

City of Petaluma  
Information Technology Strategic / 5 Year Plan

*“If you want to be an effective leader in our networked world, you must engage IT issues.” - Harvard Policy Group*

**UPDATED – Feb., 2011**

## **Elements of the Plan**

Introduction and Acknowledgements

Current Roles and Responsibilities

Assets - Current Inventory and Replacements

Priorities

Strategic/Large System/Programs/Projects – in process and currently identified.

Assumptions, Observations, Predicates

Strategic Goals

Strategic Alliances

Telecommunications Strategy

Initiatives

Programs

Future Direction

## **Revision History**

Created in notes form, 6/26/05.

Revised 11/2/05, 6/16/06, and 5/07

Published Sept., 2008

Rev. 1 - Updates in inventory, July 2009

Rev. 2 - Updated, Feb., 2011 – inventory, Programs, Initiatives, Strategic Goals

Rev. 3 - (TBD) – added discussion of web site, e-government issues

## **Software Roadmap**

Application Policy, IT Main Operating Policy, Security Policy, Technology Acquisition Policy

Gartner ?

## **Introduction**

Technology has unquestionably reached the point of being the subject of many conversations, and has permeated every segment of our society. There are embedded computers in cell phones, portable game devices, in our cars, our kitchen appliances, the tools in our garage. We now “TiVo” TV shows instead of “taping;” we “text” one another and our children. Cellular phones now come in family plans. Social media has become a business tool. Bluetooth, wifi, and other technical terms, once considered arcane buzzwords, can be found in the dictionary. Email has become a mission critical application where only 10 years ago it was a luxury. The web has evolved far beyond anyone’s dreams for retail products, news and healthcare – and now serves as a gateway to social media applications such as Twitter and Facebook and to “cloud computing platforms.” <sup>Rev. 2</sup>

Information technology enables employees to perform at levels the public have come to expect. Staff accesses records online and provide answers in seconds, not days. We process requests from vendors, consultants, contractors, customers and governmental officials at a far greater speed than we did only 10 years ago. We have interactive maps to help develop maintenance and community planning. Our web site has a section entitled “Cool Places to Visit,” where “cool” has actually become necessary or mission critical. <sup>Rev. 2</sup>

Information technology has long been considered a valuable, even strategic, asset in corporate America, and in the rest of the world. With this plan, information technology can now acknowledged as a strategic asset to the City of Petaluma.

## **Acknowledgements**

As a member of the Municipal Information Systems Association of California, we have access to the work done by many of our peers – other IT professionals in other cities in California. In preparing this plan, we have used information from the MISAC web site and the following cities:

Arcadia, Arvada, CO, El Segundo, Fontana, Foster City, Fresno, Indio, Palo Alto, Sunnyvale, Walnut Creek, Watsonville

## **Current Roles and Responsibilities**

**IT responsibilities** - see Powerpoint presentation developed for the budget 2006-2007, and also the presentation made to the Technology and Telecommunications Committee (see web site for actual video), September 24, 2008. Information Technology shall:

- Manage, design, install and support all technology assets, telecommunications devices and systems, printing devices and systems, cellular phone technology, data acquisition and control systems, security systems, camera systems, computer systems and software.
- Ensure all technology assets are productive and efficient and cost effective.
- Ensure all technology assets are secure and reliable.
- Develop standards, policies and procedures for managing technology assets.
- Provide project management for all technology asset projects.

Challenges have existed since our inception essentially 1999-2000.

- Operation was not fully funded from 1999 until mitigated with the FY 2006-2007 budget year.
- There are many locations of City offices, as many as 30 have IT assets.
- User skills limited. Tendency to resist change.
- Broad diversity in setups and applications.
- Variety in desktop hardware, although standards became more effective FY06-07.
- User expectations/demands vary widely across and within departments..
- Departments' appreciation and demand for technology also varies widely, sometimes changing mid-fiscal year.
- Funding, due to global/national economical circumstances, was drastically reduced in FY2007-2008 and has continued through FY 2010-2011 and FY 2011-2012. Simultaneously, technology use has expanded.

## **User rights and expectations –**

Users expect to have new systems be reliable, and that they will be reasonably trained.

Users and user departments shall be responsible for their own data, locations, and quality.

Users shall be responsible for maintaining their levels of skills to be adequate for performing their job functions using technology.

**Assets - Equipment Plan - Current Inventory, Replacements** Briefly listed here, as of Jan. 2010, the technology assets of the City of Petaluma include:

- 330 workstations and laptops <sup>Rev. 2</sup>
- 62 servers <sup>Rev. 2</sup> – file, print, database, application, gateways
- 6 fiber WAN links, 2 bldg/bldg local links.
- 8 T1 links.
- DSL - service is provided to smaller remote buildings.
- 2 wifi bridged links.
- Numerous wifi access points/hotspots.
- Over 250 customized applications and setups.
- 550 email boxes.
- 600 telephone lines; analog, digital and Centrex.

Major network equipment is replaced approximately every 5 years, sooner if determined. Workstations and laptops are acquired under lease and replaced every 4 years.

Technology assets also include our data stores, our database systems. These are generally contained within and controlled by our mission critical applications:

- Accela – permitting,
- Eden – finance, payroll, HR, Utility Billing
- GIS
- Police CAD/RMS
- Firehouse RMS
- Mainsaver - assets for Ellis Creek WRF
- Supervisory control and data acquisitions (SCADA) used for traffic signals, water distribution, wastewater collection and for process control at the wastewater recycling facility.
- Email and unified messaging.
- Laserfiche document management and imaging system.

## Priorities

While budget has been severely reduced in the last 3 fiscal years - <sup>Rev. 2</sup>

1. We will respond to systems that support public safety functions that rely on technology. We will build redundancy into systems and reduce dependence on immediate response when possible.

2. We will support our financial systems - proper use of public funds, revenue collection, expenses and payroll. Our finance systems protect our revenue stream, control our costs.
3. Support of the network - safety, security, data integrity - coincidentally, should a network problem arise, potentially both public safety and finance systems could be in jeopardy.
4. Failures that affect a broad range of users - departmental system or network
5. Maintain growth of the web site to meet expectations of public and transparency.(added for Fiscal 2011-2012)
6. Problems of limited scope and not affecting above.
7. Problems affecting minimal quantity of users and not affecting above.

### **Strategic/Large System/programs/projects currently identified.**

- Network upgrade, fiber WAN integration.
- Fiber internet connections.
- Eden Finance System - leverage capabilities - ongoing through FY 09.
- Workorders/service requests/online payments.
- Email system expansion and upgrade, offline message management.
- Electronic document Storage and Retrieval.

### **Assumptions, Observations, Predicates**

Technology turns over every 6 months, new and improved technologies become available.

Obsolescence is constantly arriving. Three – and five-year depreciation schedules are the exceptions, not the rule, as technology is generally beyond its useful life within three years. We will revisit/revise our views toward equipment obsolescence periodically – if possible every 6 months.

We accept that risk needs to be managed, but can never be avoided.

A project is a package deal. It includes hardware, software, data (usually created and input by the resulting system's users), the users, their training, the installation and management of the system and its ultimate upgrade and replacement or retirement. A project has three primary components – cost, schedule and functionality. There is always the need for compromise – one never attains all three as originally conceived, rather compromises – schedule for cost, functional sacrifice for schedule, etc.

## Strategic Goals

1. Key to success in our strategy is our ability to leverage our technology investments – we possess a very substantial network infrastructure, server storage and computing horsepower; we plan on leveraging that investment.
2. We must control technological growth; growth must be planned to not strain IT resources. So we must admit there will be a conflict between our need to deploy technology and our need to stay within our ability to support technology deployments. We must strive to manage this conflict.
3. We need to maintain a balance between uniformity and flexibility - standards shall be deployed as necessary to maintain the balance. Flexibility is viewed necessary to meet diverse needs of departments and users. Thus, we concede there will be conflicts between uniformity and flexibility.
4. We shall re-prioritize non-critical work in response to the budget reduction. <sup>Rev. 2</sup>
5. We shall expand the City's web presence to take more advantage of technologies that afford staff to do more with less, such as customer resource management (CRM) and social networking. These opportunities shall be pursued, however, in areas that are extremely cost-efficient. <sup>Rev. 2</sup>

## Strategic Alliances

We will maintain strategic partners; contractors, vendors, manufacturers shall be identified, and our list currently includes:

- Microsoft;
- Cisco;
- Dell;
- ATT;
- Eden Systems;
- AutoDesk (AutoCAD);
- ESRI;
- Adobe.

With these strategic alliances, we will attempt to leverage our relationships with these providers. NOTE - These alliances have been achieved only in strict compliance to purchasing regulations.

## Telecommunications Strategy

- T1, DSL shall be phased out or limited in favor of a direction to more fiber.
- Communications shall accommodate more deployment of wireless technologies, commencing with FY 2007-2008.
- Communications shall be focused around the digital telephony VoIP system.
- Cell/mobile - we will deploy only judicious use of cell/data transports and interfaces.
- Voice and voicemail - replaced by VoIP, FY 2006-2007.
- Radio shall be used as appropriate.
- Land-based/copper use shall be minimized. Commencing FY2010-2011, we will begin de-emphasizing reliance on dated telecomm. We will, however, be placing more emphasis on such assets as the VoIP system.<sup>Rev. 2</sup>

### Technology Adoption and Deployment Strategy

- Technology deployments shall focus on web deployments, our telephony, our email systems, and on internet technologies.
- One of our technology strategies is to consolidate solutions, look for "two for one deals" (or better yet, "three for one").
- Technology in the City Petaluma operations shall be adopted in such a manner as to stay reasonably up to date - leading, not bleeding edge. If we develop and maintain an alliance with a vendor, we commit to staying with them (keeping up on versions).
- Technology deployments shall be architected to take advantage of opportunities in Green policies, practices where ever feasible. These opportunities include purchasing, waste/recycling, energy use.
- Community expectations and needs necessitate our keeping reasonable control on costs while improving service levels. The mantra, "more with less" will likely continue. However our technology tools will enable us to achieve some "more with less." We will not expect to achieve more with less staff. Our technology only enables our staff, rather than replace staff.
- Community needs are discussed every month at the Technology and Telecommunications Committee monthly meetings.
- Emergency preparedness shall address:
  - Communications,
  - Operating systems,
  - Storage of and access to data,
  - Considerations or our varied applications,
  - Storage capacity,
  - System recovery.
- City of Petaluma's business shall needs evaluated monthly.
- City Council goals shall be incorporated into this plan as they are adopted and made public.

- Department needs are considered every month at Technology Advisory Group meetings and during budget formation.
- This Plan shall be reviewed at least yearly, prior to budget development. Updates in this Plan shall be included in the budget's narrative. <sup>Rev. 2</sup>

## Initiatives

Initiatives are efforts without timelines, without necessary end results. Rather, areas of current focus.

Currently, our initiatives:

- Web enabled work environment. We have mentioned a strategic goal is that of web-enabled applications. It is also the focus of many, if not all, IT efforts, projects. Web enabling consists of:
- The City's web site, including its accessories – email list server, meeting streaming, web payments
- Web front ends to applications.
- Worker mobility. This initiative includes wireless connectivity.

## Programs

Programs are ongoing strategic process/system combination efforts we put in place as the result of a project. They frequently cross system lines and almost always cross departmental lines. They are ongoing, require maintenance and priority.

- File capacity management.
- End-User Training program and desktop support.
- Web site
- GIS
- Email
- Internet access (mostly web)
- Software licensing
- Equipment replacements
- Video franchise management and community TV
- Phone and voicemail system management
- Network management, anti-malware, and security
- Major application administration
- Off-hours coverage

## Future Direction

As all plans, this is a work in progress. We will, in future installments to this document:

- Add planned projects, priority scoring system
- Address IT staffing as a function of industry standards and funding sources
- Further develop departmental needs review process
- Develop standards
- Develop policies – FY 2011-2012 Rev. 2

We will consider and continue to address such topics as: Rev. 2

- Virtual Government; continue to enhance the web portal for Petaluma
- Customer Service
- Partnerships – investigate public/private partnerships for municipal wifi, fiber
- Information Integration
- IT Infrastructure – investigate virtual desktop technology, expand on virtual servers, applications Rev. 2
- Investigate and monitor developments in cloud computing Rev. 2