

2015

Technology Strategic Plan: 2014-2019

City of Petaluma



Technology Strategic Plan for City of Petaluma

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Mission Statement

The Mission of Information Technology is to deliver secure enabling technology to the City organization to allow us to more efficiently and effectively perform our jobs, while serving the citizens of Petaluma. And to plan, design*, develop*, implement and support effective solutions. We will strive to provide outstanding customer service by being adaptive, responsive, timely, and accountable in meeting customer needs.

Vision Statement

The City of Petaluma Information Technology will be a leader in technology, an integral partner in creating and delivering innovative and effective IT services, and a proponent of cooperative working relationships. The City of Petaluma requires a resilient, agile and sustainable IT infrastructure with advanced technologies for the City to achieve its mission. As much as technology has evolved in society to the point of being a vital, indispensable or critical component of service delivery for businesses and to the point the citizens, businesses and customers of the City of Petaluma have high, modern, and ever-increasing yet reasonable expectations that City staff will provide services and maintain data and services in a secure, reliable, and efficient fashion:

Reliable. We envision IT to be as reliable as a utility – providing the agile, extensible, reliable, and secure IT infrastructure and shared services necessary to meet the program needs of City departments;

Transformative. We envision fulfilling technology’s potential to transform lives – providing accessible, reliable and secure services that enable City staff to meet the needs of the City of Petaluma’s residents and businesses;

An Asset. We envision information be considered as an asset – leveraging the City’s substantial and growing information resources to facilitate informed policymaking and enhance the performance and productivity of City programs and services;

Sustainable. We envision IT as economical and sustainable – ensuring that the City’s management and use of technology contributes to efficient government operations and furthers the City’s environmental goals through the implementation of green IT best practices and policies;

Collaborative. We envision facilitating collaboration that breeds better solutions – advancing communications and partnerships between stakeholders, external and internal to government, is critical to delivering innovative and effective government policies, programs, and services.

Executive Summary

Technology is undeniably growing at an alarming rate; we already consider the introduction of new technology to be at a rate equivalent of the 1986 Tax Law every 6 months! Further, technology and information is already and is becoming more vital to all business operations, and to the efficiency of those operations.

With this incredible connection between business (government!) functionality and technology, it is imperative that management of technology be done in concert with a strategic plan. This plan is intended to cover a 5-year look-a-head and to be updated yearly. The plan will address changes in Council goals as well as advances in technology and evolving departmental needs.

In this plan, we outline the mission and vision of IT and include a summary of existing conditions. A strengths-weaknesses-opportunities-threats (SWOT) analysis worksheet is included in an appendix.

Most importantly, the strategic initiatives include:

- Improved communications with City of Petaluma external customers – residents and businesses. To utilize technology for better, more transparent, more efficient two-way communications.
- Links with our internal customers, City departments, in partnerships to enhance the delivery of services.
- Replace aging technology infrastructure.
- Financially and environmentally sustainable IT operation.

Introduction

Why develop a Technology Strategic Plan? The purpose in developing this strategic plan was to:

- To create a link between Council’s goals and IT work.
- To provide a roadmap of where technology deployments in the City should be going over the next 5 years.
- To outline some general direction for IT staff, which are otherwise buried in triage and recovery; a strategic plan can give us ability to refocus and to keep view of “the bigger picture.”
- Because IT best practices include a strategic plan and the IT industry has little structure or history. We need a document of best practices to follow.
- To have a basis for development of a fiscal sustainability plan – which will be started in conjunction with Finance in coming months (2013-14).
- “It’s hard to see the swamp when you’re knee-deep in alligators.”

Who?

IT staff in FY 2014; in a later FY (2014-2015?) retain a consultant, especially to address governance, funding and staffing issues.

This version of the Technology Strategic Plan has been developed by IT staff, in regular weekly meetings.

This version was developed in FY 2013, to support FY2014 budget.

When?

This version of the strategic plan was developed in FY 2013 and FY 2014 in conjunction with budget development. It’s anticipated that the next version will benefit by an outside consultant, in FY 2015.

What?

This plan includes the traditional Mission and Vision statements; a statement of Core Values; Summary of Strengths, Weaknesses, Opportunities and Threats; Strategic Initiatives which include both technology and initiatives which represent partnerships with our customers; a Fiscal Sustainability Plan and a section that addresses updates to this plan.

Core Values

The values of our Division drive our goals and priorities and directly affect how implementation occurs.

- Integrity - In IT, we must value integrity, above everything else.
- Sustainability (having a long term orientation about everything we do); make sure projects, programs, and systems have long term value. Make sure our systems stay current, relevant, and useful.
- Fairness - we must be fair to our customers, City staff, and make sure our decisions and implementations have a positive effect on the largest number of staff. We must ensure in our daily work that our use of funding is fair to our customers.
- Accountability to our customers, management, the Public and our vendors.
- Respect - we must retain professionalism, give respect, earn, and keep respect of others.
- Dedication to our job, our profession; maintain currency in our skills and business practices.
- Creativity and innovation - required elements in delivering technical and business solutions to problems. "Think outside the box."
- Teamwork - we view the "total as more than the sum of the parts." Nowhere is this more true than in IT.

Summary of Strengths, Weaknesses, Opportunities, Threats

Strengths

Teamwork, customer service skills, business and technical experience, MISAC awards for excellence.

Weaknesses

Lack of training, or resources, in general. Gap of what's supported and what's expected.

Opportunities

Continually decreasing commodity costs. Increasing skill levels among public, staff, management.

Threats

Lack of willingness among departments to adhere, lack of vision. Competition for funding. Increasing cyber threats.

For the full results of the SWOT analysis, refer to Appendix A.

Strategic Initiatives

Groups for Technology Optimization, Technology Refresh/Replacement and Business Alignment Initiatives (partnering), include projects in each. The hierarchy we used is Initiative/goal/project. Where known at the time of the Plan update, goals and projects are identified.

We've attempted to assign estimated implementations to projects, years 1-2 (fiscal 14-15 and 15-16), and later ("parking lot") projects.

Group 1 Technology Initiatives

Initiative 1 - Technology Optimization

Goal 1.1 - Web Based Deployments – favor deployment of new or replacement applications or systems using web technology over "thick clients."

Project (over next three years):

Goal 1.2 – maintain or improve inter-office connectivity, support near-future needs.

Project (over next three years): upgrade and replace interoffice links to increase user productivity

Anticipated/possible future project: should City-wide networking be upgraded or installed, be in a position to take advantage of the new infrastructure.

Goal 1.3 – maintain level of IT training; 80 hours full time hours per staff per year

Project (over next three years): implement training policy, funding. Complete for fiscal 2014.

Goal 1.4 – reduce dependence on copper telecoms – alarms, FAX, voice – by 2017

Initiative 2 - Technology Refresh/Replacement (though not necessarily with like platforms)

Goal 2.1 - Standardize on technology platforms wherever possible, utilizing sustainable/green-manufactured hardware.

Project (over next three years): Implement standards for network infrastructure, servers, workstations. Complete implementation of standards in FY 2014; CIP in place commencing FY 2014.

Goal 2.2 – Replace network infrastructure prior to its being announced end of life or end of support; replace prior to the equipment reaching end of economic life.

Status - Re-introduced in FY 13-14, rotate through servers, routers, switches, other network equipment.

Continue wifi buildout; utilize more wifi, less reliance on land lines.

Replace copper with fiber and other transport media. ATT has announced intention to render obsolete certain copper-circuit based services by the year 2020.

Build capability to more easily roll out software deployments.

Goal 2.3 – Replace desktop workstations.

Status - Re-introduced in FY 13-14. Continue indefinitely, using 5 year life span for workstations. CIP in place commencing FY 2014, first complete refresh due to complete FY 14-15..

Goal 2.4 – Establish software roadmap for critical or enterprise level software

Project: Roadmap established in FY 2014, topic added to IT weekly meetings.

Goal 2.5 – Resolve data center capacity issues – power, rack space, cooling, security.

Goal 2.6 – replace networked copier/printers.

Project: first batch of 16 by April 1, 2015

Project: first batch to not include FAX; deploy eFAX-like solutions

Initiative 3 – Improve and Expand Worker Mobility for the Benefit of Efficiency and Productivity and Improved Customer Service

Goal 3.1 - Staff and Workload Optimization – enable workers for remote access throughout the workday

Project (over next three years): Deploy VPN solution for some classifications of staff.

Initiative 4 - Strategic Sourcing

Goal 4.1 - Project management and execution

Goal 4.2 – Leverage cloud-hosted systems and applications when it makes sense

Goal 4.3 – More efficient contracting for peak loading – installation tasks

Initiative 5 – maintain and expand City’s web presence Council goal 1.A.1.8, 2016

Goal 5.1 – Upgrade web site to Improve navigability, Improve device friendliness.

Project: Upgrade navigability, device friendliness in FY 2015.

Goal 5.2 – Expand payment and eGovernment services

Eden modules, CRM

Initiative 6 – Data Stewardship

Goal 6.1 – consolidation of data silos by implementation of enterprise-level systems that incorporate Department- and Division-located datasets;

Goal 6.2 – IT shall function as an intermediary to locate and resolve redundant datasets.

Goal 6.3 – articulate data stewardship policies.

Initiative 7 – Information Security

Goal 7.1 - Issue a State-required Security Response Plan (FY 2014-2015)

Goal 7.2 - Update all policies with security ramifications (FY 2014-2015)

Goal 7.3 - Conduct vulnerability assessments – inhouse/auditor or consultant (FY 2014-2015)

Goal 7.4 - Security Awareness User Training for all users (FY 2014-2015)

Goal 7.5 - Expand Video surveillance to City facilities as budget opportunities arise. (FY 2014-2015 and future).

Group 2 Business Alignment Initiatives (Partnering with Business Units) – improved cooperative technology planning.

General Government

Initiative 8 - Improved, more efficient technology in Council Chambers and other meeting facilities

Goal 8.1 – Replace and Upgrade Chambers’ AV equipment

Goal 8.2 – Upgrade video capabilities in meeting rooms

Project – install large flat screens in 27 Howard, 11 English basement as trials

Initiative 9 - Improved technology for public meetings; more efficient.

Goal 9.1 – Implement an Agenda Management System

Initiative 10 - Expand use of document management systems to support document retention, storage, retirement – Include provision of storage locations appropriate to the items stored (e.g., media storage).

Goal 10.1 – Maximize digitization of stored documents. Council goal I.A.1.8 2016

Initiative 11 - Expand access to public for government documents – items that people come to City Hall for, “can I have a copy of....”

Goal 11.1 – standardize on posting only searchable, ADA-compliant PDFs on the web site.

Initiative 12 - Expand public access to government data – more transparency.

Initiative 13 - Improved communication with constituents, including Social Media.

Project: Implement policies for social media. Status – draft proposed FY 2014.

Project: expand use by Public Works in Facebook and Twitter, FY 2014-2015.

Public Safety

Initiative 14 - Optimize data sharing among agencies

Goal 1 – Evaluate / implement SmartJustice – or like programs?

Project – SmartJustice – completed, Jan 2015

Project – Justice Mobile – pilot, Jan 2015

Initiative 15 - Optimize use of technology for efficiency Council goal IV.1.3.b 2016

Goal 15.1 - Upgrade Records/Dispatch/MDCs systems. Re-occurs every 3 years, in conjunction with the SCPSC consortium.

Project: upgrade in FY 2014-15 completed July 2014

Goal 15.2 – Upgrade dispatch 9-1-1 console. Re-occurs every 5 years.

Project: upgrade in FY 2015

Goal 15.3 - Complete network integration with Fire Stations 2 and 3. Completed in FY 13-14.

Initiative 16 – better collaboration – develop and maintain full relationships with safety department management.

Goal 16.1 – Establish key contacts in FD and PD. Complete 2015, Savano (PD) and Kahn (FD).

Initiative – implement real-time bus arrival system for Petaluma Transit Council goal Council goal IV.1.9 2016

Finance and Financial Sustainability

Initiative 17 - Design and deploy enhanced disaster recoverability

Goal 17.1 – Implement standby system/site for Finance

Project: Implement standby system in FY : complete.

Goal 17.2 – develop an offsite location, possibly another city (Vacaville or Woodland), as an alternative for disaster recovery or business continuity.

Initiative 17xx – develop and implement plans to re-establish regular contributions to funds – IT CIP and IT Reserves (Council goal I.A.i.g for 2016)

Public Works and Public Infrastructure Management

Initiative 18 - Deliver Asset Management system. In FY 13-14-15

Goal 18.1 – Implement for four asset categories in FY 14-15.

Goal 18.2 – implement remaining categories of assets, FY 2016-2017.

Goal 18.3 – implement web- and device –based service requests (CRM) in FY 2015.

Utilities – water, wastewater

Initiative 19 – Expand and leverage web payment options

Goal 19.1 – implement Eden Web Services for Utility Billing, FY2013-14

Initiative 20 – Maintain security of Ellis Creek Supervisory Control and Data Acquisition (SCADA) System

Goal 20.1 – upgrade SCADA software, FY 14-15.

Project – upgrade, FY 14-15.

Planning/Building

Initiative 21 – make services more accessible – web permits, support implementation of the one stop permit counter

Goal 20.2 – Encroachment Permits

Goal 20.3 – Limited Planning Permits – remember plans upload issue

Goal 20.4 – Building permits Council goal I.A.1.8 2016

Recreation Services

Initiative 22 - Modernize equipment in Community Center to enhance rental value, increase rental income

Economic Development

Initiative 23 – support implementation of various internet technologies. Provide technical support to the Economic Development effort in expansion of fiber and other various technologies into business parks and residential areas.

Fiscal Sustainability

Background

The topic of fiscal sustainability was made necessary and popular with the severity of 2008-2011 financial cuts. One of the Council 2013 goals is to develop fiscal sustainability for the City's operations. As of 2014, the Finance department is in the process of hiring a financial analyst, one of whose tasks is to develop sustainability plans for various funds.

Information Technology – Current Model, Techniques, Practices

Cost Controls

Long term agreements used when possible – OptEman (fiber) 7 years, voice system 5 year leases, MS software on 3-year EA renewal cycles, minimum yearly service and maintenance (required one year with initial purchase), CalDGS/CalTech/OTech negotiated Calnet2 (and in 2014 Calnet3), Recurring expenses for telecommunications – monthly invoicing is grouped for data circuits, alarm/leased circuits, voice services.

Purchasing via pre-bid/awarded and pre-negotiated contract vehicles – NASPO, WSCA, CMAS, Calnet, GSA, NJPA, NCPA

Projects and equipment expenditures are estimated at budget preparation time; commonly, projects are then delayed or cancelled, or equipment prices are reduced. The resultant savings are retained into the IT reserves for future.

Standards are established for all technology deployments and maintenance, to leverage purchasing volumes and streamline and consolidate costs.

Intra governmental service fund revenue allocation to charges against other cost centers

Yearly, at budget time, expenses are reviewed and estimated for the annual expenditure 73100 (IT Intragovernmental) budget. Numbers are plugged into a model to estimate back charges/allocations:

Each charged cost center has a row in the model.

Columns for topics/groups of account codes that differentiate use by departments – cost centers are charged for what they and what they use!

Columns for Maintenance agreements, telecommunications expenses, GIS services, (added in FY 2013-14) CIP/workstations, and (added in 2014-2015) reserves.

Last two columns used to apportion remaining (comprised mostly of labor), based upon usage of previous 6 months or FY-to-date as of the time of the estimate. Other tabs used to populate the last two columns include program mgt. (mobility, etc.) and CIP and reserves.

CIP contribution is based upon the City's CIP plan. Commencing FY 2013-2014, the IT equipment replacement project has been identified as . There is a \$140,000 contribution to the project, allocated to departments, outside the IT expenditure budget.

Reserves are calculated at 3% of the annual expenditure budget. For FY 2013-2014, that amount would be \$48,000. But reserves are not included in the 13-14 budget.

Problems of Current Model

There is no strategic plan from which to derive costs and priorities. No buy-in from departments. No joint goal-setting and project prioritization.

There are fixed recurring costs, some with escalation built in (many maintenance agreements). A flat budget does not account for maintenance contract escalation; many are tied to SF Bay Area CPI increases, for example.

A flat budget does not account for labor expense (benefits, etc.) increases.

Expenditures are estimated up to 15 months ahead of actual. Fortunately, costs of equipment generally trend downward. In technology businesses, 15 months to estimate ahead is a virtual lifetime.

Technology changes at rate comparable with the 1986 Tax Law, every 6 months.

Labor apportioned is not precise; rather, based on an extrapolation of prior year's Trackit labor reports, adjusted for what's anticipated in the future. Labor forecast based on "expert estimating" techniques, past performance as adjusted by known upcoming projects.

Departments will purchase at fiscal yearend if they have remaining funds – usually slides under the estimating radar.

Departments will not inform IT during budget formulation of upcoming projects. This is especially true for grant applications.

There is no intentional or set reserve replenishment. Except project and equipment savings as noted above, which is more coincidental than intentional. Projects are cancelled or delayed and equipment prices in the technology market commonly reduce with passage of time.

Budget for technology CIP projects has not been allocated to other funds except as part of the IT operating budget.

Goals of Future Fiscal Sustainability

Account for program management, items of work that are routine, continually performed, yet not account for as parts of projects nor as service requests.

Accommodate mid-year adjustments to account for departmental projects started without prior budget.

Budget for reserve replenishment, allocate to other funds with budget development.

Budget for CIP projects, allocate to other funds with CIP budget development.

Add installation, support, and maintenance costs to grant-paid projects.

Strategic Plan Updates

This Strategic Plan is intended to run 5 years without a major overhaul.

Regular updates shall occur yearly, prior to IT expenditure budget submittal and to include Council goals.

Updates shall periodically include review/recommendations from outside consultant.

Appendix A – SWOT Analysis Summary

In FY 2014, a SWOT analysis was conducted. The process took place over several meetings with three different parts of the Division. The mediator was the IT Manager, so admittedly, there is one bias.

Strengths

Teamwork. Tenacity, almost to a fault. Highly opportunistic. Customer service skills to understand user problems; having been on the user side, understand that point of view.

MANY years in technology businesses. Integrity. Very proactive. Limited fear of change. Confidence and assertiveness. Attitude that nothing is too big. Troubleshooting skills. Ability to effect damage control quickly. Flexibility – agility – able to roll with the punches. Ability to choose “why” over “how” – able to show restraint.

MISAC high scoring categories; Excellence Awards. Noted as creative in Petaluma’s Economic Development Strategic Plan. Several staff are Employee-of-the-Month, even –of-the-Year winners.

Weaknesses

Lack of training. Not as up to speed as we should be, or as compared with other IT units. No user training program.

Resources – staffing level, funding, office spaces, work spaces. Lack of cross training among oncall staff. Too many sites. Lack of physical security.

Attitude, as seen by others, may appear contrary to one of customer service-oriented. Lack of written policies. Non-implemented document retention schedule – departments keep everything, forever. Lack of project management program. Documented and accepted priorities – transparency of priorities. Position/decisions being overridden by departments. Complete staff action is a two-edged sword – assumed we are well-resourced. Lack of visibility except if there’s a problem. Lack of comprehension by departments – everything is an emergency. No ability to prioritize. Inability to say, “NO.” Office layout restricts communication and coordination.

Teamwork can morph into “fiefdoms” or “cliques.” Division of responsibility not always clear, shifting. DOR among IT staff and also between IT and users. Tenacity sometimes to the exclusion of perspective – tendency of problem-solving vs. cost of leaving it alone. Tendency to collect too many details. Victims of our own success. Lack of consistent message or delivery method. “MacGuiver” approach leads to image of being overfunded. A very inefficient way to accomplish training.

Opportunities

Ever decreasing costs, rate of change; increasing bang for buck. Improving overall revenue picture. MS EA training vouchers.

More tech-savvy Council, management, staff. Tech-demanding public. Shifting demographic to a more tech savvy public. Younger public more demanding in addition to all public.

Tech Committee. Could be some community partners? County GIS, SCPSC.

Leverage customer services skills into user training programs.

Leverage process engineering skills into workflow improvements.

Threats

Competition for budget. Overblown customer expectations. Lack of technological vision in departments; vision without cooperation or restraint (example, projects develop post-budget!). Perceived (!) lack of management support. Perceived by stakeholders that IT is all things to all situations. Lack of adherence to tech standards. Lack of willingness to adhere. Lack of adherence to security policies. Disgruntled (current and former) employees in operating departments. Projects start after budget submittal – end of fiscal year or beginning of new fiscal year. Failure of management to enforce security policies. Perception that what we do is easy, unimportant, that anyone can do it, or easily replaced.

Increasing rate of technology developments. E.G., MDCs and file servers now require 3x the amount of labor and time.

Emerging technologies for which we have no capacity to support. Public records requests.

Hacking, other security breaches. Small and stretched so thin that we're not able to finish as well or as quickly as users want; leads to users seeking outside/other solutions.

Contractors, temps and part timers given same permissions without supervision or compliance.

Ever-changing requirements in job skills.

Conflicting vendor requirements (e.g., browser versions).

Possible increase in acrimony between City management and labor groups threatens teamwork and morale. (sorry, it's the elephant in the room!).