CITY OF
HAYWARD
HEART OF THE BAY

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DATE: September 1, 2009

TO: Mayor and City Council

FROM: Clancy Priest, Technology Services Director

SUBJECT: Technology Strategic Plan

RECOMMENDATION

That the Council review and approve the 2009 Technology Strategic Plan as recommended unanimously by the Council Technology Application Committee (CTAC) at its meeting of February 18, 2009.

BACKGROUND

The City's last technology plan was approved in 2001. The plan, entitled Two-Year Technology Work Plan for Fiscal Years 2001 through 2003, a copy of which is located on COHNet. The list of projects outlined in the plan has been completed.

DISCUSSION

Technology plays an ever-increasing role as a tool used by the City to carry out its mission. The effectiveness and efficiency of City government is enhanced through the use of information technologies, as is the delivery of services to the community. Technology is embedded in all aspects of our organization. It facilitates our communications, supports business needs, enables us to provide quality service to the community in line with Council priorities, and supports our administrative processes and decision making. Each year we discover new needs and new ways to use technology to transform how we work, learn, and build our community.

The proposed Technology Strategic Plan represents the City's approach to planning for and strategically managing these technologies for the benefit of the community of Hayward, not only for now but into the future. Because technology changes so rapidly, the planning horizon is much more limited than other programmatic strategic plans. The attached plan is designed to look ahead over the next five years.

The extensive desire for technology and its great potential to deliver benefit requires careful decisions about when, where, and how to embrace it. The proposed Technology Strategic Plan provides short-term and long-term direction that informs how technology will be used at the City of Hayward. The Plan communicates our priorities and intentions regarding where we will invest our resources to make the most of what technology has to offer.

Proper preparation helps mitigate the risks associated with new and untested technologies, but there is always going to be a certain level of uncertainty with initiatives, from both the technical and user perspectives. It is well accepted that the world is becoming increasingly connected and mobile. It will be prudent for the City to begin a process of merging such diverse technologies into our plans.

As outlined in the strategic plan the three main objectives are a new Computer Aided Dispatch/Records Management System (CAD/RMS) for public safety, a Constituent Relations Management (CRM) system and an Enterprise Resource Program (ERP) system that incorporates financial and business intelligence into a heterogeneous system. The Council has approved the procurement and implementation of a new CAD/RMS that is currently being pursued. Technology Services is also currently implementing an incident tracking system that lays a foundation towards a comprehensive CRM system. We will soon begin the process of due diligence towards an ERP system.

The primary objective of the Technology Strategic Plan is to assess the City's information systems processing needs, determine current and future requirements, and provide a comprehensive document that will define the City's technology needs over the next five years. The City's intentions will be to implement new technology to ensure the efficient and effective delivery of City services to the community. By having such a plan, Technology Services will have a "road map" to help ensure that a course is taken with guidance and direction.

PUBLIC CONTACT

The Council Technology Application Committee (CTAC) reviewed the plan at their meeting of February 18, 2009 and recommended approval to the Mayor and Council. A Council work session was held on July 21, 2009 with a recommendation to bring the plan to the Council for approval.

FISCAL IMPACT

The overall fiscal impact to the organization may be substantial. When all the initiatives and projects in the plan are looked at they collectively may cost the City between 10 and 20 million dollars depending on how they are finally configured and what is deemed appropriate to the mission of the organization.

The financial considerations for the proposed plan will be contingent upon the economics and budget of the organization. The available economic resources will be the main factor in how we implement the plan.

Prepared by:

Clancy Priest, Technology Services Director

Approved by:

Gregory T. Jones, City Manager

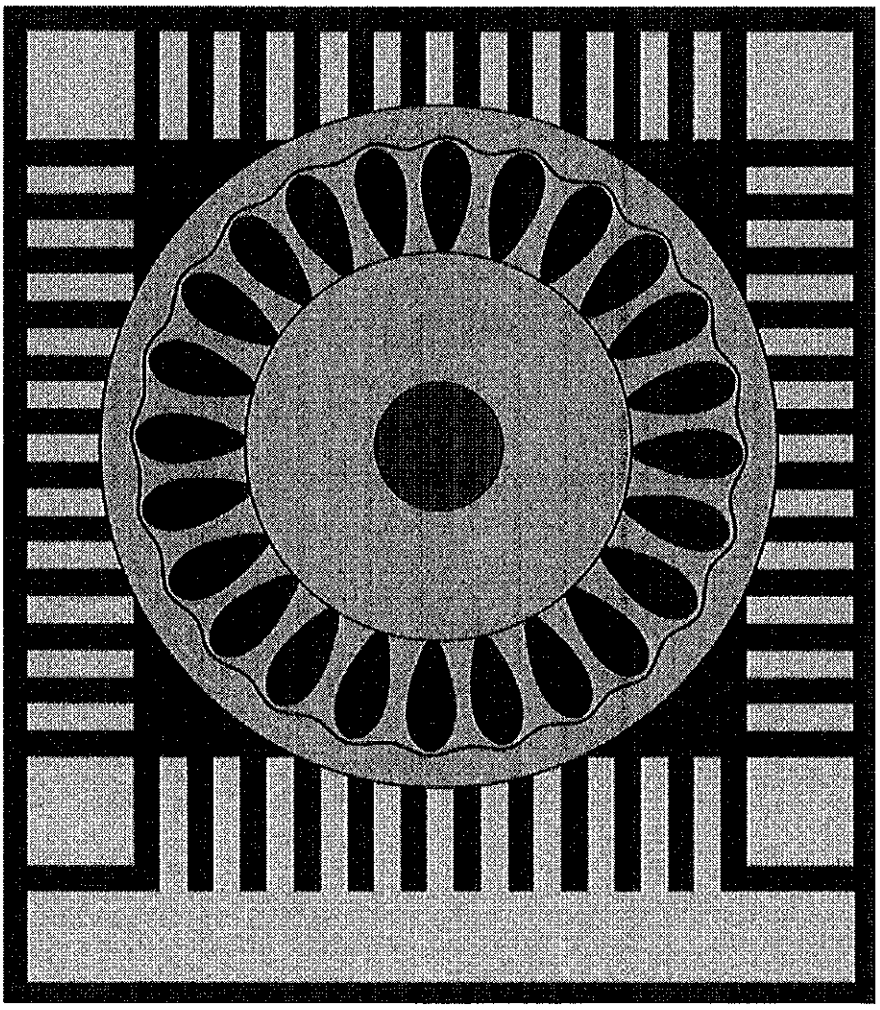
Attachments: Technology Strategic Plan
Draft Resolution

CITY OF HAYWARD

TECHNOLOGY STRATEGIC PLAN

2009

CITY OF
HAYWARD
HEART OF THE BAY



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EXECUTIVE SUMMARY

This Technology Strategic Plan represents the City's approach to planning for and strategically managing technologies for the benefit of the community of Hayward. The strategic technology plan provides short-term and long-term direction that describes the vision of how technology will be used at the City of Hayward. The mission of the Technology Services Department is to support the delivery of service to the Hayward community by providing access to and support of technology resources, for business operations, information, and communication that is timely, accurate, reliable, and secure.

Technology will play an important part in realizing the Council's Priorities to improve internal and external efficiencies to better serve the community. It is the goal of this plan to strengthen the nexus between technology and the business needs of the organization. This plan proposes advances in technology to extend existing services more directly to users, along with developing and servicing internal needs, to add additional services where feasible, and to maximize the efficiency/effectiveness of service delivery within the City's financial capacity.

The plan will play a major role in guiding annual technology planning across the organization. Technology Services will regularly engage the Council Technology Application Committee (CTAC) and the community along with each City department in an annual planning discussion to identify projects and initiatives that can further the Council priorities and organizational goals with strategies as they pertain to technology.

This document outlines the technology projects that have been accomplished since 2001, as well as listing and prioritizing both the major and minor technology projects for the foreseeable future. While technology staff and business managers of the City continue to plan proactively for major technology upgrades, the implementation of major projects will be slowed by the organization's ability to identify funding for each of the projects.

With the advent of the Fiscal 2009 budget, Technology Services was established as an internal service fund (ISF) that will sustain the department in the future. Internal Service Funds are used to account for the financing of goods or services provided by one department of a government to other departments on a cost-reimbursement basis.

The Technology Strategic Planning process has provided a way to identify our strengths, weaknesses, opportunities, and threats; to align our strategy with the Council Priorities and City initiatives; and to evaluate the structure and infrastructure needed to achieve the organization's desired outcomes.

INTRODUCTION

Technology plays an ever-increasing role as a tool used by the City to carry out its mission. The effectiveness and efficiency of City government is enhanced through the use of information technologies, as is the delivery of services to the community. This Technology Strategic Plan represents the City's approach to planning for and strategically managing these technologies for the benefit of the community of Hayward. This strategic technology plan provides short-term and long-term direction that describes our vision of how technology will be used at the City of Hayward. It will communicate our priorities and intentions for where we will invest to make the most of what technology has to offer to more effectively and efficiently serve our residents.

The Technology Services Department has primary responsibility for technology at the City of Hayward. Our strategic plan supports the direction set by the City Council Priorities (adopted in January 2008 and updated in January 2009), the supporting implementing initiatives, and the City's Leadership Principles. This is not a plan for any one department or need. Rather, the plan has been developed to assert the technology goals and strategies of our organization as a whole. While it informs the priorities of the Technology Services Department, it also sets direction for how all departments will work across a broader spectrum to meet organizational goals augmented by the appropriate use of technology.

The City of Hayward has made use of technology over the years as a tool for improving productivity and providing better service to the community. Continual investments have been made to acquire current technology and build a dependable, flexible, and sustainable infrastructure, however this investment has waned in recent years as resources have become more and more scarce. This continued reduction in investment is beginning to result in systems that are marginal in their application and expensive to maintain. Policy decisions surrounding technological investment are growing more critical as our current infrastructure deteriorates. The challenge for the future is to stay current with new developments without losing sight of the reasons for technology in the first place. The Technology Services Department must perform our core services on a daily basis with determination and pride, always keeping in focus our primary mission of network, desktop, programming and telephony services for the entire organization. The changes for the foreseeable future, due to budget constraints, will be more incremental in nature, involving the integration of new and existing systems.

TECHNOLOGY MISSION STATEMENT

The mission of the Technology Services Department of the City of Hayward is to provide access to and support of technology resources, for both information and communication that is timely, accurate, reliable, and secure to the overall benefit of the organization priorities. As a mission critical internal service, our goal is to provide state-of-the-art technology and support to our organization. The department's objective is to provide the highest quality technology based services in the most cost-effective manner. We will establish and maintain systems, processes, and solutions based on industry standard best practices. The department will be a leader in customer service, both internally and externally.

TECHNOLOGY SERVICES GOALS

- Maintain and support our core services of Network, Desktop, Programming, and Telephony systems with outstanding customer service and the use of industry standard best practices to ensure our mission.
- Develop and maintain energy efficient, Electronic Products Environmental Assessment (EPEAT) certified, infrastructure including data centers, servers, desktops, printers, and technology work habits to meet the organizations sustainability goals.
- Maintain the currency and performance of the IT infrastructure to ensure the stability of our converged data/telephony network to meet mission critical communication needs.
- Develop extensive capabilities to manage and execute complex projects using both department staff and external resources to address the priorities of the organization.
- Implement and maintain industry standard policies and procedures for network, passwords, Internet access, physical security, wireless access, and disaster recovery.
- Raise awareness of information security risks to individuals and the institution.
- Implement web-base strategies and technologies such as e-government, social networking, wiki's, blogging, and other forms of community based information sharing.
- Leverage existing and new technology to improve the efficiency and effectiveness of business processes.
- Sustain a secure, reliable, and stable technology infrastructure to provide "24/7/365" online services to the community.
- Maintain up to date, tested disaster recovery plans that support the organization's business plan.

- Assisting our customers in the identification of technological solutions that are supportable by the department.

TECHNOLOGY SERVICES VISION

- Encourage the development and adoption of the use of technology to enhance and support Council Priorities, and the supporting initiatives
- Provide enhanced analysis, modeling, and decision-making capabilities to support organizational strategies to improve services to the community
- Increase the role of Technology Services within the organization and the Executive Team along with TGG and CTAC
- Bring the resources of the City together to establish a state-of-the-art technology department
- By 2010, implement replacement fund that sustains our ability to renew and replace vital technology; manage the fund with 10-year planning horizons
- Develop an information security strategy that balances the need to contain risk with the desire to maintain an open environment that facilitates the exchange of information
- Organize the department's role of supporting departments in delivering their individual and organizational missions with a focus on facilitating their ability to deliver excellent customer service to the community through technology
- Construct a Storage Area Network (SANS) which will accommodate the entire organizations data storage needs and address our data warehousing
- Build the resources to complete the mission of the City as it pertains to technology

THE TECHNOLOGY STRATEGIC PLAN

Background

In 2001, the City implemented a Two-Year Technology Work Plan to improve and modernize the existing systems. This plan accomplished efficiencies on the desktop as well as the network infrastructure and improved access to the internet.

The major objectives at that time were to:

- Upgrade the Police and Fire Computer Aided Dispatch System
- Replace the Fire Records Management System
- Create a single, consolidated, wide-area network for all City departments
- Develop a City-wide Geographical Information System
- Provide remote field access for the Building Permit System
- Expand the scope and functionality of the City's Web Site
- Expand the City's Document Imaging Program
- Develop a transition strategy and begin replacement of the City's Financial Management System

The City largely accomplished these goals by the end of the 2005.

Technology Services was able to increase and improve staffing levels to meet the challenges of the plan and the demands of the organization. Due to continuing budgetary deficits, Technology Services has been required to reduce its budget and staffing from 24 to 15 FTE's. These reductions have directly impacted our ability to provide the level of service we would expect to provide the organization, as well as having limited our investment in key legacy software systems such as our financial management system and Computer Aided Dispatch System (CAD) Record Management System (RMS).

The department has nonetheless realized many accomplishments and efficiencies despite the circumstances. The state of the City's technology is stabile and performs adequately but needs expanding and improving for future needs. The staff has persevered through the increased technological demands of the organization and excelled in many areas such as customer service and project implementation, something of which the department and the organization can be proud.

Strategies and Goals

The vision being brought forth by the City Council and the City Manager provides guidance to the organization. Technology will play an important part in realizing the Council's Priorities to improve the internal and external efficiencies to better serve the community. It is the goal of this plan to produce the nexus between technology and the business needs of the organization.

The primary objective of the Technology Strategic Plan is to assess the City's information systems processing needs, determine current and future requirements, and provide a comprehensive document that will define the City's technology needs for the future over the next five years. To this end, a series of meetings were held with each department and are reference in appendix D. The City's intentions are to implement new technology to ensure the efficient and effective delivery of City services to the community. By having such a plan, Technology Services will have a "road map" to help ensure that a course is taken with guidance and direction. The Plan also provides a centralized guide to technology for the organization, rather than having a web of varying visions for the future use of technology.

There are opportunities to better utilize the capabilities of our current technology and to support even more efficient business processes. We can also use technology to further our organizational goals to be more "user friendly" both internally and externally. Technology offers the opportunity to deliver self–service capabilities and information to our community. As residents become increasingly mobile and "on–line" 24 hours a day, they will expect to transact business with the City anytime, anywhere. The wide spread use of web-based technologies, utilizing Web 2.0 standards, throughout business and governmental organizations should be adapted within our own organization. The use of browser based technologies will manifest itself through blogs, wiki's, and specific forms of social networking that will enhance our ability to deliver services and information to the community and our own internal staff. Technology and business process change will be critical to meeting these expectations.

Offering reliable technology is not enough; it must also be as secure as possible. Security risks continue to grow more numerous and complex. To be secure requires changes in technology and changes in individual behavior. It is necessary to implement strategies to raise awareness about information security and mobilize the entire City staff community to help safeguard our vital information. Our standards and policies need to be improved and enhanced to ensure our ability to function in a cohesive and coherent manner.

This plan is a "living" document that can be updated periodically to accommodate changes in technology and the needs of the City, its citizens, and the organization as a whole.

The City's Strategic Goals for Technology are:

- Support, facilitate, and accomplish City Council priorities
- Within Technology Services, ensure that the City Manager's Leadership Principles are followed and enabled
- Create a reliable and secure technology environment
- Assure technology supports the City's business objectives
- Maintain our technology core service in a consistent manner
- Build horizontal, rather than vertical, systems and remove "information silos"
- Achieve ready access to and use of information through integrated and web-based technologies
- Increase productivity through the use of information tools utilizing browser based technologies and systems
- Strengthen management staff's connection to data so decision making can be more data driven and information readily and easily accessible for such use
- Provide systems that give managers ways to more effectively track quantitative and qualitative measures of performance so practices can be improved and outcomes more easily articulated to the City Manager, City Council and the community
- Create information systems and structures that strengthen the conversation between the Hayward community and its municipal government
- Move toward an open business and "self-service" environment through focus on e-government, which will better serve our community and create efficiencies and economies for City staff
- Ensure that all technologies are easy to understand, inter-active in nature, and is "user-friendly" both internally and externally which maintains an "in-touch" style.
- Ensure that we maximize our current and future investments in technology which will assist with maintaining and advancing our overall business case

Tasks

Any plan should propose advances in technology to extend existing services more directly to users, along with developing and servicing internal needs, to add additional services where feasible, and maximize the efficiency/effectiveness of service delivery within the City's financial capacity to expand such services.

To this end, primary goals will be established:

- ✓ Address all tasks with Council Priorities, as well as Leadership Principles, as a guiding elements in our initiatives
- ✓ Support and maintain our core systems
- ✓ Upgrade or replace existing "mission critical" systems that are suffering from aging hardware and/or obsolete technology.
- ✓ Expand implementation of web-based and browser based technologies.
- ✓ Set appropriate standards and policies for the use of technology.
- ✓ Implement Electronic Products Environmental Assessment (EPEAT) certified systems wherever possible in support of sustainability.
- ✓ Develop new systems and applications where there is an efficient and cost effective opportunity to support Council Priorities, increase productivity, improve service to the community, and enable residents.

Short-term (within 24 months) Objectives:

- ➢ Continue with the replacement of desktop computers and servers citywide to create productivity increases and realize efficiencies, economies and sustainability
- ➢ Complete the replace or removal of unnecessary legacy peripherals citywide and replace with more efficient hardware
- ➢ Implement software and hardware to increase productivity as identified in the department needs assessments using a Storage Area Network System (SANS) to address the storage and access needs of the organization data needs
- ➢ Implement Web 2.0 technologies to improve the ability of the organization to interact with one another as well as the community at large
- ➢ Create a standards based technology systems with all the proper policies, procedures and standards in accordance with industry best practices
- ➢ Continue to enhance the sustainability of the systems by implementing "green" based technology such as low-consumption desktops and infrastructure along with virtualization of our network servers and systems

- Complete the implementation of an Incident Tracking System that will allow the organization to improve customer relations with the community at large

Depending upon funding and resources the above tasks can be completed within 12 to 24 months, with an estimated cost of between $1 and $2 million. This cost estimate would be further refined during the procurement process.

Long-term (three to five year) Objectives:

Funding of larger long-term projects is uncertain. The nature of these types of projects requires extensive budgeting and planning. To this end the listed projects will be included in the City's 5 year Capital Improvement Plan as unfunded projects until funding sources can be identified.

The major long term projects are:

- Replacement of the Public Safety CAD/RMS,
- Implement a comprehensive Constituent Response Management (CRM),
- Replace the existing financial system with an Enterprise Resource Planning System.
- Reorganize and increase the resources of the Technology Services Department to provide better support for existing and future systems

Depending upon funding and resources the above tasks can be completed within 36 to 60 months, with an estimated cost of between $15 and $20 million. The cost estimates will be further refined during the process described later.

Implementation Strategy – Moving Forward

The plan will play a major role in guiding annual technology planning across the organization. Technology Services will regularly engage each City department in an annual planning discussion to identify projects and initiatives that can further our organizational goals and strategies as they pertain to technology. Working with the Technology Governance Group, the Council Technology Application Committee, and the City Manager, these new technology needs will be prioritized and aligned with the overall technology goals and strategies.

Planning is a continuous process. This plan represents our best understanding of technology opportunities and goals as they stand today. However, it will be refreshed periodically to reflect changing needs and changing technology. These forward looking discussions will be used to adapt and reprioritize our strategies as necessary.

Priorities and Timeline

Choosing priorities for technology planning is always a challenge; priorities should be based on outcomes rather than the technology itself. Planning priorities with horizons that are too long render them irrelevant due to technological changes; too short a horizon often creates tactical project lists rather than strategic goals and aspirations that move the organization forward. Technology Services settled on a three to five year horizon for this plan because it seems a reasonable balance of short and long term interests. The following section describes the priorities for technology and how they link to our broader organizational goals and priorities.

The key factors when establishing timelines will be the Council Priorities and how we is allocate the resources and funds when and where they are required. The projects and tasks outlined below are obtainable in a timely manner if the proper funding and resources are made available. With this in mind, the following timelines are to be established:

Short-term, current to 24 months:

- ***Replace desktop computers and servers citywide***
    - This one single project will realize the greatest return on investment. The aging hardware now in place is creating frustrations throughout the organization and requiring a phenomenal amount of effort by Technology Services to maintain. Efficiencies that will be realized are, literally, across the organization which in turn meets Council Priorities in a very broad sense. The Technology Services Department has established the standards for both desktop and server hardware. A comprehensive inventory has been performed and the allocation of new systems designated. The procurement began on July 1 with delivery by September 2008. The systems have arrived and are being imaged and delivered to the users. This task will be completed by March 2009. This same process will occur at the beginning of each fiscal year with the funds allocated in the CIP or with funds established in a future equipment replacement fund developed through the Internal Service Fund (ISF) budget. Our goal will be to replace desktop systems on a 4 year lifespan basis.
- ***Consolidate peripherals citywide, and eliminate legacy systems***
    - Along with aging desk top systems, peripherals such as printers, scanners and media drives are in need of consolidation, replacement or removal. This will create efficiencies and save on operational costs. This process will be similar to the one described above for desktop systems. The need to replace, remove and/or consolidate peripherals is both an economic and productivity enhancement measure. This process will begin in January of 2009.

- ***Implement software and hardware to increase productivity***
    - As identified in the departmental needs assessments, these items constitute those that will create further efficiencies beyond those created by implementing the two priorities listed above. Numerous hardware and software needs were identified during the departmental needs assessment meetings. Some of these needs were common among departments and some were not. Determining funding and resources for this task will require further determinations working with the departments, TGG, CTAC, and the City Manager. Increased efficiencies need to be measurable and sustainable and the process will need to be on-going.
- ***Web-based Technology Systems***
    - Web-based and browser based technologies are used in both government and private industry implementing Web 2.0 technologies. These systems include BLOG's, Wiki's, and certain forms of social networking to name a few. Implementing such systems will enhance our ability to provide service and information to the community we serve. Technology Services researched web-based systems that are widely used by governmental and non-profit agencies for use by the City. A blogging system to assist the City with the delivery of information as well as internal use by departments was chosen and is in the testing phase. This same system has the ability to create Wiki systems for the exchange of ideas and suggestion for internal staff and the community should we decide to implement. Further research is being performed in the areas of "Social Networking" to help guide the organization in that particular area.
- ***Policies and Standards***
    - There is a need to expand the department's policies, procedures, and standards. A comprehensive set of documents, using industry standards and best practices, are needed to assist with these issues. The City currently has a number of Administrative Rules (AR) in place addressing technology. There is a gap between what is in place and what is needed. Technology Services will review our existing policies and standards to build a list of documents that need to be created to provide proper guidance to the organization concerning technology use. Once this list has been created, draft subject matter documents using industry best practices will be provide for review by the City Manager, City Attorney and the Executive Team to move forward and incorporate them into the City's AR's.
- ***Sustainability***
    - In alignment with the City's sustainability initiative, Technology Services will expand our implementation of "Green Technologies" wherever and whenever possible. These will include systems that have a measurable reduced energy consumption and eco-friendly that will help reduce the City's carbon footprint. The new desktop

systems that are being deployed are EnergyStar 4.0 compliant saving both energy and reducing our carbon footprint. The infrastructure upgrade that was completed recently is also Electronic Products Environmental Assessment (EPEAT) certified and compliant with these standards. The Network section of the department has implemented virtualization of network systems and will expand this initiative to create further gains in the area of sustainability.

- ***Customer Relations***
  - The City currently addresses constituent questions and complaints in a non-linier fashion through telephone and email. A solution to this is the implement an Incident Tracking System to help us provide a technological solution to a procedural problem. A system that is in use at Arvada, CO has been reviewed by City staff and the Alliance for Innovation and is a viable option for the City. This "Incident Tracking" system will help the City create a system that will track requests for information or service along with complaints. The system will supply reports to the City Manager, Department Heads and staff to see how well we are performing in this area. This system will leverage our existing investment in the Tele-Works system and utilize a hosted module from Pleasanton based GovOutreach. Technology Services has identified funding for this project and is in the process of implementation.

Long-term 3 to 5 years (concurrent with short term):

- ***Replacement of the Public Safety CAD/RMS***
  - This has been a pressing need for Public Safety for a number of years. This system assists Public Safety with dispatching and record keeping. It was partially addressed in the 2001 Two Year Plan with the implementation of a separate Fire records keeping system (RMS) which alleviated some of the stability issues but has now progressed to an extremely critical situation in the area of Computer Aided Dispatch (CAD). The replacement of this system would directly address the Council priority concerning the area of Crime and Public Safety by modernizing the way we dispatch and maintain our records, which will increase both stability and efficiency. The existing system has been in place for over 17 years and is considered a legacy system by the manufacturer. The Police Department along with Technology Services has begun the process of identifying both funding sources and conversations with various vendor concerning both cost and implementation strategies. Further steps can be determined after this is completed. It is possible that grants funding as well as reducing operational costs associated with the current system will accelerate our ability to acquired and implement a new system.
- ***Replace the existing financial system with an Enterprise Resource Planning (ERP) System***

- The City's financial system is limited in its ability to interconnect and provide bi-directional data transfer with our other diverse systems. There are barriers within the system that are not conducive to integration with various other mission critical systems. ERP is a way to integrate the data and processes of an organization into one single system. Usually ERP systems will have many components including hardware and software and provide the ability to transfer, share, and warehouse data. This form of integrated system will enable the organization with outcome budgeting as well as budget modeling that will make a substantial impact in budgeting. In order to achieve integration, most ERP systems use a unified database to store data for various functions found throughout an organization. This is probably the single most complex and far reaching technology change the City could make. This type of system literally touches every aspect of our organization and will alter the way we conduct business and crate efficiencies not realized before by allowing the sharing of data between managers and departments eliminating the need for dual entry of data by separate business units as occurs now. Because of the nature of ERP's, as with other large scale projects, a subject matter expert will need to be retained to facilitate the identification of organizational needs including not only software and hardware but also funding and resources. The City Manager also has a vision for creation of a more outcome based budgeting system that will require a much more robust budgeting/financial system to more accurately track costs of services and return on investment. The current system cannot support such a goal and will need to be replaced to provide adequate capabilities to implement an Outcome Based Budget. A new system should also provide stronger capabilities in the areas of financial modeling and projection, consistent with the organization's move toward long range financial planning.

- ***Implement a Constituent Response Management (CRM) System***
  - CRM is not just a technology but rather a comprehensive customer-centric approach to an organization's philosophy in working with constituents. This includes policies and processes, customer service philosophy, employee training, marketing, systems, and information management. It is important that CRM implementation considerations stretch beyond technology, towards the broader organizational requirements. One of the most frustrating aspects for some residents in dealing with government agencies is finding information, request a service, and follow how (or if) their problems are being handled; and one of the most frustrating aspects for a government agency is how to deliver services in the most effective and "user friendly" manner and to enable its residents to acquire information in the most efficient way possible. CRM addresses these problems but is also much more than that if integrated or is part of an ERP referred to above. As with an ERP, a subject

matter expert will need to be retained to facilitate the identification of organizational needs including not only software and hardware but also funding and resources. The results of this process, when completed, can then be brought forward by Technology Services to the CTAC, TGG, City Manager and the City Council for further action. During this process project start, timelines, resource allocations, and staff delegations can be refined.

- ***Reorganize the Technology Services Department***
    - In order to support and accommodate the needs of the various departments and to provide the necessary levels of support, a reorganization of Technology Services staff is required. The reorganization will be governed by not only the technological needs but by the Council Priorities and the Leadership Principles as set forth by the organization. This will include reassignment of duties and the creation of an Analyst and/or project management position along with an increase programming support to help provide the service levels that will be required. As we move forward with some of the initiatives within this plan we will be required to support projects after they have been completed. As the customer needs change, the approach by staff and the required duties will need to be addressed to accommodate this nexus. This will help the department to support the organization in the most cost effective and efficient manner.

Measurements and Outcomes

As stated in the Leadership Principles, ***"what gets measured gets done"***, if tools are developed to measure achievement, then priorities get done. Otherwise, tasks, projects, and efforts are overcome by events.

The use of performance measurement practices helps ensure that strategic technology goals are aligned with the organizations goals. Moreover, establishing performance measures and monitoring actual-versus-expected performance of those measures can help determine whether technology is making a difference in improving performance.

The following measures will be applied to the implementation of this plan:

Achievement Measures:

- For short term projects, achievement is measured with each project or initiative as they are being implemented
    - Meet the Council Priorities; compare the accomplishment with the stated priorities

- Solidify budget requirements and funding sources either through the ISF or the CIP process; measured by the financial viability and acceptance by Finance
- With each particular task, create a thorough list of requirements; measure achievement against what deliverables have been accomplished
- Review with CTAC, TGG, City Manager and the Executive Team the progress and results of the projects; measured by feedback and acceptance
- Perform validation and verification that each project has been accomplished and has delivered the desired results; measured by a summation document
- Ensure customer satisfaction is reviewed; perform a broad focus customer satisfaction survey

- For long term projects, achievement is measured by the identification of organizational needs and resources available
  - Meet the Council Priorities; compare the accomplishment with the stated priorities
  - Budget funds for consulting services; measured by allocated funds
  - Create a RFP for consulting services; measured by consultant selection
  - Prepare funding for the project, i.e. grants, bonds or general fund resources; measured by the financial viability and acceptance by Finance
  - Project manage consultant and stakeholders to formulate budget and RFP for each project; measured by feedback and acceptance
  - Report to CTAC, TGG and the City Manager on next steps; measured by feedback and acceptance
  - Bring forward to the City Council; measured by Council approval
  - Perform industry standard project management of each project; measured by milestones and deliverables;
  - Perform validation and verification that each project has been accomplished and has delivered the desired results; measured by a summation document
  - Ensure customer satisfaction is reviewed; perform narrow focus customer satisfaction survey as it pertains to the individual projects

Budget and Funding

With the advent of the Fiscal 2009 budget, Technology Services was established as an internal service fund (ISF) that will sustain the department in the future. Internal Service Funds are used to account for the financing of goods or services provided by one department of a government to other departments on a cost-reimbursement basis. Services accounted for in Internal Service Funds are tangible, and it is possible to determine the extent to which they benefit individual departments of the government. The ISF will not only support the Departments day-to-day operations but will also, eventually, create a technology equipment replacement fund to provide

the funding necessary for replacing desktops and servers in a more timely, efficient, and effective manner. To assist Technology Services with short term equipment replacement, "seeding" funds have been allocated in the CIP. We have already acquired a number of replacements with the 08/09 CIP and are currently budgeted to replace more in 09/10 CIP. There is a challenge to place units into service due to staffing resources but the department is managing albeit not as timely as we would like. If funding and resources are sustained we will have replaced 70% of our desktop units by the end of calendar 2009.

The department as well as our customers will also pursue grant funding wherever possible to support one-time acquisition costs. However, development of a funded replacement plan is essential to the organization's ability to sustain a capable technology infrastructure that provides for efficiently and effectively delivering key City services to the community. Staff will be developing a proposed replacement fund plan with the FY2011 budget consistent with the elements described in this strategic plan.

In conclusion

This document outlines the technology projects that have been accomplished since 2001, as well as listing and prioritizing both the major and minor technology projects for the foreseeable future. However, until the funding picture for the next several years becomes clearer, it is unlikely that there will be significant progress on future major projects. In the meantime, Technology Services will focus primarily on our existing core services. These include maintaining:

- Stable and secure network and email servers, including centralized storage of data and network infrastructure for data and voice
- The city's inventory of desktop and laptop computers
- Our existing mission critical applications
- An appropriate level of support to users of city technology in order to sustain and possibly improve staff productivity
- Our existing audio/visual technology, including public meeting broadcasts
- The citywide VOIP telephone system

The Technology Strategic Planning process has provided a way to identify our strengths, weakness, opportunities and threats, to align our strategy with the Council Priorities, City initiatives, and to evaluate the structure and infrastructure needed to achieve our outcomes.

Information on the progress of planned projects and initiatives will be reported to the TGG and the CTAC to help guide our progress and facilitate the governance process that will ensure success.

Appendix A - Assessment of Previous Technology Projects and Accomplishments 2001-2008

In 2001, the city developed a Technology Work Plan which outlined eight specific technology projects:

1. Upgrade the Police and Fire Computer Aided Dispatch System.
2. Replace the Fire Records Management System.
3. Create a single, consolidated, wide-area network for all City departments.
4. Develop a City-wide Geographical Information System.
5. Provide remote field access for the Building Permit System.
6. Expand the scope and functionality of the City's Web Site.
7. Expand the City's Document Imaging Program.
8. Develop a transition strategy and begin replacement of the City's Financial Management System.

With the exception of task 1 and 8 all of these projects have been completed or are nearing completion. The task of upgrading the CAD and strategy for the financial system replacement were not funded in the plan and were not pursued. Along with the task of supporting and maintaining the City's day-to-day technology systems and needs, other projects have emerged and have been accomplished as well:

- ✓ The broadest project accomplished is the establishment of a single citywide network, the implementation of a standard desktop operating system environment, and a standard business application suite. This allows all city staff, both in City Hall and all other locations, to exchange and access email and documents from a single, common network. A citywide Geographical Information System was developed that incorporated both aerial and street level digital photography, as well as mapping and parcel data information. This system is now used by every Department.

- ✓ The GIS has also been enhanced with both StreetView and Pictometry applications. The City was one of the first organizations to implement the StreetView street level imagery application and was awarded the 2006 Government Technology Conference (West) "Best Solution Award". The Pictometry aerial imagery application was implemented two years ahead of the Alameda County system. This was possible after direct negotiations with the company which, at that time, had only worked with county governments.

- ✓ The public safety computer-aided dispatch system was upgraded with new server hardware, making the system much more reliable, as well as implementing network communication over standard network protocols.

- ✓ The Fire Department implemented a new records management system that has the capability to compile, store, and manage all written reports of fire incidents. It also is

intended to provide for the search and retrieval of fire incident data, and to automatically generate the reports that are mandated by county, state, and federal agencies.

- ✓ The Fire Department also implemented a time-keeping system for staff. The TeleStaff system allows the Fire Department to track and record staff time and to create and track rosters, overtime eligibility lists, etc.

- ✓ The City's website development and hosting was moved in-house after its initial launch by an external web development and hosting service. The look, feel, scope, and functionality of the website have undergone major expansion and renovations. A complete and useful employee intranet site, COHNet, was implemented and upgraded as well.

- ✓ Under a mandate to improve the City's e-services, several web based online services for community access have been implemented. These include online water bill payment; online police report submission, online building inspection scheduling and permit inquiry, and online access to video of City Council meetings. The programming and departmental coordination required to develop and maintain these systems consumes substantial amounts of staff resources. However, the outcome has proved rewarding.

- ✓ The City's document imaging system, Laserfiche, has been upgraded to the most current version, and is targeted to become a true Enterprise Content Management with implementation of the next software release. Work to expand its use by staff, including online document approval and routing capability, is ongoing.

- ✓ Creation of a Wi-Fi network system to allow "free" access to the internet in the downtown area. This system spans most of the immediate area around City hall and the B street corridor. It has been expanded to cover the Main Library and B Street from Main to Foothill.

- ✓ Remote access to the building permit system via ruggedized laptop computers is at the final specification stage. This is the last remaining task from our previous technology work plan. The project was given lower priority in order to wait for wireless data technology to mature.

- ✓ All 75 laptop computers in police patrol cars have been replaced with current technology over the last 5 years. After many problems and vendor complications the functionality has been greatly improved through the implementation of current EVDO wireless data technology.

- ✓ The City's internal telephone system (AT&T Centrex) has been completely replaced with a state-of-the-art Cisco system which utilizes Voice-Over-Internet-Protocol (VOIP) technology. This project, completed in early 2008, will eventually realize substantial cost savings to the City once the lease/purchase obligation is complete.

- ✓ The City's network infrastructure was completely refreshed in early 2008. This includes the entire wide area network switch and router inventory to ensure maximum stability and throughput for data, voice and video.

- ✓ A single, consistent citywide employee ID card system has been implemented. This project included both hardware and software to create a single heterogeneous identification system.

- ✓ Legacy mobile data terminals in Fire apparatus and vehicles have been replaced with 25 ruggedized laptop computers (MDC's). This system also uses the cellular EVDO system to ensure stable connectivity while responding to emergency calls.

- ✓ A virtual EOC system (Emergency Operations System) has been implemented with 25 dedicated laptops. This system allows city hall to function as an EOC and tracks/records all activities. This system is also used by both the County of Alameda and the State of California, which allows the sharing of data.

- ✓ A point-to-point wireless data network has been implemented, which provides a redundant connection to city hall network and server resources from other locations around the city. This network infrastructure layer will ensure that all City locations will stay connected during an emergency.

- ✓ The audio/visual technology in the Council Chamber has been replaced. This project included the replacement of the Council voting system as well as the majority of the video switching system and cameras.

- ✓ Major improvements were made to the public safety radio system. This project was accomplished with the cooperation of Technology Services and the Police Department Communication Manager. The project included the building of one new radio tower site and the expansion of another, as well as the procurement and implementation of new radio and microwave equipment throughout the system.

- ✓ Technology Services absorbed the Public Safety Information Technology Division to create one single citywide Technology Services entity. This significantly increased the responsibility for technology support and required the distribution of staff and resources to accommodate.

- ✓ The City's email system was upgraded to Exchange 2007 to accommodate both voicemail and email in a single system.

The department has met these various projects with perseverance and determination to provide service to the City organization.

APPENDIX B - INVENTORY OF CURRENT TECHNOLOGY

Infrastructure

The City has an extensive wide area network (WAN) as well as a metropolitan area network (MAN) in place. This network covers all 18 City geographical locations and has several layers of redundancy. The network system uses a mixture of transport layers which includes fiber optic cable, CAT 6/5e UTP, T-1 digital lines, a point-to-point 802.11a wireless system and cellular EVDO connectivity. The City's network infrastructure was completely refreshed and upgraded in early 2008.

Servers

The total number of servers citywide is 92. The citywide average age for these servers is 4 years. There are currently 77 servers in the City Hall Computer Room with an average age of 3 years. At the Police Department there are 10 servers with an average age of 3.5 years. The library has 2 servers and the average age is 4.5 years old. Water Pollution Control/Water Pollution Source Control has 1 server that is 5.5 years old. The Corporation Yard has 2 servers that are approximately 4 years old. To further the City's goal of becoming "clean and green", 14 of these server systems are "Virtual Servers" incorporated into single hardware units which consume less energy. It will be necessary to replace these systems in a timely manner, every 3 to 5 years, to ensure stability of our network.

Personal Computers

The City currently has a total of 905 personal computers in inventory. These consist of 753 desktop computers, 57 general purpose laptops and 95 Public Safety mobile data computers (ruggedized wireless laptops for field use).

The desktop computers and general purpose laptops are almost all Dell brand systems. Prior to the last Technology Plan, the City purchased generic "clone" systems, and it was decided to standardize on a single manufacturer to achieve purchasing and maintenance efficiencies. An exception to this standard, are the Public Safety mobile data computers, which are Panasonic Toughbooks. Only 9 of the desktop computers are "workstation class" systems that have a higher performance level for a specific purpose (such as Police Dispatch), and the remaining desktops are built for general use.

Beginning in 2007 the standard desktop computer configuration for new system purchases has changed from a large "tower" configuration to a "small form factor" which saves space and is more energy efficient. Technology Services has compiled a standards list for future purchase.

The average age of the City's desktop systems is over 4 years. There is currently a CIP replacement fund for refreshing the computer inventory. There has been, however, ad hoc replacement of computers over the years by Technology Services and individual departments with CIP and other available funds. Over the last two years, for example, 90 Public Safety Mobile data computers were purchased to replace models as old as 7 years, along with approximately 75 desktop systems throughout the enterprise.

Nearly all of the desktop computer systems mentioned above run the Microsoft Windows XP operating system.

Computer Monitors

There is a total of 779 computer monitors in the City's inventory paired with desktop computers, the total monitor count exceeds the desktop computer count, as there are desktop systems that use multiple monitors. Since 2003, it has been Technology Services' policy for all replacement monitors to be flat panel displays instead of larger CRT monitors. Flat panel displays have a much smaller footprint on a staff members' workstation and they are more energy efficient. There are currently 199 CRT monitors and 580 flat panel displays.

Networked Printers, Scanners and Multifunction Copiers

The City's inventory of networked printers includes 102 black and white laser printers, 12 color laser printers, 29 color inkjet printers, 7 impact (dot matrix) printers and 8 color plotters (for large format prints). There are also 17 stand-alone document scanners and 37 multifunction copiers (2 colors, 35 black and white) that combine the functions of copying, printing, scanning and faxing. The multifunction units are more cost effective than single function printers with regard to toner, ink and maintenance. The future goal will be to reduce the overall number of printers in the organization by removing unnecessary personal printers and procuring multifunction units where each one would replace multiple single function printers.

Audio/Visual Technology

The broadcast content of KHRT Channel 15 consists of live and pre-recorded City Council, Hayward Unified School District, and Planning Commission Meetings, and also a bulletin board announcing local community events and resources. Broadcast content is approved by the City Manager's Office, and the broadcast technology is managed by both permanent Technology Services Staff and paid Audio Visual Interns. Maintenance of the broadcast system is performed by an outside vendor. The Council Chambers and adjacent Broadcast Room are fully equipped to broadcast and record content with a direct link to Comcast Cable.

Between 2004 and 2007, the broadcast technology received a major upgrade with the replacement of most of the systems, converting it from analog to digital technology. Broadcast technology in the Council Chambers consists of 3 video cameras, 2 projectors, A/V mixing boards, A/V routing

equipment, touch screen control panels, an electronic voting system, and various computers and monitors.

Conference Room 2A is connected to the Council Chambers Audio Visual System and is utilized as a conference room, City Council work session room, meeting overflow room, and Emergency Operations Center (EOC). KHRT broadcast content is also available via Webcast from the City's Website.

City Conference Rooms

Six additional City Conference Rooms have built-in Audio Visual solutions consisting of projectors, projection screens and computers. The remaining conference rooms utilize 4 portable projectors and screens.

Telephones

The City's current telephony system is the Cisco AVVID Voice over Internet Protocol (VoIP) system. The total number of phones citywide is 651. The system also includes 7 additional network file servers (some virtualized) that perform various functions such as call management, call routing, call accounting and call recording.

Supervisory Control and Data Acquisition (SCADA) System

The City's SCADA system services the water and sewer facilities controlled and maintained by the Public Works department. SCADA refers to the system that collects data from various sensors in remote locations and then sends this data to a central computer which then manages and controls the data/apparatuses. The SCADA network is a large and complex system incorporating various technologies. Although this system is under the purview of another department, it uses some of the network infrastructure and data networks that are maintained by Technology Services, and therefore warrants mention in this plan as existing architecture.

Software

The city's software inventory is diverse. As with most organizations, many of the applications used by staff have been acquired over time and become tools used daily. The types of software used can be categorized as either desktop application or systems applications. Desktop applications are defined as general purpose software that is either 'common-off-the-shelf' (COTS) or 'shrink-wrapped'. The second category, systems applications, is comprised of specialized programs that are often proprietary in nature and are designed for a single purpose. A complete detailed inventory can be found in Appendix E.

Appendix C - Assessment of Current Business and Technology Needs

To assess the City's current business and technology needs, Technology Services met with all City departments to discuss their individual needs (Appendix D). There is a need for various hardware and software systems that are considerably diverse in nature and particular to each department. Having stated this, there are certain commonalities that appear throughout, such as the replacement of desktop computers, printers, scanners, DVD burners, graphical software, etc.

The main issue that was repeated in almost all the departments' needs assessments was the age and performance level of desktop computers. In order to maximize staff efficiency, nearly all desktops systems must be replaced City-wide. This single need is a pressing one. The pressure of software demands on the hardware, along with a growing increase in the reliance on these desktop systems to accomplish even the most mundane tasks, requires that this need is given priority. The enhanced productivity from replacing these units is immeasurable.

In conjunction with desktop replacement, there is a growing need to ensure that our network server systems be updated as well. Some of the server hardware is aging and facing the same technological pressure from enhanced server operating systems putting increased demand on our aging hardware. Another factor to consider is the availability of technical support from the server hardware vendor. As systems age, vendors typically discontinue support for older models.

Along with server system replacement, there is a need for increased computer file storage capacity within the organization. The City has been experiencing an increased need for data storage that expands yearly by between one and two terabytes, which in turn increases our need for larger and faster backup storage systems. The City is in need of a Storage Area Network System (SANS) to accommodate our growth.

Along with SANS technologies the organization needs to move from our current Document Management System (Laserfiche) and expand into Enterprise Content Management (ECM). ECM is the technologies used to capture, manage, store, preserve, and deliver content and documents related to organizational processes. During the course of the 2009 calendar year Technology Services will upgrade our Laserfische system to version 8.x to accommodate this initiative.

The business and technology needs are stated as current or immediate to assist all departments with their business case. With an understanding of the existing budgetary and economic conditions, this document will frame a strategy to accomplish implementing technology and business tools in a structured, efficient and cost-effective manner.

APPENDIX D – INDIVIDUAL DEPARTMENT NEEDS RESULTS (DETAIL)

Technology Services held several meeting with each department to discuss their technology needs. These meetings took place over a several months and were helpful to us in compiling some of the individual and overall needs of the organization. The meetings were sometimes very detailed and centric to a specific need, the following is a synopsis of these meeting put into bullet form to help understand what individual departments consider important to their department in general.

City Attorney

- City attorney department users require larger monitors for their PC's.
- PDA's are needed by attorneys so they can read their e-mail while they're out of office.
- A network color printer is needed.

City Clerk

- The City's Municipal Code (HMC) maintenance is currently done in-house. As Council adopts ordinances, the HMC must be updated. Current staff performs the update and meets the required 30 day effective date. Current staff works with web personnel to maintain this update on-line and distributes hard-copies to subscribers. With potential staff retirements, it will be necessary to contract for a code publishing vendor to perform these duties as well as maintain the on-line HMC version.
- Granicus software is software that can assist the staff in the preparation of minutes as well as improving the webstreaming of City Council and Planning Commission meetings.

City Manager

- A Constituent Response Management (CRM) system. CRM is a term for methodologies, software, and usually Internet capabilities that help an organization manage constituent relationships in an organized way. For example, an organization can build an informational database concerning constituent needs and requests in sufficient detail so that management, staff providing service, and the constituent directly could access information, match requests with services, inform/remind staff of service requirements and create a mechanism to audit how well we are providing service to the community.
- The programming content of our local government cable access channel (KHRT 15) currently consists of a bulletin board with a rotating set of slides announcing community events and

publicizing community resources. There are also live broadcasts and re-broadcasts of City Council Meetings, Hayward Unified School District Board Meetings, and Planning Commission Meetings. In the past, there has also been a "Focus on Hayward" program, produced by the local cable access channel.

There is a wide range of original content that could be added to, and enhance, the programming schedule of KHRT, such as broadcasts of more City meetings, videos of City/community events, and interview programs with the Mayor, City Council and community leaders. Due to limited resources of staff (two part-time A/V interns) and audio/video equipment (no recording studio or production suite), the City has not been able to produce and broadcast this type of original content.

Community and Economic Development

Community and Economic Development's (CED) current business needs require new and upgraded technologies. Technology improvement is necessary to improve their ability to efficiently provide inspection services to the community, to respond quickly to resident Community Preservation issues, and to improve the process for residents to pay bills and fees.

- The building Division of CED needs an IVR system that integrates with the Permitting (Eden) System.
- CED would like to investigate the possibility of replacing the existing permitting system.
- The ability to take credit card payments, automated cash posting and automated reporting to AlCo, with the financial system.
- Transfer of information from the GIS into the permits system.

Finance Department

- Finance Department has identified several improvements that are necessary in the current financial systems. Integration is necessary throughout the financial system. Currently the Purchasing System is not linked to the Accounts Payable System. The Cash Receipting Systems are not integrated completely. Decentralized access is needed to allow users to access the system with a user friendly interface. This type of interface will allow department's on-line real time access to current financial data. This will enhance budget controls.
- Decentralized data entry screens for all users is also required to streamline the timekeeping process, posting journal entries and budget amendments to the general ledger. Report

writing should take place via user friendly web access. Reports must be generated electronically and hard copies printed only upon request, also all reports should be stored electronically.

- The Permit process should be integrated with the other financial systems. Improvements to e-commerce technology feature ongoing maintenance as well as project work which includes:

- Redesign of the Excise tax bill (for e-payment purposes); incorporating Master Fee changes to reflect revenue enhancements, and development of an interactive "sign up for service" system for the Utility System, etc.

- The City requires a long range financial planning and budgeting tool that will allow the calculation of various scenarios, integration with the payroll and human resources data, decentralized data entry, security controls and publishing capabilities.

- A financial system that can support the development of an Outcome Based Budget will allow the accurate tracking of production costs of services as well as connect quantitative and qualitative measurements of investment of resources

Fire Department

To meet their goals of providing a wide range of emergency services to the community in a timely manner, the Fire Department needs both new technologies and upgrades of existing hardware and software. Some of these are unique to the Fire Department, and some apply to Public Safety as a whole.

- The Computer Aided Dispatch (CAD) system requires replacement (see Police Department).

- A Video Conferencing system is needed to interconnect the nine fire stations. Currently, to hold a meeting, Fire Staff and their engines physically converge on one location, which is logistically challenging. A video system will save valuable time and resources.

- Laptops are required for field inspections which will enable inspectors to complete and file reports online from remote locations.

- The current handheld and mobile radio technology is over 10 years old and will be at end of life in two years. Implementation of a new radio technology is needed.

- MDC's and all related components, including PDRC's, need to be replaced and be upgraded on a set schedule.

- The CAD Printers are currently outdated; replacement with new printers along with the replacement of computer workstations is needed.

- Station alerting hardware needs replacement. The existing Optoboards are 20+ years old and are failing periodically.

- The Fire RMS requires more staffing to support it, programming and administration needs are not being met. Moreover HFD is in need for an IT manager, who is computer literate, but has an above average understanding of Fire Department needs and priorities and can speak for their needs. Due to the poor state of our technology, we constantly work harder not smarter (the reverse of the acronym) and this is a constant source of poor moral, complaints and frustration on the part of all staff, including Administration, Suppression, and, FPO.

- The CAD System does not have mapping capabilities; a new system needs to have this feature included.

- Select Fire Department staff requires training on Crystal Report software to allow for the creation of custom reports from the Fire RMS Database.

Human Resources

- The Human Resource department requires a HRS (Human Resource System) that is integrated with the payroll system.

- There should be integration between an automated PPAR approval process and FMIS in order to reduce duplicate data entry.

- Electronic time card submission should be implemented.

- An automated workflow system should be implemented between Finance and HR.

Library and Neighborhood Services Department

- The Library requires more staffing for support and maintenance of PC's, online catalog, and web applications.

- A separate website which is user friendly and allows the library the ability to take advantage of Web 2.0 applications such as blogs, RSS feeds, podcasting/webcasting, videos & other multimedia is needed.

- More portable laptops to supplement the current computer lab and to allow scheduling flexibility for classes offered to the public.

- Book vending machines that allow customers to check out books from BART stations and other public locations should be considered as a way to augment services.

- The Library catalog needs to be upgraded to a current version and should include an Encore search engine (offered by Innovative Interfaces, the vendor which supplies the library's catalog).

- A newer server is required in order to install any future updates to Innovative's Millennium software.

- The Library will require more self-check machines in the near future to meet customer demand.

- E-commerce is necessary so that customers can make payments online from any location using a credit card.

- The Innovative software also needs to be upgraded to allow users to register on-line, to limit repetitive motion for staff issuing library cards and to minimize mistakes.

- The following software is under consideration for the future: Online Patron Registration, Community Reviews, AirPAC, Encore subscription, Spell Check License, My Record Feeds, and Web OPAC Refresher Service. Any modules purchased must be integrated with the Innovative Software which the library currently uses for the online catalog and for circulation activities.

- Remote Computing ability for Inspectors.

- Community Preservation also requires its system to integrate with CRM.

Maintenance Services Department

- Landscape Management division requires new Tree Management Software that is integrated with GIS. Also need is updated color printer that can print ledger size. Dial-up permissions and new modem for water management software access (or separate computer) are needed to support new remote irrigation controller system to save up to 30% of water use. OCR and Adobe Acrobat software are required on two existing computers.

- Streets Division needs a new sign making package, along with a new PC to run it, a scanner, and a plotter/ripper to cut the vinyl.

- The Equipment Management division requires improvements to the current fleet maintenance system, including better data extraction/report writing and a purchasing/inventory component that will allow for parts and supplies that are used in the shop to be automatically logged on a reorder purchasing list. Create reports that will calculate shop overhead rates into vehicle maintenance and operations costs averaged over a three fiscal year period, sorted by labor hours, fuel cost, parts cost and contract repair costs. Explore the possibility of linking Fleet Anywhere with FMIS to allow data communication for vehicle chargeback rate calculation and fixed asset inventory updates to accounting.

- The Facilities division needs the current work order system to be reviewed so that all inventory used on a particular work order will be charged to the work order and a subsequent order list will be created for purchasing purposes. The work order system needs to track periodic maintenance on all systems and alert staff when maintenance tasks are needed.

Police Department

Of the many business needs of the Police Department, the two most in need of improved technology are the mission critical ability of the CAD system to quickly and efficiently dispatch 911 calls, and the ability of the Investigations Bureau to effectively investigate the rapidly growing number of technology related crimes (identity theft, sex offender's use of internet technology, etc.)

- The existing CAD System is in need of replacement. This system was originally purchased in 1991 and is considered a "Legacy" system. The software is written on COBOL programming language, which is no longer used for production programs, that requires programmers with specific knowledge of older system. The factor increases, by a substantial amount, the costs of maintenance and alterations to meet changing DOJ requirements. The system must integrate all aspects of public safety operations.

- More powerful computers are needed at PD. PD needs at least 2 gig of Ram on their CPU's due to the necessity of running very robust applications, many times several at once. Also, they will need some quad processor machines available for the video work. The system that the Adobe Premier software is running on is on the way to a slow down and underpowered.

- Moreover PD is in need for an IT manager, who is computer literate, but has an above average understanding of law enforcement needs and priorities and can speak for their needs. Due to the poor state of our technology, we constantly work harder not smarter (the reverse of the acronym) and this is a constant source of poor moral, complaints and frustration on the part of all staff, including records, dispatch and Jail.

- Police investigations needs a computer forensics system to examine and retrieve data from computers used in criminal activity using methods that will hold up in a court of law. Currently, they use an FBI lab which can take up to a year to get results or they could contract with a private firm. A yearly contract with a private firm can cost more than hiring and equipping an internal technician.

- The following are needed Video editing System, Image management system, Photoshop CS3 License # 5, cell phone forensics, DVR and new desktop computers. PD crime lab is in need of larger monitors, scanners, and printers. Also, investigation is in need of desktop & laptop replacement. More Document scanners connected to Laserfiche are required. An LPR (License Plate Reader) connected to a camera and database is required.

- Investigations would like their desktop computers replaced with laptops for field work.

- The plotter (large format printer) is about 10 years old and needs to be replaced.

- An upgraded OCR (Optical Character Recognition) scanning system to scan documents and automatically convert them to text.

- IP surveillance cameras are needed to monitor criminal activity at different locations.

- Varda Alarms, which can be installed at a business or residence on a temporary basis to monitor burglaries and connect to Dispatch, are needed.

- Penlink or threads to analyze cell tower of data of criminal cell phone use is needed.

Public Works Department

- Engineering and Transportation Division needs several workstation class PCs for heavy AUTOCAD users and AUTOCAD software should be upgraded to latest version.

- The Engineer and Transportation Division's current copier/scanner should be upgraded to scan in color; this process of printing color through the copier would cost less per page than using the existing color printer(s). Also replace the 10 year old scanner used in the map room. The new scanner must be high quality and have the ability to scan architectural size drawings.

- The Engineering and Transportation Division clerical staff requires OCR (Optical Character Recognition), and Acrobat Pro software and CD/DVD burners.

- Construction Inspectors require DVD players/burner on all of their computers to watch sewer inspection videos and copy project files/pictures. They also need quicker access to

the Eden system. Some of the construction inspectors cannot access Eden; of those who can, the system runs very slow and is therefore hard to use.

- Microsoft office Project Server 2007 is required for the design section. The system would allow the Assistant City Engineer (or other members of public works staff) to review and comment on project schedules from various design staff at once. This software can also be uploaded onto the city's website and accessed by those members of the public who may want status updates on certain projects.

- The Engineering and Transportation Division requires three digital cameras and three external DVD writers to better gather and share project information.

- The Traffic Operations section needs one laptop for field use. This will be used to download or upload the traffic signal timing for all intersections from/to the controller in the field. Three Licenses for AUTOCAD are needed for the section which currently holds one AutoCAD license from 2000.

- The Hayward Executive Airport requires an independent website which would include an on-line noise report form, commercial business information, suggestion box, IP based noise monitors, on-line rent and fee payment system and Lochard WebTrak.

- Airport Video cameras & Access Control computers should be connected to the Intranet in order to resolve an IP address conflict. VNC should be installed on administration computers and associated training is needed.

- Airport needs wireless internet broadband coverage which could have partial cost recovery through banner advertising. Should anticipate expansion to include planned south side development.

- Systematic expansion of airport security cameras and access control points should be implemented to include upgrade of fixed cameras to PTZ, access control readers for maintenance shop, access control readers for ATC tower building.

- The Airport Maintenance shop should have internet access and fully implemented VOIP.

- AUTOCAD viewer software is required for use at the Airport. A credit card system is required to accept tenant and business payments via credit card at the Airport office.

- Utilities Division hardware needs include CD/DVD burners for WPCF and Water Maintenance Supervisors.

- Utilities Division software needs include Adobe Acrobat 8.0 and Visio Standard 2007 for Sewer Maintenance Supervisor

HAYWARD CITY COUNCIL

RESOLUTION NO. 09-__

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8/20/09

Introduced by Council Member _____

RESOLUTION ADOPTING THE CITY OF HAYWARD 2009 TECHNOLOGY STRATEGIC PLAN

WHEREAS, the Technology Services Department has developed a strategic plan which addresses departmental needs, community needs, organizational needs and helps to determine the current and future direction of the department (the "Strategic Plan"); and

WHEREAS, the Strategic Plan represents the City's approach to planning for and strategically managing technology for the benefit of the Hayward community and to assist the City in increasing the effectiveness and efficiency of City government, both now and in the future; and

WHEREAS, the Strategic Plan was introduced to the Council Technology Application Committee (CTAC) on February 18, 2009, which recommended approval of the plan by the City Council. A City Council work session was held on July 21, 2009, with a recommendation to bring the Strategic Plan to the Council for approval.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Hayward hereby approves the Hayward 2009 Technology Strategic Plan, which will assist the City in increasing the effectiveness and efficiency of City government in order to better serve the Hayward community.

IN COUNCIL, HAYWARD, CALIFORNIA_____, 2009

ADOPTED BY THE FOLLOWING VOTE:

AYES: COUNCIL MEMBERS:
MAYOR:

NOES: COUNCIL MEMBERS:

ABSTAIN: COUNCIL MEMBERS:

ABSENT: COUNCIL MEMBERS:

ATTEST: _____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

_____

City Attorney of the City of Hayward