens including operational efficiencies and improvements to public services • Ensures support throughout the organization	City Council City Management City Staff
Strengthen IT Authority/Support	• Establish new Director level position in IT • Revise IT manager position description • Hire additional IT Specialist Position • Set clear roles and responsibilities for IT functions • Provide appropriate staffing skills and executive support to successfully implement IT Strategic Plan • Develop top level categorization of IT functional needs (Support, Training, Application Development, etc.) • Structure new IT group as a formal Department	Prof. Services City Management

Recommended Projects	Description	Required Resources
	• Revise/define Job descriptions to better meet City needs • Identify roles of in-house staff vs. third party contractors	
Develop Formal IT Governance Structure and Decision Making Process	• Create a framework for how IT decisions are made and the various roles of key players in the process – Management, Council, IT Committee, IT Staff, Departments • Formalize IT decision making and project ownership to increase accountability • Develop/adopt a macro approach for decision criteria, charter roles, and communications to increase projects success rate/return on investment • Prioritize year one program of work	Prof. Services City Management
Develop Customer Service Technology Training Program/IT Skills Development	• Develop ongoing training program for customer service end user general technology skills/specific applications skills • Periodic group managerial briefings/educational sessions • Technology management/business use training (E-Government)	Prof. Services City IT

2.2 Adopt IT Strategic Plan and Vision

2.2.1   Recommendation Discussion

As the City moves to implement external online services, web-based internal communications and information management, and engage the local community through interactive means, the role of information technology will become more central to the City, and will cut across departments and divisions. This enterprise model for information technology begins with the adoption of the IT Strategic Plan and establishing a technology vision that will serve as a roadmap for the future.

2.2.2   Implementation Discussion

Adoption of the IT plan must be more than simply a report that has been read and approved by City Management. It is a living document that should be part of the City's ongoing decision making process and communicated broadly throughout the organization. It is essential that Employees, Management, and City Council are all

apprised of the Plan and its impact on the City.   The communication of the plan will need to be tailored to each audience for it to be meaningful and achieve its desired outcome. For example, City staff may need to only be briefed on a summary level with emphasis on new projects and policies and procedures whereas City Council will want to understand the fiscal impact of the Plan and its impact on City Services.

2.2.3   Recommendation

IT Strategic Plan and Vision Recommendation

Preferred Alternatives	Required Resources
IT Committee Briefing	City IT Committee
City Manager Briefing	City Management
City Council Adoption	City Management, Council Time
City Staff Briefing	City Management, Staff

2.3 Strengthen IT Authority/Support

2.3.1   Recommendation Discussion

In understanding the role of IT in current business processes, it is important to examine the overall organizational reporting structure and departmental roles and responsibilities. While there is no right answer for where various IT functions should reside in a City organization, several models have emerged as technology is increasingly becoming an integral part of City operation. The following three models are most commonly found in City organizations the size and character of Mission Viejo.

- Finance – Historically IT has been closely associated with Finance due to the importance of a City's financial management system. This is a holdover from the early data processing days where the primary role of IT was servicing a central finance system on a mainframe computer.

- Administrative Services – IT serves in a support role as part of a larger administrative services department.

- Independent Department – This model is a growing trend among City's reflecting the critical role of IT in City operations and customer service.

Within these models there are differing approaches to how IT delivers services particularly with respect to enterprise projects such as enterprise resource/financial management systems, GIS and online services. Information Technology Services in the City of Mission Viejo currently reports directly to the City Manager. However, the

current top IT classification is an IT Manager, which weakens the authority and the ability of IT to manage strategic IT decisions for the City as a whole. During the needs assessment it became clear that this structure has lead to decentralized and somewhat unplanned Citywide IT decision-making. This in turn has resulted in certain inefficiencies—for example, far too many software applications being purchased and supported throughout the City; business applications not being leveraged by more than one department; outdated software systems being acquired and implemented; and others. While this situation may not have had a severe impact on the City in the past, it no doubt will negatively impact the City's ability to move forward strategically with IT in the future, especially as it moves more information and services online.

It is strongly recommended therefore that the City establishes an IT Department with a Director level position; revises the IT manager position description to differentiate between the two functions and associated responsibilities; and hires an additional IT Specialist position. Doing so will position the City so that it can act strategically in term of IT in the future; the elevation of IT to a Department will signify throughout the organization the strategic importance of IT; future recruitment and succession planning will be facilitated; and overall the City should be able to realize cost, operational and customer service benefits of IT.

2.3.2   Implementation Discussion

The IT management function is currently being managed by the Information Technology Manager within the City Manager's office. While the City has an excellent IT infrastructure, it clearly needs to upgrade its overall level of technology resources and develop clear roles and responsibilities with respect to the management of technology. The City relies on outside contractors to perform a number of IT related services – a recommended approach and current best practice for Cities of the size and character of Mission Viejo. Given the fast changing world of technology it is inadvisable to develop a large IT staff that develops skills internally across a wide spectrum of technology areas. It is best served by having a capable staff in core areas such as network administration and desktop support along with strong IT supervisory and business skills to oversee outsourced specialty areas such as web application development and line of business applications.

Elevating IT to a Director level position within the City will not only increase the business focus of IT but will also better match internal resources with stated goals and objectives. The increased prominence of IT that comes with a Director level position will also enable a clear decision-making structure, which will lead to cost-savings and efficiency through economies of scale where the Director would assume top-level responsibility for implementing the overall goals and initiatives as outlined in the IT Strategic Plan (an in-depth discussion of IT Governance is provided in Section 2.4). Moreover, the separation and distinction between the Director and Manager positions will enable the manager to focus on alleviating immediate IT needs, such as outlined below.

Key IT Needs

A new IT function/resource will have to fully or partially support the following key IT needs identified within the City:

- Oversee/support implementation of Information Technology Strategic Plan

- Assist in ongoing IT/E-Government project management and planning; oversee systems integration for related projects

- Staff support for IT governance structure/process; assist in all IT procurement, contractor project management

- Provide ongoing support for City Website maintenance, application development and information/content management

- Provide technical support for citywide database management and reporting

- Provide general network maintenance and support

- Serve as first line of computer help desk

The ability of the City to provide this support through a new IT function/resource will go far toward ensuring successful implementation of the Information Technology Strategic Plan.

2.3.3   Recommendation

Strengthening IT Authority/Support Recommendation

Preferred Alternatives	Required Resources
Establish new Director level position in IT	City Management
Revise IT manager position to differentiate between IT Director and Manager; and hire additional IT Specialist position	City Management
Upgrade IT job position descriptions and skills to better meet City needs	City Staff
Establish clear roles and responsibilities for various groups including IT Staff, IT Committee, and City Management	City Management, City Staff

2.4 Develop Formal IT Governance Structure and Decision Making Process

2.4.1   Recommendation Discussion

As found during the needs assessment and noted throughout the Strategic Plan process in this report, the transition to an enterprise, strategic IT orientation cannot be successful without a number of significant organizational changes. Chief among these is the creation of a strong IT governance structure, whose key component is the establishment of IT at the Department level.

The City's current decision making process for IT related initiatives needs to be modified and formalized to reflect the guiding principles developed for implementation of IT/e-government within the City. The City should form an ad hoc IT Committee to provide guidance and oversight for the IT planning process. The ad hoc IT Committee should guide the planning project through completion and at the end this structure should be formalized and leveraged to provide ongoing support and oversight for new IT related decisions and investments. Specifically, the City must create a new, centralized, e-government/IT investment governance structure to ensure that e-government decisions take into account the guiding principles developed through the planning process. This recommendation, reflected in the Strategic Recommendations below, can be implemented in a fairly straightforward, streamlined manner in a City like Mission Viejo which is starting the process fresh.

2.4.2   Implementation Discussion

Creation of this kind of governance structure—variously called IT Governance Committee, E-Government Task Force, Technology Review and Oversight Committee, IT Advisory Board, etc.—is clearly a best practice among other municipal governments. Implementing an IT governance structure that utilizes city approved standard business practices for IT decisions will yield critical short and long-term gains and generate the necessary internal support to carry even complex IT projects through to completion. Careful planning and consideration of what is realistic in the short- to long-term will help ensure that e-government programs are successful. This includes attention to how technology resources are managed and ultimately how decisions are made.

IT Governance Structure Roles and Responsibilities

The new Director level position in IT and revised IT manager position recommended elsewhere in this Plan will serve as the backbone for the new IT governance structure. The governance structure will need to address all important project ownership issues and assign business indicators including project goals and timelines. Following is a listing of sample roles and responsibilities that the IT governance structure will have to encompass:

- Provide Strategic Leadership and Vision for the Citywide use of IT

- Guide, evaluate and refine the implementation of the IT/E-Government Strategic Plan, including preparation of a Citywide IT/E-government budget plan and process

- Continually prioritize IT/E-government project and program implementation

- Evaluate new IT project/program proposals against the City IT Vision, Goals and Decision Making Framework

- Generate new IT project/program proposals from Citywide perspective

- Manage IT project procurement

- Periodic reports to City Council on the status of the IT/E-Government Implementation Plan

- Establish internal skills and training standards

- Oversee periodic audits/review of Citywide IT

- Plan and implement as needed employee, managers, Council and community educational workshops on IT/E-government

- Create ad hoc working groups and task forces for specific IT project needs

- Guide the development of key IT related policies, for example information security, privacy, website/electronic information usage, intellectual property, web development and online application standards, others as required

2.4.3   Recommendation

IT Governance Structure Recommendation

Preferred Alternatives	Required Resources
Formalize overall IT governance structure including citywide IT decision-making processes, such as IT decision-making criteria, project review and approval process, and IT/E-government Plan and project evaluation and monitoring	City IT Committee IT Director
Formalize new Director level position in IT as well as role of IT manager position	City IT Committee IT Director
Set measurement criteria for monitoring project goals and success	City IT Committee IT Director

2.5 Develop Customer Service Technology Training Program/IT Skills Development

2.5.1   Recommendation Discussion

The City currently does not have a formal Information Technology training program in place. During the course of the planning process it was recognized that the lack of employee training on City information systems is having an adverse impact on customer service worker productivity despite the overall willingness to embrace IT. Many of the deficiencies identified can be directly attributed to lack of training. Investment in training can be far more cost effective than replacing existing systems and lead to improved customer service and employee satisfaction.

2.5.2   Implementation Discussion

Training should be directed towards high impact areas that can improve customer service
and worker productivity. This includes staff training on the City's system that runs the
City's business operations and other worker productivity tools such as Microsoft Office.
A cost effective approach to training is to implement a "train the trainer" model where a
select group of individuals are trained and are used as a resource for training other
individuals within the City. This is often more effective since most of the more effective
training takes place on the job.

2.5.3   Recommendation

Customer Service IT Training Recommendation

Preferred Alternatives	Required Resources
Develop formal Training Program and policies	Professional Services, City Staff
Implement Train the Trainer program within the City	Professional Services, City Staff

3.0 Initiative 2: Infrastructure Preparedness and Planning

3.1 Overview and Summary Recommendations

A reliable, robust and secure technology infrastructure helps ensure that the City Network is protected from costly interruption of service. As the name of the initiative suggests, the focus of the work performed within this initiative is to prepare the City's general technology infrastructure for implementation. The City's technology infrastructure is the foundation from which all IT infrastructure and e-government initiatives are built. While the return on investment from IT and security related projects are difficult to quantify, failure to adequately invest in this area is short sighted and places the City in a position of considerable business risk. A solid IT infrastructure can mitigate problems arising from a host of potential threats to the City's operations including viruses, loss of valuable data, equipment failure and other costly downtime.

**Initiative 2: Infrastructure Preparedness and Planning
Implementation Summary**

Recommended Projects	Description	Required Resources
IT Policies and Procedures	• Update IT policies and procedures to reflect new development • Develop training program and end user documentation on importance of IT and business processes • Implement user and system security policies and procedures	Prof. Services City IT
Integrate IT into Disaster Recovery Planning	• Align IT disaster planning process with greater Citywide disaster planning initiative • Create security plan including disaster recovery • Utilize IT to increase communication and coordination within the City	City Management Prof. Services City IT
Prepare for New Technologies	• Begin planning process to leverage new technologies, including WiFi, VOIP, and the Internet to improve City Services • Establish advance planning and	Prof. Services City IT

Recommended Projects	Description	Required Resources
	preparation process for successful rollout of new initiatives • Establish formal IT decision-making process and governance accountability	
Continue platform/system standardization and rollout of IT support tools	• Establish technology platforms • Standardize system architecture • Develop system policies and procedures • Introduce new systems and tools to improve IT effectiveness • Develop training program to increase effectiveness and focus on high value added services • Define and establish long-term goals • Begin process of increasingly utilizing IT report and analysis tools for decision-making purposes	Prof. Services City IT
Document Management/Records Management System	• Implement a baseline system for creating and managing digital versions of important City documents • Automate key document preparation processes such as Council Agenda packets • Priority focus on City Clerk requirements	Software Hardware Prof. Services City IT Staff City Dept. Staff

3.2 IT Policies and Procedures

3.2.1   Recommendation Discussion

The creation and implementation of policies related to Internet and computer usage, providing access to information over the Internet, privacy issues, e-commerce opportunities, Web accessibility for disabled persons, and other subject areas is one of the least developed areas within IT. It is potentially one of the most important, however, in building the necessary foundation for a successful and sustainable IT operation.

This section addresses the policy areas that the City of Mission Viejo needs to consider as an overall IT system and e-government applications and services are designed and implemented. The key policies related to the Internet and technology generally fall into four broad areas, each with a number of specific policy issues:

- Privacy: External stakeholders and employees—what will the City do or not do with information gathered from external and internal users; how does the City disclose how it handles information.

- Security: Data protection; financial transactions/e-commerce; network and systems protection.

- Accessibility: Access for disabled users, multi-lingual access, access for users without high-speed/high bandwidth, multi-channel access (phone, fax, Internet, mail, in-person), general information access (Electronic Documents/Records conversion and public access).

- Usage: Includes intellectual property considerations (e.g., who owns content on the City Web site or content distributed via email), what are the expectations of external users of the site, City employee usage, e-commerce issues, what are the implications of links (if any) to other third party sites, etc.

3.2.2   Implementation Discussion

The emergence of the Internet presents a host of new issues that can adversely impact City operations and worker productivity. Improper use of the City's network exposes the City to attacks on the network, a decline in system performance, and potential system downtime among others. Even well intentioned computer users can contribute to the problem by not adhering to simple protocols that ensure a safe and secure network. This is best achieved by developing IT policies and procedures that are communicated broadly and easily understood throughout the organization. An effective IT policies and procedures manual is as much about education and as it is about providing clear guidelines on IT usage.

3.2.3   Recommendation

IT Policies and Procedures Recommendation

Preferred Alternatives	Required Resources
Update IT policies and procedures manual(s) to reflect new development	Professional Services, IT Dept., City Staff
Create City Website Policies including Privacy, Information Access, and Web Accessibility	Professional Services, IT Dept., City Staff
Establish a formal user and system security training program	Professional Services, IT Dept., City Staff

3.3   Integrate IT into Disaster Recovery Planning

3.3.1   Recommendation Discussion

Network security and disaster recovery planning in general is one of the most important areas of IT/e-government and technology planning and implementation. The rise of the web as a viable and valuable tool for government business and services has resulted in the widespread implementation of web based technologies. However, this trend toward web-enablement also carries with it new security risks that have not previously been faced by most organizations. Additionally, even organizations that invest the time and effort to secure their networks within the new web environment are faced with the ongoing challenge of ensuring that every new technology application, system and online service—large or small—is secure from the perspective of the organization's overall technology architecture.

A sound network is central to an effective IT/E-Government implementation and a prerequisite for introducing new technology into the City. This includes not only the proper selection and implementation of network technologies but perhaps more importantly the development of policies and procedures that help ensure a stable network with minimal downtime and disruption of City services.

During the needs assessment it was established that Mission Viejo's overall IT infrastructure and network security is comparable to or exceeds best practices found in cities of similar size and structure. Yet, the rapid pace of technology change has resulted in faster product life cycles and a wide array of new technologies to support and maintain. This is a challenge for even the most tech savvy of IT departments and requires a concerted effort to ensure that proper updates and patches are installed on the network. As such, the City's IT Projects plan for FY 2005-2007 calls for upgrading switches as well as adding network security as noted in items 23 and 24 of the plan. While the City is continuing its successful efforts in network security it must simultaneously seek to align the IT disaster planning process with the overall Citywide disaster planning initiative, which at the time of this writing is being prepared by an outside contractor.

3.3.2   Implementation Discussion

The City has already taken measures to solidify its network infrastructure and establish an ongoing maintenance program. The City's core network technologies and related components can support the City's e-government initiatives but require ongoing maintenance and periodic review. The City will need to take a cost benefit approach to network infrastructure decisions and must take into consideration a host of factors including budget, training, maintenance, security, support, and reliability. The approach and overall policies and procedures regarding IT should be formalized in a mission critical plan to be incorporated within the City's larger initiative within this area. In fact, the current disaster recovery planning process does not adequately address or incorporate IT. Therefore the immediate disaster recovery planning focus should be placed upon integrating the IT process within the greater Citywide disaster planning initiatives. Such

effort would help avoid duplication of effort and increase vital communication and coordination within and between departments.

The following recommendations will provide the necessary steps to help solidify the City's network infrastructure for e-government services and help ensure stability over the near and long-term.

3.3.3   Recommendation

Integration of IT into Disaster Recovery Planning Recommendations

Preferred Alternatives	Required Resources
Institute periodic Security Review of Network	Professional Services City IT
Align IT disaster planning process with greater Citywide disaster planning initiative	City Management Disaster Preparedness Lead Prof. Services IT Director

3.4 Prepare for New Technologies

3.4.1   Recommendation Discussion

The City is currently evaluating several new technologies that present significant City benefits but are potentially complex projects that require adequate planning and preparation. Two notable projects that are under consideration include the implementation of a city wide Wireless Fidelity (Wi-Fi) network and a phone system upgrade that will include Voice over Internet Protocol (VOIP) capabilities. Both projects incorporate new technologies that can have a dramatic impact on improving City customer service and are consistent with an overall trend towards greater adoption of these technologies in municipal government. They also present significant project and business risk, however, and is best approached through upfront planning.

3.4.2   Implementation Discussion

A key objective of the IT Strategic Plan is to increase the internal technical capacity of the City. There are some projects, however, that will require outside technical expertise due to their complexity and the rapid pace of change in the technology industry. For this reason it is recommended that the City have budget set aside for outside consulting for new technology projects including feasibility studies and system requirements definition. Too often Cities fail to take into consideration the business dynamics of the technology industry including shifts in platforms and technology standards that can lead to investing in costly technology that quickly become obsolete. This type of upfront analysis is best

served by outside experts due to their strategic importance, technical specialty, and cost impact. It should be noted that the City should have proper buy-in and support for a project before taking the step to move forward with an outside consultant.

3.4.3   Recommendation

Preparation for New Technologies Recommendations

Preferred Alternatives	Required Resources
Feasibility Study for Creation of City wide Wireless Fidelity (Wi-Fi) network	City Management Prof. Services IT Director
Analysis and Recommendations for City Communications Platform including adoption of VOIP technology.	City Management Prof. Services IT Director

3.5 Continue platform/system upgrades and rollout of IT support tools

3.5.1   Recommendation Discussion

As the City begins to implement IT programs that require citywide solutions it will need to purchase additional hardware and software. Over the course of the last several years it has invested in employee productivity solutions including new PC's to increase worker productivity and a new email server running Microsoft Exchange. The shift to an enterprise approach will require additional "backend" resources including core business systems such as database technology and web based server software. In addition the City will need to upgrade its network monitoring and management tools in order to manage an increasingly more complex technology environment.

3.5.2   Implementation Discussion

The City is continuously updating and improving its core IT systems but will need to begin taking a more strategic approach to upgrading its core systems. The introduction of new web based applications will require additional infrastructure needs that will be utilized Citywide. This requires not only creating an infrastructure that can support data driven web based applications but also introducing new management tools to support these systems. Specifically the City should increase its ability to create a robust application infrastructure that includes a development and test environment for web based applications. In addition the City should take advantage of improvements in tools to better manage City desktops and servers including the use of virtualization technology

3.5.3 Recommendation

Continuation of Platform/System Upgrade Recommendations

Preferred Alternatives	Required Resources
Upgrade City's application environment to include the creation of a test and development servers for developing web based applications. This initiative is closely tied in with E-Services and the standardization of the City's application programming languages. Specific products/software will need to be scoped out in more detail based on application needs and established programming standards.	Software Prof. Services City IT Staff Hardware, Software
Upgrade City Network management and monitoring tools to increase IT staff effectiveness and response time. New tools will help free up staff time for more productive, value added work.	Software Prof. Services City IT Staff Hardware, Software

3.6 Document Management/Records Management System

3.6.1 Recommendation Discussion

Document management is the automated control of electronic documents—page images, spreadsheets, word processing documents, and complex, compound documents—through their entire life cycle within an organization, from initial creation to final archiving. Document management allows organizations to exert greater control over the production, storage, and distribution of documents, yielding greater efficiencies in the ability to reuse information, to control a document through a workflow process, and to reduce product cycle times. The full range of functions that a document management system may perform includes document identification, storage and retrieval, tracking, version control, workflow management, and presentation.

Current document management technology grows out of the business community where some 80% of corporate information resides in documents. The need for greater efficiencies in handling business documents to gain an edge on the competition has fueled the rapid development of Document Management Systems (DMS) over the last few years. Document management has replaced data management—the focus of computing for the last twenty years—as the latest challenge facing information technologists.

Document Management is still a relatively new industry and continues to evolve. Like the tech market in general, the document management industry is going through rapid change and consolidation. There are hundreds of companies providing document management products. To stay competitive, DMS vendors are adding more and more functionality and are integrating with other products to offer complete information management solutions. This has led to a broader category of solutions known as Knowledge Management.

3.6.2   Implementation Discussion

The City currently does not employ a true document management system. The City Clerk currently utilizes the VisiFlow system that is somewhat out of date and cannot be leveraged for enterprise capabilities. Based on interviews with City staff and goals and objectives outlined as part of the Information Technology Implementation Plan, and on the decision analysis summarized below, the project team recommends that the City move forward with a Phase I implementation project at the City Clerk's office where significant benefits can be derived. This is a project that has significant ROI as well as IT value. The City Clerk's Office presents an opportunity to streamline a number of paper based processes and improve accessibility to vital city information. Moreover, document management reduces the risks associated from the loss of paper based documents in a disaster. As part of the pilot project, a significant level of Citywide planning and preparation should be done. Key tasks include: organize public documents and records, purge and/or archive documents and records, as well as plan for digitization and storage.

While the benefits of DMS are readily apparent, it should be noted that increased functionality comes at a cost that goes well beyond the price of the software. Many DMS products require training and a learning curve and must be properly resourced for successful implementation. The following factors will need to be carefully considered as part of the DMS implementation process.

- **Requirements Analysis** – Clear understanding of the requirements and business case is critical before picking DMS software.

- **Integration and Professional Service Needs** – Apart from software licensing, a lot of additional customization and integration is almost always needed to glue everything together. Therefore, proper planning for integration and support are essential.

- **Derive Immediate Value** – First and foremost the DMS must provide immediate value to operations. DMS projects need to be viewed in this context to get proper organizational support and buy-in. Once first step is implemented and working successfully, look for future value.

- **Learning Curve** – DMS requires a change in process and new learning. Organizations must be willing to adopt new ways of doing business and plan for a learning curve.

- **Skilled IT Staff** – Hiring or training IT personnel to integrate/enhance software is required. Proper understanding of internal resources and skills is needed. Training is an essential part of successfully managing DMS.

- **Organization Structure & Hierarchy** – Before planning for the implementation of DMS, clearly identify your information structure and hierarchy.

- **Document Flow/Business Process** – Clearly define the path of documents and retention schedules. E.g. identify user relation with inbound and

outbound documents; external documents and project specific documents; identify the approval and authorization flow of documents.

3.6.3   Recommendation

The City should deploy a system that is user friendly and widely used by other Municipalities. Key business requirements include:

- Easy to use.

- Cost effective.

- Is both a departmental and enterprise wide solution allowing for expandability in a phased, controlled approach.

- Is widely used by other municipalities in California and across the country. Large user base is especially helpful for identifying best practices for specific departmental and citywide document solutions, and to provide access to established user groups.

- Vendor should be financially sound with document management as a core competency.

Document Management/Records Management System Recommendation

Preferred Alternatives	Resource Requirements
Document Management System • Citywide planning and preparation: inventory, organize, plan, etc. • Document Management Software • Base System Implementation, Configuration • Scanner(s) • Base Document Conversion • Annual support and maintenance	Software Prof. Services City IT Staff Hardware, Software

4.0 Initiative 3: Business Improvement & Process Automation

4.1 Overview and Summary Recommendations

One of the most powerful and most tangible benefits of IT/e-government implementation is creating a more efficient government operation through business automation and process improvements. This "backend" work will provide high payoff in the long run and lead to better implementation of online citizen and business services.

**Initiative 3: Business Improvement & Process Automation
Implementation Summary**

Recommended Projects	Description	Resource Requirements
Plan for Citywide GIS coordination/projects	- Establish new Citywide GIS initiative - Develop enterprise strategy and platform for Citywide use of GIS across multiple departments - Develop GIS business requirements including data sets and analytics	City IT City Staff Prof. Services Software, Hardware
Datawarehouse/Decision Support System	- Establish a centralized system for accessing important City business information - Implement report writing solution to easily access city business data in a digital format - Solution includes ability to directly download data into Excel and other desktop applications - Develop City metrics and reports	Prof. Services City IT City Staff
Implement Complaint Tracking/Service Request System	- Improve and streamline City service inquiries while simultaneously building a foundation for creating a robust City Customer Relationship System (CRM) - Implementation automatically improves customer service efficiency - Re-orient services to follow a customer, as opposed to department, centric approach	Software Prof. Services City IT City Dept. Staff

Recommended Projects	Description	Resource Requirements
	• Online form for external complaint/request tracking • External face of work order management system that may include integrated solution for City's internal process	
Automated Permit Process System	• Ties in with Document Management/Digitization project • Re-design City forms in a consistent manner • Lay a foundation for the gradual development of interactive forms to deliver services via the web • Develop consistent process for interrelated forms/processes (e.g. planning, building, and code enforcement) • Provide for some level of automated forms processing including form fill and error checking capabilities	Software Prof. Services City IT City Dept. Staff

4.2 Plan for Citywide GIS coordination/projects

4.2.1   Recommendation Discussion

GIS (Geographical Information System) is one of the City's most important business functions and is relied on heavily throughout the organization. The strategic importance of GIS is leading many municipalities to take an "Enterprise" approach to GIS by consolidating spatial data into a single unified repository that can be accessed throughout the organization. The most difficult aspect of creating an effective GIS program is the ability to develop a unified and single source for GIS data and take a citywide perspective for improving City operations and decision making. Enterprise GIS requires a commitment of resources and can be a tedious process that includes consolidating various data sets and is often technically challenging. The benefits of having a single database for GIS related information are many, however, including:

- Avoids costly duplication of data

- Reduces errors from data incompatibility

- Provides data in a non-proprietary, standard format (SQL Database Server) that can be integrated/accessed by other applications

- Increases performance/effectiveness and leads to new applications that otherwise would not have been developed

4.2.2 Implementation Discussion

The City has been developing a fairly robust, standardized set of spatial data. It lags somewhat in its software and hardware infrastructure for GIS. The decision to upgrade this infrastructure is currently being considered in the context of whether or not to go to a hosted (ASP) model. Historically GIS has resided in the Public Works and has been driven primarily by the needs within the department. Like other Cities, Mission Viejo recognizes the strategic importance of GIS for a host of activities from planning to economic development and customer service. Additional GIS specific hardware and software will also need to be purchased. The GIS initiative will also require the use of web and database technology, resources that are being acquired in conjunction with other hardware and software continuing platform and system standardization phase described in section 3.5 above. Specifically, the City's IT Projects plan for FY 2005-2007 calls for a replacement of the current GIS system with a new ASP application.

To achieve intended goals the City will need to elevate GIS in importance in the organization including increasing staffing skills and a change in reporting structure. The role of GIS coordinator should be considered, either as an addition or reallocation to the current staffing, or at the least as an upgrade to the current position. Without additional staffing and a coordinator role, it will be difficult for the City to optimize the use of GIS within the organization. Following is a top level list of the key roles and responsibilities that a Citywide/enterprise GIS function/resource will have to support:

- Provide effective customer service to key internal users: Community Development, Public Works (engineering, planning), City Manager, Finance

- Plan, coordinate and implement GIS from a Citywide perspective—strategically implement/manage GIS projects and services

- Develop ideas/plans for new GIS uses—e.g., web based external customer services, public safety/security (fire, police, emergency/disaster preparedness)

- Ability to coordinate with outside agencies on important issues such as emergencies, GIS standards, etc.

- Maintain/develop reliable GIS database for use by all departments

4.2.3 Recommendation

Plan for Citywide GIS coordination/projects Recommendation

Preferred Alternatives	Required Resources
Align GIS function alongside IT Manager function	City IT/GIS Prof. Services
Elevate current GIS position to coordinator role, and/or consider adding a GIS coordinator position	New staff resources Training
Purchase priority GIS hardware and software (Note: Needs to be done in conjunction with decision whether or not to outsource/host GIS)	City IT/GIS Prof. Services
Perform data rationalization/develop enterprise GIS datamart	City IT/GIS

4.3 Datawarehouse/Decision Support System

4.3.1 Recommendation Discussion

Real time access to critical business data is essential for effective decision making yet is often hard to achieve. During the planning process, difficulty in accessing information was cited as a major factor contributing to dissatisfaction with the City's financial system. Lack of visibility to business data not only impedes decision making but also contributes to poor data within the system itself. By not being able to view what is in the system data entry errors are not monitored leading to data integrity issues. Fortunately a host of new third party reporting tools have recently come to market that can dramatically improve reporting capabilities. These reporting tools can significantly improve usability and functionality of the system and are contributing factors in the recommendation not to replace the City's financial management system at this time. The reporting solution will help eliminate re-keying of data that can often take place multiple times thus contributing to improved worker productivity.

4.3.2 Implementation Discussion

There are a number of third party reporting tools available on the market that can meet the City's business needs. The City's financial system, IFAS, has a proprietary report writing feature that is managed by an individual in finance. This alone is too limiting for the City, so it is recommended that a standardized datawarehouse with reporting capabilities be developed. HTE offers a standard third party package, Cognos, which is a widely respected business information tool. In addition Microsoft has a SQL server reporting package that offers similar functionality and integrates well with Microsoft's other product offerings. Key requirements include the ability to export data directly into office productivity tools such as Microsoft Excel and offering some level of security on sensitive financial information. Given the wide variety of solutions available, the City will need to determine which solution best meets its specific user requirements.

Data security and integrity will need to be addressed during implementation and ongoing maintenance of the new system. If not properly configured, reporting solutions can open the system to private information such as salaries and social security numbers. Policies will need to be set on access privileges similar to those currently in place for the City's financial system.

4.3.3 Recommendation

Datawarehouse/Decision Support System Recommendation

Preferred Alternatives	Resource Requirements
Implement Citywide reporting solution	Professional Services City IT City Finance
Implement planned upgrades to IFAS	City IT Staff City Management &

Preferred Alternatives	Resource Requirements
	Dept. Staff
Implement policies and procedures for data access including user access restrictions	City IT Staff City Management & Dept. Staff

4.4 Implement Complaint Tracking/Service Request System

4.4.1 Recommendation Discussion

An overarching goal of the Information Technology Strategic Plan is to improve how the City functions and delivers services. To achieve this end the City will need to analyze current business processes and identify areas of improvement **prior** to implementing new technology initiatives. It is estimated that more than 70% of technology projects in government fail due in large part to a lack of understanding of existing business processes – a critical first step to any automation project. Too often technology projects are implemented under the false assumption that they will fix problems without any disruption to current processes – processes that are often flawed from the outset.

The hallmark of an effective IT program is the ability to manage and track customer service related activities. This is a difficult task, however, for even the most operationally efficient municipalities and continues to be a challenge for Cities of all sizes. An entire industry has emerged to tackle this very problem and has become a hot topic known as Customer (or Citizen/Community in the public sector) Relationship Management or CRM. CRM solutions can vary widely in size and functionality and can range from specialized systems such as work order management to more generalized customer inquiry web based tools. It is recommended that the City take an incremental approach by providing a very simple web/database system that is the first step towards taking customer inquiries via the Internet.

4.4.2 Implementation Discussion

While nearly all the major information technology project initiatives will include some business process analysis incorporated into their respective project plans, this is being called out as a special initiative due to its importance in the area of customer service. Customer service is the single most important function the City performs and the business process analysis work is an essential first step in developing a City wide customer relationship system. The business process analysis project should focus on

priority community development related activities and identify areas for process improvements including both electronic and non electronic improvements.

Customer Service tracking is a function that affects virtually all departments. The City should take a holistic approach to customer service and provide a general customer service tool that can be used by multiple departments for their specific needs. This approach is preferred over stand alone departmental solutions to avoid costly duplication efforts across departments, and the possibility of presenting multiple interfaces to the public.

4.4.3   Recommendation

Implement Complaint Tracking/Service Request System

Recommendation

Preferred Alternatives	Required Resources
New web based service request form with routing capabilities	City IT Staff Prof. Services City Management & Dept. Staff
Perform Baseline Business Process Assessment in Community Development including workflow analysis of customer service activities	City IT, Community Development Prof. Services
Identify business automation opportunities and begin project planning including Customer Relationship Management (CRM) system	City IT Prof. Services
Standardize Business Process Assessment for future implementation across other departments	City IT Prof. Services

4.5 Automated Permit Process System

4.5.1   Recommendation Discussion

Forms based processes and products are one of the largest consumers of resources—labor, time, paper, space, etc.—within the government context. The growing trend to automated forms processes is proving to be particularly beneficial in the municipal government environment where paper based forms are the basis for a wide range of external customer services as well as internal business processes.

Models and approaches to electronic forms solutions can be categorized according to the following:

- Enterprise Groupware/Messaging Systems (e.g., Microsoft, Novell, Lotus) – The City is currently running Microsoft Exchange. Vendors of messaging

systems are increasingly adding forms and workflow functionality to their products.

- General Forms/Imaging Solutions (e.g., Accelio, Cardiff, Liberty IMS, Shana, PureEdge) – These products are undergoing consolidation and vendors are expanding their offerings to include end to end document management solutions. These models can also be costly to implement on an enterprise-wide scale. Note: Accelio was recently acquired by Adobe giving it the largest installed base in government of any forms solution.

- Vertical Proprietary Solutions (Various) – A wide variety of vendors offer proprietary solutions that are often associated with vertical or subject specific business applications, such as customer service requests, community development related forms/processes, etc. Some are robust products aimed at large organizations (e.g. Accela, CityView) and can be very expensive; others are lighter, sometimes hosted solutions, that offer less functionality but are also less costly. Often these are not marketed or implemented as true electronic forms solutions, but rather as part of comprehensive line of business applications, or as modules of lighter "e-gov/internet/intranet in-a-box" type solutions.

- Open Commercial Off the Shelf (COTS) Solution (e.g., PDF, ASP, HTML with Database Connectivity) – The ubiquitous nature and continuing drop in the costs of web computing has resulted in many organizations opting to utilize standard technologies to develop solutions that meet their specific needs. This is especially true for those organizations that are approaching electronic forms solutions with a clean slate and/or the desire to gradually develop enterprise workflow processes and platforms.

4.5.2   Implementation Discussion

Moving from a paper based operation that is driven by internal department needs to an information based City that effectively uses information technology to improve productivity and customer service requires much more than simply converting paper based documents to electronic formats. It is an integrated process that requires a fundamental understanding of how the City manages internal communications and information flow, and the ability to effectively apply that knowledge to automate key business activities. Successful projects are best approached from a phased and incremental approach.

The move from a paper based system to electronic ready forms requires upfront planning and analysis to ensure that forms capture the correct information and that forms can eventually incorporate the "intelligence" necessary to provide automated features such as lookup tables, routing, error checking and calculations. This necessitates documenting "meta data" or "data about data" including such things as form owner, frequency of use, definition of fields as well as an overview of the forms process. The business process analysis is critical for successful implementation and requires support from key staff

involved in the actual business process. Key requirements for a Phase I Automated Permit Process System include:

- Provide an effective solution that is easy to use that is best first addressed by inventory and conversion of forms to form fill capabilities

- Create minimal disruption to current City business processes, while simultaneously utilizing the business process analysis as an opportunity to gradually refine and improve identified processes

- Provide a framework for the process of incorporating advanced forms functionality such as automated data input, personalization features, error checking, and others into electronic forms

- Incorporate user-friendly navigation and design enhancements

- Provide a sustainable foundation for e-forms management and future expansion, including data capture capabilities with auto routing

- Develop approach to achieve low total cost of ownership

4.5.3 Recommendation

Automated Permit Process System Recommendation

Preferred Alternatives	Resource Requirements
Plan, design and deploy baseline e-forms redesign and priority batch of internal forms • Utilize standard, commercially available software and development tools such as Adobe Acrobat Professional, Adobe Reader, Macromedia Software, Microsoft .Net tools, other standard web design/development tools • Utilize City owned software and staff skills to the greatest extent possible • Training and knowledge transfer for City control, development and management over time	Professional Services Software (if required) City IT Staff City Management City Dept. Staff
Plan and begin Phase II e-forms workflow application, including threshold decision of expanding City platform or acquiring proprietary software solution	City IT Prof. Services (if required)

5.0 Initiative 4: E-Services and Online Applications

5.1 Overview and Summary Recommendations

While much of the business value of information technology is located behind the scenes, in the underlying systems and in the "backend" improvements in business processes, the website is the City's most visible public face, and the home of all current and future online citizen services. As such, the website is one of the clearest indicators to the public of the City's overall attention to customer service and quality governance. Additionally, the overall quality of the website–the level of professionalism in its graphic design and implementation, its ease of use and navigability, the utility and effectiveness of the tools and applications implemented at the site–is still the single most important element for citizens and businesses when evaluating municipal e-government.

The development of a high quality, professional website does not have to be an extremely costly endeavor. But it does require a commitment by the City to embrace the use of the web as an integral part of its customer service delivery environment. It is best achieved by taking an incremental approach by laying a strong foundation that begins with a well architected website redesign. As will be detailed in the specific project recommendations, the website redesign initiative addresses much more than simply enhancing the graphic look and feel of the current site. Along with the look and feel, the recommendations focus on improving the manageability of the site, enhancing site content and features and offering some basic Phase I interactive services and features.

The focus of this initiative is to provide a foundation from which future interactive services can be added over time. It consists of a significant redesign along with a series of light, Phase I services. In most cases these services will be modest in their level of interactivity and features. While budget constraints are a factor, this is mainly due to the fact that e-government applications require careful planning including addressing all important internal workflow processes as well as policy considerations.

Initiative 4: E-Services and Online Applications
Implementation Summary

Recommended Projects	Description	Required Resources
Website Redesign	• Upgrade City Website with new look and feel • Provide baseline City Information • Create specific, easy-to-use section(s) of City site for	Prof. Services City Management City Staff

Recommended Projects	Description	Required Resources
	exploring, searching and downloading archived/historical information (e.g., agendas, meeting minutes, press coverage, Regional Council letters, reports/documents, etc.) • Create intentions based sections of the website by user type (e.g. Section for developers/builders) • Develop system/process for updating site and publishing new information	
Planning and Implementation of E-Services	• Identify and provide initial set of e-services that helps improve customer service • Initial focus on applications that relate to cost effective impact services, such as e-notifications/e-alerts, online self services, e-subscription program for businesses, and potentially an online vendor registration system • Create database of businesses • Tie in to web publishing/depublishing process • Establish long-term phased approach to web based initiatives	Prof. Services City Management City Staff
City Intranet	• Complete upgrade of City's Intranet/current internal web based communications system • Consolidate City information and business applications onto new Intranet portal • Leverage platform to develop new applications and initiatives	Prof. Services City Management City Staff
Web Technology Standardization	• Establish formal web standardization program • Research and stay abreast of IT best practices in Government • Create formal standardization documentation that helps ensure future IT investments leverage existing capabilities and establishes long-term interoperability	Prof. Services City Management City Staff

5.2 Website Redesign

5.2.1 Recommendation Discussion

During the needs assessment it was established in interviews with both City staff and management that there is a clear desire for an improved website presence. The current City of Mission Viejo website provides basic City information but is lacking in a number of key areas including usability and design. The site was developed a few years ago and is reflective of a first generation City website. Cities typically redesign their websites every two to three years mainly due to a desire to upgrade technology, add online services and present a new look that better reflects changes to the organization. While the redesign process is a critical first step towards developing an e-government platform, it should not be viewed as a distinct project that occurs every few years. The maintenance and management of the City website should be an ongoing process that allows for frequent upgrades and service enhancements over time. This incremental approach ensures that the site is kept updated and that the web becomes an integrated part of the City's service delivery environment.

Website Redesign Components

Key components of the website redesign are:

- New design "concept" and enhanced graphic design: The overall design concept will unify all content and development on the site, including any creative/graphic design elements, online outreach and marketing, integration of third party applications, and future expansion of the site.

- New site navigation and usability design: Site navigation is the single most important component of the usability of the site. Optimal site navigation assists the users to quickly find the information or service they are looking for, and/or to explore how the site can be useful to them in the future.

- New information architecture: The key to developing an effective site information architecture is that it relates directly to the management of information and documents within the City organization.

- New/improved site content and features.

- New/enhanced site features, especially those that assist in usability and navigation.

Key Opportunities and Benefits

As the City moves toward long-term planning and implementation of e-government, the City's public website will become an increasingly important tool for a wide range of functions, including:

- Providing timely and easy access to public records and documents

- Distributing news and information to the public in electronic formats, including City event calendars, e-mail based newsletters and information alerts

- Logging, tracking and responding to citizen requests for information, assistance and services

- Providing true online services, including registering for City events and activities, applying for various City permits and licenses, paying fees and fines via secure online business systems

- Engaging citizens and businesses in local decision processes

- Creating online support for City economic development, marketing and public information programs

Given these strategic opportunities, a number of which will be implemented in Phase I of the Information Technology Implementation Plan, the three key business drivers for the redesign of the current City website are:

1. Improve the usability of the site.

2. Provide the appropriate Web foundation for implementation of more and better online services and features immediately and in the future.

3. Better reflect the image of the City of Mission Viejo

5.2.2   Implementation Discussion

The critical implementation components for the Web redesign are the development of a Site Information Architecture, new Design Concept and supporting design and production documentation. These design documents can only be developed through careful assessment of the actual content and information processes that will support the site, and close coordination with City web and departmental staff that will be using and maintaining the site. Additionally, the website should comply with emerging standards for website accessibility (disabled access), a requirement that can only be addressed properly through careful and professional design and development.

The City should also take this opportunity to upgrade and standardize the current website development and authoring environment including the management of web content. Web Content Management Systems (CMS) in their simplest form provide tools that enable an organization to label, track, publish and depublish different types of information on a web site in some sort of process. The real goal is to get the right information to the right audience at the right time. Additionally, CMS solutions can be valuable business productivity tools, allowing multiple internal users throughout the City to easily publish content, and allow higher level site administrators to edit, approve, and manage content easily and efficiently. Notably, as outlined in the City's IT Projects plan for FY 2005-2007, there is a desire and commitment to further automate information retrieval procedures, which directly relates to the overall objective of increasing both ease of

usability as well as publishing. This desire was also reflected in interviews with City employees and management during the needs assessment phase.

Because of these market conditions, and given where the City currently is in its e-government implementation, the project team is recommending a "building blocks" approach to implementing a new website, whereby in Phase I the focus will be on redesigning the site and site information, and developing effective site management processes. A number of initial features and e-services will be implemented as well.

5.2.3   Recommendation

City Website Redesign Recommendation

Preferred Alternatives	Required Resources
Custom Design • New site information architecture • New design concept mockups • Complete design documentation and style guide • Accessibility design	Professional Services City Web Staff City Management/Dept. Staff
New Site Search Engine/Tool	Software
New Public Calendar	Software Professional Services City Web Staff
Site Content Management Tools	Software (if required) Professional Services
Site Production	Professional Services Software City Web Staff City IT Staff Training

5.3 Planning and Implementation of E-Services

5.3.1   Recommendation Discussion

Planning and Implementation of E-Services are being developed to provide a systematic approach to organizing and accessing City Information via the web. It will be tightly integrated with the redesign process and includes an inventory and prioritization of key City information assets that can be accessed online. The City has a host of information documents ranging from "how to sheets" to informational brochures and maps. Moving more of this information online will help alleviate customer counter and phone inquiries and improve customer service. It is a first step towards moving from a brochure website to actually providing valuable services to the public. In fact, in order to maintain the high level of customer service currently provided, the desire for value-added E-Services was explicitly called out in several interviews with both City staff and management during the needs assessment phase.

Moreover, by framing the project as creating a customer information service center it will receive the necessary attention across departments. This will also allow the City to make its initial foray into applications that focus on cost effective services, such as electronic notifications/e-alerts. It would also allow the development of relevant E-Services initiatives already outlined in the IT Projects plan for FY 2005-2007, such as the e-subscription program for businesses and an online vendor registration system, both of which are valuable online services.

5.3.2   Implementation Discussion

The conversion from paper based information to electronic format is more than simply digitizing information and putting it up on the City's website. It is a new medium that requires careful attention to display and information access. Electronic information is consumed differently than paper documents and there are a host of access alternatives including PDF's, static web pages, and proprietary formats such as Microsoft Word and Excel. The City will need to conduct an inventory of potential City documents to be made available and provide a classification scheme that will make access to these documents intuitive and easily searchable. Note that the online resource center budget is modest and will require internal resources for an effective rollout. It is a low cost yet high value initiative that addresses the informational needs of City customers.

The development and implementation of select E-Services, such as the electronic notifications system or e-subscription initiative, will require additional planning and resources. Yet, they are also likely to become the most cost effective impact services available and will, over time, lead to reduced costs and improved customer service.

5.3.3   Recommendation

Planning and Implementation of E-Services Recommendation

Preferred Alternatives	Resource Requirements
Conduct "Information Asset Mining" and Prioritization	City IT Staff Prof. Services Dept. Staff
Convert paper based documents to electronic format	City IT Staff Prof. Services Dept. Staff
Deploy new online information system on the website	City IT Staff Prof. Services
Develop and implement select E-Services, such as the electronic notifications system and/or e-subscription initiative	City IT Staff Prof. Services
Develop ongoing System for Maintaining and updating Online Information Services including publication timetable and content management	City IT Staff Prof. Services (if required)

5.4 City Intranet

5.4.1   Recommendation Discussion

An intranet utilizes web based technologies over an organizations internal network, allowing City employees to share data and easily access internal applications through an easy to use interface. Intranets present an excellent opportunity to help bring disparate information and City applications together in a cohesive manner and help improve communication and collaboration within the organization. One of the main criticisms of the adoption of technology in government is the lack of integration and interoperability between systems. Effective use of an intranet can play a valuable role in changing what is often referred to as the 'silo' structure of City government and help create a more customer service centric organization. This 'portal' approach to presenting internal City business information and applications helps improve worker productivity and overcome the challenges of working with multiple systems. Recent advances in technology have made integration of systems much more cost effective and allow the City to leverage investments in current systems through the use of a browser based interface.

5.4.2   Implementation Discussion

The City currently has an intranet that does an effective job of presenting information and has already taken an important first step in building a system that is widely used at the City. The current system is managed by the IT department including the posting of content. The City should build upon this foundation and leverage existing content to create a more feature rich system that integrates other applications into the system. The system will need be upgraded to a more robust technology platform that can better integrate with third party systems.

This project has a number of dependencies with other projects including changes to the IT governance structure and standardization of technologies/platforms. This is a citywide initiative that will require input and participation by all departments in the City. The Intranet will also need be tied in with the website project so that the look and feel of the City's new website is integrated into the Intranet. This is often overlooked during Intranet implementations and is a missed opportunity to create a seamless user interface that improves City employee's use of the system. The new system should be consistent with the City's long term application architecture.

5.4.3   Recommendation

City Intranet Recommendation

Preferred Alternatives	Required Resources
Upgrade City's Intranet to include a new user interface and system architecture	City IT Staff Prof. Services City Management & Dept. Staff
Perform needs analysis to determine New functionality. Take an incremental approach to Upgrade	City IT, Community Development Prof. Services
Standardize on a web programming platform that is consistent with the City's web standards	City IT Prof. Services
Evaluate opportunities for third party tools and applications for the Intranet including content management systems and portal software	City IT Prof. Services

5.5 Technology Standardization

5.5.1   Recommendation Discussion

The rapid pace of changes in technology coupled with a highly volatile technology industry presents significant challenges to managing the City's information systems. As the City moves its operations online and begins to introduce new applications the establishment of technology standards becomes essential to helping control costs, improve interoperability, and mitigate business risk. While technology standardization should be incorporated in the daily operations of a well maintained IT organization, it is specifically called out as a project due to its importance and the need for a more formal approach to establishing technology standards.

The City is currently supporting and maintaining over 200 software applications which is costly to maintain and results in compatibility and integration issues. As the City begins to implement more advanced systems with better integration capabilities establishing system standards will be necessary to generate cost savings and operational efficiencies. This project is part of an overall Industry trend towards creating an enterprise wide architecture with systems standards for operating systems, databases, and programming languages. This trend is being driven by private industry as well as the Federal government with the Federal Enterprise Architecture (FEA), a business-based framework for government-wide improvement. Open and widely supported technologies based on a set of standards presents new opportunities for the City for increased collaboration and information sharing with other government agencies.

5.5.2   Implementation Discussion

The City has taken important first steps in standardization including the recent migration from Novell Groupwise to Microsoft Exchange email system and a number of server upgrade projects. To formalize this process the City should develop a set of technology standards adopted by the City that is widely communicated and is included as part of the City's technology evaluation and procurement processes. It should be noted that while standardization and the adoption of open and widely supported technologies has many benefits, there are instances where it may not be practical to adhere to them in certain situations. Decisions should be evaluated on case by case basis taking into consideration a host of factors including potentially expensive switching costs.

This initiative is also closely related with the IT organizational preparedness initiative and will take on increased importance as the City develops more web based services. It will need to begin to address standards that include security protocols, programming languages and other web based technologies and platforms.

5.5.3   Recommendation

Technology Standardization Recommendation

Preferred Alternatives	Required Resources
Conduct formal review of City technology standards including operating systems, databases, applications, and programming languages	City IT Staff City Management & Dept. Staff
Develop City Technology Standards document to assist in technology selection and procurements	City IT, Community Development Prof. Services
Standardize on a web programming platform that is consistent with the City's web standards	City IT Prof. Services

6.0 Overview of Phase 2 Initiatives

6.1 Phase 2 Overview

For the City of Mission Viejo to be successful in its information technology planning in general and e-government in particular it must take into consideration both short and long-term goals and be forward looking in its approach. A key requirement by the City in the strategic planning process is a clear and focused attention on implementation all the while providing long-term guidance on future technology decisions. Whereas Phase I initiatives provide concrete recommendations with cost estimates over a 1-2 year timeframe, Phase II recommendations are more general in nature and address projects at a more summary level. These projects will need to be adopted and budgeted as part of the City's regular budget cycle. Just as with blueprints for construction, this plan should be viewed as an evolving, fluid document that will and should change over time as the City moves forward with its implementation program.

The four pillars of the IT Strategic Plan—Organizational Preparedness, Infrastructure and Security, Business Automation and E-Services—provide a framework for how the City plans and budgets for new projects. In many instances Phase II will be an extension or enhancement of an already existing initiative with new milestones and project goals. For example the recommendation for document/records management in Phase I is a very first step in what will be a broader and longer process to fully digitize, store and provide access to City documents and records. IT has to be viewed as a long-term investment with returns on this investment coming over time. Cost savings will not come from IT itself, but will be realized over time from the gradual transformation of processes within the City. Overall, the greatest returns on investment will be related primarily to enhancements in customer service and customer satisfaction, expansion of service delivery, and longer term economic and community benefits for the City.

In addition to specific projects mentioned below, the City should move forward with the implementation of IT in a phased and strategic approach, focusing on:

- Creating a platform for future IT implementation and integration;

- Implementing online applications and services initially that provide benefits across the organization and/or enhance the delivery of information and services to the greatest number of constituents; and

- Implementing stable, tested technology.

Other important issues concerning Phase II implementation in the City include the following:

- **Internal Support/Buy-in**. The City must have the appropriate level of buy-in and managerial support to implement IT/e-government initiatives.

- **Policy Development**. In tandem with application development the City needs to begin to develop policies and procedures for online services including but not limited to Privacy, Customer Support, and Security.

- **Information Architecture**. As part of the development process the City needs to develop information architecture to effectively deploy online services across departments.

- **Management Issues**. IT initiatives require skillful oversight of information technology management from a strategic planning perspective, must have the buy-in and attention of senior management, and specialized IT resources.

All of these activities need to be managed over the long term by the IT Director, a new position recommended in this plan.

6.2 Phase 2 Recommendations

6.2.1   Enterprise CRM Solution

The Enterprise Customer Relationship Management (CRM) Solution builds off of the City's baseline customer service/work order management system to create a citywide system for customer service. Whereas Phase I of the project is a simple solution to take service requests over the Internet , Phase II CRM is a fully functional system that includes the ability to manage various aspects of the process including analytic capabilities on service requests.

CRM solutions are still relatively new in the government sector but are becoming increasingly common among cities of all sizes. A key requirement is the ability to track customer information along the various steps of the service request process and provide the ability to report on the information. A number of vendors have emerged that specifically provide CRM for government agencies including offering hosting options. These systems tend to be proprietary, however, and lack flexibility in customization. The City will need to address whether or not a CRM product is preferred over a solution developed using standard web based tools.

6.2.2   Citywide Document Management

The City should expand the document management solution implemented in Phase I to other departments throughout the City. For a complete discussion of the City Clerk document management system see section 4.4. The learning generated from the City Clerk pilot project will be instrumental in ensuring a smooth roll-out throughout the organization. A key requirement will include developing a classification system that is well architected, intuitive and communicated broadly throughout the organization.

6.2.3   Financial Management System (FMS) Assessment

While Phase I of the plan recommends that the City not replace its current FMS system
(IFAS), the system does have some key deficiencies. The City should continue to utilize
and optimize the current system, and reassess it again in 3-5 years. In the future, the City
may want or need to prepare for an upgrade path that may include a full replacement of
the system or simply implementing a next generation software upgrade. In any case the
City should stay abreast of the latest technology developments on an ongoing basis since
the FMS decision will potentially impact other projects. For example, new financial
systems are building in some CRM functionality. If the City has a good sense of the
future for the FMS it will be better positioned to make informed decisions on other
related initiatives.

7.0 Implementation Schedule

The Information Technology Strategic Plan provides a roadmap for the City over the next three-five years and includes both strategic and tactical recommendations. The following top level project schedule represents the tactical portion of the plan with concrete recommendations over the first two years, or Phase I, implementation. It includes estimated start dates and project duration for the four major information technology initiatives and related action items.

While many projects can be done independently, a number of action items require dependencies on one another to move forward. For example the infrastructure preparedness initiative must be substantially completed prior to the deployment of online services. The network will need to be secure, stable and have the requisite components to support transactions online. Similarly, much of the business process improvement tasks in Initiative 3 will need to be completed or substantially underway before the online customer service/work order management forms in Initiative 4 can be optimally implemented.

The implementation schedule assumes that much of the work will be initiated simultaneously in the first months of the project in order to gain cost efficiencies and maximize development resources. Given the fluid nature of many of the projects there will need to be some flexibility, however, on the timing of initiatives. The plan and schedule has a great degree of flexibility built in to allow certain of the project tasks to be pushed out on the schedule should that be required or desired. Actual project timing may change in certain instances and will depend on a number of factors including staff resources, budget, and reliance on third party providers. The City will need to continuously balance priorities and manage the overall schedule of the Information Technology Implementation Plan. Additionally, certain projects will also be ongoing projects without true finish dates and need to become part of the City's day-to-day operations.

City of Mission Viejo Information Technology Master Plan: Top Level Schedule

ID	Task Name	Duration	Start	Finish
1	**1. Organizational Preparedness**	**524 days**	**Mon 3/13/06**	**Thu 3/13/08**
2	1a. Adopt IT Strategic Plan	62 days	Mon 3/13/06	Tue 6/6/06
3	1b. Strengthen IT Authority/Support	88 days	Mon 7/17/06	Wed 11/15/06
4	1c. IT Governance	66 days	Thu 11/16/06	Thu 2/15/07
5	1d. IT Training and Skills Development (Ongoing)	434 days	Mon 7/17/06	Thu 3/13/08
6	**2. Infrastructure Preparedness & Planning**	**434 days**	**Mon 7/17/06**	**Thu 3/13/08**
7	2a. IT Policies and Procedures (Ongoing)	434 days	Mon 7/17/06	Thu 3/13/08
8	2b. Integrate IT into Disaster Recovery Planning (Ongoing)	434 days	Mon 7/17/06	Thu 3/13/08
9	2c. Prepare for New Technologies	107 days	Thu 11/16/06	Fri 4/13/07
10	2d. Continue platform/system upgrades and rollout of IT support tools (Ongoing)	281 days	Thu 2/15/07	Thu 3/13/08
11	2e. Document/Records Management System	346 days	Thu 11/16/06	Thu 3/13/08
12	**3. Business Improvement & Process Automation**	**276 days**	**Thu 11/16/06**	**Thu 12/6/07**
13	3a. Plan for Citywide GIS coordination/projects	170 days	Fri 4/13/07	Thu 12/6/07
14	3b. City Data Warehouse/Decision Support System	211 days	Thu 2/15/07	Thu 12/6/07
15	3c. Implement Citywide Complaint Tracking/Service Request System	107 days	Thu 11/16/06	Fri 4/13/07
16	3d. Automated Permit Process System	126 days	Fri 4/13/07	Fri 10/5/07
17	**4. E-Services and Online Applications**	**346 days**	**Thu 11/16/06**	**Thu 3/13/08**
18	4a. Website Redesign	111 days	Thu 11/16/06	Thu 4/19/07
19	4b. Planning and Implementation of E-Servic	281 days	Thu 2/15/07	Thu 3/13/08
20	4c. City Intranet	179 days	Fri 4/13/07	Wed 12/19/07
21	4d. Web Technology Standardization	85 days	Fri 11/16/07	Thu 3/13/08

Task	Milestone	External Tasks
Split	Summary	External Milestone
Progress	Project Summary	Deadline

Project: IT Master Plan

8.0 Implementation Project Budget

The Information Technology Implementation Plan will require a commitment of resources by the City that includes budget for software, hardware and professional services. As important, however, the Information Technology implementation will require an allocation of internal staff time, primarily of City department staff and City IT staff who will be required for input on the design and implementation of e-government business applications.

The summary budget on the following page provides an estimate broken out by major initiative, action item, and resource type required—hardware, software, and professional services. An important point to note for the implementation budget is that a number of the initiatives have dependencies and cannot be viewed as independent decisions. For example online services cannot be deployed if the City does not have a solid and sound infrastructure.

The budget was developed under the guiding principal that the City will leverage to the greatest extent possible internal resources and current technology investments while recognizing that certain key activities are best left to third party specialists. Thus, the budget also includes an estimate of the internal resources required, both by Information Technology staff and by other City Staff, by level of effort—High, Medium, Low.

City of Mission Viejo
Information Technology Master Plan

FY 2006-2007 & 2007-2008 Budget Request

IT Initiative/Action Item	One Time Costs			Total	Start/Timing	Internal Resources		FY06-07	FY-07-08
	HW Hardware	**SW** Software	**PS** Prof. Svcs.			**IT** Dept	**Dept.** Staff		
1. Organizational Preparedness									
1.a: Strategic Plan	-	-	-	-	Completed	Med	Low		
1.b: Strengthen IT: IT Director, IT Department	-	-	-	-	Q3-06	Med	Low		
1.c: IT Governance	-	-	-	-	Q4-06	High	Low		
1.d: IT Training and Skills Development	-	-	20,000	20,000	Ongoing	Med	Low	10,000	10,000
Total Organizational Preparedness	$ -	$ -	$ 20,000	$ 20,000				$ 10,000	$ 10,000
2. Infrastructure Preparedness & Planning									
2.a: IT Policies and Procedures	-	-	-	-	Ongoing	High	Low		
2.b: Integrate IT into Disaster Recovery Planning	7,500	-	15,000	22,500	Ongoing	Med	Low	22,500	
2.c: Prepare for New Technologies (WiFi, VOIP)	-	-	45,000	45,000	Q4-06	Med	Low	30,000	15,000
2.d: Continue platform/system upgrades and rollout of IT support tools	15,000	30,000	5,000	50,000	Q1-07	High	Low	25,000	25,000
Total Infrastructure Preparedness & Planning	22,500	$ 30,000	$ 65,000	$ 117,500				$ 77,500	$ 40,000
3. Business Improvement & Process Automation									
3.a: Plan for Citywide GIS coordination/projects	5,000	15,000	20,000	40,000	Q2-07	Med	High	15,000	25,000
3.b: Datawarehouse/Decision Support System	7,500	8,000	25,000	40,500	Q1-07	Med	Med	20,000	20,500
3.c: Implement Citywide Complaint Tracking/Service Request System	-	10,000	35,000	45,000	Q4-06	Med	Med	25,000	20,000
Total Bus. Improv. & Process Automation	$ 12,500	$ 33,000	$ 80,000	$ 125,500				$ 60,000	$ 65,500
4. E-Services and Online Applications									
4.a: Website Redesign	-	-	15,000	15,000	Q4-06	Med	Med	15,000	
4.b: Planning and Implementation of E-Services	-	5,000	35,000	40,000	Q1-07	High	Med	15,000	25,000
4.c: City Intranet	-	7,500	25,000	32,500	Q2-07	High	Med	17,500	15,000
4.d: Application/Web System Standardization	5,000	20,000	15,000	40,000	Q4-07	Med	Med	30,000	10,000
Total E-Services and Online Application	$ 5,000	$ 32,500	$ 90,000	$ 127,500				$ 77,500	$ 50,000
TOTAL Estimated IT Budget	$ 40,000	$ 95,500	$ 255,000	**$390,500**				$225,000	$ 165,500

Note: Costs for initiatives above are an addition to The City's Information Technology
Department approved operating budget