

File No. 130230

Committee Item No. 5
Board Item No. 21

COMMITTEE/BOARD OF SUPERVISORS
AGENDA PACKET CONTENTS LIST

Committee: Budget and Finance Committee

Date 04/10/2013

Board of Supervisors Meeting

Date April 16, 2013

Cmte Board

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Completed by: Victor Young

Date April 5, 2013

Completed by: Victor Young

Date 4/10/13

1 [5-Year Information and Communication Technology Plan - FY 2013-2014 through 2017-
2 2018]

3 **Resolution adopting the City's 5-Year Information and Communication Technology**
4 **Plan for FYs 2013-2014 through 2017-2018 pursuant to Administrative Code Section**
5 **22A.6.**

6
7 WHEREAS, San Francisco Administrative Code Section 22A.6 requires the Committee
8 on Information and Communication Technology (COIT) to submit and the Mayor and the
9 Board of Supervisors to review, amend and adopt in odd-numbered years a five-year ICT
10 plan; and

11 WHEREAS, COIT reviewed and unanimously approved the City's second five-year ICT
12 plan at its meeting held on February 28, 2013; and

13 WHEREAS, COIT-approved ICT plan outlines guiding priorities the City will focus on in
14 the next five years, outlines a financial strategy to fund these technology needs and lists the
15 currently planned technology projects for each department over the next five years; and

16 WHEREAS, The plan details four strategic IT goals in order to align available resources
17 and the identified department and citywide IT project requests over the next five years; now
18 therefore be it

19 RESOLVED, That the Board of Supervisors adopts COIT's proposed information and
20 communication technology plan, with such amendments and revisions as the Board deems
21 appropriate, as the City's five-year ICT plan for Fiscal Years 2013-2014 through 2017-18, as
22 provided in San Francisco Administrative Code Section 22A.6.

CITY AND COUNTY OF SAN FRANCISCO, CALIFORNIA

Proposed Information & Communication Technology (ICT) Plan

Fiscal Years 2013-14 through 2017-18



MARCH 1, 2013

Acknowledgements

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Mayor's Office	Chanda Ikeda, Leo Chyi, Jason Cunningham, Cindy Czerwin, Naomi Drexler, Alex Gudich, Antonio Guerra, Jessica Bullen Kinard, Carol Lu, Jay Nath, Lauren Reed, Melissa Whitehouse

About COIT

The Committee on Information Technology (COIT) is the City's technology planning and governing body and is charged with submitting a five-year ICT plan on a biannual basis to the Mayor and the Board of Supervisors. As required by the City's Administrative Code, this plan seeks to better align City ICT resources with the City's technology goals and objectives.

COIT is composed of five permanent members (the Mayor, the President of the Board of Supervisors, the Controller, the City Administrator, and the Chief Information Officer) and eight department heads distributed among major functional areas of City government. The committee also includes two members of the public that have background in technology.

TABLE OF CONTENTS

MESSAGE FROM THE COIT CHAIR	5
EXECUTIVE SUMMARY	7
STRATEGIC GOALS & FEATURED PROJECTS	15
Goal 1: Make Government More Efficient & Effective Through Technology	17
Goal 2: Improve Public Access & Transparency	22
Goal 3: Strengthen Security & Disaster Preparedness	26
Goal 4: Support & Maintain Critical City IT Infrastructure	29
FINANCIAL STRATEGIES	35
APPENDIX	47
Administrative Code Section 22.A	49
Project Proposal Ratings & Criteria	51
Matrix of Total Project Requests	53
Detailed Descriptions of Featured Projects	57
Goal 1: Make Government More Efficient & Effective Through Technology	58
Goal 2: Improve Public Access & Transparency	69
Goal 3: Strengthen Security & Disaster Preparedness	75
Goal 4: Support & Maintain Critical City IT Infrastructure	79

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City and County of San Francisco ICT PLAN

Message from the COIT Chair

On behalf of the Committee on Information Technology, I am pleased to present the City's second Five-Year Information and Communication Technology (ICT) Plan, which was adopted by the committee on February 28, 2013. This Plan builds on the successes of the first Plan, which was unanimously adopted by the Board of Supervisors in the Spring of 2011. Since that time, great progress has been made on several key initiatives discussed in that Plan, such as: the implementation of the new Human Resource and Payroll system (eMerge); citywide collaboration on Enterprise Agreements to realize economies of scale through IT contracting; and expanding data sharing efforts like the Economic Barometer, Open Data SF, and increasing the City's social media presence.

As required by the City's Administrative Code, this updated Plan provides a framework for how the City can proactively plan for, fund, and implement projects over the next five years with the key strategic themes of Innovation, Sustainability and Resilience in mind. The information in this Plan will enable policy makers to make better and more informed decisions about how the City invests in information technology.

Over the coming five years, the Plan identifies four strategic goals that the City intends to pursue: using technology to make government more efficient and effective, improving public access and transparency, strengthening security and disaster preparedness, and supporting and maintaining critical City IT infrastructure. These goals, aligned with the City's IT financial strategies, will ensure that the City invests in the highest priority projects on the right timelines.

Technology enables us to improve existing government services, create entirely new services, and increase opportunities for engagement with the public. With this document, the City can plan, budget, and implement technology initiatives to benefit all of the people who live, work and play in San Francisco, the Innovation Capital of the World!

Sincerely,

A handwritten signature in cursive script that reads "Naomi M. Kelly".

Naomi M. Kelly
City Administrator
COIT Chair

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City and County of San Francisco ICT PLAN

Executive Summary

INTRODUCTION

The Committee on Information Technology (COIT) is pleased to present the second Information and Communication Technology (ICT) Plan to the Mayor and Board of Supervisors. This Plan builds on the progress made in the first Plan. It provides a framework for how the City can proactively plan for, fund and implement projects that support the strategic goals outlined in the Plan. While there are great opportunities in Information Technology (IT) that the City can foresee, these opportunities are tempered by constraints in the City's resources. This Plan outlines a path of coordination and planning to maximize current and future resources for IT projects.

This Executive Summary outlines the Plan, and includes: a look back at the previous Plan and accomplishments since its adoption; the guiding priorities, goals and functional funding categories for the City's updated Five-Year ICT Plan; and the financial strategies and recommendations for the City to meet these goals and prioritize citywide IT investments.

Vision

San Francisco is the Innovation Capital of the World. The manner in which City government plans and invests in information and communication technologies must meet the rapid pace of technological change as well as embody the same innovative and entrepreneurial spirit of the City as a whole. Information technology is also a connective tissue between the City's operations as an enterprise and its residents. It enables the City to improve existing government services, create entirely new services, and increase opportunities for engagement. In order for the City to meet the needs of San Franciscans and remain responsive to changes in technology, society, and its operating environment, the vision for this ICT Plan is one of Innovation, Sustainability and Resilience.

Governance

Working with the City's Chief Information Officer (CIO), COIT provides a framework for IT governance that enables the City to achieve its IT-related vision and goals. This framework is supported through the work of COIT's three subcommittees: Architecture & Standards, Performance & Resources, and Planning & Budgeting. Working together, these three subcommittees enable COIT to evaluate the current state of the City's IT, identify future needs, and establish policies and procedures that both protect our current assets and guide future investments.

HIGHLIGHTS FROM THE FY 2012-2017 ICT PLAN

The City and County of San Francisco adopted its first Five-Year ICT Plan in 2011. Since that time, the City has made significant progress towards the initiatives that were adopted in the first Plan. Below is a list of the major initiatives outlined in the last Plan and an update on the City's progress in each area:

MAJOR INITIATIVE	ACCOMPLISHMENTS
Open SF Open Data Initiative	<ul style="list-style-type: none"> • Appointed Chief Innovation Officer • New Open Data platform online to support local and national initiatives
Citywide Applications	<ul style="list-style-type: none"> • eMerge citywide launch • Continued rollout of new email system • Department of Public Works/Department of Technology (DT) Information Asset Management
Data Center Consolidation and Virtualization	<ul style="list-style-type: none"> • SFO Data Center nearing completion • 800+ virtual servers citywide
Citywide Broadband and Wi-Fi Access	<ul style="list-style-type: none"> • 31,000 new broadband end users, 47 new labs at senior centers, and Housing Authority (HA) properties through Broadband Technology Opportunities Program (BTOP) • 550 Wi-Fi access points servicing 38 HA properties
Enterprise Agreements	<ul style="list-style-type: none"> • Achieving economies of scale by implementing three new Enterprise Agreements: VMware, Adobe Acrobat, and Nuance
Citywide Security Plan	<ul style="list-style-type: none"> • Established citywide security taskforce • Expanded citywide and DT security policies • Initiated citywide IT staff security training
Voice over IP (VoIP) and Landline Reductions	<ul style="list-style-type: none"> • Initiated Vonage VoIP project with the Police Department • Converting 25 Van Ness • Planning underway with other City departments
IT Staff Support in Shared Buildings	<ul style="list-style-type: none"> • The Human Services Agency, Planning Department, and Department of Building Inspection started sharing desktop support services at their Mission Street Offices
Reproduction and Mail Consolidation	<ul style="list-style-type: none"> • In FY 2010-11, reproduction and mail services were transferred operationally from DT to the Office of the City Administrator
Dark Fiber and Tower Leasing	<ul style="list-style-type: none"> • Current leasing agreements with commercial partners to yield one-time and on-going revenue to the City

GUIDING PRIORITIES FOR FY 2014-18 ICT PLAN

This Plan identifies goals and priorities that will advance the City's IT vision of **Innovation, Sustainability, and Resilience**. The following priorities have been identified as overarching elements necessary to achieve this vision.

Incorporating Effective Innovation into City Government

Technology can drive economic growth and government efficiency and should be leveraged to create a culture of innovation across government. As a tool, innovation can be infused in all areas of City government to bring about change. There are many forms of innovation – a new product, service, or even process. Beyond creating efficiencies and improving government effectiveness, innovative approaches, when used appropriately, can also strengthen IT security and improve the resilience of the City's IT infrastructure.

For these reasons, this Plan prioritizes innovation to bring about change to the City's business processes, how the City engages with the public, and to the services provided to those that work, play and live in San Francisco.

Improving Sustainability of Information Technology

The City will focus on improving the sustainability of IT by both recruiting and retaining qualified IT staff, and also by strengthening the planning, performance and evaluation of IT projects.

❖ *Attracting, Retaining and Developing IT Personnel*

Attracting, retaining, and developing staff are challenges that many organizations face. In part because of the extremely competitive hiring environment, and in part because of our own internal processes, these challenges have become especially noticeable with respect to IT professionals. San Francisco must: attract talented professionals who will utilize of technology as a tool for innovation; develop staff to become IT leaders; and retain staff to support business continuity and sustainability. Some of the challenges surrounding IT professionals include:

- Difficulty attracting and retaining candidates with the right set of skills;
- Lengthy hiring process time;
- Competing with the private sector for candidates; and
- Limited professional development opportunities for IT staff.

To gain a better understanding of the current challenges, and to identify specific ways to address them, the Department of Human Resources (DHR) formed the City Technology Hiring Group. This group includes DHR, the Mayor's Office, the Controller's Office, the Department of Technology, representatives from larger departments, and union representatives. The City Technology Hiring Group is reviewing a number of different proposals, which could be piloted in the near future, including: continuous recruitment for specific IT classes; IT-focused social media recruitment; and hiring "open houses." The group is also exploring options to strengthen training and retention of the City's IT professionals.

❖ *Strengthening Planning and Performance Evaluation of IT Projects*

Planning and monitoring IT projects is the strategy that helps the City invest in short and long-term priorities, and allows the City to assess project implementation delivery. This Plan commits the City, through COIT, to developing more rigorous and consistent metrics for monitoring the delivery and ultimate performance of these initiatives.

The next step toward a more robust monitoring and evaluation approach is the development of performance measures for all COIT approved projects. The Performance & Resources Subcommittee will develop performance evaluation criteria and regularly review IT projects throughout planning, implementation, and upon completion. After their review, the Subcommittee will report back to COIT on citywide project performance on a regular basis. Additionally, previous performance evaluations will be incorporated into the Planning & Budgeting Subcommittee's annual IT project review process. These efforts will strengthen the City's ability to review and monitor current and future IT investments.

The Plan also includes new financial strategies that will strengthen short and long-term planning for IT needs. These strategies build on the recent successes of project consolidation efforts to reduce redundant efforts and create efficiencies. This Plan also recommends a review of all potential on-going support costs for IT project requests. This will allow the Planning & Budgeting Subcommittee to have a better understanding of the short and long-term financial impact of IT project requests. For this reason, this Plan emphasizes critical project development of major IT investments. Early investment in planning and pre-implementation development will help the City invest in both smaller and major capital IT projects.

Ensuring Resilience of IT Systems

San Francisco considers the protection of City business systems and services a high priority. The City is committed to investing in specific efforts to safeguard confidential information and data, and protect our City's business systems from any disruptions, whether from a natural or unnatural event. These efforts include the creation of redundancies to many of the City's major systems: financial, public safety, and communication.

IT GOALS FOR FY 2014-18 ICT PLAN

To make the City's vision of Innovation, Sustainability and Resilience a reality, COIT has identified four Strategic IT Goals for FY 2014-18. Departments must identify a primary goal supported through their project requests when they apply for funding and consideration of their project at COIT. This supports an appropriate allocation of resources across categories, and enables COIT to support the vision and guiding priorities of this Five-Year ICT Plan. IT Goals are:

- **Make Government More Efficient & Effective Through Technology**

In all economic climates, the City strives to become more efficient and effective in all business operations and public service offerings. Technology enables and supports the City's efforts to maximize resources and provide the best possible service to its constituents.

Over the next five years, there are \$205.9 million in project requests that identify *government efficiency and effectiveness* as their primary goal. These projects make up 37.6 percent of the citywide IT project requests. Two major IT investment projects are included within this goal, the City's Financial System Replacement Project and the Property Tax Database Replacement, which together account for \$85.2 million of the total project requests.

- **Improve Public Access & Transparency**

The City recognizes that a foundation of effective governance is providing greater public access to City information and services. Over the coming years, the City will continue to invest in projects to expand online services, improve access to citywide information, and address the digital divide through computer literacy programs and increased internet connectivity services.

There are \$57.0 million in project requests that identify *public access and transparency* as their primary goal. These projects make up 10.4 percent of the total IT project requests citywide. Project requests under this goal include: Mobile Strategies, the Municipal Transportation Agency's Muni Metro Public Announcement and Display System Replacement, and the San Francisco Digital Inclusion Project.

- **Strengthen Security & Disaster Preparedness**

San Francisco considers the protection of City business systems and services a primary objective. The City's IT Security program is a holistic approach to protecting City government services and providing secure, reliable technology solutions for our constituents and visitors.

Over the next five years, there are \$21.6 million in project requests that identify *security and disaster preparedness* as their primary goal. These projects make up 4.0 percent of the total IT project requests citywide. These requests represent 13 projects from eight departments that build on existing security efforts occurring citywide to further safeguard IT infrastructure. Projects highlighted under this goal include: Radio Security Enhancement Project, Security Visibility and Intelligence, and the Systems Recovery Project.

- **Support & Maintain Critical City IT Infrastructure**

Investing in the City's IT infrastructure continues to be a foundational need. The City will invest in this crucial area in order not only to implement new technologies but to also sustain the current systems we have in place today.

The importance of investing in the maintenance and support of the City's IT infrastructure is clearly demonstrated through the \$263.5 million in project requests under this goal. These represent 48.1 percent of the total City IT project requests. This goal includes two major radio replacement projects, which together comprise \$185.5 million of the total requests. Additionally, costs associated with the IT components of two major capital projects, the new Public Safety Building and the San Francisco General Hospital, are accounted for within this goal.

FUNCTIONAL CATEGORIES FOR FY 2014-18 ICT PLAN

COIT is also adopting functional categories, similar to those used by the capital plan.

- **New/Enhancements:** Investments that increase an asset's value or useful life and/or change its use. These typically result from the passage of new laws or mandates, functional changes, or technological advancements.
- **Renewals/Replacements:** Investments to preserve or extend the useful life of existing IT infrastructure.
- **Routine Maintenance:** Projects that provide for the day-to-day maintenance of existing IT infrastructure, including labor costs. Unlike renewals and enhancements, these costs are often funded within departments' operating budgets.
- **Critical Project Development:** Funding for pre-project development and planning. This category continues the City's commitment established through the Capital Planning Program to funding pre-development planning, so that project costs and impacts are clearly understood before a decision is made to either fund or place a project before voters. This is an important addition this year to the

functional categories for COIT to start funding on an on-going basis through the General Fund COIT allocation.

Similar to the City’s Ten-Year Capital Plan, these categories will enable COIT to prioritize renewals, maintenance and critical project development, while also investing in new projects and enhancements as funding permits.

FINANCIAL SUMMARY & RECOMMENDATIONS

Since the adoption of the last ICT Plan, the City’s financial condition has strengthened. However, the City still has a structural deficit with on-going expenses growing faster than operating revenues, which places pressure on the City’s General Fund. This reality of constrained financial resources requires the City to be smart about how it spends its limited resources. To accomplish this, the City must focus on:

- Balancing short-term and long-term IT investments;
- Pre-funding IT investments that require better project planning and sequencing by adding a “critical project development” funding category at COIT. This will also enable the City to gather more information about the condition of existing assets and resources; and
- Identifying additional resources to support IT.

Over the next five years, there are \$548.0 million in IT project requests identified citywide. Project requests are split with 53.6 percent non-General Fund dollars, representing 55 projects, and 46.4 percent General Fund dollars, representing 77 distinct projects. The following table illustrates the Five-Year IT project requests compared to their proposed funding sources:

Table 1: Total Information Technology (IT) Project Requests from Departments FY 2014-18

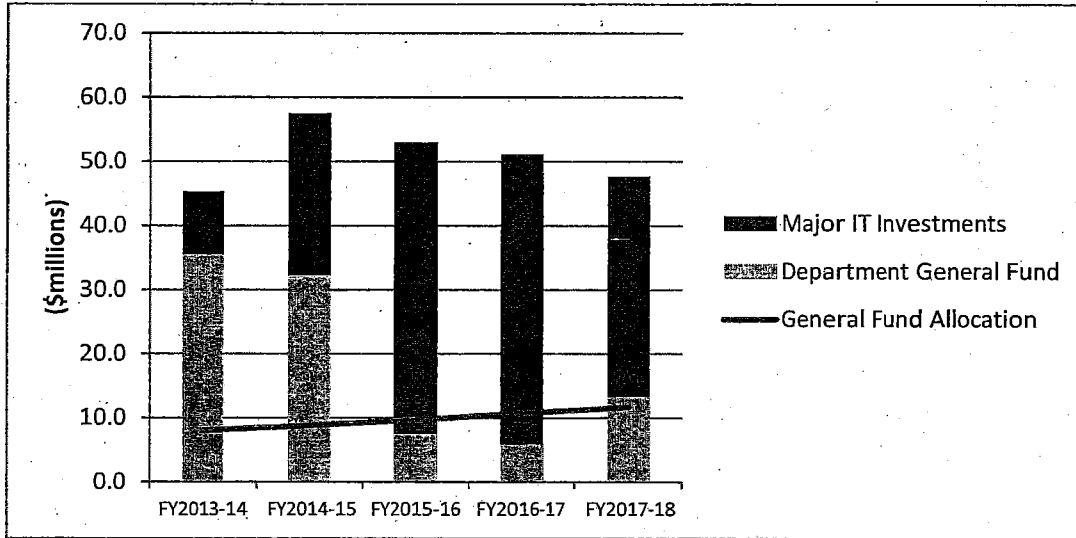
<i>\$ in millions</i>	Initial Project Request	Proposed Funding Source	Difference
Non-General Fund Projects	293.5	293.5	-
General Fund and Citywide Projects	254.5	49.1	(205.4)
Subtotal: IT Project Requests	548.0	342.6	(205.4)

As Table 1 indicates, the 77 General Fund projects requested will cost \$254.5 million over the next five years. These departmental requests are weighted towards the early years of the Plan and far outweigh the COIT General Fund allocation, which is expected to be \$49.1 million over the same period. This leaves a funding gap of \$205.4 million.

A significant portion of the \$205.4 million funding gap is generated by proposals to replace several major legacy systems within the five-year planning window, including the replacement of the City’s Financial System (\$72.2 million), the replacement of the Public Safety Radio system (\$69.0 million), and tax system replacement projects at both the Assessor-Recorder’s Office (\$13.0 million) and Treasurer-Tax Collector’s Office (\$6.0 million). These projects are categorized as major IT investments due to their scale and complexity, longer timelines, and significant financial investment.

Figure 1 shows the General Fund allocation growing over the five-year period, while project requests from departments and for citywide IT investments exceed available funding.

Figure 1: General Fund IT Requests vs. COIT Allocation



Over the coming five years, the City will need to balance short-term smaller departmental requests with longer-term major IT investments. The General Fund allocation at its current commitment level cannot fund both major IT investments and on-going citywide and departmental requests. This Plan recommends that critical project development of major IT investments and on-going citywide and department requests be reviewed and funded within the General Fund allocation of \$49.1 million over the next five years. By investing in the planning and pre-implementation of large IT projects, COIT is empowered to make informed recommendations for the use of other funding sources above the General Fund allocation.

There are several options available to help close the \$205.4 million funding gap caused largely by the major IT investments mentioned above. These options are summarized below:

- **Improve Planning/Increase Collaboration:** Until this planning is complete, the ICT Plan defers larger projects to ensure the project timelines and budgets are solid before committing City resources. This financial strategy defers \$78.4 million in projects over the next five years and also reduces the gap by an additional \$12.0 million through the consolidation of projects and collaboration between City departments.
- **Alternative Funding Sources:** The City should use an allocation methodology for large scale citywide projects so that the costs of these investments are shared between Enterprise Departments and the General Fund. The City should also pursue non-General Fund sources, such as grants and other State and federal sources. This will reduce the funding gap by \$35.0 million over the next five years.
- **Budget Reallocation:** The City should identify one-time funding sources to support IT projects and explore shifting existing IT dollars within the City's budget to support new projects as older IT projects are completed. Budget reallocation can reduce the IT project funding gap by \$80.0 million over the next five years.

Table 2 below shows the path towards closing the funding gap using these strategies. Similar to the City's Ten-Year Capital Plan, projects must be sequenced, planned, and scoped or they will be deferred. Once projects are planned, then COIT can make an informed recommendation for funding within or above the current General Fund commitment. Projects listed in the Plan reflect early requests for funding and will ultimately need to be reviewed by COIT during the annual budget process.

Table 2: Impact of Proposed General Fund Financial Strategies on Funding Gap FY 2014-18

<i>\$ in millions</i>	Project Request	Fiscal Strategy	Remaining Funding Gap
Total General Fund Project Requests	254.5	-	(254.5)
Financial Strategies			
Grow COIT GF Allocation by 10% per year	-	49.1	(205.4)
Improve Planning/Increase Collaboration	-	12.0	(193.4)
Project Deferrals	-	78.4	(115.0)
Alternative Funding Sources	-	35.0	(80.0)
Budget Reallocation	-	80.0	-
Total	254.5	254.5	-

As the City works to balance all of these investments, COIT will review all project requests with the financial strategies that are highlighted above. These strategies will allow the City to bridge the funding gap over the five-year period, though not without making trade-offs through project prioritization, sequencing and deferrals. The City will also need to continue to review alternative funding sources including grants, lease-financing and non-General Fund sources. Recognizing that these strategies are unlikely to fill the entire gap, the City should continue to grow its General Fund allocation by 10 percent annually and identify one-time sources to support major ICT investments.

Strategic Goals & Featured Projects

Make Government More Efficient & Effective Through Technology
Improve Public Access & Transparency
Strengthen Security & Disaster Preparedness
Support & Maintain Critical City IT Infrastructure

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City and County of San Francisco ICT PLAN

Goal 1: Make Government More Efficient & Effective Through Technology

In all economic climates, the City strives to become more efficient and effective in all business operations and public service offerings. Technology enables and supports the City's efforts to maximize resources and provide the best possible service to its constituents.

STRATEGIES

- Maximize the use and effectiveness of current technology to provide best service possible to people who live, work and visit San Francisco;
- Deploy viable technology with tangible benefits to constituents; and
- Support green technology to reduce the City's carbon footprint.

OVERVIEW

Over the next five years, there are \$205.9 million in project requests that identify supporting government efficiency and effectiveness as their primary goal. These projects make up 37.6 percent of the total IT project requests citywide. The City currently has a number of completed and on-going projects that support this goal. As the City looks to the future, and works to identify ways to further support this goal through long-term financial planning, this Plan highlights a few projects that are representative of the investments the City has recently made, and those it is poised to make in the years ahead.

STATUS OF CURRENT PROJECTS

These selected projects highlight progress to date on efforts that align with the goal of government efficiency and effectiveness.

✓ **Server Virtualization (On-going)**

To date, the Department of Technology, in coordination with other City departments, has reduced 800 physical servers through the server virtualization effort. The second phase of this project is continuing virtualization efforts throughout the City, followed by the relocation of servers to Tier 2 facilities. These efforts have created energy savings as well as an overall reduction in physical space.

✓ **Coordination of IT Services (Complete & On-going)**

The City has completed the Mission Corridor data consolidation effort, co-locating the Department of Building Inspection, the Planning Department, and Human Services Agency data centers. With an improved cooling, electrical and comprehensive technology refresh, a consolidated data center ensures a more efficient use of equipment, as well as reduces energy use.

✓ **Online Training Project (On-going)**

The Fire Department is expanding its online training infrastructure, allowing firefighters to access video and other training materials remotely, rather than in a classroom environment.

✓ **Online Tax Fee Filing and Tax Payments (On-going)**

Since FY 2010-11, the Treasurer-Tax Collector's Office has made significant progress in allowing for the online filing and payment of a variety of taxes and fees, including the Hotel and Tourism Improvement District Tax, Annual Payroll Expense Tax, and prepayment for both Hotel and Payroll Taxes.

✓ **eMerge Phase I (Complete)**

In August 2012, the Controller's Office deployed Phase I of Project eMerge – the Citywide Human Capital Management System. The enterprise application replaced PeopleSoft 7.5 (Benefits and Human Resources) and GEAC (Payroll) with one new integrated online system. Project eMerge was successful in demonstrating that City departments, working together, can implement large scale IT transformation projects. After rolling out Phase I, eMerge transitioned to an operating model where City staff supporting the system will manage the implementation of Phase II – Time and Labor. Phase II is scheduled to go-live in December 2013.

✓ **Enterprise License Agreements (On-going)**

In FY 2012-13, the Controller's Office, Office of Contract Administration, and the Department of Technology successfully executed two enterprise license agreements (EA) – VMware and Adobe Acrobat Professional. The VMware EA will save the City approximately \$3.9 million over the next three years. The contract also included technical support, unlimited license to vSphere, and reduced future purchases. The Adobe Acrobat EA reduced the cost of an Acrobat Professional license by approximately 60 percent, upgraded all existing licenses to the latest version, and provided a Citywide Acrobat Professional license for future deployment. Both agreements are managed centrally by a license administrator, which streamlines the internal procurement process and reduces overhead rates. More enterprise agreements are currently being developed.

✓ **Email Conversion (On-going)**

The Department of Technology continues its work to convert a number of email systems that are used citywide over to a hosted email exchange system. The project's first focus is to convert all legacy Lotus Notes users. To date, there are over 4,100 user accounts that have been converted. The next departments scheduled for conversion include the remaining General Services Agency departments and the Department of Public Health, resulting in a total of 13,900 user accounts on the hosted email exchange system.

MAJOR PROJECTS & INITIATIVES

Of the \$205.9 million in requests that identify government efficiency and effectiveness as a primary goal, 50.1 percent are identified as new/enhancement projects, 8.5 percent as replacements, and 41.4 percent as critical project development. Two major IT investment projects are included under critical project development – the Financial System Replacement Project and the Property Tax Database Replacement. These projects make up \$85.2 million of the total project requests. Of the enhancement project requests, there are a number of similar requests across departments that have the potential for consolidation. These projects include desktop virtualization, server virtualization, and document management systems.

The following projects grouped by category are highlighted in this Plan as representative of the kinds of investments the City plans to make in the next five years. More detail on each of the featured projects is located in the appendix. The projects that are ultimately funded must be recommended by COIT and approved through the annual budget process by the Mayor's Office and the Board of Supervisors.

NEW PROJECTS / ENHANCEMENTS

- Virtual Desktop Application Access

Sponsoring Department: Public Health

Timeline: FY 2013-14 through FY 2017-18

Project Budget: \$3,784,043

Project Summary: This project will allow for the acquisition and implementation of hardware and software to provide a virtualized desktop and services computing environment for access to key applications. The Virtual Desktop Integration (VDI) strategy will provide the foundation for the deployment of applications without the dependence on heavily configured personal computers. The project will also implement Single Sign-On capabilities with the ability to suspend active work sessions.

- Crime Data Warehouse

Sponsoring Department: Police

Timeline: FY 2012-13 through FY 2017-18

Project Budget: \$5,000,000

Project Summary: The Crime Data Warehouse is the Police Department's new state-of-the-art data warehouse and web portal. It provides one-stop access to officers, investigators and command staff to predict, solve, and manage crime data and reports. The current system provides incident report entry, search, mapping of crime, case tracking, and crime prediction. The later phases will include technologies that help officers spot crime trends as they develop in real time. GPS, crime mapping, and leading edge crime prediction software will connect crimes, spot trends, and solve cases much faster. The Crime Data Warehouse, in conjunction with the Police Department's associated project to provide officers with high-tech mobile devices, will put San Francisco at the forefront of law enforcement's use of technology to prevent and solve crime. The project will measure average case closure times as a means to evaluate project effectiveness.

- Electronic Medical Records

Sponsoring Department: Public Health

Timeline: FY 2012-13 through FY 2017-18

Project Budget: \$5,902,466

Project Summary: This project will allow for the acquisition and expansion of Electronic Medical Record (EMR) software systems to address the clinical service mandates associated with the Federal Healthcare Reform legislation and the Affordable Care Act. The software will enable mandated capabilities for clinical documentation, electronic medication administration, and expanded regulatory reporting requirements.

- Airport SharePoint Enterprise Resource Planning System (ERP)

Sponsoring Department: Airport

Timeline: FY 2012-13 through FY 2013-14

Project Budget: \$2,500,000

Project Summary: This project will allow the Airport to implement a successful ERP system with the Department of Public Works in order to incorporate and unify the data from various citywide management information systems. The ERP system will consolidate all employees on a common platform, and will implement an Airport-wide automated and robust time accounting system where the system will be configured for time attendance and accounting data flow to provide more accurate information. The ERP system will help the Airport gain greater business synergies by providing improved

support for time management, enterprise project management, contracts and grants management, and electronic payment automation.

REPLACEMENT PROJECT

- Replacement of the City's Business Tax System

Sponsoring Department: Treasurer-Tax Collector

Timeline: FY 2011-12 through FY 2017-18

Project Budget: \$16,862,048

Project Summary: The Treasurer-Tax Collector is in the process of replacing the COBOL-based central Business Tax System (BTS) that is more than twenty years old. In addition to this migration, the voters of San Francisco passed a new business tax in 2012 – the Gross Receipts Tax, which will ultimately replace the existing Payroll Expense Tax. The new system must be able to tax, collect, account and monitor all the business taxes, including the new Gross Receipts Tax, within specified time frames. Project implementation and on-going maintenance costs will be funded with additional tax revenue generated by efficiencies in the system.

- Replacement of ServiceDesk Support System

Sponsoring Department: Technology

Timeline: FY 2013-14 through FY 2017-18

Project Budget: \$2,343,948

Project Summary: The current ServiceDesk application will be replaced by a cloud-based software application with broad scope capabilities that can address a wide range of ServiceDesk functionality. The product selected is already successfully implemented at the Human Services Agency; it is being installed at the Airport and has been selected by the Police Department for its needs as well. License costs have been negotiated using the combined user needs for the Department of Technology and the Police Department.

CRITICAL PROJECT DEVELOPMENT

- Replacement of the City's Financial System

Sponsoring Department: Controller's Office

Timeline: FY 2012-13 through FY 2017-18

Project Budget: \$72,215,677 (estimate)

Project Summary: The City's mainframe-based central financial and accounting information system (FAMIS), which is used by all departments, is more than twenty-five years old and will need to be replaced. FAMIS is the City's official system of record for accounting, budget control, purchasing, and financial reporting. The major citywide systems that interface to FAMIS include the City's Payroll System (eMerge), the Budget System, and the Executive Information System (EIS) – a central data warehouse with reporting and analysis functionality, plus numerous departments interfaces to financial applications. This system will reduce or eliminate some departmental based systems currently used to supplement FAMIS, which could eliminate duplicative entries, reconciliation between systems, and maintenance of multiple systems. The Department is currently funded to plan and scope the size, cost, and functionality of the replacement of the City's financial system. The result of the planning will provide better cost and time estimates, and will prioritize modules for replacement.

▪ Replacement of City's Property Tax Database System

Sponsoring Department: Assessor-Recorder

Timeline: Estimated to begin within the next 5 years.

Project Budget: Initial estimate is \$13 million; however, the actual cost depends on the results of project scoping slated to occur in FY 2014-15.

Project Summary: The Assessor-Recorder has used a COBOL-based AS/400 system since 2000 to track \$170.0 billion in assessed value. The current system has an outdated, non-relational database platform, which lacks the capability to access maps, deeds and work papers to streamline the assessment process. The system is incompatible with other department systems containing data for the assessment process, and does not allow for agile decision criteria queries and reporting. The Department seeks an updated property tax database system capable of handling all assessment functions in a fully integrated manner, including: document capture, reporting, storage maintenance, conversion migration services and management.



City and County of San Francisco ICT PLAN

Goal 2: Improve Public Access & Transparency

The City recognizes that the foundation of effective governance is providing greater public access to City information and services. The City's renewed investment in technology has opened up a variety of ways for the City to become more accessible and transparent to the public. In the coming years, the City will continue to invest in projects that expand online services, improve access to citywide information, and address the digital divide through computer literacy programs and increased internet connectivity services.

STRATEGIES

- Foster mobile capabilities to increase online access to City services;
- Address the digital divide by providing broadband access to underserved populations; and
- Increase internet connectivity and technology to enable citizen engagement.

OVERVIEW

Over the next five years, there are \$57.0 million in project requests that identify improving public access and transparency as their primary goal. These projects make up 10.4 percent of the total IT project requests citywide. Although this level of requests may seem small in comparison to the requests under other goals, the types of requests in support of this goal are generally software application upgrades rather than more costly infrastructure replacements.

The City currently has a number of citywide and department specific efforts underway; however, the overall impact is focused on increasing public engagement and transparency. As the City looks to the future, this Plan highlights a few projects that are representative of the investments the City has recently made, and those it is poised to make in the years ahead.

STATUS OF CURRENT PROJECTS

These selected projects highlight progress to date on efforts that align with the goal of improving public access and transparency.

✓ Open Data Initiative (On-going)

The Open Data Initiative, championed by Mayor Edwin M. Lee and Board of Supervisors President David Chiu, is a series of projects implemented to create greater government transparency and increase access to government data. As part of this initiative, the website DataSF.org now has over 200 data sets available for the public, as well as a showcase of applications that use the raw data to provide greater access to information. Most recently, Mayor Lee announced that San Francisco will be working with Yelp to integrate health inspection scores on the company's website.

✓ **Citywide Broadband and Training Programs (Complete)**

Through a federal stimulus grant called the Broadband Technologies Opportunities Program, San Francisco has connected 31,000 new end users, and opened 47 computer labs, at both senior centers and San Francisco Housing Authority properties. This program has enhanced broadband connectivity to low-income individuals, seniors, and people with disabilities by investing in infrastructure, hardware and software, and supporting training for the ultimate users. The grant will be complete in September 2013.

✓ **Mobile Strategies (On-going)**

With the launch of the SFGov Mobile application in October 2011, constituent access to government services increased. The SFGov Mobile application and mobile site offers simplified access to a variety of information and services provided by the City and County of San Francisco, including the ability to: access news and updates about City government policy initiatives, key services, and other important information; easily connect to the City's 311 customer service center; connect directly with City government via a variety of social media channels; and stream audio and/or video on the SFGov government television channel. In the 2012 calendar year, there were 1,714,740 mobile page views and 1,405 mobile app downloads. Since its launch, SFGov Mobile has won five national and international awards, including: CIO 100 Award 2012; Computerworld Honors Laureate 2012; and PTI Solutions Award 2012. The SFGov Mobile application is only the first mobile application released by the City; the City plans to further enhance access via mobile devices with the implementation of Drupal, its new open-sourced web platform.

✓ **Social Media Initiatives (On-going)**

The City and County of San Francisco was the first major city in the country to embrace the use of social media to effectively communicate with constituents and gauge public interest. In early 2008, the City created an official Facebook page that provided two-way communication between the City and its constituents. The City's page has 270,000 fans, not including thousands more who are fans of 33 other department specific Facebook pages. The City has also built a self-service application on the Facebook platform that allows constituents to access services directly through 311. The implementation of Twitter and YouTube followed shortly after with 33 official Twitter accounts and 16 YouTube Channels. The City's current goal is to begin measuring and analyzing its social media networks in order to get valuable insight on what its fans and followers are saying, as well as create new forms of communications based on advocacy.

✓ **Library Network Upgrade to Increase Public Access (On-going)**

As part of the Branch Library Improvement Program, the Public Library has increased the number of public access computer terminals. This created a demand for increased bandwidth for the data rich content patrons download. This network upgrade project began in FY 2011-12 and will continue until FY 2015-16.

MAJOR PROJECTS & INITIATIVES

Of the total requests received under this goal, 23.1 percent are identified as new/enhancement projects and 76.9 percent as replacement projects. The project requests under this goal are both citywide and department specific projects. While these projects are sponsored by different agencies, the end result is greater access to information and services for residents, workers and visitors to San Francisco

The following projects grouped by functional category are highlighted in this Plan as representative of the kinds of investments the City could make in the next five years. More detail on each of the featured projects is located in the appendix. The projects that are ultimately funded must be recommended by COIT and approved through the annual budget process by the Mayor's Office and the Board of Supervisors.

NEW / ENHANCEMENT

- Social Media Monitoring and Mobile Solutions

Sponsoring Department: Technology

Timeline: FY 2012-13 through FY 2014-15

Project Budget: \$586,000

Project Summary: The purpose of this project is to leverage new media technologies in order to enhance the City's ability to serve constituents online. The focus is to create measurable and relevant social media content and ways to access this content on demand. The Department will provide training on how to use these social media technologies to research major topic profiles focused around City policies and services, in addition to providing access to social media data in a summarized form via mobile devices in order to further the goals of embracing transparency in City government.

- San Francisco Digital Inclusion Project

Sponsoring Department: Technology

Timeline: FY 2013-14 through FY 2014-15

Project Budget: \$3,579,046

Project Summary: The San Francisco Digital Inclusion Project will address the City's digital divide among target populations by expanding broadband access, providing digital literacy trainings, promoting relevant content and services, and integrating technology in City-funded youth social services to improve communication, information, media and technology skills.

- Airport Public Wi-Fi Transition Project

Sponsoring Department: Airport

Project Timeline: FY 2012-13 through FY 2013-14

Project Budget: \$5,070,000

Project Summary: By advancing the current IT infrastructure, the Airport will take ownership of and manage its public Wi-Fi, which is currently managed by a contractor. The Airport will substantially improve Wi-Fi services by removing online advertising, providing an intuitive user interface, and increasing speed and coverage. The Phase 1 implementation of an active passenger score card, public Wi-Fi support for passengers, and public Wi-Fi implementation design for boarding area E (and possibly other areas) will result in a measurable improvement in service.

- Financial Transparency Website

Sponsoring Department: Controller's Office

Timeline: FY 2012-13 through FY 2013-14

Project Budget: \$625,000

Project Summary: This project will provide the public with greater access to City financial data through a financial transparency website, tentatively named SFOpenBook. Phase I presents public access to historical spending and revenue data, and allows users to filter this data by organization, fund, or type, with the ability to view five year comparisons and automatically-generated charts. Phase II will expand to include budget, vendor payment, and employee compensation information. The site will increase transparency of City spending, provide user friendly City financial data, and reduce demands on staff time to fulfill public records requests.

REPLACEMENT

- **Muni Metro Public Announcement and Display System Replacement**

Sponsoring Department: Municipal Transportation Agency

Timeline: FY 2012-13 through FY 2014-15

Project Budget: \$53,211,000

Project Summary: This project includes the replacement of obsolete communication and control systems in the Muni Metro subway. This project is a multi-faceted effort that will improve real-time passenger information and system safety, reliability, and the maintainability and expandability of the metro subway. The new system will automatically detect service delays in the subway, generate a delay message on the platform display sign, and issue a public announcement of the delay. The platform display sign and the Public Address system can support multiple languages to comply with federal requirements. The new system will allow central control operators to know in real-time where power is down in the subway and above-ground so they can quickly isolate the problem and restore service.



City and County of San Francisco ICT PLAN

Goal 3: Strengthen Security & Disaster Preparedness

San Francisco considers the protection of our City business systems and services a primary objective. A major component of this effort is the safeguarding of confidential and sensitive data through increased security initiatives and policies. The second component of this effort is the City's work to reduce the recovery time of the City business systems and services in the event of a disruption, whether from a natural or unnatural event. San Francisco's IT Security program incorporates both components into a holistic approach to protecting City government services and providing secure, reliable technology solutions for our constituents and visitors.

STRATEGIES

- Protect sensitive and confidential data through strong security and privacy standards;
- Develop and implement a comprehensive disaster recovery plan; and
- Ensure technology and public safety communication infrastructures have robust disaster recovery capabilities.

OVERVIEW

Over the next five years, there are \$21.6 million in project requests that support security and disaster preparedness as their primary goal. These projects make up 4.0 percent of the total IT project requests citywide. These 13 projects from eight departments build on the existing security efforts that are occurring citywide to further safeguard our IT infrastructure. Of the requests, there is an even distribution of infrastructure and software application projects.

The City currently has a number of completed and on-going projects that support this goal. As the City looks to the future, this Plan serves to highlight a few projects that are representative of the investments the City has recently made, and those it is poised to make in the years ahead.

STATUS OF CURRENT PROJECTS

These selected projects highlight progress to date on efforts that align with the goal of improving security and disaster preparedness.

✓ **Citywide Security Task Force (On-going)**

In FY 2011-12, the City established its first IT Security Task force. This cross functional taskforce includes members from all major service areas in the City. This group is tasked with developing, training and helping the City to prepare for potential cyber incidents in order to minimize any disruptions to City services. This group increases public awareness around cyber security and the City's efforts to protect its IT infrastructure and technology-reliant services.

✓ **Citywide IT Security Training Program (On-going)**

Since its inception in 2011, this security training program has provided comprehensive, straight forward training for all City employees around cyber security. This program was created to increase awareness among City staff that cyber security is a responsibility of every City employee. This program aligns the City with federal and State agencies to create greater public awareness surrounding the importance of protecting the City's IT infrastructure through education and awareness of cyber security issues.

✓ **Server Virtualization & Relocation (On-going)**

The Department of Technology, in conjunction with various City departments, has been working to relocate servers that are currently located in various data closets and data centers to approved Tier 2 facilities. These Tier 2 facilities have redundant site infrastructure capacity components that will run in parallel with the City's current systems. This will be important in the event of a local disaster. Currently, the City has leased space at a data center located at 200 Paul Street. Additionally, there is a new Tier 2 facility being constructed at the Airport.

✓ **Citywide IT Disaster Readiness Planning – Phase 1 (Complete)**

The Department of Technology is coordinating citywide IT disaster readiness planning and is working with the Controller's Office and other agencies to protect data and vital information in the event of an emergency. The City is finalizing an agreement with the State to lease space at its data center located in Rancho Cordova. Once this site is ready, the City will begin to replicate its critical financial systems, eMerge, and other services covered under a current SunGard contract.

MAJOR PROJECTS & INITIATIVES

Of the total requests received under this goal, 77.4 percent are identified as enhancement projects and 22.6 percent as replacements. This \$21.6 million project category may seem relatively small in comparison to project requests under other goals; however, many security projects and initiatives are infrastructure related and, therefore, are included in the fourth goal of the Plan.

The following projects grouped by functional category are highlighted in this section as representative of the kinds of investments the City could make in the next five years. More detail on each of the featured projects is located in the appendix. The projects that are ultimately funded must be recommended by COIT and approved through the annual budget process by the Mayor's Office and the Board of Supervisors.

NEW / ENHANCEMENT

▪ **Radio Security Enhancement Project**

Sponsoring Department: Technology

Timeline: FY 2013-14 through FY 2014-15

Project Budget: \$1,500,000

Project Summary: This project will enhance the security 9-1-1 public safety radio sites to ensure reliable radio communication. The Department of Technology maintains the City's public safety and non-public safety voice and data wireless communication systems in facilities scattered across the City and County of San Francisco. This project is to enhance the security of the areas surrounding the radio sites. As a result of continuous acts of vandalism and attempted break-ins, the Department has conducted site inventory and security assessments. This project will implement the recommendations of a consulting report that identified security weaknesses.

- Security Visibility and Intelligence

Sponsoring Department: Technology

Timeline: FY 2012-13 through FY 2017-18

Project Budget: \$3,459,203

Project Summary: The Visibility and Intelligence program will cost-effectively leverage leading-edge IT Security monitoring and analytic tools to gain visibility and gather intelligence from multiple sources into a consolidated threat management system. To achieve this goal, the Department of Technology has implemented Security Event Management, Intrusion Protection, and Web Filtering technologies. In FY 2012-13, the Department is implementing other technologies that fit into its five-year technology road map for IT Security Visibility. The Department's Security staff will begin to feed these backend systems into a consolidated analytic and dash boarding platform to correlate and analyze the activity on the Department's networks. Furthermore, the Department will work with the Department of Homeland Security's MS-ISAC group to create a partnership that allows MS-ISAC to monitor the City's external perimeter and alert the Department of Technology to any threats external to our networks.

- Systems Recovery Project

Sponsoring Department: Controller's Office and Technology

Timeline: FY 2012-13 through FY 2013-14

Project Budget: \$2,614,709

Project Summary: This second phase of Citywide IT Disaster Readiness Planning will establish disaster recovery capabilities for the City's integrated Human Resources, Benefits Administration, and Payroll system (eMerge), and the City's financial system (FAMIS) by creating a redundant parallel infrastructure in a data center and a back-up system in order to provide business continuity for eMerge. The City is currently negotiating with the State to lease space in its Tier 2 data center in Rancho Cordova.



City and County of San Francisco ICT PLAN

Goal 4: Support & Maintain Critical City IT Infrastructure

Investing in the City's IT infrastructure allows the City to both implement new technologies and sustain its current systems. This infrastructure, which includes networks, desktops, fiber and major communication systems, is the platform that supports critical City business functions.

STRATEGIES

- Evolve the City's IT infrastructure to support current systems and future innovation;
- Equip staff with appropriate technology and tools to work efficiently and effectively; and
- Ensure IT staff develops and maintains strong skill sets to enable them to implement current and future strategies.

OVERVIEW

Forty-eight percent of all project requests (\$263.5 million) were requests for infrastructure. Included under this goal are major IT investments, including two major radio replacement projects, which constitute \$185.5 million of the total requests. Additionally, captured under this goal are the IT components of two major capital projects that will be completed within the next five years – the new Public Safety Building and the San Francisco General Hospital rebuild project. These four projects make up over \$226.5 million, or 86.0 percent, of the total requests within this goal.

STATUS OF CURRENT PROJECTS

Over the last few years, the City has invested heavily in the maintenance and support of critical IT infrastructure. These investments have helped provide City departments with much needed upgrades to computers and software, as well as other elements of the City's IT infrastructure. The selected projects highlight progress to date on efforts that align with the goal of maintaining and supporting infrastructure.

✓ **Citywide Fiber (On-going)**

The Department of Technology continues to lay fiber optic cable below the streets of San Francisco. The City has installed 120 miles of fiber and is currently moving forward with projects for the Recreation and Parks Department and the Port. In addition, the Department of Technology is connecting public safety departments and their stations, while also seeking outside commercial partners to generate revenue for the City. Currently, the City has contracts with UC San Francisco, WETA, CENIC, and UC Berkeley.

✓ **Citywide Wi-Fi (On-going)**

The Department of Technology is working to bring Wi-Fi to various City agencies and public spaces throughout San Francisco. In addition to the work completed under the Broadband Technologies Opportunities Program, which installed 595 Wi-Fi access points, the Department has installed 18 access points of Wi-Fi connectivity on Treasure Island. Additionally, the Department is working to install internal Wi-Fi at City agencies. The Health Service System will be a pilot agency in this project. Finally, a

preliminary MOU has been signed between AT&T and the City for Wi-Fi implementation on the Market Street corridor.

✓ **PC Refresh (On-going)**

In FY 2011-12 and FY 2012-13, COIT funded the replacement of PCs, laptops, and software for General Fund departments. By bulk purchasing this equipment, the City was able to take advantage of volume discounts. In FY 2011-12, this program supported 15 departments and funded 700 new desktop and laptop computers. In FY 2012-13, this program purchased nearly 900 computers and laptops, benefiting 27 General Fund departments. This program should be continued.

✓ **Library Technology Replacement Program (On-going)**

During FY 2012-13, the Public Library is replacing 150 staff computers in the Main Library. The computers that are being replaced will be dispersed for public use in the Main Library and branches across the City. In addition to the desktops being replaced, the Public Library will also refresh 100 lending laptops and purchase an additional 90 laptops to expand the Laptop Lending Program. This program has assisted the Library in meeting the increased demand for additional public computing resources in all library locations (especially during after school hours), and provides updated, current computing resources for Department staff and the public.

MAJOR PROJECTS & INITIATIVES

Of the \$263.5 million in requests that identify maintenance and support of critical IT infrastructure as a primary goal, 21.4 percent are identified as new/enhancement projects, 52.4 percent as replacements, and 26.2 percent as critical project development. A major IT investment project included under critical project development is the Public Safety Radio Replacement project, which is estimated to cost \$69.0 million. Of the replacement project requests, there are a number of similar requests for technology refreshment of hardware and software. In previous years, the City has addressed some of this need through an annual PC Refresh project. This project will continue to consolidate department requests in order to maximize the savings through bulk purchasing.

The following projects grouped by functional category are highlighted in this Plan as representative of the kinds of investments the City could make in the next five years. More detail on each of the featured projects is located in the appendix. The projects that are ultimately funded must be recommended by COIT and approved through the annual budget process by the Mayor's Office and the Board of Supervisors.

NEW / ENHANCEMENTS

▪ High-Tech Mobile Devices for Police

Sponsoring Department: Police

Timeline: FY 2013-14 through FY 2017-18

Project Budget: \$2,506,200

Project Summary: This project seeks to keep police on the streets by enabling them with mobile devices equipped with high-tech tools designed to predict and map crime, identify suspects, write reports, and access the Police Department's new state of the art Crime Data Warehouse. Specific capabilities include: access to the Crime Data Warehouse, Police Report Writing, Suspect Identification Search, and Native Smartphone Capabilities (email, talk to text, text, GPS, phone, digital camera, etc.). The Department

anticipates that through this project there will be more officers on the streets protecting citizens; more criminals apprehended due to better identification tools; quicker investigation of cases with reports started on the street; and more cases solved because of broader reach of the Crime Data Warehouse and access to its search function.

- **San Francisco General Hospital Technical Infrastructure Re-Build**

Sponsoring Department: Public Health

Timeline: FY 2012-13 through FY 2015-16

Project Budget: \$30,000,000

Project Summary: This project will allow for the design and implementation of the technical infrastructure required for the new San Francisco General Hospital facility, which is anticipated to be fully operational by FY 2015-16. In collaboration with the Department of Technology, the Department of Public Health will analyze infrastructure requirements, develop the technical project plan, and complete a Bill of Materials to acquire necessary hardware and implement the required technical capabilities.

- **Fiber to City Buildings**

Sponsoring Department: Technology

Timeline: FY 2013-14 through FY 2014-15

Project Budget: \$ 870,089

Project Summary: To meet the increasing need for bandwidth, and to be self-sustaining in municipal fiber resources, the Department of Technology has installed fiber in various City facilities and is expanding its fiber backbone to increase capacity and redundancy. The Department will continue this effort to ensure all necessary City facilities are connected to fiber – taking into consideration future needs. Installation of City owned fiber infrastructure will result in substantial cost savings with respect to existing and future needs for applications in use by various departments that require extremely high bandwidth. Additionally, public safety will be enhanced by maintaining a City owned infrastructure for all public safety communications.

- **Deployment of Computerized Maintenance Management System (CMMS)**

Sponsoring Department: Public Works

Timeline: FY 2012-13 through FY 2014-15

Project Budget: \$2,167,500

Project Summary: The Department of Public Works is tasked with providing operational maintenance and management of City assets, such as: streets, curb ramps, medians, plazas, trees, sewers, buildings, bridges, tunnels, and staircases. Currently, the Department uses multiple independently built database systems and spreadsheets to manage and maintain these assets. The Computerized Maintenance Management System (CMMS) is a single asset management platform for all bureaus within the Department. After implementation of this project, the Department will be able to: leverage new technologies for efficient integration with other City applications; have a more cohesive understanding on assets managed; and improve coordination and communication within the Department, as well as with other City departments.

- **BayWEB/FirstNet – Interoperable Public Safety Data Network**

Sponsoring Departments: Emergency Management, Police, Fire, Sheriff, and Technology

Timeline: FY 2013-14 through FY 2017-18

Project Budget: \$483,120 (Site leases & Utilities only)

Project Summary: In 2010, the Bay Area received a \$50.6 million federal stimulus grant called the Broadband Technology Opportunities Program (BTOP) to fund a public safety wireless broadband project. San Francisco is one of seven counties that will be part of the regional network. BayWEB is the wireless broadband data network dedicated for the region's public safety agencies. This project is one of the first phases of a nationwide network build-out of the FirstNet system. The BayWEB network incorporates cutting-edge 4G LTE technology that allows police, firefighters, and other first responders in the field to share texts, download photos, view video, and use new mobile applications to help them work more effectively. As a dedicated network just for public safety, BayWEB will ensure the continuity of service coverage during major incidents and events within the City.

REPLACEMENT

▪ Airport Security Local Area Network (SLAN) Replacement

Sponsoring Department: Airport

Timeline: FY 2012-13 through FY 2014-15

Project Budget: \$25,000,000

Project Summary: The project will replace the Airport's aged Security Local Area Network (SLAN). The project includes building a new SLAN, moving systems to a supported and reliable server and desktop hardware, and insuring cyber security compliance. The Airport anticipates more efficient, secure, stable and cost-effective monitoring, maintenance, upgrades, and growth with a secure network and server environment in compliance with cyber security standards and practices. Furthermore, a new SLAN will provide more efficient integration with other current and future Aviation Security systems and applications, as well as better support first-hand notification for troubleshooting problems. The Airport projects a 99.9 percent uptime post system replacement.

▪ 9-1-1 Telephone System Replacement

Sponsoring Department: Emergency Management

Timeline: FY 2014- 15 through FY 2015-16

Project Budget: \$3,000,000

Project Summary: As the primary Public Safety Answering Point (PSAP) for 9-1-1 emergency calls placed within San Francisco, the Department of Emergency Management maintains a sophisticated, highly redundant call processing system to handle emergency and non-emergency calls. The system includes a dedicated phone switch, call handling and distribution software, and call-taker workstations equipment and software. This project will upgrade the entire system and migrate it from an analog, circuit-based system, to a digital, next generation platform.

▪ SFMTA Radio Replacement

Sponsoring Department: Municipal Transportation Agency

Timeline: FY 2012-13 through FY 2016-17

Project Budget: \$116,500,000

Project Summary: The Municipal Transportation Agency currently utilizes a 30-year-old radio system that is inefficient and lacks modern features. The Radio System Replacement Project will replace the Department current system and install a new Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system compliant with Project 25 (P25) communication interoperability standards. The new radio system will provide coverage in the City for over 1,400 Department vehicles. This will also allow for better radio communication in the Muni Metro subway. It will additionally allow for greater interoperability with other City departments. The total budget for this project is currently \$116.5

million. This project is to be funded out of the Department's operating budget, as well as Prop K Sales Tax, federal and State funding. In FY 2012-13, approximately \$7.55 million will be expended on this project.

CRITICAL PROJECT DEVELOPMENT

- **Public Safety Radio Replacement**

Sponsoring Departments: Emergency Management, Police, Fire, and Sheriff

Timeline: FY 2013-14 through FY 2017-18

Project Budget: \$69,000,000

Project Summary: This project will upgrade the Citywide 800MHz Radio Communications System used primarily by the City's public safety agencies for push-to-talk voice communications between the 9-1-1 Dispatch Center and officers in the field to relay incident information, as well as day-to-day communications between units in the field. The current system was installed in 2000 and is nearing the end of its service life. The new technology available will improve interoperability between City departments and other mutual aid agencies. The system will support over 7,000 mobile and handheld radios, with 10 City departments and four outside agencies operating daily on the system. Initial budgetary estimates project a system replacement cost of \$69.0 million.

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Financial Strategies

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City and County of San Francisco ICT PLAN

Financial Strategies

Since the adoption of the last ICT Plan, the City's financial condition has strengthened. However, the City still has a structural deficit with on-going expenses growing faster than operating revenues, which places pressure on the City's General Fund. This condition of constrained financial resources requires the City to balance short and long-term needs, a strategy which is supported by better planning and sequencing of projects and by obtaining better information about our existing assets and resources. To that end, the City should focus its efforts over the coming years in the following ways:

1. Balance short-term and long-term investments.

The Plan recommends categorizing projects into two distinct groups: 1) small to medium sized projects with shorter implementation timelines and low to medium cost implications; and 2) large scale, multi-year and multi-departmental projects, which require a significant investment to implement. This is necessary to prevent large projects from crowding out smaller annually appropriated projects, and to ensure that the City prepares for the large "generational" projects.

2. Long term investments require better project planning and sequencing.

Major system updates are typically expensive, complex, multi-year projects. Additionally, it is difficult to accurately project costs and timelines for these projects. Through the adoption of this Plan, which for the first time will include critical project development as a priority for COIT funding, the City will be adopting best practices for project development and delivery, such as careful scoping, review and planning for IT projects in order to inform funding decisions and priorities over the next five years.

Only when these projects develop reliable estimates of scope, timeline and costs should the City make decisions to fund them. Due to the significant financial investments associated with these projects and the City's limited resources, it will be necessary to sequence large projects to ensure funding feasibility and to defer projects until planning is complete. The City will also need to pursue alternative funding sources, including: grants; lease-financing; and non-General Fund sources to support project implementation.

3. Collect better information about the condition of existing assets and resources to prioritize investments.

Strategic investment requires a thorough understanding of existing resources. The City's Capital Planning Program has developed models that represent the condition of existing infrastructure and estimate the needs. The Department of Public Works (and other departments) have highly developed asset management models. Over the coming years, COIT must develop similar processes and models to ensure a more comprehensive approach to addressing the needs of existing assets. Asset management would foster effective prioritization of the limited General Fund COIT allocation towards maintenance, replacements, critical project development, and enhancements or new projects.

4. Identify additional resources to support IT.

COIT should identify additional funding opportunities to support important projects. This might include further exploration of financing options, identifying state and federal grants to support this work, and sharing costs between General Fund and non-General Fund sources. Recognizing that these strategies are unlikely to fill the entire gap, this Plan recommends that the City continue to grow its General Fund

allocation by 10 percent annually, and identify one-time sources to support major ICT capital investments. The City has established financial policies prioritizing the use of one-time sources of funding for one-time uses. Certain critical IT investments are an appropriate use of non-recurring revenues and should be given consideration for the allocation of these funds as they become available.

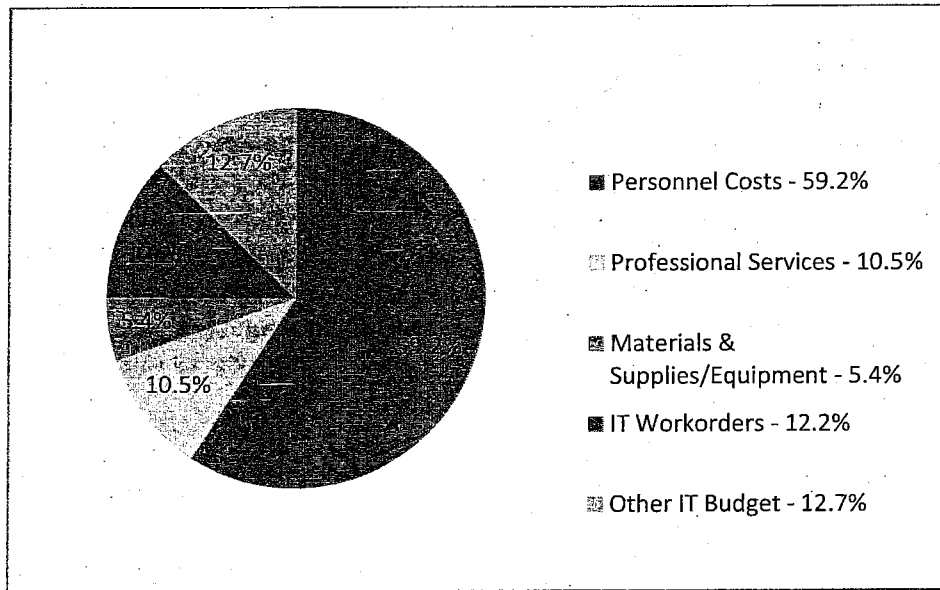
The section to follow outlines the City's existing investments in ICT, the requests made by departments through the planning process, and recommends financial strategies to bridge the gap between the available resources and the level of requests.

BACKGROUND

Current Investments in Information Technology

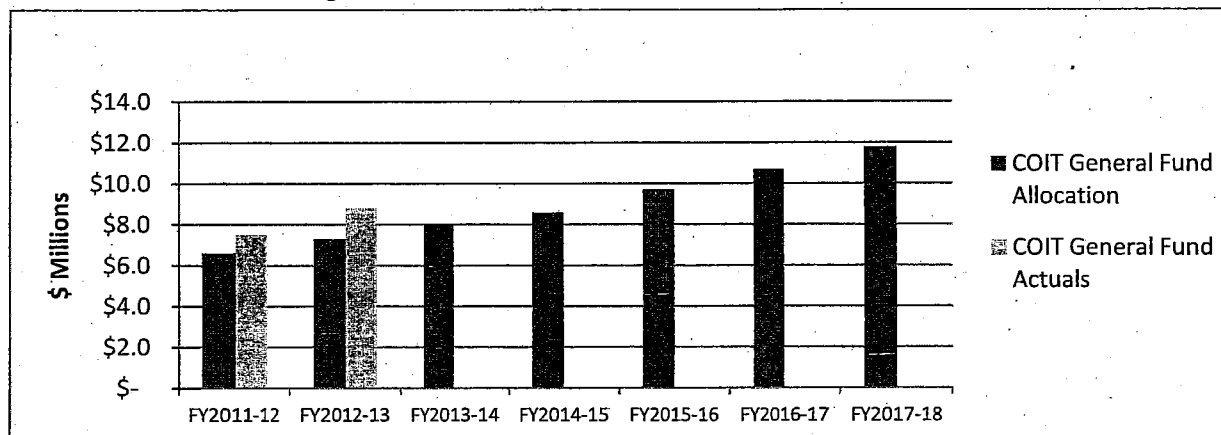
In FY 2012-13, the City has a budget of \$208.2 million for Information Technology (IT), which includes support of on-going business operations as well as project implementation. This represents a 9.3 percent increase from FY 2011-12, primarily due to citywide increases in labor costs. The citywide IT budget is split into five categories: personnel costs; professional services; materials, supplies and equipment; IT work orders; and other IT budget. As Figure 2 shows, 59.2 percent of the total IT budget is allocated to personnel expenses with only 10.5 percent allocated to professional services.

Figure 2: FY 2012-13 Citywide IT Budget by Category



One of the financial strategies included in the first ICT Plan was to increase the General Fund allocation by 10 percent annually, for a total of \$40.3 million over the course of the five years. Over the first two years of the Plan, the City exceeded this level of funding by 17.3 percent (\$2.4 million), more than the recommended General Fund allocation. This demonstrates both the level of demand for ICT funding and the commitment that the City has made to these important efforts. Figure 3 compares the projected funding to actual funding for COIT over the last two years, as well as projected funding levels for the next five years.

Figure 3: COIT General Fund Allocation vs. Actuals



ANNUAL COIT BUDGET PROCESS

The Planning & Budgeting Subcommittee of COIT reviews IT project proposals annually as part of the citywide budget process. IT project proposals considered must have a total budget of \$100,000 or more and must be projects, not equipment or materials and supplies, though the City has previously funded a citywide PC refresh program.

The annual review process for General Fund and non-General Fund IT project proposals uses a set of criteria, which allows for rating and ranking of these projects. These criteria are based on the project's range of impact as well as support of the strategic IT Goals identified in this Plan. Included in this process is a review of the requesting department's current and previous project performance.

IT project proposals historically have been categorized as new/enhancements, renewals/replacements, or routine maintenance. Due to the number of major IT investments, this Plan is recommending the inclusion of an additional category – critical project development. Project proposals are categorized under critical project development if they request significant multi-year funding and require further work to develop the project scope, budget, and timeline. Developing a reliable estimate of costs and timelines associated with these major IT investments is vital as the City looks to strategically fund and implement these projects.

Current Funding Sources:

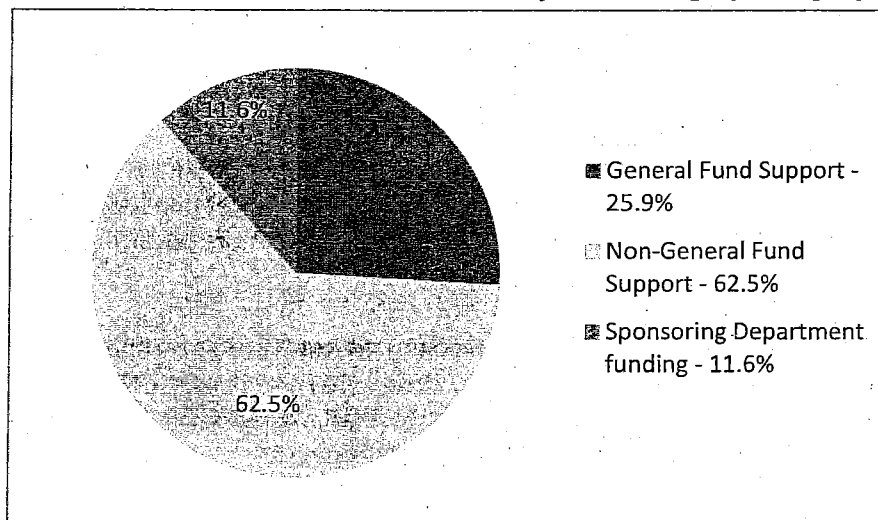
- **Annual General Fund Allocation (COIT)**
 General Fund departments may request financial support outside of their operating budget through the COIT General Fund allocation. The Plan recommends that the City increase the COIT General Fund allocation by 10 percent every year. In FY 2011-12, the General Fund commitment was \$6.6 million. This has increased to \$8.0 million in FY 2013-14. The total expected investment over the next five years is \$49.1 million.
- **Sponsoring Department Project Funding**
 The Department of Technology implements a number of citywide IT projects through its operating budget recovered from charge back rates. In FY 2012-13 these charge back rates were allocated 36.1 percent to Enterprise departments and 63.9 percent to General Fund departments. Recently funded projects include: Mobile Strategies, Fiber to City Building, Disaster Recovery, and Server Virtualization.

- Non-General Fund Sources

Some departments (including General Fund departments) have identified funding for projects within their existing operating budgets through grant support or other non-General Fund sources. These self-supported projects are reviewed using the same vetting process as the General Fund requests.

Over the last two fiscal years, approximately 62.5 percent of all COIT funded projects were supported by non-General Fund sources, and the remaining 37.5 percent were funded by the General Fund COIT allocation or through sponsoring departments, as shown in Figure 4 below.

Figure 4: FY 2011-12 & FY 2012-13 Project Funding by Category



FISCAL YEARS 2014-18 PROJECT REQUESTS

For Fiscal Years 2014-18 there are \$548.0 million in IT project requests identified citywide. Project requests are split with 53.6 percent non-General Fund dollars, representing 55 projects, and 46.4 percent General Fund dollars, representing 77 distinct projects. The following table illustrates the Five-Year IT project requests compared to their proposed funding sources.

Table 4: Total Information Technology (IT) Project Requests from Departments FY 2014-18

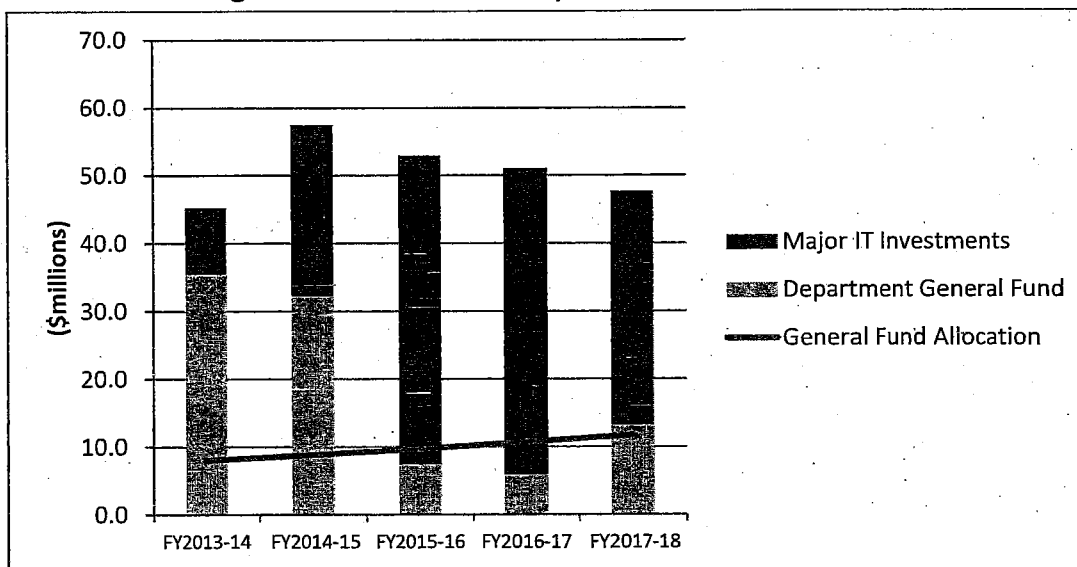
<i>\$ in millions</i>	Initial Project Request	Proposed Funding Source	Difference
Non-General Fund Projects	293.5	293.5	-
General Fund and Citywide Projects	254.5	49.1	(205.4)
Subtotal: IT Project Requests	548.0	342.6	(205.4)

As Table 4 indicates, that there are more than \$254.5 million in General Fund IT project requests, which far outweigh the COIT General Fund allocation of \$49.1 million and leaves a funding gap of \$205.4 million.

A significant portion of the funding gap is generated by proposals to replace several major legacy systems within the five-year planning window, including the replacement of the City’s financial system (\$72.2 million), replacement of the public safety radio system (\$69.0 million), as well as tax system replacement projects at both the Assessor Recorder’s Office (\$13.0 million) and Treasurer Tax Collector (\$6.0 million). These projects are categorized as major IT investments due to their large scale and significant financial cost.

Figure 5 below shows the General Fund allocation compared to the General Fund departmental and major requests.

Figure 5: General Fund Requests vs. COIT Allocation



These large IT capital projects pose unique challenges for the City because they are generational in nature – that is to say, they are projects that require replacement once every 15-30 years. From a financial perspective, this is challenging because the projects are multi-year, multi-departmental, and require large capital investments. In addition, these projects have proved challenging to reliably estimate project timelines, budgets, and the on-going cost of ownership once projects are implemented (including maintenance, upgrades, staffing).

Another challenge is the need to strike a balance between important, larger scale, multi-departmental, multi-year projects with on-going, smaller, department-specific IT projects and operating support. Developing a financial strategy and planning process that allows the City to both make the necessary upgrade to our legacy systems and invest in renewals and smaller new projects is critical.

FINANCIAL STRATEGIES

To address the financial constraints faced by the City to meet its IT needs, the Planning & Budgeting Subcommittee reviews potential financial strategies to fund ICT projects. This Plan builds on and continues the previous ICT Plan's recommended financial strategies.

The following financial strategies seek to close the \$205.4 million funding gap described above:

Improve Planning/Increase Collaboration

The strategies listed below seek to identify projects that should be deferred until more careful planning and critical project development is complete (\$78.4 million in project requests are deferred); and combine project requests and increase collaboration between departments to reduce the need for funding further by an additional \$12.0 million.

- Fund planning and project pre-development to better understand the project costs, scope, and timeline;
- Identify opportunities for collaboration to reduce redundant efforts;
- Defer projects that are not adequately scoped to later years through prioritization and planning. Currently the Plan must assume deferral of at least two of the major IT investment projects;
- Eliminate or reduce the cost of proposed projects through careful examination of project estimates. This should be done through collaboration, sharing of current systems and review of alternatives with stakeholders;
- Negotiate software contracts where pricing of licenses and maintenance are based on the phase of the project, implementation vs. production;
- Develop project hiring plans that are aligned with the project phases, and vice versa;
- Analyze the true cost of ownership, which includes post implementation and on-going costs; and
- Support shared solutions by subsidizing projects that have the ability to be expanded to other departments.

Alternative Funding Sources

This approach strives to equitably distribute project costs between General Fund and non-General Fund sources to reduce the funding gap by \$35.0 million.

- Use an allocation methodology so that the costs of citywide investments are shared between Enterprise Departments and the General Fund;
- Pursue grants and other State and federal sources; and
- Identify alternate revenue sources by providing ICT services to non-city entities.

Budget Reallocation

The Budget Reallocation strategies aim to use current resources more efficiently to better align funding with projects identified in the Plan as a priority. These strategies will reduce the funding gap by \$80.0 million.

- Continue to increase proposed \$8.0 million General Fund allocation in FY 2013-14 by 10 percent in subsequent fiscal years to address growing demand for ICT resources;
- Identify one-time sources of funds to support major IT capital investments; and
- Free up existing funds for ICT investments by pursuing the following strategies:
 - Redirect base budgets of specific departments to fund future projects, and include ICT base budget funding in annual budget justification discussions;
 - Prioritize enterprise-wide applications and retire existing stand-alone systems that provide the same functional requirements;
 - Re-allocate savings from consolidations to fund ICT infrastructure improvements and new citywide or multi-department ICT projects; and
 - Consider the transfer of applications from City-owned platforms and infrastructure to the cloud maintained and operated by outside experts. This would reduce the upfront costs of equipment replacement and security costs, coupled with ongoing cost of leases.

Table 5 summarizes the impact of the proposed financial strategies on the funding gap.

Table 5: Impact of Proposed General Fund Financial Strategies on Funding Gap FY 2014-18

<i>\$ in millions</i>	Project Request	Fiscal Strategy	Remaining Funding Gap
Total General Fund Project Requests	254.5	-	(254.5)
Financial Strategies			
Grow COIT GF Allocation by 10% per year	-	49.1	(205.4)
Improve Planning/Increase Collaboration	-	12.0	(193.4)
Project Deferrals	-	78.4	(115.0)
Alternative Funding Sources	-	35.0	(80.0)
Budget Reallocation	-	80.0	-
Total	254.5	254.5	-

The previous version of the ICT Plan relied on a recommendation to pursue financing options to close the gap between needs and available funding. In the two years since that Plan was adopted, further investigation has shown that developing a bond or debt instrument may not be an option to fund projects at the level contemplated in the prior Plan. The chief barrier to financing the major IT projects proposed in the Plan is the short useful life of the IT assets that would be funded. COIT will continue to explore financing as an option for projects with a useful life of greater than five years, but options may be limited compared to prior expectations.

IMPLEMENTING THE FINANCIAL STRATEGIES

Over the coming five years, the City will need to balance short-term smaller departmental requests with longer-term major IT investments. The General Fund allocation at its current commitment level cannot fund both major IT investments and on-going citywide and department requests.

General Fund Department Requests

Of the total General Fund IT requests, 37.1 percent (\$94.4 million) are departmental requests. This represents 73 projects identified by 17 different departments. These project requests demonstrate the need for continued investment to maintain, replace, and enhance current systems and to develop new ones. It is critical to continue to fund smaller projects that support one or more of the IT goals outlined in this Plan. However, based on the General Fund allocation, these requests must be reduced to meet the current General Fund commitment of \$49.1 million over the next five years. This Plan recommends that most of the COIT \$49.1 million General Fund allocation over the next five years to fund these projects and critical project development.

Major IT Investments

Major IT investments represent almost a third of all IT project requests. Of the General Fund requests, the four large projects described in this section collectively make up 62.9 percent of the total requests, and the majority of the \$254.5 million identified funding gap. As the City attempts to bridge the funding gap, these major IT investments must be evaluated against the identified financial strategies to maximize the use of the limited resources. All of these projects will benefit from additional funding dedicated to critical project development. Implementation funding for these major IT investments should be committed only once more detailed scope, schedule and funding requests are developed over the coming 1-2 years. The four projects are:

- **Public Safety Radio Replacement Project (\$69.0 million).** Installed in 2000, the current 800 megahertz push-to-talk, voice communication system used by the public safety departments is nearing the end of its service life. This project was identified in the first ICT Plan; however, due to a lack of reliable cost estimates, this project has not received any General Fund support to date. The replacement of this system, phased in over a number of years, is estimated to cost \$69.0 million. The City has identified this project as a priority. For this reason, this Plan recommends that COIT fund critical project development for FY 2013-14 and FY 2014-15. This project will report back to COIT on a regular basis on the scope, budget and timeline for the project implementation.
- **Replacement of the City's Financial System (\$72.2 million).** The City's mainframe-based central financial and accounting information system (FAMIS) is more than twenty-five years old and will need to be replaced. The Controller's Office is completing its first year of project planning, which will be continued in FY 2013-14. Project implementation is scheduled to begin in FY 2014-15. Replacement of the system is estimated at \$72.2 million over the next several years. The Department will evaluate multiple strategies to implement the project, including a phased approach, which will allow the City to receive the benefits of the investments as each module is complete while phasing the cost over time. As a citywide project, the costs of this project will also most likely be allocated between General Fund and Enterprise departments. This will reduce the General Fund impact. This project will report back to COIT on a regular basis on the scope, budget and timeline for the project implementation.
- **Gross Receipt Tax Systems (\$6.0 million).** The City's 20+ year old COBOL-based central Business Tax System (BTS) is scheduled to be replaced in FY 2013-14. In addition to the migration, the voters of the City passed a new business tax in 2012 – Gross Receipts Tax. The Gross Receipts Tax is an additional tax

to be collected with the anticipated phase out of the Payroll Expense Tax. This project is required as part of the voter approved measure and will need to be implemented within a specified time frame. This project is anticipated to be funded through the General Fund initially, but will offset by the increased revenue generated by the tax. Reimbursements to the General Fund for this project may begin as early as FY 2013-14.

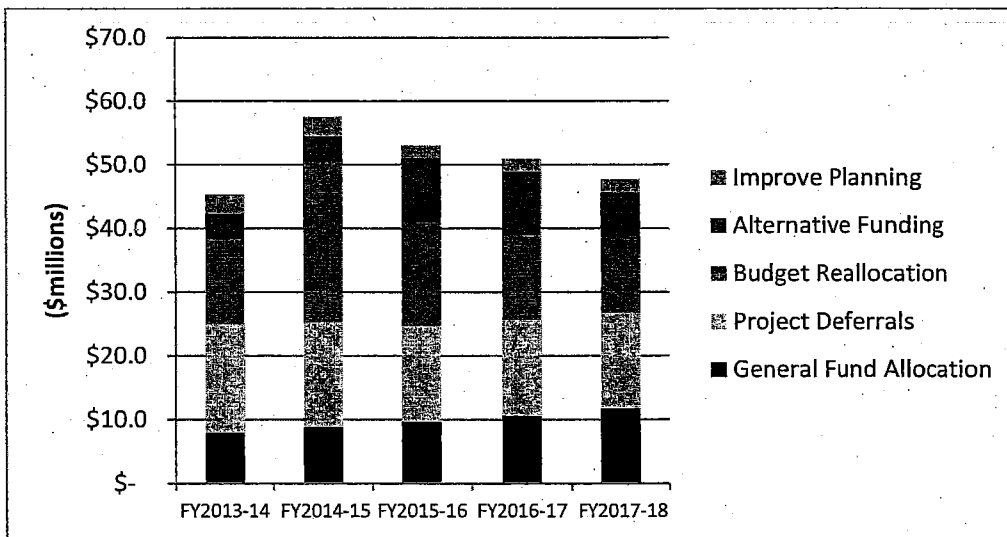
- The Assessor Recorder’s Property Tax Database Replacement Project (\$13.0 million).** The Assessor-Recorder’s legacy property tax database is reaching the end of its life and will need to be replaced in the next five years. The Department is currently completing initial research into property tax databases used by other similar sized counties. This project will require initial funds for critical project development to determine the scope and final budget for this project.

Balancing Short and Longer-Term IT Investments

Over the coming five years, the City will need to balance short-term smaller departmental requests with longer-term major IT investments. As mentioned above, the General Fund COIT allocation at its current commitment level cannot fund both major IT investments and on-going citywide and departmental requests. This Plan recommends that critical project development of major IT investments and on-going citywide and department requests be funded under the General Fund COIT allocation, while the implementation of major IT investments be funded using all the financial strategies mentioned above. By investing in the planning and pre-implementation of large IT projects, COIT will be empowered in the future to make informed recommendations for the use of other funding sources above the General Fund allocation.

As the City works to balance all of these investments, COIT will review all project requests with the financial strategies that are highlighted above. These strategies will allow the City to bridge the funding gap over the five-year period, though not without making trade-offs through project prioritization, sequencing and deferrals. Recognizing that these strategies are unlikely to fill the entire gap, the City should continue to grow its General Fund allocation by 10 percent annually and identify one-time sources to support major ICT capital investments. Figure 6 below shows the impact of the proposed financial strategies on the funding gap over the next five years.

Figure 6: FY 2014-18 Total Requests by Proposed Financial Strategy



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Appendix

Administrative Code Section 22.A
Project Proposal Ratings & Criteria
Matrix of Total Project Requests
Detailed Descriptions of Featured Projects

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City and County of San Francisco ICT PLAN

Administrative Code Section 22A

SEC. 22A.3. COMMITTEE ON INFORMATION TECHNOLOGY.

Establishment and Composition. There is hereby created a Committee on Information Technology (COIT).

(a) COIT shall be composed of five (5) permanent members consisting of the Mayor, the President of the Board of Supervisors, the Controller, the City Administrator, and the CIO, or their designees. The Mayor, the President of the Board of Supervisors, the Controller, the City Administrator and the CIO, shall elect a Chair, who shall serve for a 2-year term. All of the permanent members of COIT shall be eligible to serve as Chair. Five additional Department Heads shall be recommended by the Chair and approved by the permanent members for two year terms, one representing each of the major service areas: (a) Public Protection, (b) Human Welfare and Neighborhood Development, (c) Community Health, (d) Culture and Recreation, and (e) General Administration and Finance; and three representing the major service area of Public Works, Transportation, and Commerce. The five permanent members and eight non-permanent members will be voting members of COIT.

(b) COIT shall organize into subcommittees. The Chair shall appoint subcommittee members based on participants' technical, financial, management, and policy-making capabilities and responsibilities. The Chair shall consult with and consider the recommendations of the CIO regarding the number, type and make-up of subcommittees, Subcommittee members shall represent major service areas of the City.

(c) Purpose and Duties. COIT shall review and approve the recommendations of the City CIO for (i) the five-year City ICT plan, including budget, projects and staffing for all City departments, boards, commissions and agencies (City Departments), (ii) ICT plans, budgets, projects and staffing plans for City Departments; and (iii) ICT standards, policies and procedures to enable successful development, operation, maintenance, and support of the City's ICT.

(d) COIT shall monitor compliance of all City Departments with adopted ICT plans, budgets, projects, standards, policies and procedures.

(e) COIT shall ensure the most cost-effective and useful retrieval and exchange of information both within and among City Departments and from the City to the people of San Francisco.

(f) There will be two additional non voting members of COIT selected by the voting members of COIT. These individuals cannot be employees of the City and County of San Francisco and shall have expertise in fields of ICT innovation and advances, emerging ICT applications, and public policy issues related to ICT.

(g) COIT shall incorporate performance and financial reporting on the Department of Technology and all other City Departments' ICT planning and purchases in the ICT Capital and Operating Plan and the annual reviews of the plan. The factors to be evaluated in determining the performance of all departments shall include, but are not limited to: quality of service level agreements, adherence to budgeted costs, and cost recovery methodology for all ICT products and services provided by City Departments, including the Department of Technology.

(h) COIT shall work to ensure adequate City ICT workforce development, including training and certification in order to maintain the competitiveness of City ICT staff.

(i) COIT will review and approve procedures, developed by the Office of Contract Administration and the Department of Technology, for the development and administration of ICT enterprise agreements. The factors addressed by the procedures will include, but not be limited to; (1) Whether the purchase is consistent with the City's current ICT Capital and Operating Plan; (2) Whether the purchase is the most economical method of obtaining the highest-quality products and services; (3) The best interests of the City.

(j) The Department of Technology shall provide support to the COIT. COIT shall review and approve the Department's annual plan, budget, and staffing required to support the Committee.

(Added by Ord. 169-10, File No. 100095, App. 7/23/2010)

SEC. 22A.6. INFORMATION AND COMMUNICATION TECHNOLOGY OPERATING PLAN.

(1) By March 1 of each odd-numbered year, COIT shall submit to the Mayor and Board of Supervisors a five-year Information and Communication Technology ("ICT") plan which shall include an assessment of the City's enterprise and general fund ICT capital and operating infrastructure, hardware and software needs, an estimate of timelines and investments required to meet the needs identified through this assessment, and recommendations to budget for or otherwise finance the investments.

(2) By May 1 of each odd-numbered year, the Mayor and Board of Supervisors shall review, update, amend, and adopt by resolution the five-year information technology plan and its corresponding budget request. The Mayor and Board of Supervisors may update the plan as necessary and appropriate to reflect the City's priorities, resources, and requirements as reviewed and approved by the COIT.

(Added by Ord. 169-10, File No. 100095, App. 7/23/2010; amended by Ord. 222-11, File No. 111001, App. 11/15/2011, Eff. 12/15/2011)



City and County of San Francisco ICT PLAN

Project Proposal Ratings & Criteria

PROJECT CATEGORIZATION

1. Type

Software application - Software systems used to support specific end-user operations within departments

Infrastructure - Protocols, computing equipment, data centers, and networks that bind the computing enterprise together and facilitate efficient data flows

Operating Systems – Software and hardware used to support specific IT operations within departments

2. Functional Category

Maintenance – Invest in an existing system to maintain current functions

Enhancement – Invest in an existing system to add new or substantially improve capabilities

Replacement – Invest in new system rather than maintain existing system

New system – Invest in a new system for functions that currently do not exist

Critical Project Development – Invest in planning of potential future systems

PROJECT CRITERIA (Each criterion scored from 0 to 3)

1. Project's Range of Impact (60%)

Scope – Project's range of impact within the City

Core Business Support – Extent that project supports the main functions upon which a business is built or operates; Supports essential duties of City government

Compliance – Project keeps business in accordance with established standards, regulations, or laws

Innovation – Advances or transforms provision of core services through use of innovative technology

Priority – Project is the department's highest priority

2. Support of ICT Plan Goals (40%)

GOAL 1

Efficiency – Project improves operational and financial efficiencies that lead to a return on investment (ROI), Cost Reduction and/or Cost Avoidance

GOAL 2

Access – Project improves public access to information or government services

Transparency – Project improves transparency of government

GOAL 3

Security – Project reduces the risk of ICT systems and information being misused, destroyed or modified

Disaster Recovery – Project supports or prepares for the recovery or continuation of ICT infrastructure critical to business functions after a natural or human-induced disaster

GOAL 4

Infrastructure – Project supports and/or replaces equipment, systems, software, or services used in the department or in a common citywide program or project (e.g. the fiber network, telephone and radio systems)



City and County of San Francisco ICT PLAN

Project Proposal Ratings & Criteria

COIT RATINGS WORKSHEET

Scale (Points)		High 3	Medium 2	Low 1	0
	Scope	Project has citywide impact.	Project has major service area impact.	Project has department-only impact.	N/A
	Core Business Support	Project provides key core department and city business support.	Project provides core city business support.	Project provides some core department business support.	N/A
	Compliance	Project addresses mandatory standards, specifications, or laws.	Project addresses optional compliance guidelines.	Project keeps businesses in line with common business practices.	N/A
	Innovation	Project significantly advances/transforms core citywide services.	Project significantly advances/transforms core department services.	Project somewhat advances/transforms core services.	N/A
	Priority			Project is department's highest priority	N/A
GOAL 1	Efficiency	Project generates (>\$250k annually) operational efficiencies and savings/income.	Project generates (\$100k to \$250k annually) operational efficiencies and savings/income.	Project generates (<\$100k annually) operational efficiencies and savings/income, or cost avoidance.	N/A
GOAL 2	Access	Project significantly improves public access to information or government services.	Project improves public access to information or government services.	Project somewhat improves public access to information or government services.	N/A
	Transparency	Project significantly improves government transparency.	Project improves government transparency.	Project somewhat improves government transparency.	N/A
GOAL 3	Security	Project significantly reduces security risks.	Project addresses security risks.	Project reduces some security risks.	N/A
	Disaster Recovery	Project significantly addresses disaster recovery needs.	Project addresses disaster recovery needs.	Project addresses some disaster recovery needs.	N/A
GOAL 4	Infrastructure	Project improves both department and City key infrastructure.	Project improves City infrastructure.	Project improves some department infrastructure.	N/A



City and County of San Francisco ICT PLAN

Matrix of Total Project Requests

Department Project	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	TOTAL FY 2014-18	Goal 1: Efficiency	Goal 2: Access	Goal 3: Security	Goal 4: Infrastructure
PUBLIC PROTECTION										
Adult Probation										
Mobile Infrastructure/Support & Mobile Devices for Field Officers	\$ 120,000	\$ 50,000	\$ 50,000	\$ 50,000		\$ 270,000	X		X	X
Wi-Fi to Department Facilities		\$ 25,000	\$ 25,000			\$ 50,000	X		X	X
Desktop Virtualization			\$ 100,000	\$ 100,000	\$ 100,000	\$ 300,000	X			X
Servers Virtualization		\$ 150,000	\$ 75,000	\$ 75,000		\$ 300,000	X			X
PROBSTAT	\$ 50,000	\$ 50,000	\$ 50,000			\$ 150,000	X		X	X
Adult Probation Total	\$ 170,000	\$ 275,000	\$ 300,000	\$ 225,000	\$ 100,000	\$ 1,070,000				
Emergency Management										
Computer Aided Dispatch Upgrade and Fire Station Alerting System	\$ 1,327,452					\$ 1,327,452			X	X
Public Safety Radio Replacement	\$ 930,000	\$ 930,000	\$ 22,380,000	\$ 22,380,000	\$ 22,380,000	\$ 69,000,000	X		X	X
BayWEB/FirstNet - Interoperable Public Safety Data Network	\$ 210,660	\$ 272,460				\$ 483,120	X		X	X
9-1-1 Logging Recording Solution	\$ 350,000	\$ 350,000	\$ 350,000			\$ 1,050,000	X		X	
Turk St. Security Systems Refresh	\$ 175,000					\$ 175,000			X	X
DEM Network Refresh		\$ 480,000				\$ 480,000			X	X
9-1-1 Telephone System Replacement		\$ 1,500,000	\$ 1,500,000			\$ 3,000,000			X	X
Active Directory		\$ 210,000				\$ 210,000			X	X
Emergency Management Total	\$ 2,993,112	\$ 3,742,460	\$ 24,230,000	\$ 22,380,000	\$ 22,380,000	\$ 75,725,572				
Fire										
Wi-Fi to Department Facilities	\$ 50,000	\$ 50,000				\$ 100,000	X		X	X
Desktop Virtualization	\$ 100,000	\$ 100,000	\$ 100,000			\$ 300,000	X			X
Mobile Data Terminal Replacement	\$ 200,000	\$ 200,000	\$ 200,000			\$ 600,000	X		X	X
9-1-1 Server Virtualization Configuration	\$ 50,000					\$ 50,000	X			X
Modems		\$ 433,000	\$ 447,000			\$ 880,000	X		X	X
Fire Station Alerting Enhancements	\$ 187,500	\$ 187,500				\$ 375,000	X		X	X
Fire Total	\$ 587,500	\$ 970,500	\$ 747,000			\$ 2,305,000				
Juvenile Probation										
Juvenile Justice Case Management System	\$ 150,000	\$ 60,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 300,000	X			
Time and Scheduling Management System (Integration with eMerge)		\$ 35,000	\$ 15,000			\$ 50,000	X			X
Juvenile Justice Information System Application Upgrade		\$ 25,000				\$ 25,000	X			X
System & Network Upgrade	\$ 10,000	\$ 10,000	\$ 15,000	\$ 15,000	\$ 20,000	\$ 70,000				X
5 Year Infrastructure Technology Refresh	\$ 20,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 160,000				X
Security Camera Installation	\$ 2,000,000					\$ 2,000,000	X			X
Desktop & Server Virtualization	\$ 25,000				\$ 10,000	\$ 35,000	X			X
Juvenile Probation Total	\$ 2,205,000	\$ 165,000	\$ 95,000	\$ 80,000	\$ 95,000	\$ 2,640,000				
Police										
Crime Data Warehouse	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 5,000,000	X		X	X
High-Tech Mobile Devices for Police	\$ 917,700	\$ 635,400	\$ 953,100	\$ 756,833	\$ 756,833	\$ 2,506,200	X		X	X
Update of Police Vehicle Modems and Technology	\$ 800,000					\$ 800,000	X		X	X
Community Sharing of Crime Information	\$ 1,000,000					\$ 1,000,000	X	X	X	
Public Safety Building	\$ 9,000,000	\$ 2,000,000				\$ 11,000,000	X	X	X	X
Single Entry Booking (with Sheriff's Department)	\$ 200,000					\$ 200,000	X		X	X
Police Total	\$ 12,917,700	\$ 3,635,400	\$ 1,953,100	\$ 1,000,000	\$ 1,000,000	\$ 20,506,200				
Public Defender										
Document Management System	\$ 250,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 450,000	X			X
Public Defender Total	\$ 250,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 50,000	\$ 450,000				
Sheriff										
Sheriff's Network Infrastructure Replacement	\$ 681,353					\$ 681,353	X		X	X
Automated Staffing and Shift Management System	\$ 275,000					\$ 275,000	X			X
Document Imaging	\$ 250,000					\$ 250,000	X		X	X
Mobile Public Safety Systems Access	\$ 150,000					\$ 150,000	X		X	X
Server Virtualization	\$ 20,000					\$ 20,000	X			X
Sheriff Total	\$ 1,376,353					\$ 1,376,353				



City and County of San Francisco ICT PLAN

Matrix of Total Project Requests

PUBLIC WORKS, TRANSPORTATION & COMMERCE										
Department/Project	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	TOTAL FY 2014-18	Goal 1: Efficiency	Goal 2: Access	Goal 3: Security	Goal 4: Infrastructure
Airport										
Airport Public Wi-Fi Transition Project	\$ 3,909,000	\$ 751,000	\$ 410,000			\$ 5,070,000		X		X
Airport Security Local Area Network (SIAN) Replacement	\$ 21,110,380	\$ 3,889,620				\$ 25,000,000	X		X	X
Airport SharePoint Enterprise Resource Planning System (ERP)	\$ 1,300,000					\$ 1,300,000	X			X
Airport Total	\$ 26,319,380	\$ 4,640,620	\$ 410,000			\$ 31,370,000				
Building Inspections										
Building Permit and Project Tracking System	\$ 313,840	\$ 313,840	\$ 313,840	\$ 313,840	\$ 313,840	\$ 1,569,200	X	X		X
Building Inspections Total	\$ 313,840	\$ 313,840	\$ 313,840	\$ 313,840	\$ 313,840	\$ 1,569,200				
Municipal Transportation Agency										
Enterprise Asset Management	\$ 4,000,000	\$ 2,000,000	\$ 2,000,000			\$ 8,000,000	X			X
Middleware Development	\$ 275,000	\$ 75,000				\$ 350,000	X			X
Data Warehouse	\$ 200,000	\$ 50,000				\$ 250,000				X
VoIP (Voice over IP) Telephony	\$ 500,000	\$ 200,000				\$ 700,000	X			X
Network Refresh/Fiber Upgrade	\$ 600,000	\$ 600,000				\$ 1,200,000	X			X
Disaster Recovery	\$ 600,000	\$ 800,000	\$ 600,000	\$ 600,000		\$ 2,600,000			X	X
Desktop Virtualization/PC Refresh	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000		\$ 2,000,000	X			X
Muni Customer Information Signs	\$ 500,000					\$ 500,000	X	X		X
ITIL (Information Technology Infrastructure Library) Certification	\$ 25,000	\$ 25,000	\$ 75,000	\$ 25,000		\$ 150,000	X			X
SFMTA Radio Replacement	\$ 41,000,000	\$ 42,000,000	\$ 14,000,000	\$ 1,500,000		\$ 98,500,000	X		X	X
Shop History and Online Parts System (SHOPS) for Vehicle and Rail Maintenance	\$ 156,375					\$ 156,375	X			X
Train Control Systems Upgrade	\$ 9,450,000					\$ 9,450,000	X			X
Server Replacement	\$ 323,625	\$ 400,000	\$ 340,000	\$ 160,000	\$ 240,000	\$ 1,463,625				X
Muni Metro Public Announcement and Display System Replacement	\$ 23,400,000	\$ 19,916,000				\$ 43,316,000	X	X	X	X
Municipal Transportation Agency Total	\$ 81,530,000	\$ 66,566,000	\$ 17,515,000	\$ 2,785,000	\$ 240,000	\$ 168,636,000				
Port										
Geographic Information Systems (GIS) Development	\$ 208,000					\$ 208,000	X			
Oracle 12 Upgrade	\$ 300,000					\$ 300,000	X			
eMerge Project	\$ 303,995					\$ 303,995	X			
Port Total	\$ 811,995					\$ 811,995				
Public Utilities Commission										
Hetch Hetchy Microwave Project		\$ 1,300,000				\$ 1,300,000	X			X
Hetch Hetchy Fiber Project	\$ 1,000,000	\$ 5,000,000				\$ 6,000,000	X			X
Hetch Hetchy Supervisory Control and Data Acquisition (SCADA) System Remote Terminal Unit Replacement		\$ 4,000,000				\$ 4,000,000	X			X
Hetch Hetchy Facilities Security Upgrade	\$ 612,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 1,500,000	\$ 6,612,000	X		X	X
Hetch Hetchy Water HHW-Communication Systems Upgrades		\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,200,000	X			X
Water Microwave Backbone Upgrade	\$ 530,000	\$ 2,500,000	\$ 1,500,000			\$ 4,530,000	X			X
Systems Monitoring and Control		\$ 1,510,000	\$ 5,900,000	\$ 5,800,000		\$ 13,210,000	X			X
Water Supply & Treatment (WST) Security System		\$ 1,000,000	\$ 500,000	\$ 550,000	\$ 550,000	\$ 2,600,000	X		X	X
Public Utilities Commission Total	\$ 2,142,000	\$ 17,110,000	\$ 9,700,000	\$ 8,150,000	\$ 2,350,000	\$ 39,452,000				
Public Works										
Enterprise Project Management Solution Implementation	\$ 130,000	\$ 130,000	\$ 100,000	\$ 100,000	\$ 50,000	\$ 510,000	X			X
Curb Ramp Information System Retrofit	\$ 25,000	\$ 100,000	\$ 50,000			\$ 175,000	X	X		X
Disaster Recovery Plan	\$ 95,000	\$ 50,000	\$ 50,000			\$ 195,000			X	X
Complete the Migration to SharePoint	\$ 80,000					\$ 80,000	X			
ITIL (Information Technology Infrastructure Library) Implementation	\$ 20,000	\$ 40,000	\$ 60,000			\$ 120,000	X			X
Network Vulnerability/Risk Assessment	\$ 50,000					\$ 50,000			X	
Advance Document Management	\$ 150,000	\$ 100,000	\$ 50,000			\$ 300,000	X			
Deployment of Computerized Maintenance Management System (CMMS)	\$ 722,500	\$ 722,500	\$ 722,500			\$ 2,167,500	X			X
Electronic Contract System Upgrade		\$ 90,000				\$ 90,000	X			
Master Data Management and Data Governance		\$ 150,000	\$ 150,000	\$ 150,000		\$ 450,000	X			
SharePoint 2013 Migration		\$ 120,000	\$ 60,000			\$ 180,000	X			
Retrofit SharePoint ERP Financial and Contracts Applications		\$ 80,000	\$ 10,000			\$ 90,000	X			
MyTime - Timekeeping FEMA Retrofit		\$ 100,000	\$ 75,000	\$ 25,000	\$ 10,000	\$ 210,000	X			
Public Works Total	\$ 1,272,500	\$ 1,682,500	\$ 1,327,500	\$ 275,000	\$ 60,000	\$ 4,617,500				



City and County of San Francisco ICT PLAN

Matrix of Total Project Requests

HEALTH, HUMAN WELFARE & NEIGHBORHOOD DEVELOPMENT										
Department Project	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	TOTAL FY 2014-18	Goal 1: Efficiency	Goal 2: Access	Goal 3: Security	Goal 4: Infrastructure
Human Services Agency										
Service Center	\$ 800,000	\$ 1,200,000	\$ 500,000	\$ 150,000	\$ 150,000	\$ 2,800,000	X	X	X	X
Human Services Agency Total	\$ 800,000	\$ 1,200,000	\$ 500,000	\$ 150,000	\$ 150,000	\$ 2,800,000				
Public Health										
Electronic Medical Records	\$ 5,902,466	\$ 3,323,222	\$ 3,323,222	\$ 3,323,222	\$ 3,323,222	\$ 19,195,354	X		X	
Population Health and Prevention Division Information System Update	\$ 2,067,914	\$ 770,000	\$ 770,000	\$ 770,000	\$ 770,000	\$ 5,147,914	X			X
San Francisco General Hospital Technical Infrastructure Re-build	\$ 5,000,000	\$ 22,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$30,000,000	X			X
Virtual Desktop Application Access	\$ 3,784,043	\$ 1,563,521	\$ 1,563,521	\$ 1,563,521	\$ 1,563,521	\$ 10,038,127	X			X
Enterprise MPI (Master Patient Index)	\$ 1,063,502	\$ 113,224	\$ 113,224	\$ 113,224	\$ 113,224	\$ 1,516,398				X
Coordinated Case Management	\$ 864,861	\$ 465,617	\$ 465,617	\$ 465,617	\$ 465,617	\$ 2,727,329	X	X		
Clinical Systems Upgrades	\$ 1,000,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 1,400,000	X	X		X
Public Health Total	\$ 19,682,786	\$ 28,335,584	\$ 7,335,584	\$ 7,335,584	\$ 7,335,584	\$ 70,025,122				
CULTURE & RECREATION										
Department Project	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	TOTAL FY 2014-18	Goal 1: Efficiency	Goal 2: Access	Goal 3: Security	Goal 4: Infrastructure
Asian Art Museum										
Security Surveillance System	\$ 500,000					\$ 500,000	X		X	X
Digital Asset Management System	\$ 200,000					\$ 200,000	X			
Collection Management and eMuseum	\$ 500,000					\$ 500,000	X	X		
Asian Art Museum Total	\$ 1,200,000					\$ 1,200,000				
Arts Commission										
Website Design and Development	\$ 15,000	\$ 138,000	\$ 30,000			\$ 183,000		X		
Arts Commission Total	\$ 15,000	\$ 138,000	\$ 30,000			\$ 183,000				
Public Library										
Virtualization	\$ 150,000	\$ 150,000	\$ 345,000	\$ 300,000	\$ 300,000	\$ 1,245,000	X			X
VoIP (Voice over IP)	\$ 250,000	\$ 250,000				\$ 500,000	X			X
ILS (Integrated Library System) Server Upgrade	\$ 355,000					\$ 355,000				X
Data Storage	\$ 50,000	\$ 60,000	\$ 160,000	\$ 160,000	\$ 170,000	\$ 600,000				X
Branch Library Improvement Project (Bayview and North Beach)	\$ 85,000	\$ 85,000				\$ 170,000	X	X		X
Network Bandwidth Upgrade	\$ 168,000	\$ 25,000	\$ 175,000	\$ 175,000	\$ 157,000	\$ 700,000	X	X	X	X
Public Library Total	\$ 1,058,000	\$ 570,000	\$ 680,000	\$ 635,000	\$ 627,000	\$ 3,570,000				
Recreation & Parks										
Virtualize Servers	\$ 65,000	\$ 60,000				\$ 125,000	X			X
Active Directory upgrade	\$ 50,000					\$ 50,000	X			
Thin Client Computer Conversion for Remote Users	\$ 30,000	\$ 30,000				\$ 60,000	X			X
Fiber to Rec Centers	\$ 240,000	\$ 240,000				\$ 480,000	X		X	X
VoIP (Voice over IP)	\$ 100,000					\$ 100,000	X			X
Implement Web and Mobile TMA Maintenance Management Software	\$ 15,000					\$ 15,000	X			X
Implement a CRM (Customer Relationship Management) System	\$ 100,000					\$ 100,000	X			X
Recreation & Parks Total	\$ 600,000	\$ 330,000				\$ 930,000				



City and County of San Francisco ICT PLAN

Matrix of Total Project Requests

GENERAL ADMINISTRATION & FINANCE										
Department/Project	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	TOTAL FY 2014-18	Goal 1: Efficiency	Goal 2: Access	Goal 3: Security	Goal 4: Infrastructure
Assessor-Recorder										
Replacement of City's Property Tax Database System		\$ 500,000	\$ 2,500,000	\$ 6,000,000	\$ 4,000,000	\$ 13,000,000	X	X		X
Recordation System Update		\$ 1,000,000	\$ 1,000,000			\$ 2,000,000	X		X	X
Assessor-Recorder Total		\$ 1,500,000	\$ 3,500,000	\$ 6,000,000	\$ 4,000,000	\$ 15,000,000				
Board of Supervisors										
Legislative Record Digitization	\$ 400,000					\$ 400,000	X	X		X
Board of Supervisors Total	\$ 400,000					\$ 400,000				
City Administrator - 311										
Genysys - Call Center Telephony	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 300,000	X			X
City Administrator - 311 Total	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 300,000				
City Attorney										
MS Exchange Project	\$ 100,161			\$ 75,661		\$ 175,822				X
CityLaw Case Management	\$ 66,130	\$ 66,130	\$ 66,130	\$ 66,130	\$ 66,130	\$ 330,650	X			X
Avaya PBX	\$ 165,000	\$ 52,000	\$ 52,000	\$ 52,000	\$ 52,000	\$ 373,000				X
Software Licenses	\$ 28,533	\$ 193,542	\$ 54,343	\$ 31,871	\$ 28,907	\$ 337,196				X
Xerox Copiers	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 84,000	\$ 420,000				X
5 Year Infrastructure Tech Refresh	\$ 253,272	\$ 99,848	\$ 324,285	\$ 297,648	\$ 103,313	\$ 1,078,366				X
City Attorney Total	\$ 697,096	\$ 495,520	\$ 580,758	\$ 607,310	\$ 334,350	\$ 2,715,034				
Controller										
Replacement of the City's Financial System	\$ 3,907,935	\$ 16,334,565	\$ 16,501,059	\$ 17,876,059	\$ 17,596,059	\$ 72,215,676	X		X	X
Systems Recovery Project	\$ 2,235,000					\$ 2,235,000	X		X	X
Financial Transparency Website	\$ 375,000	\$ 250,000				\$ 625,000		X		
Controller Total	\$ 6,517,935	\$ 16,584,565	\$ 16,501,059	\$ 17,876,059	\$ 17,596,059	\$ 75,075,676				
Elections										
RFID(Radio-Frequency Identification)-based Asset Tracking	\$ 218,000					\$ 218,000	X		X	X
Elections Total	\$ 218,000					\$ 218,000				
Health Service System										
Avaya PBX (Private Branch Exchange) and Call Center Upgrade	\$ 200,000					\$ 200,000	X			X
Assessment and Digitization of Member Records	\$ 100,000	\$ 500,000	\$ 500,000	\$ 500,000		\$ 1,600,000	X	X	X	X
Tech Refresh	\$ 20,000		\$ 60,000	\$ 60,000		\$ 140,000	X			X
Health Service System Total	\$ 320,000	\$ 500,000	\$ 560,000	\$ 560,000		\$ 1,940,000				
Department of Technology										
Radio Security Enhancement Project	\$ 750,000	\$ 750,000				\$ 1,500,000			X	X
Internal Applications	\$ 643,395	\$ 607,295				\$ 1,250,690	X			X
Fiber to City Buildings	\$ 691,917	\$ 188,172				\$ 880,089	X	X	X	X
Citywide Microsoft EA Licenses	\$ 2,700,000					\$ 2,700,000	X			X
Security Visibility & Intelligence	\$ 400,000	\$ 670,000	\$ 946,000	\$ 782,872	\$ 660,331	\$ 3,459,203			X	X
Enterprise Social Media	\$ 231,618					\$ 231,618		X		X
Replacement of ServiceDesk Support System	\$ 519,076	\$ 503,468	\$ 440,468	\$ 440,468	\$ 440,468	\$ 2,343,948	X			X
San Francisco Digital Inclusion Project	\$ 1,534,842	\$ 2,059,946				\$ 3,594,788		X		
Social Media Monitoring and Mobile Solutions	\$ 330,000	\$ 256,000				\$ 586,000	X	X		
Technology Total	\$ 7,800,848	\$ 5,034,881	\$ 1,386,468	\$ 1,223,340	\$ 1,100,799	\$ 16,546,336				
Treasurer-Tax Collector										
Replacement of the City's Business Tax System	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000			\$ 6,000,000	X	X		X
Treasurer-Tax Collector Total	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000			\$ 6,000,000				



City and County of San Francisco ICT PLAN

Detailed Descriptions of Featured Projects

Goal 1 - Make Government More Efficient & Effective Through Technology	
Project Description	Page #
Virtual Desktop Application Access	58
Crime Data Warehouse	59
Electronic Medical Records	60
Airport SharePoint Enterprise Resource System Planning System	61
Replacement of the City's Business Tax System	62
Replacement of ServiceDesk Support System	64
Replacement of the City's Financial System	66
Replacement of City's Property Tax Database System	68
Goal 2 - Improve Public Access & Transparency	
Project Description	Page #
Social Media Monitoring and Mobile Solutions	69
San Francisco Digital Inclusion Project	70
Airport Public Wi-Fi Transition Project	72
Financial Transparency Website	73
Muni Metro Public Announcement and Display System Replacement	74
Goal 3 - Strengthen Security & Disaster Preparedness	
Project Description	Page #
Radio Security Enhancement Project	75
Security Visibility and Intelligence	76
Systems Recovery Project	78
Goal 4 - Support & Maintain Critical City IT Infrastructure	
Project Description	Page #
High Tech Mobile Devices for Police	79
San Francisco General Hospital Technical Infrastructure Re-build	80
Fiber To City Buildings	81
Deployment Of Computerized Maintenance Management System (CMMS)	82
BayWEB/FirstNet – Interoperable Public Safety Data Network	84
Airport Security Local Area Network (SLAN) Replacement	86
9-1-1 Telephone System Replacement	88
SFMTA Radio Replacement	89
Public Safety Radio Replacement	90

Goal 1: Make Government More Efficient & Effective Through Technology

VIRTUAL DESKTOP APPLICATION ACCESS

Sponsoring Department: Public Health

Additional Goal Supported:

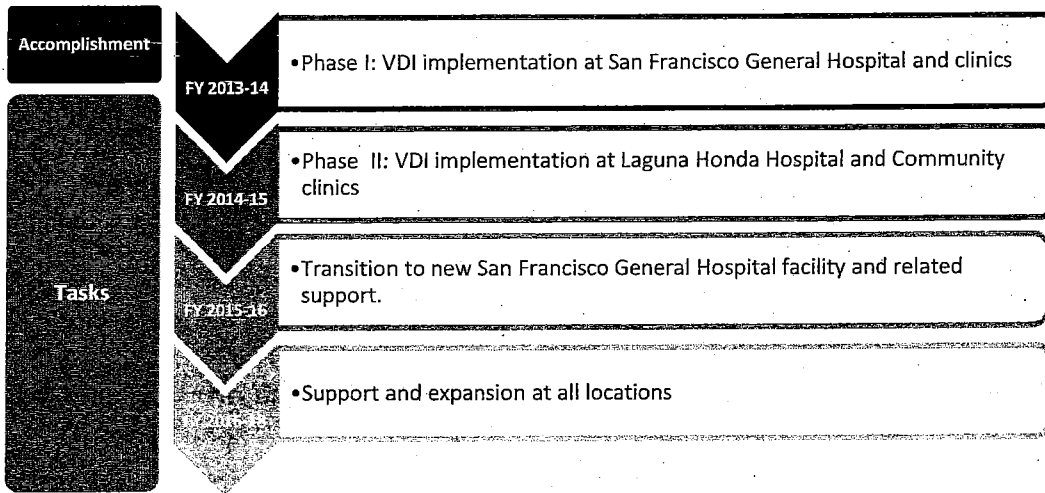
- Goal 4: Support & Maintain Critical City IT Infrastructure

Scope: This project will allow for the acquisition and implementation of hardware and software to provide a virtualized desktop and services computing environment for access to key applications. In collaboration with the Department of Technology, and consistent with the COIT-approved strategic policy for server virtualization, the Department of Public Health will utilize the Cisco-VMware VM View solution for virtualized desktop management. The Virtual Desktop Integration (VDI) strategy will provide the foundation for the deployment of applications without the dependence on heavily configured personal computers. The project will also implement Single Sign-On capabilities with the ability to suspend active work sessions – a critical technical support function for clinical staff that change their location as patients move through hospital exam rooms.

Anticipated Outcomes:

- Enhance maintenance and support capabilities through a standardized platform;
- Ability to deploy Single Sign-On functionally in clinical treatment areas;
- Elimination of high-end discrete servers and desktop personal computers;
- Enhanced security of Protection Health Information (PHI) by strong centralized data storage, as opposed to information stored on individual devices; and
- Enhanced clinical operations support through increased physician and nurse mobility.

Schedule/Status:



Budget: The estimated project budget of \$3.8 million will be funded through the Department’s operating budget.

Goal 1: Make Government More Efficient & Effective Through Technology

CRIME DATA WAREHOUSE

Sponsoring Department: Police

Additional Goals Supported:

- Goal 3: Strengthen Security & Disaster Preparedness
- Goal 4: Support & Maintain Critical City IT Infrastructure

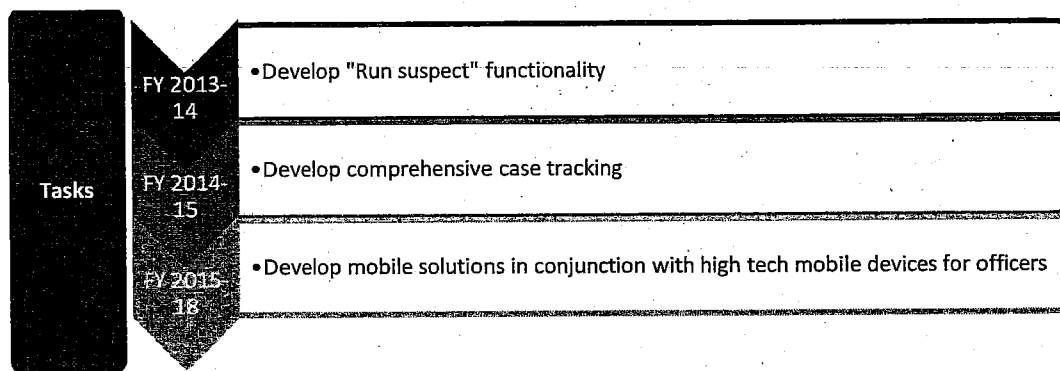
Scope: The Crime Data Warehouse is the Police Department’s new state of the art data warehouse and web portal. It provides one stop access to officers, investigators, and command staff to predict, solve, and manage crime data and reports. The current system provides incident report entry, search, mapping of crime, case tracking, and crime prediction. The next phases of the project will include technologies that help officers spot crime trends as they develop in real time. GPS and crime mapping will be used in conjunction with leading edge crime prediction software that connects crimes, spots trends, and solves cases much faster.

The Crime Data Warehouse acts as a repository for all crime related data, pulling information from multiple standalone systems to give officers a simple web portal, complete with visualization tools, accessible from a smart phone, a patrol car or standalone laptop, or a desktop computer. It also provides an extremely simple, yet very powerful, search capability, which allows officers to search the entire warehouse for similar crimes, suspects, crime patterns, stolen property, vehicles, etc. This system also adds the critical element of speed, providing access to data from a minute ago, a year ago, or a decade ago with sub-second response time. The Crime Data Warehouse, and the Department’s associated project to provide officers with high tech mobile devices, will put San Francisco at the forefront of law enforcement’s use of technology to prevent and solve crime.

Anticipated Outcomes:

- Reduced crime in San Francisco;
- Faster resolution of cases;
- Faster identification of suspects; and
- Targeting of crime areas for crime prevention.

Schedule/Status:



Budget:

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Contract & Professional Services	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Project Total	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000

Goal 1: Make Government More Efficient & Effective Through Technology

ELECTRONIC MEDICAL RECORDS

Sponsoring Department: Public Health

Additional Goal Supported:

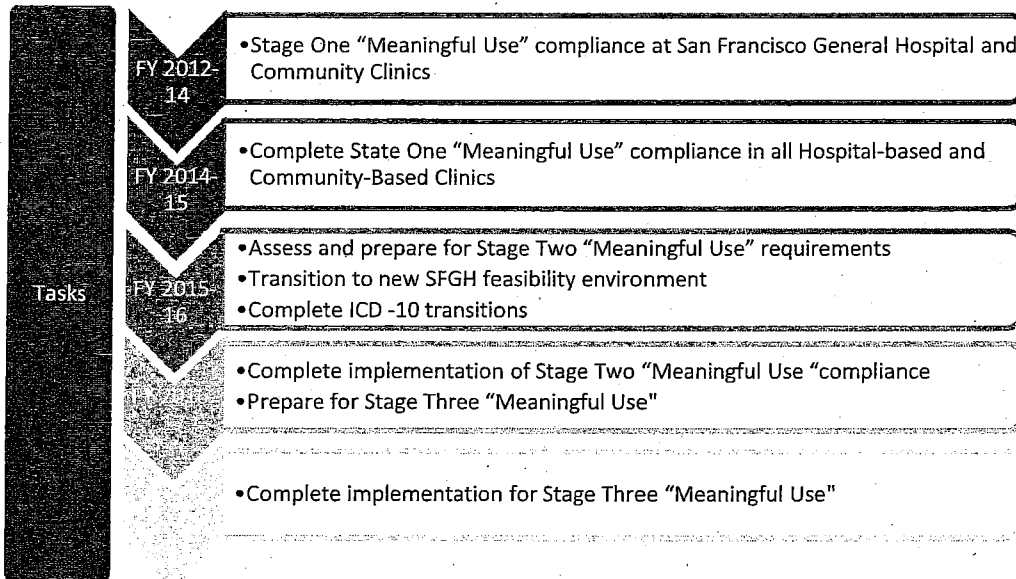
- Goal 3: Strengthen Security & Disaster Preparedness

Scope: This project will allow for the acquisition and expansion of Electronic Medical Record (EMR) software systems to address the clinical service mandates associated with the Federal Healthcare Reform legislation and the Affordable Care Act. In an effort to support the technology project requirements associated with Healthcare Reform legislation, the American Recovery and Reinvestment Act (ARRA) provides incentive payments to hospitals and physicians for the "Meaningful Use" of Electronic Medical Records. The use of these systems will become an integral part of Medicare and Medicaid reimbursements for clinical patient care. This project provides the required EMR software and implementation support in both the Acute Hospital and Ambulatory Care environment. The software will enable mandated capabilities for clinical documentation, electronic medication administration, and expanded regulatory reporting requirements.

Anticipated Outcomes:

- Provide comprehensive EMR capabilities in the Acute Hospital, Hospital-based Ambulatory Care and Community Ambulatory Care environment;
- Enable immediate clinician access to on-line case plan, clinical documentation, and patient care coordination;
- Provide the ability for electronic prescription processing and medication error-check requirements; and
- Provide the ability to share critical patient care information in a secure manner across the Integrated Delivery System.

Schedule/Status:



Budget: This project will be funded by the Federal Incentive Payments for eligible Hospitals and Providers contained in the American Recovery and Reimbursement Act (ARRA), Health Information Technology for Economic and Clinical Health (HITECH) legislation. Funding may be supplemented by the Department's operating budget. The estimated total project budget is \$5.9 million, with ongoing costs of \$3.3 million annually.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Project Total	\$5,902,466				
On-Going Costs		\$3,323,222	\$3,323,222	\$3,323,222	\$3,323,222

Goal 1: Make Government More Efficient & Effective Through Technology

AIRPORT SHAREPOINT ENTERPRISE RESOURCE PLANNING SYSTEM (ERP)

Sponsoring Department: Airport

Additional Goal Supported:

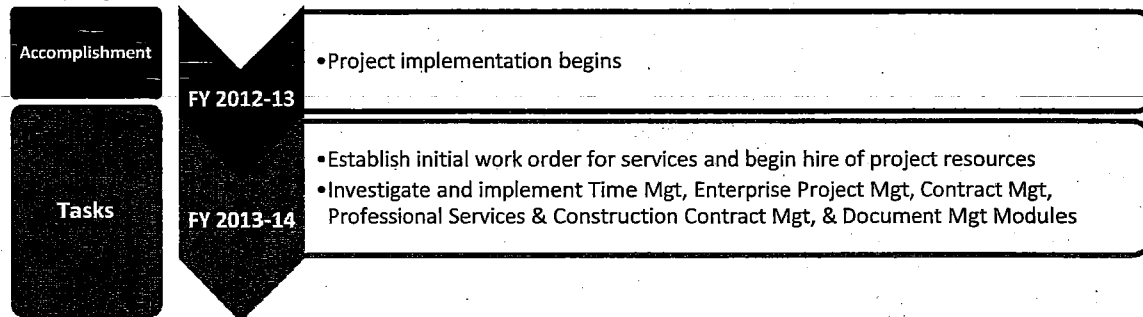
- Goal 4: Support & Maintain Critical City IT Infrastructure

Scope: This project will implement an Enterprise Resource Planning (ERP) system to incorporate and unify the data from various citywide management information systems to gain greater business synergies. The Airport plans to implement the Department of Public Works' ERP system that will organize and integrate internal and external management information across the entire organization. The information will include finance and accounting, contracting, procurement, revenue and service systems, and time accounting. The Airport currently lacks a multifaceted integrated system. This ERP system will consolidate all employees on a common platform and will implement an Airport-wide automated and robust time accounting system, where the system will be configured for time attendance and accounting data flow to provide more accurate information. SharePoint ERP will facilitate the flow of information between all automated business functions within the City and County of San Francisco to improve business and finance operations at the Airport. Further, this system will eliminate duplicate systems and business processes.

Anticipated Outcomes:

- More efficient and cost-effective application maintenance;
- Leverage newer/existing technologies for more efficient integration with other City applications;
- Report on information at lower levels of detail with more flexible data structures than is currently supported by current budget monitoring applications;
- Reduce the amount of duplicate data entry into current budget applications and the resultant data reconciliation between systems; and
- Provide improved support for: Time Management; Enterprise Project Management; Contract Management; Grant Management; Electronic Payment Automation; Requisition Management; Professional Services and Construction Contract Management, Contract Order Management; As Need Contract Management; Document Management; and Workflow and Approval Processing.

Schedule/Status:



Budget: In FY 2012-13, \$1,200,000 was budgeted for this project. The full project budget includes several personnel positions that are not monetarily captured in the estimates below. These positions, however, were approved in the FY 2012-13 Airport Capital Plan for the SharePoint Project.

USES	FY 2013-14
Salary & Fringe	\$559,226
Hardware & Software	\$300,000
Contract & Professional Services	\$440,774
Project Total	\$1,300,000

Goal 1: Make Government More Efficient & Effective Through Technology

REPLACEMENT OF THE CITY'S BUSINESS TAX SYSTEM

Sponsoring Department: Treasurer-Tax Collector

Additional Goals Supported:

- Goal 2: Improve Public Access & Transparency
- Goal 4: Support & Maintain Critical City IT Infrastructure

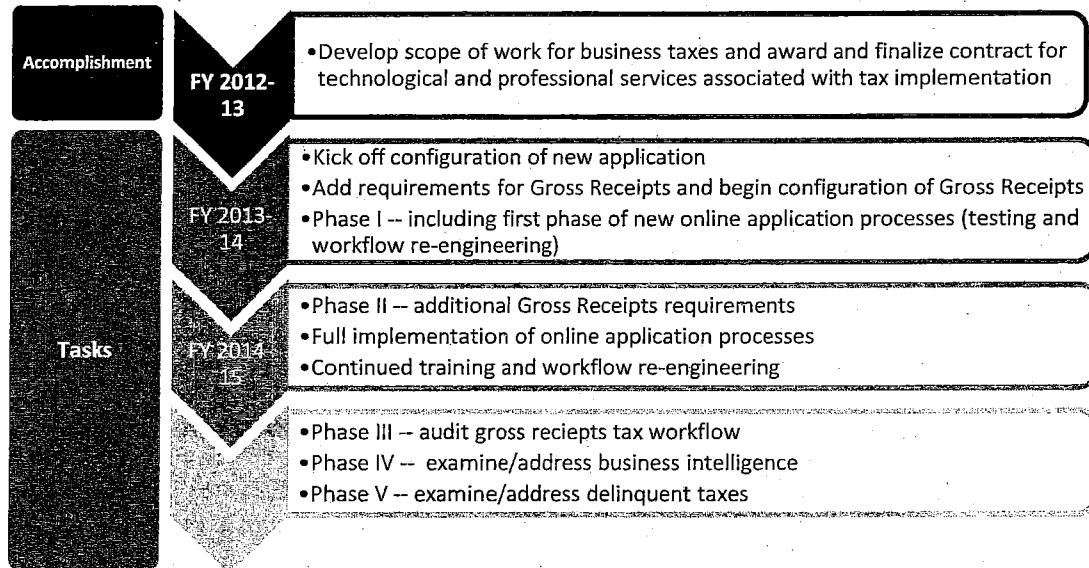
Scope: The City's COBOL-based central Business Tax System (BTS) is more than twenty years old; thus, it is scoped and funded to be replaced in FY 2013-14. In addition to the migration, the voters of the City passed a new business tax in 2012: Gross Receipts Tax. The Gross Receipts Tax is and new tax, which will phase in as the Payroll Expense Tax phases out. The new BTS must be able to tax, collect, account and monitor all the business taxes, including the new Gross Receipts Tax, within specified time frames.

BTS (and its replacement) taxes, collects and accounts for the City's second largest revenue. It must integrate with the City's cashier and remittance system, as well as the delinquency tax/fee system and all online services that facilitate tax and fee filing. The business tax system must ease tax payers' ability to be compliant, the City's ability to administer taxes and fees, as well as collect the taxes/fees and serve as the City's data warehouse of business taxes.

Anticipated Outcomes:

- A new system that meets the business taxes and fees ordinances as well as eases management of the various tasks and fees, including Gross Receipts;
- A new system that is scalable, flexible, and requires minimal customized coding;
- A new system that is delivered within the specific timeline in order to meet the City's obligations related to Gross Receipts; and
- A new system that brings current technology and technical resources to bear to ensure compliance with the City's taxes and fees regulations within an efficient and streamlined business process.

Schedule/Status:



Goal 1: Make Government More Efficient & Effective Through Technology

REPLACEMENT OF THE CITY'S BUSINESS TAX SYSTEM

(Continued)

Budget: In FY 2010-11, the Department received \$200,000 to begin the implementation process for the migration of the business tax system. The initial contract for the migration of the BTS is \$2,340,723 for Phase I. In FY 2011-12 and FY 2012-13, \$1.9 million in General Fund support was provided for the project and the Department covered the remainder of Phase I costs.

Implementation of the Gross Receipts tax will add several million dollars in costs to the migration of the BTS project. IT costs for Gross Receipts tax implementation are projected to total \$14,321,325 over the next five years; however, the General Fund will be reimbursed for all Gross Receipts tax-related implementation and operation costs from revenues generated by the tax beginning in FY 2013-14. The Department projects that the Committee on Information Technology will be asked to cover \$6,000,000 in contract and professional services and hardware costs between FY 2013-14 and FY 2015-16, as reflected in the chart below. The remaining expenses will be funded through the Department's operating budget. The actual need for upfront investment over the next five years will be contingent upon the pending reimbursement schedule.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Professional Services	\$2,000,000	\$2,000,000	\$2,000,000		
Project Total	\$2,000,000	\$2,000,000	\$2,000,000		
Operating Expenses	\$190,000	\$209,000	\$229,900	\$252,890	\$278,179

Goal 1: Make Government More Efficient & Effective Through Technology

REPLACEMENT OF SERVICEDESK SUPPORT SYSTEM

Sponsoring Department: Technology

Additional Goal Supported:

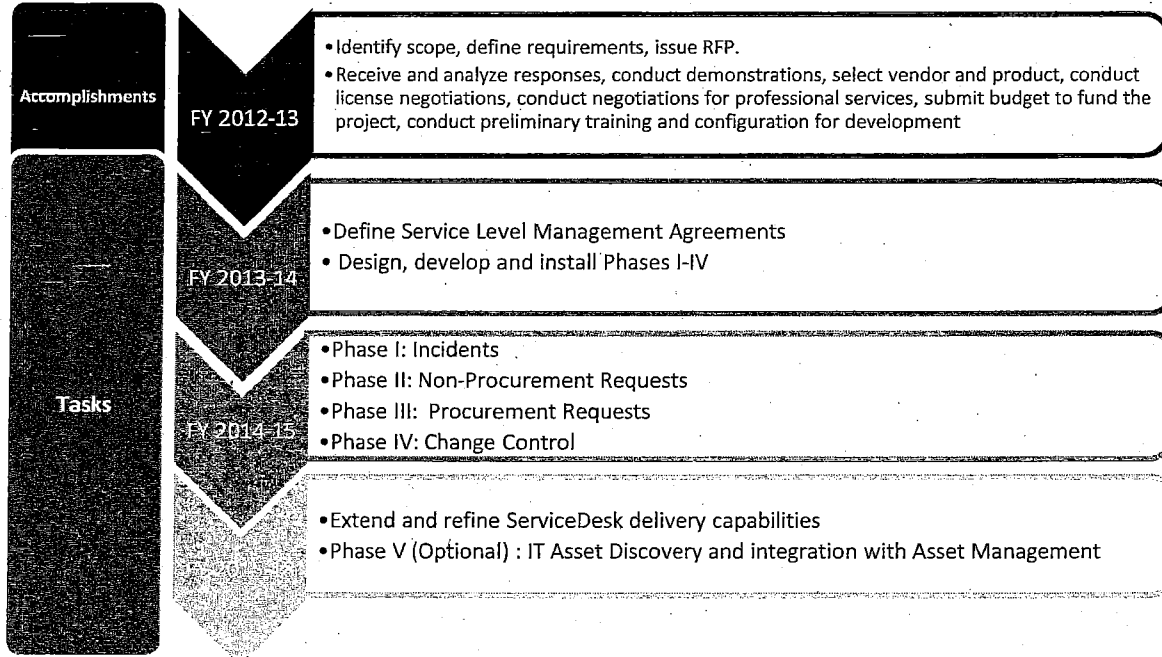
- Goal 4: Support & Maintain Critical City IT Infrastructure

Scope: The current ServiceDesk application is outdated and is no longer adequate for serving the City. As a result, the Department of Technology has selected a cloud-based software application that can address a wide range of ServiceDesk needs. The new ServiceDesk application will receive Incidents and Requests from all City departments and is a major tool for Change Control – the IT Service Management functionality designed to plan, track and notify affected parties of changes being introduced into IT infrastructure. Change Control facilitates communication among city users and minimizes the impact of related incidents on service.

Anticipated Outcomes:

- Receive, assign, prioritize, resolve and document a variety of incidents and requests;
- Provide improved Change Control capability, including integrated calendaring and email notification;
- Leverage newer technologies for more efficient integration with other City applications (e.g. automatically receive and respond to email from customers and issue email directly from the system);
- Offer fast and efficient ServiceDesk response to questions, problems and requests; and
- Provide a knowledgebase of procedures and historical problem resolution to assist staff in troubleshooting and resolving similar issues and problems.

Schedule/Status:



Goal 1: Make Government More Efficient & Effective Through Technology

REPLACEMENT OF SERVICEDESK SUPPORT SYSTEM

(Continued)

Budget: Labor will be included in the Department of Technology's Labor Allocation Model. Software costs include the annual cost of 110 user licenses. No hardware costs are anticipated since the application runs in a SaaS Model. Contract and Professional Services are utilized mainly for the initial implementation with smaller amounts anticipated for on-going support to be utilized on an as-needed basis. To accomplish this reduction in professional services, it is anticipated that the Department would provide on-going product support.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Salary & Fringe	\$250,056	\$324,748	\$324,748	\$324,748	\$324,748
Hardware & Software	\$119,020	\$119,020	\$119,020	\$119,020	\$119,020
Contract & Professional Services	\$150,000	\$60,000	\$24,000	\$24,000	\$24,000
Project Total	\$519,076	\$503,468	\$440,468	\$440,468	\$440,468
On-Going Costs					

Goal 1: Make Government More Efficient & Effective Through Technology

REPLACEMENT OF THE CITY'S FINANCIAL SYSTEM

Sponsoring Department: Controller's Office

Additional Goals Supported:

- Goal 3: Strengthen Security & Disaster Preparedness
- Goal 4: Support & Maintain Critical City IT Infrastructure

Scope: The City's mainframe-based central financial and accounting information system (FAMIS) is more than twenty-five years old and will need to be replaced. Major citywide functions include: general ledger, grants and project accounting, budgetary control, purchasing, accounts payable, fixed asset accounting, and labor distribution accounting.

FAMIS is the City's official system of record for accounting, budget control, and financial reporting. It is used by all departments and is the basis for the City's externally audited financial reports. The major citywide system interfaces to FAMIS involve the City's Payroll System (eMerge), the City's Budget System, and the Executive Information System (EIS) — a central data warehouse, reporting, and analysis system, plus numerous department interfaces to financial applications.

The City's risk for maintaining FAMIS increases every year as there are fewer staff and contractors with the skills and knowledge to maintain this mainframe, VSAM, COBOL-based, system.

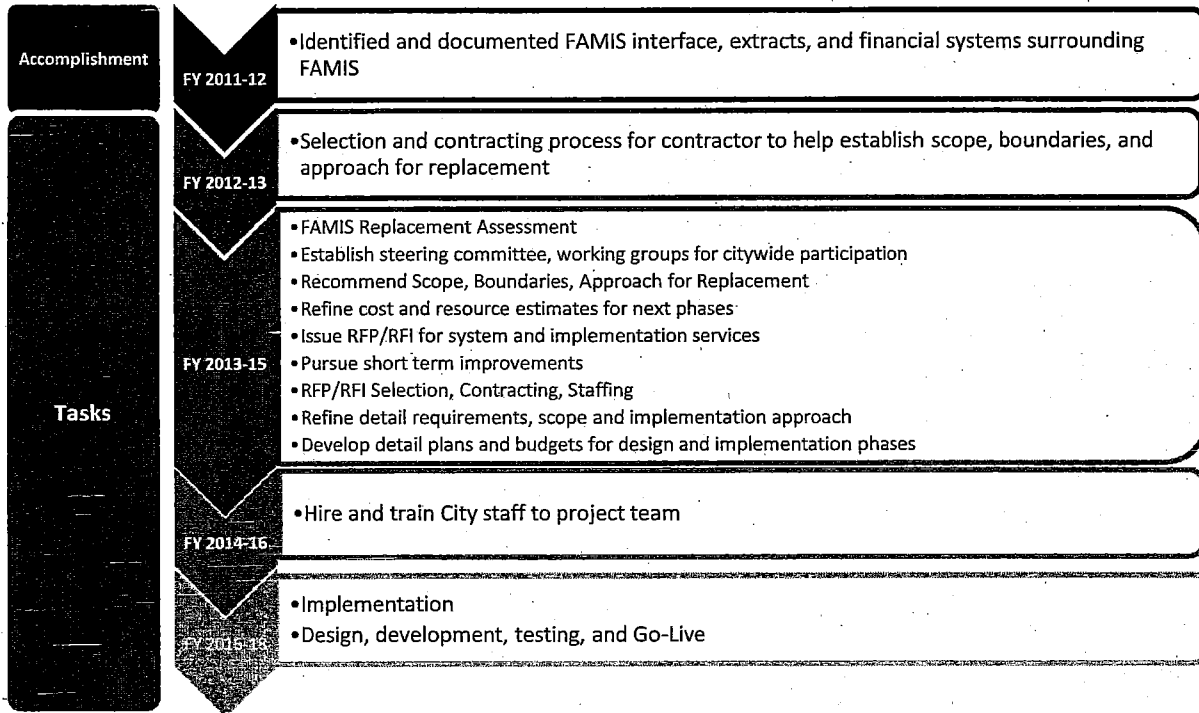
Anticipated Outcomes:

- A system that is based on current and supportable technology;
- A system that more effectively integrates with key departmental and Citywide applications, such as eMerge;
- A system that reduces or eliminates some departmental based systems currently used to supplement FAMIS. This could eliminate duplicative entries, reconciliation between systems, and maintenance of multiple systems;
- A system that has expanded functionality for accounting, budget control, purchasing, contracting, labor distribution, and other central financial processes;
- A system that meets growing data, security, and control requirements;
- A system that utilizes new technologies to expand and simplify user access and training; and
- A system that has good disaster recovery alternatives.

Goal 1: Make Government More Efficient & Effective Through Technology

REPLACEMENT OF THE CITY'S FINANCIAL SYSTEM (Continued)

Schedule/Status:



Budget: In FY 2010-11, the Replacement of the City's Financial System project received \$750,000 from the Public Utilities Commission and San Francisco International Airport to identify preliminary user requirements for both departments. In order to fund the remainder of the project (see below table), the City will work order departments based on a department's budget compared to the total citywide budget or the number of financial transactions per department. The funding methodology may depend on the phase/module being implemented.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Salary & Fringe	\$2,037,935	\$4,859,565	\$7,621,059	\$7,621,059	\$7,621,059
Hardware & Software	\$50,000	\$5,770,000	\$1,100,000	\$2,600,000	\$2,320,000
Professional Services	\$1,250,000	\$5,000,000	\$7,000,000	\$7,000,000	\$7,000,000
Operating Expenses	\$570,000	\$705,000	\$780,000	\$655,000	\$655,000
Project Total	\$3,907,935	\$16,334,565	\$16,501,059	\$17,876,059	\$17,596,059

Goal 1: Make Government More Efficient & Effective Through Technology

REPLACEMENT OF CITY'S PROPERTY TAX DATABASE SYSTEM

Sponsoring Department: Assessor-Recorder

Additional Goals Supported:

- Goal 2: Improve Public Access & Transparency
- Goal 4: Support & Maintain Critical City IT Infrastructure

Scope: The Assessor-Recorder has been using a COBOL-based AS/400 system since 2000 to track the City's \$170 billion in assessed property value. The current system has an outdated, non-relational database platform, which lacks the capability to access maps, deeds, and work papers to streamline the assessment process. The system is incompatible with other department systems containing data for the assessment process and does not allow for agile decision criteria queries and reporting. The risks of not updating the system are: increased costs from inefficiency; inaccuracies and inconsistencies in the data transmitted between departments; and ultimately a potential negative impact on City revenues.

The Assessor-Recorder seeks an updated property tax database system capable of handling all assessment functions in a fully integrated manner including document capture, reporting, and storage maintenance and conversion migration services/management. The system must provide the capability to electronically integrate with other systems used by other departments involved in the assessment process.

Anticipated Outcomes:

- Faster, more efficient turnaround in fulfilling valuation requests and capturing assessment information;
- More cohesive management, analysis and reporting of assessment information via interfaces with other department systems;
- Increased cost-effectiveness and control of application and integration development/maintenance; and
- More efficient, secure, and ecological workload management through conversion from a paper-based to a digital system.

Schedule/Status: The Assessor-Recorder is currently investigating options for project scoping and analysis. The project is estimated to begin within the next five years, but the exact date is contingent upon more information that the Department seeks from an analysis on project cost and implementation requirements.

Budget: The Assessor-Recorder currently estimates the purchase and implementation of a new property tax database system is approximately \$13 million; however, as this system will address many aspects of the Department's daily functions as well as interact with several other Department functions, the true cost is currently unknown. While the need for the project is imminent, the timeline is not yet decided. The Department will need to do project scoping, which is tentatively planned for FY 2013-14. The values in FY 2014-15 and FY 2015-16 serve as a placeholder as the exact needs and timeline will be contingent on the results of the project scope.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Contract & Professional Services		\$500,000	\$2,500,000	\$6,000,000	\$4,000,000
Project Total		\$500,000	\$2,500,000	\$6,000,000	\$4,000,000
On-Going Costs			\$150,000	\$150,000	\$150,000

Goal 2: Improve Public Access & Transparency

SOCIAL MEDIA MONITORING AND MOBILE SOLUTIONS

Sponsoring Department: Technology

Additional Goal Supported:

- Goal 1: Make Government More Efficient & Effective Through Technology

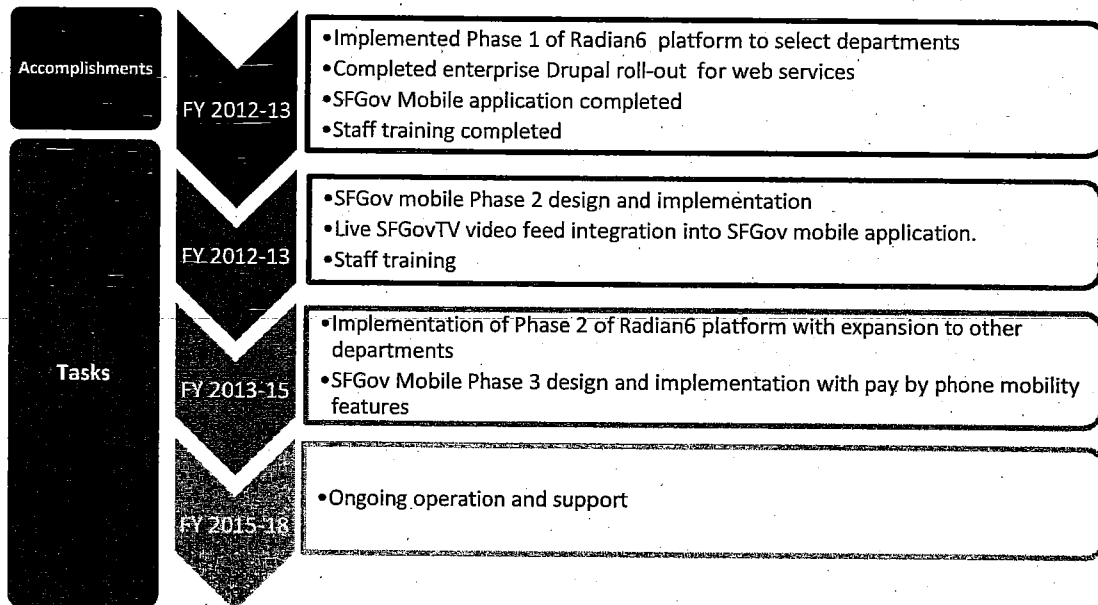
Scope: This project uses new media technologies to enhance the City's ability to serve constituents online. The focus is to create measurable and relevant social media content and ways to access this content on demand. The scope includes the following deliverables:

- Implementation and roll out to key departments of new social media engagement and monitoring tools;
- Training staff to use these social media technologies to research major topic profiles focused around City policies and services;
- Providing access to social media data in a summarized form via mobile devices to provide transparency; and
- Designing and implementing new mobile applications such as SFGov mobile.

Anticipated Outcomes:

- Gain a better understanding of customer's demand and concerns around specific issues of public interest;
- Allow the City to interact with and provide service for the public at a potentially lower cost;
- Improve customer satisfaction; and
- Further the City's commitment to transparency.

Schedule/Status:



Budget:

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Software	\$108,000	\$108,000			
Professional Services	\$222,000	\$148,000			
Project Total	\$330,000	\$256,000			
On-Going Costs			\$120,000	\$120,000	\$120,000

Goal 2: Improve Public Access & Transparency

SAN FRANCISCO DIGITAL INCLUSION PROJECT

Sponsoring Department: Technology

Scope: The San Francisco Digital Inclusion Project addresses the City's digital divide by expanding broadband access, providing digital literacy trainings, promoting relevant content and services, and integrating technology in City-funded youth social services to improve communication, information, media and technology skills.

In 2010, the Board of Supervisors adopted Resolution No. 554-10 establishing the goal to "achieve broadband Internet access for 90 percent of San Franciscans by 2015, with a focus on connecting seniors and low income households." In the resolution, the Board recognized the economic, educational, quality-of-life, and government efficiency benefits to be gained by closing the digital divide and requested that the Department of Technology develop strategic actions to promote broadband access and adoption.

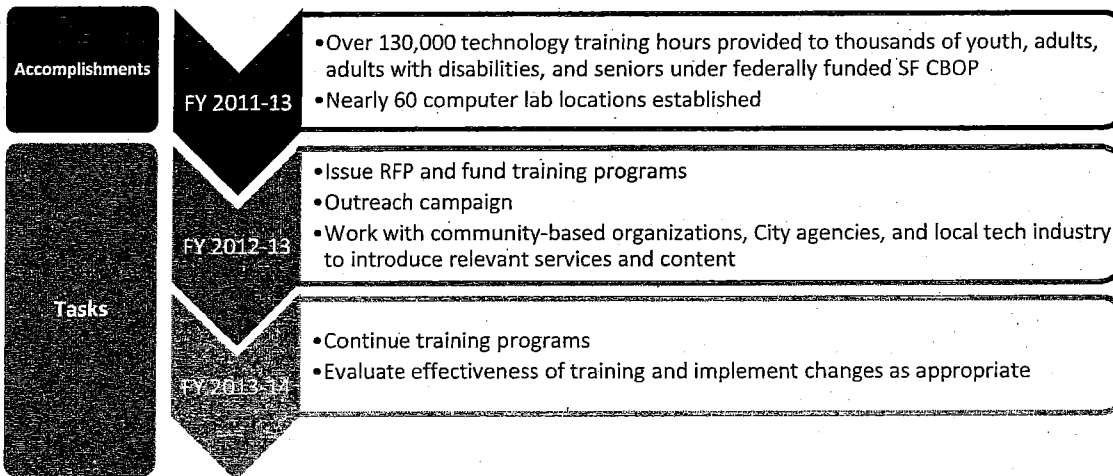
Using data from the 2011 City Survey, the citywide broadband adoption rate is estimated at 83 percent. While the gap has narrowed, rates among target populations remain significantly lower. Only 60 percent of seniors, 68 percent of low-income households¹, and 64 percent of non-college educated individuals are estimated to have home broadband access. Additionally, members of these groups are less likely to access web-based government services.

Experience from recent efforts and strategies have demonstrated the importance of the Department's role in coordinating a comprehensive digital inclusion effort among City agencies and non-profit organizations.

Anticipated Outcomes:

- Broadband adoption and usage will increase among target populations, including low-income communities, seniors, and adults with disabilities;
- Members in target populations will acquire the necessary technology, familiarity, digital literacy and skills to access government services, education, healthcare, employment, and other quality of life benefits;
- The project will create relevant online services and content to meet the needs and interests of target populations; and
- City-funded social services will effectively integrate technology to ensure participants meet 21st century learning outcomes, including communication, media and technology skills.

Schedule/Status:



¹ Households with annual income under \$25,000.

Goal 2: Improve Public Access & Transparency

SAN FRANCISCO DIGITAL INCLUSION PROJECT

(Continued)

Budget: Since FY 2010-11, the Department of Technology has conducted digital inclusion efforts under the federally funded S.F. Community Broadband Opportunities Program (SF CBOP). For the S.F. Digital Inclusion Project, the Department requires funding for administrative and outreach personnel and to provide grants for non-profits and the Department of Aging and Adult Services.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Salary & Fringe	\$ 236,175	\$314,900			
Grants to Non-Profits	\$756,202	\$1,008,269			
Services from Other Agencies (DAAS)	\$541,500	\$722,000			
Project Total	\$1,533,877	\$2,045,169			
On-Going Costs (Incl. DAAS)			\$1,708,000	\$1,708,000	\$1,708,000

Note: Federal grant funding will end in September 2013.

Goal 2: Improve Public Access & Transparency

AIRPORT PUBLIC WI-FI TRANSITION PROJECT

Sponsoring Department: Airport

Additional Goal Supported:

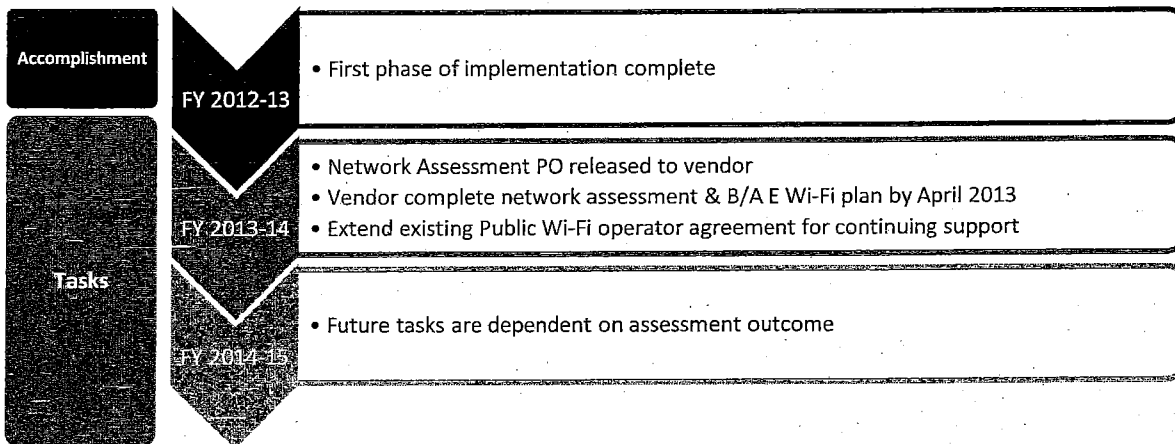
- Goal 4: Support & Maintain Critical City IT Infrastructure

Scope: By advancing the current IT infrastructure, SFO Information Technology & Telecommunications (ITT) will take ownership of and manage the public Wi-Fi at the Airport, which is currently executed by a contractor. The Airport will substantially improve Wi-Fi services by removing advertisements, providing an intuitive user interface, and by increasing speed and coverage. More specifically, the Phase I implementation of an active passenger score card, public Wi-Fi support for passengers, and public Wi-Fi implementation design for boarding area E (and possibly other areas), will result in a measurable improvement in service.

Anticipated Outcomes:

- Improved access, speed, and reliability in installed areas; and
- Advancement of the current IT infrastructure at the Airport.

Schedule/Status:



Budget: In FY 2012-13, Airport ITT received \$100,000 in capital funding designated for a consultant to assess the existing Airport Wi-Fi environment. This assessment will be conducted by AT&T with the results providing the direction for upgrading existing Wi-Fi presence in the terminal areas and the Rental Car Center. Additionally, the Airport received partial capital funding for the Wi-Fi needs of the Boarding Area E project. Full project budget is dependent on the completion of the assessment.

USES	FY 2012-13	FY 2013-14
Hardware & Software	\$240,000	\$2,553,855
Contract & Professional Services	\$279,000	\$1,997,145
Project Total	\$519,000	\$4,551,000
On-Going Costs*		

*On-going costs are unknown at this time. Standard maintenance cost is 15% - 20% of installed base.

Goal 2: Improve Public Access & Transparency

FINANCIAL TRANSPARENCY WEBSITE

Sponsoring Department: Controller's Office

Scope: The Controller's Office will provide the public with greater access to City financial data through a planned financial transparency website, tentatively named SFOpenBook. Online transparency websites are an emerging best practice in government transparency.

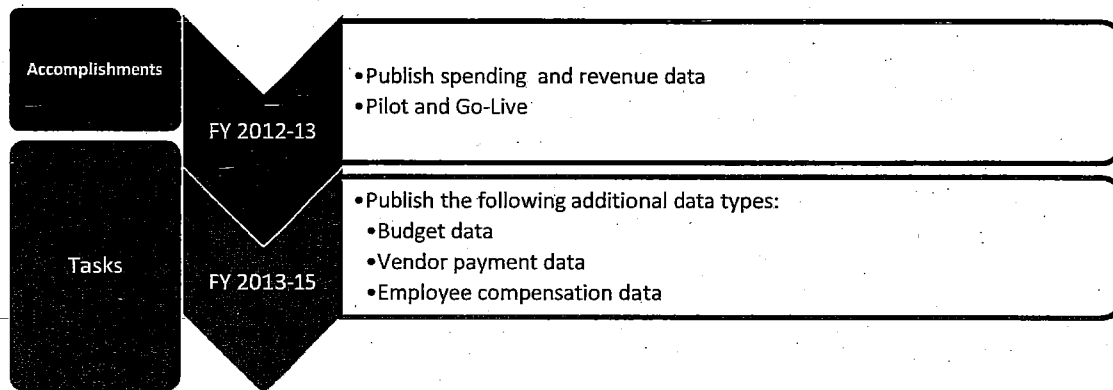
The Phase I release, completed in early 2013, presents historical spending and revenue data and allows users to filter this data by organization, fund, or type. Additionally, users have the ability to view five year comparisons and automatically-generated charts.

In FY 2013-14, Phase II of SFOpenBook will fully develop this capability to include budget, vendor payment, and employee compensation information. The Controller's Office expects continued interest and demand for this type of data; therefore, as the public uses this tool, increased demand will necessitate ongoing funding and support.

Anticipated Outcomes:

- Increased transparency of the City's spending and sources of revenue;
- Adherence to best practices in government transparency;
- User-friendly presentation of City financial data; and
- Reduced demands on staff time to fulfill public records requests.

Schedule/Status:



Budget: The estimated total project cost is \$625,000. On-going budget covers the cost of a Business Analyst to maintain and support the new system.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Salary & Fringe	\$175,000	\$175,000	\$175,000	\$175,000	\$175,000
Contract & Professional Services	\$200,000	\$75,000			
Project Total	\$375,000	\$250,000			
On-Going Costs			\$175,000	\$175,000	\$175,000

Goal 2: Improve Public Access & Transparency

MUNI METRO PUBLIC ANNOUNCEMENT AND DISPLAY SYSTEM REPLACEMENT

Sponsoring Department: Municipal Transportation Agency

Additional Goals Supported:

- Goal 1: Make Government More Efficient & Effective Through Technology
- Goal 3: Strengthen Security & Disaster Preparedness
- Goal 4: Support & Maintain Critical City IT Infrastructure

Scope: The existing systems, which have been in service since 1970, are now well past their useful lives and are obsolete. The procurement of replacement parts for the Department's existing systems is very challenging; parts are no longer manufactured and require custom fabrication in many cases. Most importantly, the Department's existing systems also lack the capability to support many new control features and display innovations, which are available in current technology products and are essential to providing real-time passenger information to better serve SFMTA customers.

The scope includes the replacement of communication and control systems in the Muni Metro subway. This project is a multi-faceted effort that will improve real-time passenger information, and system safety, reliability, maintainability and expandability of the metro subway systems by replacing the following components:

1. Subway Public Address and Platform Display System – providing the audio/visual information within the nine Muni subway stations. The new system will provide enhanced real-time passenger information on a continuous basis.
2. Facility Supervisory Control and Data Acquisition System – providing the capability of remote monitoring and control of facility alarms and emergency ventilation control functions of the nine Muni subway stations from existing Central Control and the new Central Control.
3. Motive Power Supervisory Control and Data Acquisition System – providing the capability of remote monitoring and control of the 26 transit power substations throughout the City used by trolley buses and light rail vehicles. Project scope is limited to the replacement of the system computers and extension of the system computers to the existing Central Control and the new Central Control.
4. Subway Fiber Broadband Network System – connecting all communication infrastructure in the subway to Central Control.
5. Uninterruptible Power Supplies Systems – providing back up power to all critical subway communication and network systems in the event of a power outage.

Anticipated Outcomes:

- The new system will automatically detect service delays in the subway, automatically generate a delay message on the platform display sign and issue a Public Announcement of the delay;
- The platform display sign and the Public Address system can support multiple languages to comply with Federal requirements;
- The new system will allow Central Control Operators to know on a real-time basis where power is down in the subway and above-ground so they can quickly isolate the problem and restore service; and
- With the new system implemented, Muni can replace the slow and unreliable dial-up modems and DSL lines that currently link critical communication systems with reliable high speed fiber.

Schedule/Status: Construction will start February 2013 and complete in September 2014.

Budget: The construction contract was awarded to Blocka Construction, Inc. in January 2013 in the amount of \$24,116,000. Nearly half of the project's funding comes from Federal transportation grants. Prop K Sales Tax (29 percent) and SFMTA Revenue Bond funding (19 percent) also make up a sizable portion of project sources. The total project is estimated to be \$53,211,000. In FY 2012-13, approximately \$3.8 million will be expended on the project.

USES	PRIOR YEARS	FY 2013-14	FY 2014-15
Project Total	\$9,895,000	\$23,400,000	\$19,916,000

Goal 3: Strengthen Security & Disaster Preparedness

RADIO SECURITY ENHANCEMENT PROJECT

Sponsoring Department: Technology

Additional Goal Supported:

- Goal 4: Maintain & Support Critical City IT Infrastructure

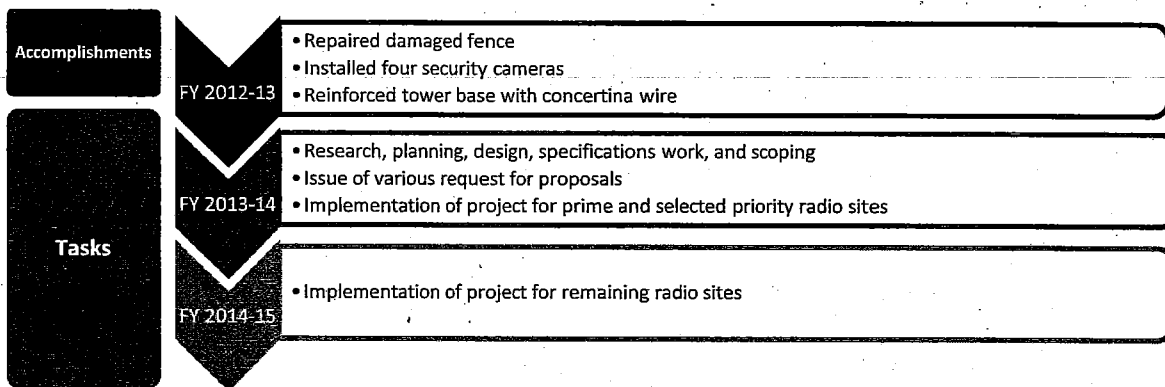
Scope: The purpose of this project is to enhance the security of 911 public safety radio sites to ensure reliable radio communication. The Department of Technology maintains the City's public safety and non-public safety voice and data wireless communication systems in facilities scattered across the City and County of San Francisco. These facilities are of various sizes, ages, and in vastly divergent condition.

As a result of acts of vandalism, attempted break-ins, and several successful intrusions, we have conducted site inventory and security assessments. The project will implement the recommendations of a report that identified several security weaknesses.

Anticipated Outcomes: The project involves installing a state-of-the-art integrated security system at all radio sites to include the following measures outlined in the report:

- Improved perimeter fencing with climb-resistant mesh barriers;
- Addition of anti-climb deterrents;
- Elimination of intruder hiding spots;
- Improved exterior lighting and lighting control;
- Installation of active motion sensors;
- Modernization of the video cameras, controllers, and camera capabilities with video analytics;
- Modernization of the video monitoring and alarm control environment;
- Permanently securing all fencing latches, hinges, and fencing attachments;
- Correct numerous single-points-of-failure issues concerning the exterior, interior, and connectivity of the communication sites; and
- Reinforce critical locations with concertina wires.

Schedule/Status:



Budget:

USES	FY 2013-14	FY 2014-15
Professional Services	\$ 750,000	\$ 750,000
Project Total	\$ 750,000	\$ 750,000

Goal 3: Strengthen Security & Disaster Preparedness

SECURITY VISIBILITY AND INTELLIGENCE

Sponsoring Department: Technology

Additional Goal Supported:

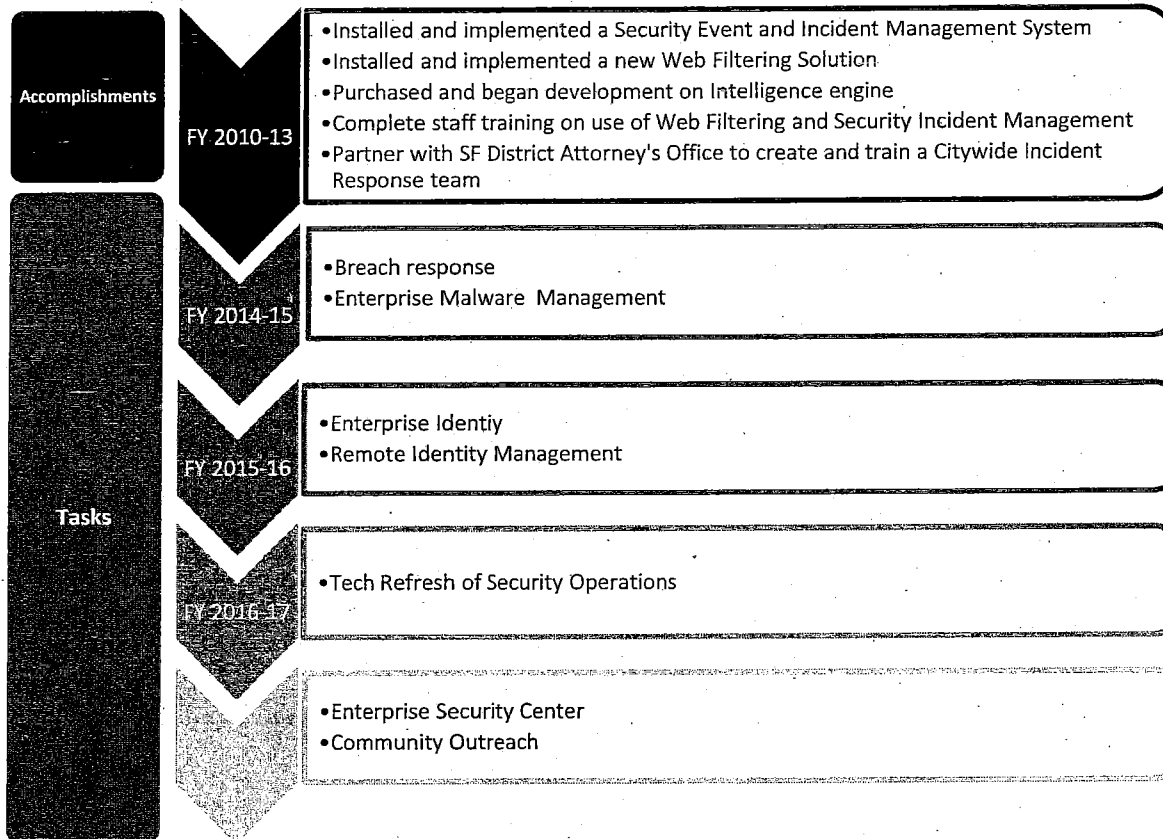
- Goal 4: Support & Maintain Critical IT Infrastructure

Scope: The Visibility and Intelligence project will cost-effectively leverage leading-edge IT Security monitoring and analytic tools to gain visibility and gather intelligence from multiple sources into a consolidated threat management system. To achieve this goal, the Department of Technology has implemented Security Event Management, Intrusion Protection, and Web Filtering technologies. In FY 2013-14, the Department will work to implement other technologies that fit into the five-year technology road map for IT Security Visibility. The Department's Security staff will feed these backend systems into a consolidated analytic and dash boarding platform to correlate and analyze the activity on the Department's networks. Furthermore, the Department will work with the Department of Homeland Security's Multi-state Information Sharing & Analysis Center (MS-ISAC) to monitor the City's external perimeter and alert the City to any threats external to the network.

Anticipated Outcomes:

- Gain visibility and gather intelligence from multiple sources into a consolidated threat management system; and
- Form a strong working partnership with the Department of Homeland Security's Multi-state Information Sharing & Analysis Center.

Schedule/Status:



Goal 3: Strengthen Security & Disaster Preparedness

SECURITY VISIBILITY AND INTELLIGENCE

(Continued)

Budget:

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Professional Services	\$135,000	\$230,000	\$290,000	\$397,872	\$455,000
Software	\$140,000	\$420,000	\$475,000	\$110,000	\$146,331
Materials & Supplies	\$5,000				
Equipment	\$120,000	\$20,000	\$181,000	\$275,000	\$65,000
Project Total	\$400,000	\$670,000	\$946,000	\$782,872	\$660,331
On-Going Costs		\$100,000	\$368,701	\$613,487	\$916,495

Goal 3: Strengthen Security & Disaster Preparedness

SYSTEMS RECOVERY PROJECT

Sponsoring Department: Controller's Office

Additional Goals Supported:

- Goal 1: Make Government More Efficient & Effective Through Technology
- Goal 4: Support & Maintain Critical City Infrastructure

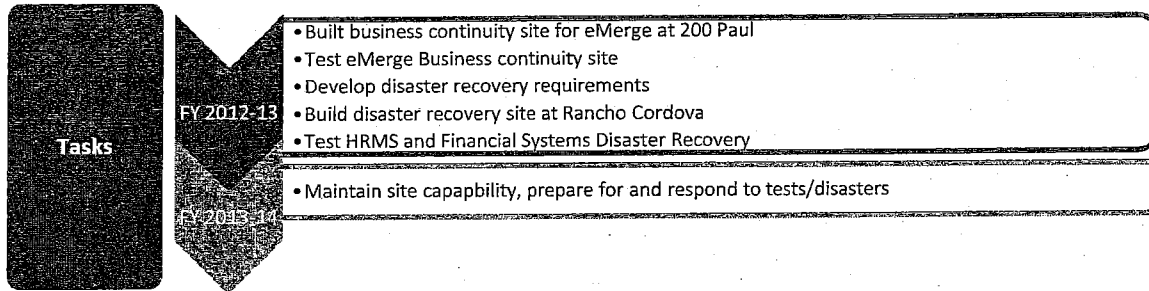
Scope: The Systems Recovery project will establish disaster recovery capabilities for the City's integrated Human Resources, Benefits Administration, and Payroll system (HRMS or eMerge) and the City's financial system (FAMIS). The objective of the Systems Recovery project is to:

- Create for HRMS and FAMIS a redundant parallel infrastructure in a data center managed by the State in Rancho Cordoba or Vacaville that mirrors the capabilities of the local systems; and
- Set up a back-up system (business continuity) for eMerge at 200 Paul Street, operated by the Department of Technology, which provides the facility to process all business critical functions of the HRMS systems.

Anticipated Outcomes:

- Provide redundant disaster systems recovery for the City's HRMS and financial systems that can be accessed if a disaster brings down local systems;
- Provide redundant business continuity site for the City's business critical aspects of the HRMS system that we can switch to if eMerge's data center at One South Van Ness is compromised;
- Save financial, human resources, benefits and payroll data and transactions in a secure off-site location;
- Maintain safe and secure financial information systems in order to provide continuity of operations; and
- Establish a site that will be available for citywide back up of other department financial and business critical systems.

Schedule/Status:



Budget: The estimated total project cost is \$4.6 million. In FY 2012-13, the Systems Recovery project received \$1.5 million from the annual COIT budget and \$500,000 from remaining eMerge project funds. The balance of \$2.6 million is allocated in the following manner:

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Salary & Fringe	\$527,825				
Hardware & Software	\$1,118,884				
Operating Expenses	\$898,000				
Project Total	\$2,614,709				
On-Going Costs		\$1,211,598	\$1,211,598	\$1,211,598	\$1,211,598

A methodology for funding ongoing maintenance will be established by the Controller's Office. One strategy is to work order departments based on a percent allocation, such as a department's budget to the total citywide budget. The City may also pursue grants from State and federal sources designated for disaster recovery efforts.

Goal 4: Support & Maintain Critical City IT Infrastructure

HIGH TECH MOBILE DEVICES FOR POLICE

Sponsoring Department: Police

Additional Goals Supported:

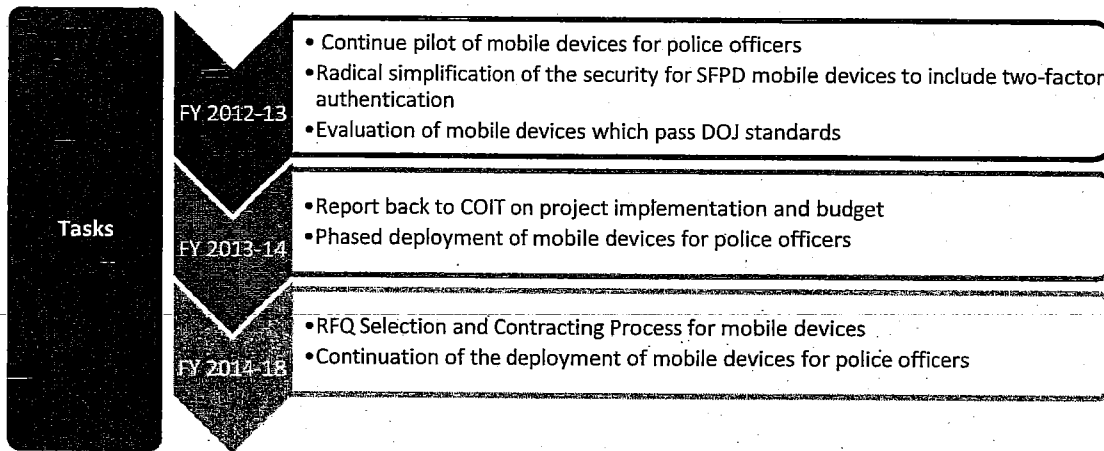
- Goal 1: Make Government More Efficient & Effective Through Technology
- Goal 3: Strengthen Security & Disaster Preparedness

Scope: This project aims to keep police on the streets by enabling them with mobile technology devices equipped with a set of high-tech tools designed to predict and map crime, identify suspects, write reports, and access the Police Department's new state of the art Crime Data Warehouse. Specific capabilities on the device include: Crime Data Warehouse; Police Report Writing; Search (modus operandi, suspect, property, tattoo, etc.); Run Suspect; Native Capabilities (email, text, GPS, phone, digital camera, etc.). The Department plans to provide devices to officers and sergeants on a continuous, three-year replacement cycle; thus, providing built in upgrades and current technology trends that will allow officers to utilize the leading crime fighting technologies.

Anticipated Outcomes:

- More officers on the streets protecting citizens;
- More criminals apprehended because of better identification tools in the device;
- Quicker investigation of cases as reports can be started on the street;
- More cases solved because of broader reach of Crime Data Warehouse and access to search; and
- Many other law enforcement benefits to preventing, solving, managing crime.

Schedule/Status:



Budget:

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Salary & Fringe	\$200,000	\$400,000	\$600,000	\$600,000	\$600,000
Hardware & Software	\$217,700	\$253,400	\$353,100	\$156,833	\$156,833
Contract & Professional Services	\$500,000				
Project Total	\$917,700	\$635,400	\$953,100	\$756,833	\$756,833
On-Going Costs	\$282,300	\$564,600	\$846,900	\$846,900	\$846,900

Goal 4: Support & Maintain Critical City IT Infrastructure

SAN FRANCISCO GENERAL HOSPITAL TECHNICAL INFRASTRUCTURE RE-BUILD

Sponsoring Department: Public Health

Additional Goals Supported:

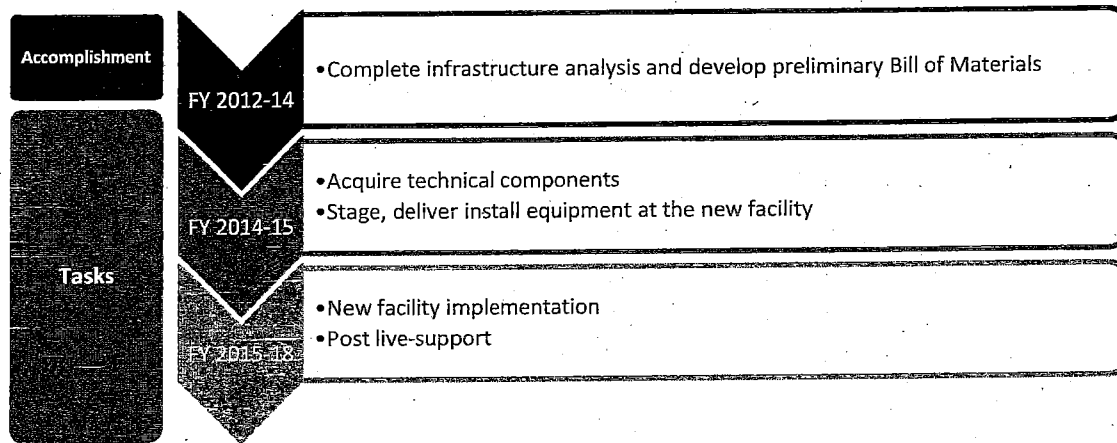
- Goal 1: Make Government More Efficient & Effective Through Technology

Scope: This project will allow for the design and implementation of the technical infrastructure required for the new San Francisco General Hospital facility anticipated to be fully operational by FY 2015-16. In collaboration with Department of Technology, the Department of Public Health will analyze infrastructure requirements, develop the technical project plan, and complete a Bill of Materials to acquire necessary hardware and implement the required technical capabilities.

Anticipated Outcomes:

- Provide a robust infrastructure for the new San Francisco General Hospital facility.

Schedule/Status:



Budget: This project will be budgeted as a component of the overall San Francisco General Hospital Re-Build project budget and Bond Issue. The estimated total project budget is \$27.0 million, with on-going costs of \$1.0 million annually.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Project Total	\$5,000,000	\$22,000,000			
On-Going Costs			\$1,000,000	\$1,000,000	\$1,000,000

Goal 4: Support & Maintain Critical City IT Infrastructure

FIBER TO CITY BUILDINGS

Sponsoring Department: Technology

Additional Goals Supported:

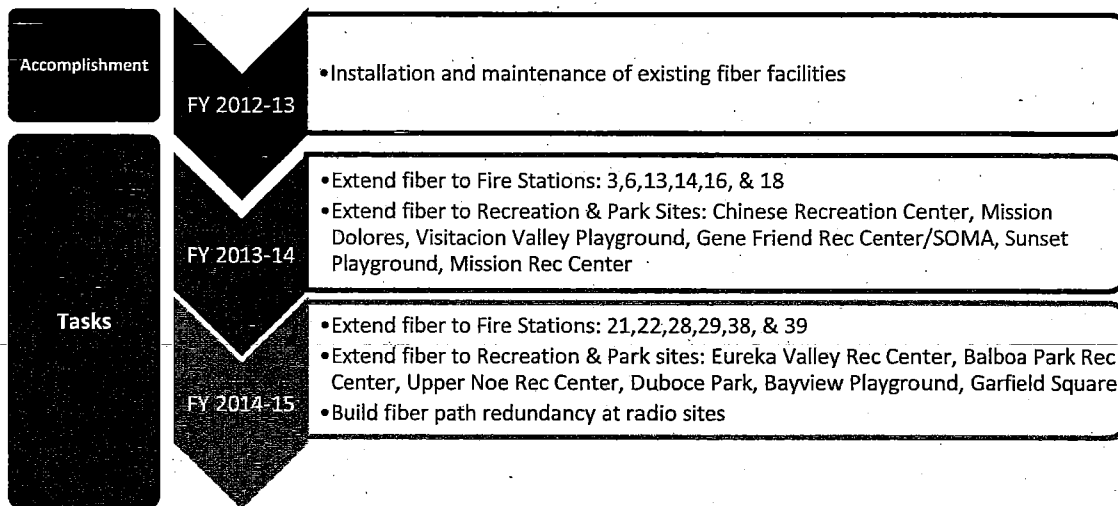
- Goal 1: Make Government More Efficient & Effective Through Technology
- Goal 2: Improve Public Access & Transparency
- Goal 3: Strengthen Security & Disaster Preparedness

Scope: To meet the increasing need for bandwidth and to be self-sustaining in municipal fiber resources, the Department has installed fiber to various City facilities and continues to expand the fiber backbone to increase capacity and redundancy. The Department will continue this effort to ensure all necessary City facilities are connected to fiber, taking in to consideration future needs. The installation of City owned fiber infrastructure will result in substantial cost savings on existing and future needs for applications that require extremely high bandwidth. Additionally, public safety will be enhanced by maintaining a City owned infrastructure for all public safety communications.

Anticipated Outcomes:

- Extend fiber connectivity to six fire stations and six Recreation and Park sites;
- Extend fiber connectivity to an additional six fire stations and six Recreation and Park sites; and
- Create radio sites fiber path redundancy.

Schedule/Status:



Budget:

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Salary & Fringe	\$493,745				
Materials & Supplies	\$168,172	\$168,172			
Services of Other Department	\$20,000	\$20,000			
Project Total	\$691,917	\$188,172			
On-Going Costs			\$94,086	\$94,086	\$94,086

Goal 4: Support & Maintain Critical City IT Infrastructure

DEPLOYMENT OF COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS)

Sponsoring Department: Public Works

Additional Goal Supported:

- Goal 1: Make Government More Efficient & Effective Through Technology

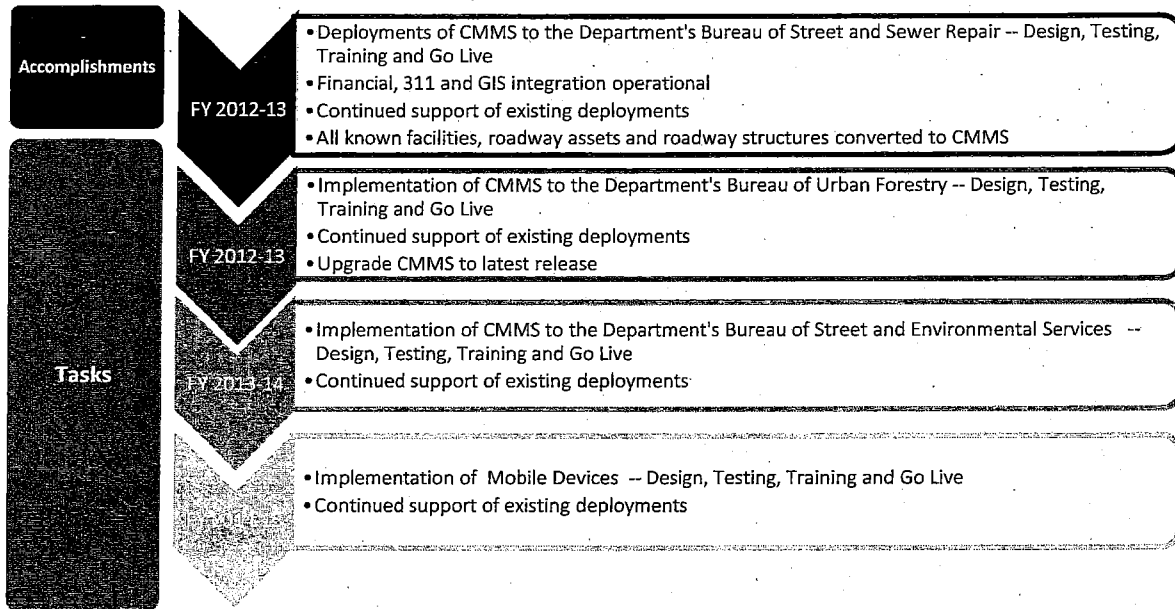
Scope: The Department of Public Works is tasked with providing operational maintenance and management of City assets such as: streets, curb ramps, medians, plazas, trees, sewers, buildings, bridges, tunnels and staircases. Currently, the Department uses multiple independently built database systems and spreadsheets to manage and maintain these assets. The Department plans to implement a Computerized Maintenance Management System (CMMS) by the end of FY 2014-15, which will consolidate all of these outdated systems and processes into one centrally managed system.

Anticipated Outcomes: In FY 2014-15, when the Department is fully operational with an updated CMMS for all of its bureaus, Department staff will all be utilizing a single system which will allow staff to:

- Track and report on assets;
- Receive corrective requests for maintenance from the public (via 311) and internal City departments;
- Create a planned maintenance program in order to decrease the amount of corrective requests;
- Manage asset inspections and other condition assessments;
- Manage approved requests for work including inspection, staff assignments to service orders, cost allocation, documentation, and recommendations; and
- Report on asset and service order data.

Overall, CMMS will allow the Department to operate more efficiently and effectively in response to internal City department requests and external requests from the public. It will also provide the Department with more information, which will allow staff to update clients on the status of outstanding requests.

Schedule/Status:



Goal 4: Support & Maintain Critical City IT Infrastructure

DEPLOYMENT OF COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM (CMMS)

(Continued)

Budget: The roll out and implementation of CMMS is included in the Department's General Administration budget. To date, the Department has spent \$1.6 million on CMMS, primarily for software licenses and maintenance, professional service for configuration, and for as-needed staff (business analysis and project management). The total project cost in FY 2013-14 and FY 2014-15 is \$0.7 million, of which \$0.3 million is the cost to implement professional services in support of CMMS. Beyond FY 2015-16, the ongoing maintenance cost is estimated to be \$0.3 million for labor and software maintenance.

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Salary & Fringe	\$288,500	\$288,500	\$288,500		
Hardware & Software	\$134,000	\$134,000	\$134,000		
Contract & Professional Services	\$300,000	\$300,000	\$300,000		
Project Total	\$722,500	\$722,500	\$722,500		
On-Going Costs	\$207,000	\$207,000	\$207,000	\$341,000	\$341,000

Goal 4: Support & Maintain Critical City IT Infrastructure

BAYWEB/FIRSTNET – INTEROPERABLE PUBLIC SAFETY DATA NETWORK

Sponsoring Departments: Emergency Management, Police, Fire, Sheriff, and Technology

Additional Goal(s) Supported:

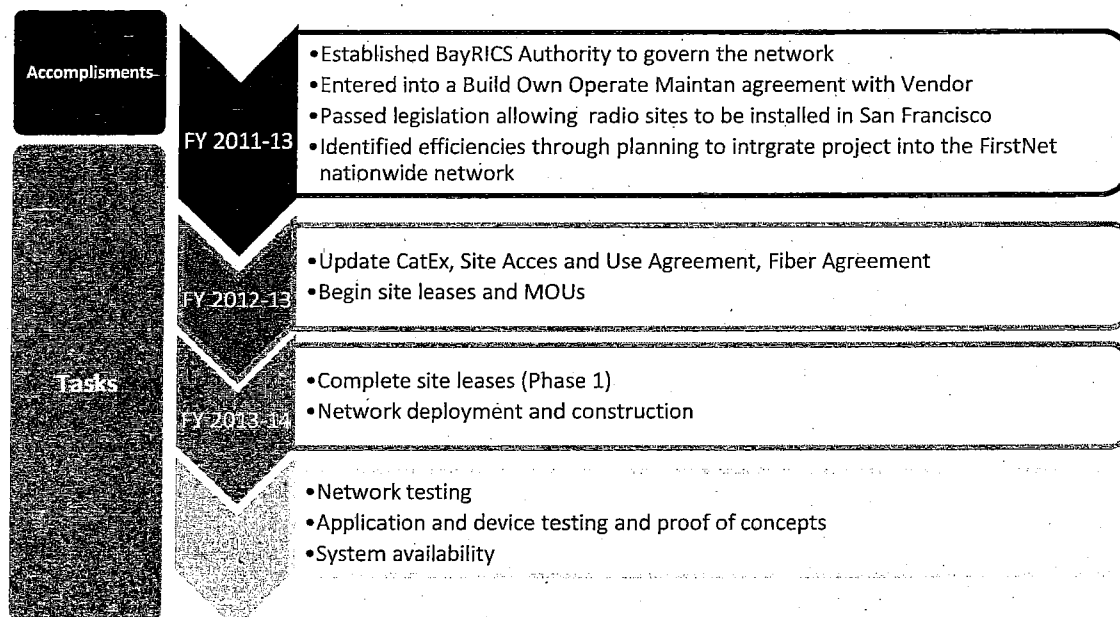
- Goal 1: Make Government More Efficient & Effective Through Technology
- Goal 3: Strengthen Security & Disaster Preparedness

Scope: The BayWEB project will build a wireless broadband data network throughout the Bay Area, dedicated for the region's public safety agencies. San Francisco is one of seven counties that will be part of this regional network. This project is one of the first phases of a nationwide network build-out of the FirstNet system. The BayWEB network incorporates cutting-edge 4G LTE technology that allows police, firefighters, and other first responders in the field to share texts, download photos of suspects or lost children, view video of incident scenes and use new mobile apps to help them work more effectively. As a dedicated network just for public safety, BayWEB will ensure the continuity of service coverage during major incidents and events within the City.

Anticipated Outcomes

- A new system will provide better access to critical information in the field for City's first responders;
- A new system will be regional and interoperable, allowing the Fire and Police departments the ability to communicate and share data with other first responders when outside the geographical area of San Francisco;
- The new system will provide a better alternative to commercial cellular data service, as it will be a private, secure, and locally-controlled network that can prioritize data transmissions by user, application, or event; and
- A highly available, redundant network designed to provide continuous coverage during major events, large-scale incidents or natural disasters.

Schedule/Status:



Goal 4: Support & Maintain Critical City IT Infrastructure

BAYWEB/FIRSTNET – INTEROPERABLE PUBLIC SAFETY DATA NETWORK

(Continued)

Budget: In 2010, the Bay Area received a \$50.6 million federal stimulus grant called the Broadband Technology Opportunities Program (BTOP) to fund the wireless broadband portion (infrastructure) of this project. The grant was awarded to Motorola, the vendor selected to build, own, operate and maintain the network who will contribute an additional 20 percent in matching funds to the grant. As this is a regional grant, San Francisco will receive a portion of the total grant funds for building out the network infrastructure in the City.

Emergency Management (DEM) estimates that the City will incur costs to cover personnel, site leases and utilities to construct the network in San Francisco. These costs are included in the Departments' budget and are outlined below. Further costs to procure devices and applications to operate on the network, as well as monthly service fees, will be required. Some portion of these costs may be reduced in future years through discounts on service fees or reimbursement of site and facilities costs by FirstNet when the BayWEB network is integrated into the nationwide network.

USES	FY 2013-14	FY 2014-15
Site Leases & Utilities	\$210,660	\$272,460
Project Total	\$210,660	\$272,460

Goal 4: Support & Maintain Critical City IT Infrastructure

AIRPORT SECURITY LOCAL AREA NETWORK (SLAN) REPLACEMENT

Sponsoring Department: Airport

Additional Goal Supported:

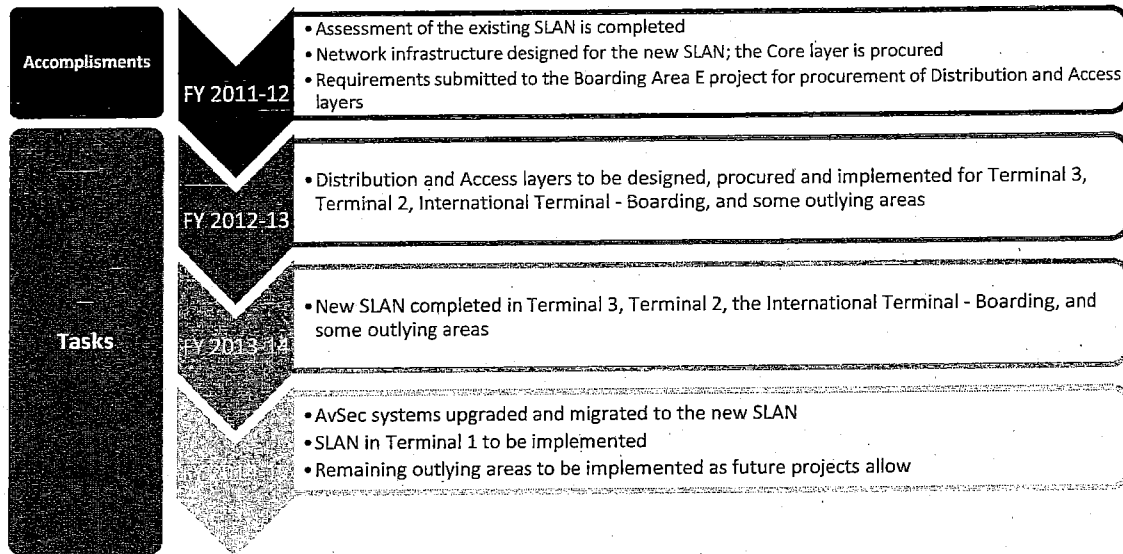
- Goal 1: Make Government More Efficient & Effective Through Technology
- Goal 3: Strengthen Security & Disaster Preparedness

Scope: The Airport will implement a new SLAN built with strict governance and best practice methodology with regular updates and maintenance similar to current Airport Information Technology & Telecommunications (ITT) supported networks. The project includes building a new SLAN, moving systems to supported and reliable server and desktop hardware, and insuring cyber security compliance.

Anticipated Outcomes:

- More efficient, secure, stable and cost-effective monitoring, maintenance, upgrades, and growth;
- Secure network and server environment in compliance with cyber security standards and practices;
- More efficient integration with other current and future Aviation Security systems and applications; and
- Better support and get first-hand notification for troubleshooting problems.

Schedule/Status:



Budget: To support the Airport's Boarding E Construction Project SLAN requirements, the Airport ITT received capital funding in the amount of \$800,000 to proceed with the installation of the Core (consolidated secure server array facility). Additionally, the Boarding Area E and Terminal 3 Checkpoint project will temporarily fund the access and distribution layer to support access control and video monitoring implementation on the new SLAN for both locations. Capital funding for the project has been approved and appropriated to accommodate a substantial completion of the network implementation for Terminal 2, Terminal 3, International Terminal Complex, and certain non-terminal locations with identified requirements (new Airfield Safety Operations building, Airport Boat House, etc.). Terminal 1 will be implemented as part of the planned construction project for this location and remaining non-terminal locations will be completed as requirements are identified.

Goal 4: Support & Maintain Critical City IT Infrastructure

AIRPORT SECURITY LOCAL AREA NETWORK (SLAN) REPLACEMENT (Continued)

USES	FY 2012-13	FY 2013-14
Hardware & Software	\$5,812,494	\$15,037,327
Contract & Professional Services	\$1,047,383	\$2,637,556
Staffing	\$465,240	
Project Total	\$7,325,117	\$17,674,883
On-Going Costs*		

**On-going costs are unknown at this time. Standard maintenance cost is 15% - 20% of installed base.*

Goal 4: Support & Maintain Critical City IT Infrastructure

9-1-1 TELEPHONE SYSTEM REPLACEMENT

Sponsoring Department: Emergency Management

Additional Goal Supported:

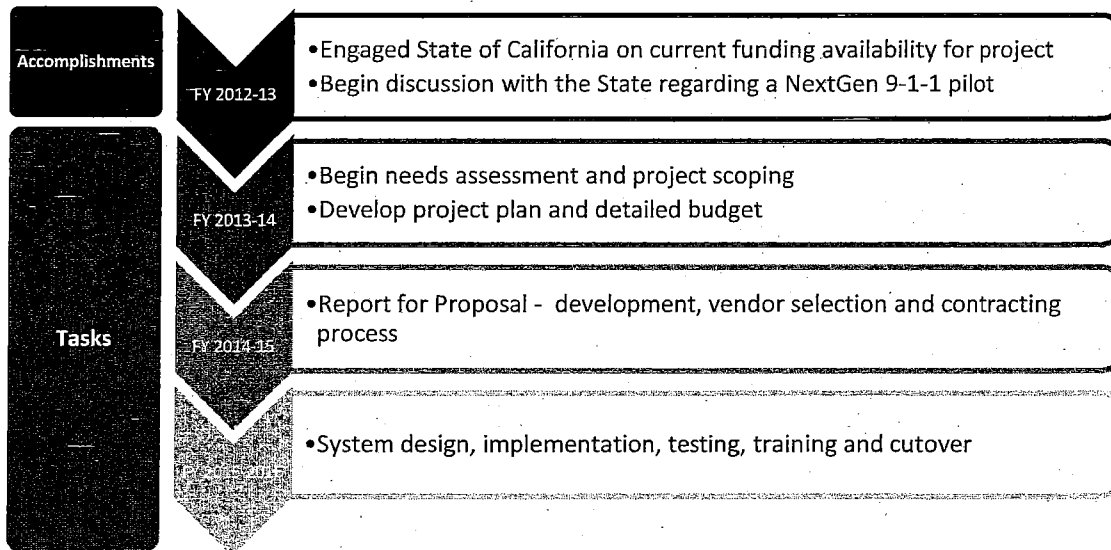
- Goal 3: Strengthen Security & Disaster Preparedness

Scope: As the primary Public Safety Answering Point (PSAP) for 9-1-1 emergency calls placed within San Francisco, the Department of Emergency Management maintains a sophisticated, highly redundant call processing system to handle emergency and non-emergency calls. The system includes a dedicated Private Branch Exchange (PBX) phone switch, call handling and distribution software, and call-taker workstations equipment and software. This project will upgrade the entire system and migrate it from an analog, circuit-based system, to a digital, next generation platform.

Anticipated Outcomes:

- The new system will be designed to support Next Generation 9-1-1 technology, which provides the ability to accept multi-media data. (i.e. digital photo, video, GPS locations and text);
- A new system will be designed with digital, IP technology which will improve interoperability, call routing, PSAP call overflow and location accuracy;
- The Department intends to pilot the ability for the public to send text, images, and video to the 9-1-1 center, to improve incident response within the City; and
- A new system will allow the City to maintain a high level of system reliability for the next 10-15 years.

Schedule/Status:



Budget:

USES	FY 2013-14	FY 2014-15	FY 2015-16
Project Total		\$1,500,000	\$1,500,000

Goal 4: Support & Maintain Critical City IT Infrastructure

SFMTA RADIO REPLACEMENT

Sponsoring Department: Municipal Transportation Agency

Additional Goals Supported:

- Goal 1: Make Government More Efficient & Effective Through Technology
- Goal 3: Strengthen Security & Disaster Preparedness

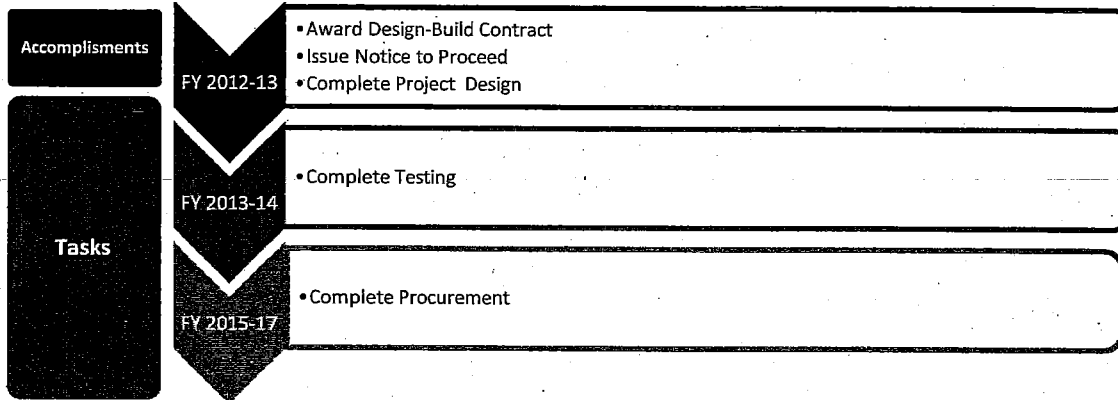
Scope: The Municipal Transportation Agency currently utilizes a 30 year old radio system that is inefficient and lacks modern features. The Radio Replacement project will replace the Department's current system and install a new Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) system compliant with Project 25 (P25) communication interoperability standards.

The base scope of work under the contract will be performed at a cost not to exceed \$86,648,058. Additionally, the Department reserves the right to exercise another \$22,572,461 in optional work items at prescribed amounts during the term of this contract, subject to funding availability. The new radio system will serve the Department and be based on a five antennae site system.

Anticipated Outcomes:

- New radio coverage in the City for over 1400 SFMTA vehicles;
- New and improved radio communications in the Muni Metro subway;
- New Computer Aided Dispatch/Automatic Vehicle Location (CAD/AVL) System, featuring:
 - A new Transit Management Center (TMC) at 1455 Market;
 - Modern capability to assist the Department in meeting its on-time performance goals; and
- P25 communications interoperability with other City departments.

Schedule/Status:



Budget: The total budget for this project is currently \$116.5 million. This project is to be funded out of the Department's operating budget, as well as Prop K Sales Tax, federal and State funding. In FY 2012-13, approximately \$7.55 million will be expended on this project.

USES	PRIOR YEARS	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17
Project Total	\$18,000,000	\$41,000,000	\$42,000,000	\$14,000,000	\$1,500,000

Goal 4: Support & Maintain Critical City IT Infrastructure

PUBLIC SAFETY RADIO REPLACEMENT

Sponsoring Department: Emergency Management

Additional Goal Supported:

- Goal 1: Make Government More Efficient & Effective Through Technology
- Goal 3: Strengthen Security & Disaster Preparedness

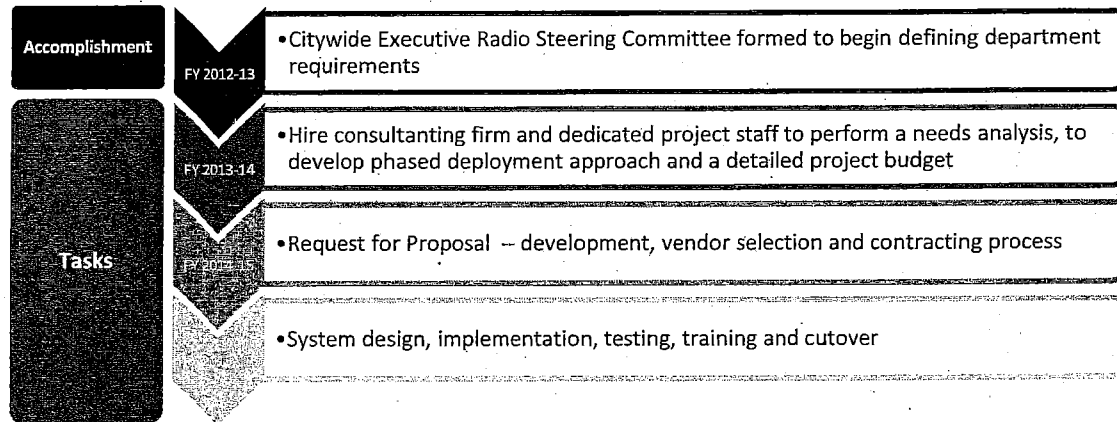
Scope: This project will upgrade the City’s 800MHz Radio Communications System used primarily by the City’s public safety agencies. The system is used for push-to-talk voice communications between the 9-1-1 Dispatch Center and officers in the field to relay incident information, as well as day-to-day communications between units in the field. The system supports over 7,000 mobile and handheld radios, with 10 City departments and four outside agencies operating daily on the system. Major system users include the Department of Emergency Management, the Police Department, the Fire Department, the Sheriff, the Municipal Transportation Agency, the Recreation and Parks Department, the Public Utilities Commission, and the Department of Technology.

The current system was installed in 2000 and is nearing the end of its service life. Additionally, new technology is available that will improve interoperability between City departments and other mutual aid agencies.

Anticipated Outcomes:

- A new system will allow the City to maintain a high level of system reliability for the next 10-15 years;
- The new system can be expanded to add more channels for better interoperability and will allow mutual aid agencies like BART, Oakland, San Mateo, and CHP to operate within the City;
- The project will purchase new handheld radios for all public safety users, which will have a higher battery life to improve officer safety and reduce maintenance costs;
- The new system will operate on a standards-based platform, which will allow for flexibility with new devices that are purchased; and
- The new system will be designed for digital operations, and will have higher capacity for users on the system and clearer audio transmissions.

Schedule/Status:



Budget: The initial estimate for this project is \$69.0 million. The Department is requesting \$930,000 in FY 2013-14 and FY 2014-15 for project planning and scoping. The remaining budget for this project has been divided equally over the remaining three fiscal years. These estimates are placeholders that the Department will update once critical planning is complete

USES	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Project Total	\$930,000	\$930,000	22,380,000	22,380,000	22,380,000

OFFICE OF THE MAYOR
SAN FRANCISCO



EDWIN M. LEE
MAYOR

TO: Angela Calvillo, Clerk of the Board of Supervisors
FROM: *EL* Mayor Edwin M. Lee *EL*
RE: Five-Year Information and Communication Technology Plan – FY 2013-2014 through 2017-2018
DATE: March 5, 2013

Attached for introduction to the Board of Supervisors is the resolution adopting the City's Five-Year Information and Communication Technology Plan for FYs 2013-2014 through 2017-18 pursuant to San Francisco Administrative Code Section 22A.6.

Please note this item is cosponsored by Supervisor Chiu.

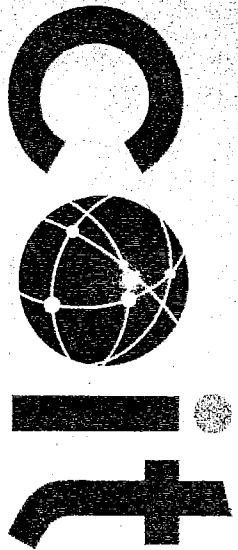
I request that this item be calendared in Budget and Finance Committee.

Should you have any questions, please contact Jason Elliott (415) 554-5105.

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cc. Supervisor David Chiu



COMMITTEE ON INFORMATION TECHNOLOGY

Proposed Five-Year Information and Communication Technology (ICT) Plan

FY 2013-14 through FY 2017-18

Budget and Finance Committee

April 10, 2013

Five-Year ICT Plan Overview

Purpose: To provide a strategic framework for citywide IT planning and budgeting for the next five years

- ❖ Administrative Code Sec. 22A.6 requires that COIT submit an updated 5-year plan every two years to the Mayor's Office and the Board of Supervisors.
- ❖ The first ICT Plan was unanimously approved by the Board of Supervisors in June 2011.
- ❖ Proposed ICT Plan must be adopted by the Board of Supervisors by May 1, 2013.



Accomplishments from Current ICT Plan

Major Initiative

Accomplishments

Open SF: Open Data Initiative

- Appointed Chief Innovation officer
- New Open Data platform online to support initiatives
- Updating Open Data policies and creating Chief Data Officer

Citywide Applications

- Merge successfully rolled out citywide

Data Center Consolidation

- SFO Data Center near completion
- Over \$2M in data center related cost avoidance from consolidation
- City departments and project staff virtualized over 800 servers

Enterprise Agreements

- Implemented new agreements, including VMware and Adobe for \$4M in savings over 3 years

Citywide Security Plan

- Established citywide security task force
- Expanded security policies and initiated citywide IT security training



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Key Changes from Current ICT Plan

Current ICT Plan

10 Strategic & Foundational Initiatives

Projects grouped by Major Service Area

Project Categories: new, replacement, enhancement, maintenance

Select departments represented

Initiative descriptions include rationale and anticipated results

Financial Strategies Identified and proposed funding sources for projects

Proposed FY 2014-18 ICT Plan

- 4 Strategic IT Goals approved by COIT
- Includes supporting strategies under goals

• Projects grouped by primary goal they help achieve

• Adds "critical project development" category for Major IT Investments

• General Fund and Enterprise departments represented

- Project budget and timelines included
- Includes status of current projects

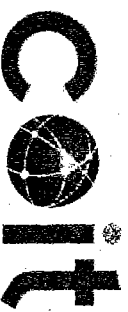
- Refines and categorizes financial strategies
- Adds use of one-time sources of funding for major IT investments & critical project development funding as financial strategies
- Reviews short & long-term investments



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Guiding Priorities for ICT Plan

- Incorporating **Innovation** into City Government
- Creating **Sustainability** of IT Projects
 - Attracting, Retaining & Developing IT Personnel
 - Strengthening Planning & Performance Evaluation of IT Projects
- Ensuring **Resilience** of IT Systems



Strategic IT Goals: Overview

GOAL	Requests by Primary Goal	Total \$ of Requests (millions)	Percent of Total Projects Requests
Goal 1: Make Government More Efficient & Effective Through Technology	77	\$205.9M	37.6%
Goal 2: Improve Public Access & Transparency	13	\$57.0M	10.4%
Goal 3: Strengthen Security & Disaster Preparedness	13	\$21.6M	4.0%
Goal 4: Support & Maintain Critical IT Infrastructure	29	\$263.5M	48.0%
TOTAL	132	\$548M	100%

928



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Goal 1: Make Government More Efficient & Effective Through Technology

STRATEGIES

- Maximize the use and effectiveness of current technology to provide the best service possible to people who live, work, and visit San Francisco;
- Deploy viable technology with tangible benefits to constituents; and
- Support green technology to reduce the City's carbon footprint.

FEATURED PROJECTS

Functional Category	Featured Projects/Initiatives	Project Budget
New/Enhancement	Crime Data Warehouse (Police)	\$5,000,000
Replacement	Replacement of the City's Business Tax System (Tax Collector)	\$16,862,048
Critical Project Development	Replacement of the City's Financial System (Controller)	\$72,215,677
Critical Project Development	Replacement of the City's Property Tax Database System (Assessor)	\$13,000,000



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Goal 2: Improve Public Access & Transparency

STRATEGIES

- Foster capabilities to increase online access to City services;
- Address the digital divide by providing broadband access to underserved populations; and
- Increase internet connectivity and technology to enable citizen engagement.

FEATURED PROJECTS

Functional Category	Featured Project/Initiative	Project Budget
New/Enhancement	Airport Public Wi-Fi Transition Project (Airport)	\$5,070,000
New/Enhancement	Financial Transparency Website (Controller)	\$625,000
Replacement	Muni Metro Public Announcement & Display System Replacement (MTA)	\$53,211,000



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Goal 3: Strengthen Security & Disaster Preparedness

STRATEGIES

- Protect sensitive and confidential data through strong security and privacy standards;
- Develop and implement a comprehensive disaster recovery plan; and
- Ensure that technology and public safety communication infrastructures have robust disaster recovery capabilities.

FEATURED PROJECTS

Functional Category	Featured Project/Initiative	Project Cost
New/Enhancement	Radio Security Enhancement Project (DT)	\$1,500,000
New/Enhancement	Security Visibility & Intelligence (DT)	\$3,459,203
New/Enhancement	Systems Recovery (Controller & DT)	\$2,614,709

Goal 4: Support & Maintain Critical City IT

Infrastructure

STRATEGIES

- Evolve the City's IT infrastructure to support current systems and future innovation;
- Equip staff with appropriate technology and tools to work efficiently and effectively; and
- Ensure that IT staff develops and maintains strong skill sets to enable them to implement current and future strategies.

FEATURED PROJECTS

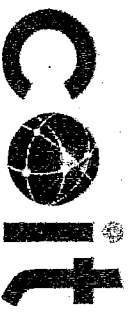
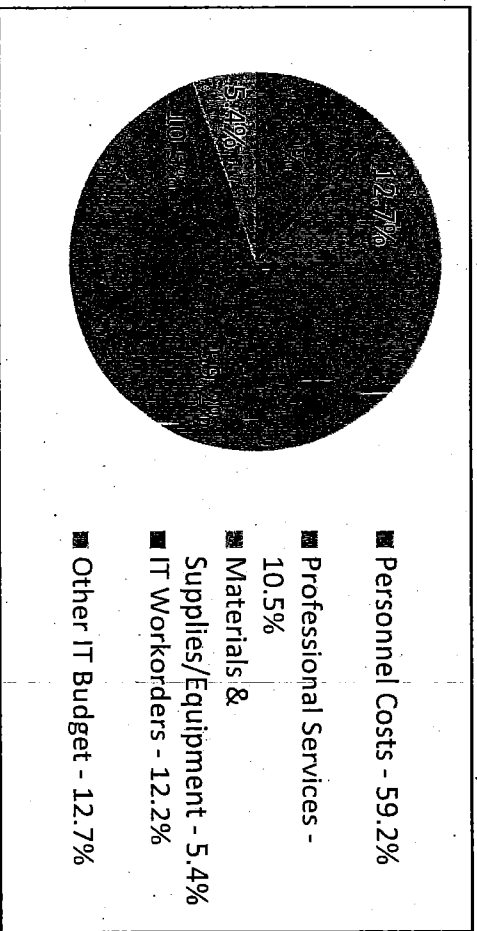
Function Category	Featured Project/Initiative	Project Budget
New/Enhancement	High Tech Mobile Devices (Police)	\$2,506,200
New/Enhancement	San Francisco General Hospital Infrastructure Re-Build (Public Health)	\$30,000,000
Replacement	SFMTA Radio Replacement (MTA)	\$116,500,000
Critical Project Development	Public Safety Radio Replacement (Emergency Management, Police, Fire, Sheriff)	\$69,000,000



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Citywide IT Budget FY 2012-13 (millions)

	Information Systems	Professional Services	Materials & Supplies/Equipment	IT Work Orders	Other IT Budget	Total IT Budget
General Fund	74.8	18.5	3.9	21.8	15.4	134.4
Non-General Fund	48.4	3.4	7.3	3.7	11.0	73.8
TOTAL	123.2	21.9	11.2	25.5	26.4	208.2



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Financial Strategies

Table 1: Total Information Technology (IT) Project Requests from Departments FY 2014-18:

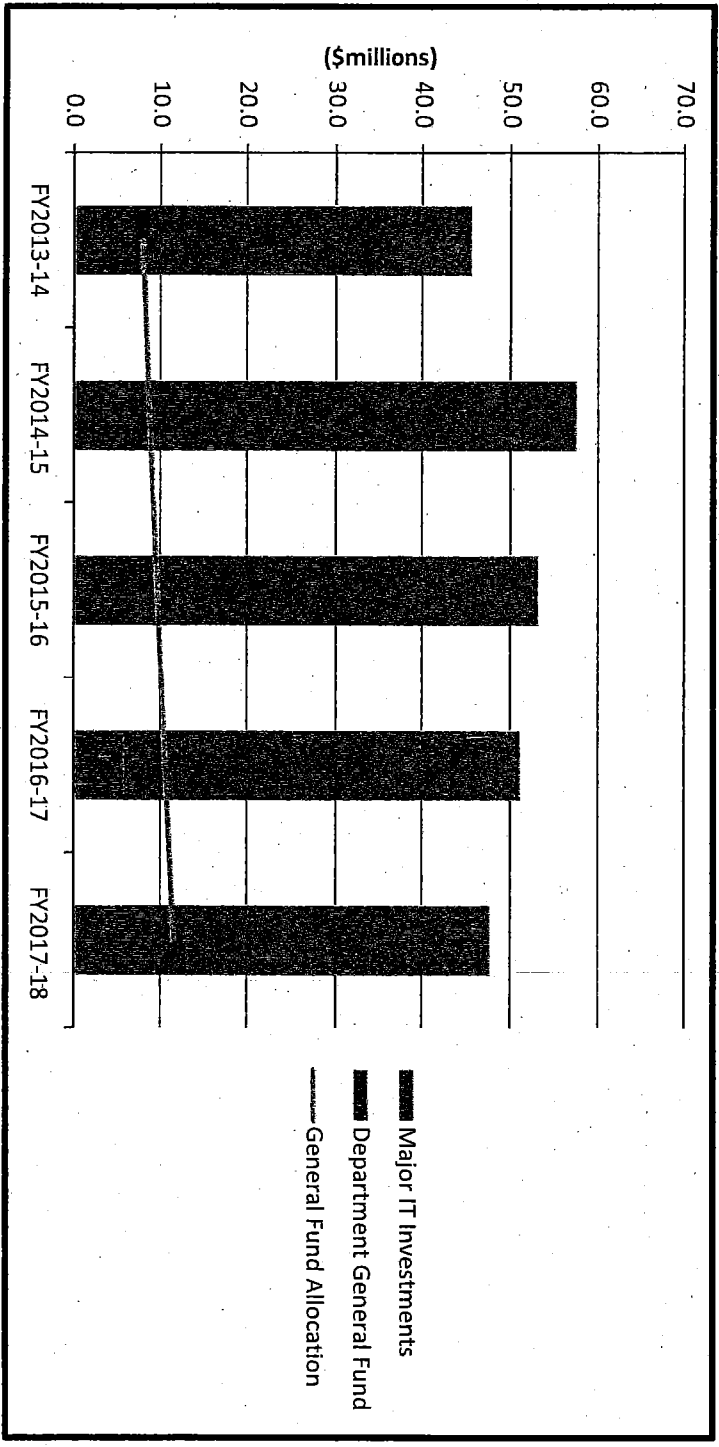
	Initial Project Request	Proposed Funding Source	Difference
<i>\$ in millions</i>			
Non-General Fund Projects	293.5	293.5	-
General Fund and Citywide Projects	254.5	49.1	(205.4)
Subtotal: IT Project Requests	548.0	342.6	(205.4)



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Financial Strategies

General Fund IT Requests vs. COIT Allocation



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Financial Strategies

Categories:

- **Improve Planning/Increase Collaboration**
 - Consolidation/collaboration opportunities
 - Project Deferrals
- **Alternative Funding Sources**
 - Share citywide costs between General Fund & Enterprise departments
 - State or federal grants
- **Budget Reallocation**
 - Identification of one-time sources of funding
 - General Fund allocation

Financial Strategies

Table 2: Impact of Proposed General Fund Financial Strategies on Funding Gap FY 2014-18:

	Project Request	Fiscal Strategy Reduction	Remaining Funding Gap
<i>\$ in millions</i>			
Total General Fund Project Requests	254.5	-	(254.5)
Financial Strategies			
Grow COIT GF Allocation by 10% per year	-	49.1	(205.4)
Improve Planning / Increase Collaboration	-	12.0	(193.4)
Project Deferrals	-	78.4	(115.0)
Alternative Funding Sources	-	35.0	(80.0)
Budget Reallocation	-	80.0	-
Subtotal:	254.5	254.5	-



SF COIT
 April 10, 2013
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Next Steps

COIT will continue to focus on the following areas:

- ❖ Continued work on the development of performance measures and metrics
- ❖ Review of project requests for FY 2013-14 & FY 2014-15
- ❖ Review opportunities for collaboration, standardization and consolidation citywide

