

**A REPORT BY  
THE 2013-2014 CONTRA COSTA COUNTY GRAND JURY**  
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**Report 1404**

**PLANNING FOR TECHNOLOGY**

*Towards an Integrated, Strategic Approach*

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Date: 04/24/2014



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ACCEPTED FOR FILING:

Date: May 5, 2014

  
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Contra Costa County Grand Jury Report  
**PLANNING FOR TECHNOLOGY**

*Towards an Integrated, Strategic Approach*

**TO:** All Contra Costa County Cities

## **SUMMARY**

The use of technology by cities has increased dramatically over the past 20 years, from simply playing a support role in providing desktop computers and network servers to being a catalyst for productivity and touching virtually every department operation. As demand for technology applications has expanded, the need for cities to develop integrated plans has become critical.

Technology budgets of cities have increased significantly over the past few years. Some cities in Contra Costa County spend over 6% of their total funding on technology. Industry experts estimate that municipal technology budgets typically range between 5-7% of total city budgets.

Strategic planning is essential for the largest cities, which offer a variety of services, but even the smallest cities face increasing technological demands for communication, efficiency and safety. Furthermore, access to information around the clock is a baseline public expectation, no matter the city size. Demand for access to local government services via the Internet will continue to increase.

Cities would benefit from developing a five-year plan to ensure effective and economical use of technology. Each plan should include an analysis of the technology investments and a detailed budget. The plan should also identify objectives and needs that are common to multiple departments within the city to increase efficiency and cost savings. Finally, each plan should be reviewed on an annual basis by city staff and updated as appropriate.

## **METHODOLOGY**

Information was obtained from:

- Surveys completed by all 19 cities in Contra Costa County



- Interviews with municipal technology managers
- Information from industry experts
- Industry association of municipal technology managers
- Public media

## **BACKGROUND**

### **Growing importance of technology**

Cities are experiencing increased demand for the implementation of new technology despite limited resources. Having a long-range technology plan clarifies the sequence of implementation and provides clear communication with departments, the city council, and the public about what is both envisioned and ultimately accomplished.

Highlights of an annual city budget are typically summarized in the city manager's "budget message". The messages of many city managers in Contra Costa County place an emphasis on expanded implementation of technology as a primary strategy to create greater efficiency and provide the public with increased access to city services.

As limited city resources continue to put pressure on the delivery of city services, city departments are forced to do more with less. Technology can often provide solutions without increasing personnel. Technology can also improve efficiency by providing the public with internet access to city services, such as on-line registration for recreation programs, license renewals, and on-line payments for a multitude of services.

The public increasingly expects access to city information via the Internet. Examples include live video streaming of city council meetings and other city meetings, land and geographical information, access to city records, budgets, and ordinances.

The use of crime-fighting technology applications are also increasing in some cities. Gunshot audio-detection systems, automatic license plate readers that spot stolen vehicles, and remote-controlled cameras all increase the breadth of technology used by municipalities. In a recent newspaper article, the City Manager of Pinole stated:

"The city continues to see violent crime trending downward. This reflects significant public investment by the City Council in emerging technologies along with effective proactive community policing to engage residents in assisting the Police Department in solving major crimes."

### **Technology planning**

Some cities in Contra Costa County have developed technology master plans with clear priorities and goals. Technology managers have stated that the process used to develop these plans includes:



- Assessment of existing technology organization and skills;
- Analysis of current and future technological needs;
- Facilitated department level and city-wide prioritization process; and
- Communication of the final plan including timeline and budgets

Effective technology planning has the potential to create significant improvements in the internal operations of the city. By identifying objectives and needs that are common to multiple departments, integrated programs can be developed that improve communication, efficiency and cost savings. As reported by city technology managers, a technology plan establishes clear priorities that are aligned with overall city goals, and identifies funding for those projects deemed most critical to the community.

The interdepartmental approach for development of a technology plan also highlights shared business needs across department lines, as well as results in computer programs that benefit multiple departments and applications that are more cost effective and easier to manage. Plans often include the formation of an internal group within the city that includes high-level department representatives. The group tracks priorities identified in the plan, evaluates requests from departments for technology projects, communicates back to the organization the status of project implementation, and makes recommendations to the city manager on budget allocation and shifting priorities.

Strategic technology planning has become common practice for many California municipalities. One industry expert explained:

“Historically, technology master plans have focused on infrastructure (desktop computers, network servers, data centers, etc.). However, in today’s environment, technology master plans are more focused on business or operational needs and the applications that can improve, streamline, or automate functions. In addition, today’s plans also focus more on data security, data sharing, integration/ interfaces, and mobility.”

There are several benefits to the strategic planning process:

- Requires a thorough assessment of existing technology resources and systems;
- Requires communication with all stakeholders and results in a set of priorities that make decisions transparent;
- Includes setting realistic budgets that include capital investments and on-going staff resources;
- Allows for monitoring progress and making adjustments as technology needs change; and
- Educates city executives on the technological implications of their decisions.



## **Where it's working**

The cities of Walnut Creek and Danville have embraced technology planning and developed multi-year plans that guide technology investment and prioritize staff resources. Each city has a strategic technology plan that outlines technology needs for the city over a five-year period. This period gives cities sufficient time to choose and implement technology, but is not so long as to incorporate technology that may be obsolete within the time horizon. The plans include an analysis of the technology investment, a budget, and a timeline. The plans are reviewed on an annual basis for updates and modifications.

The programs developed and implemented by Walnut Creek and Danville are consistent with recommendations by experts in the technology field, as well as the industry literature on best practices. Perhaps as important, is the fact that the plans appear to be working, as technology projects are planned, budgeted and implemented. Strategic planning that incorporates technology requirements is a benefit regardless of the size of a city or its budget. Each city should strive for greater efficiency in operations, improved services and easier public access to local government. Planning for specific technology needs within the context of over-arching city-wide goals is a necessary part of the budgeting process.

## **FINDINGS**

1. Demand for technology in all aspects of local government has exploded over the past 20 years and is expected to continue to increase.
2. City budgets often identify the need for technology improvements to achieve greater efficiency in government services.
3. Technology expenditures represent a significant part of many city budgets.
4. Technology project implementation is often a multi-year investment.
5. Technology in city government is rapidly changing. Industry associations and technology research groups are a good source of information on emerging trends.
6. A city with a long-range plan for technology, including a budget, has a road map of priorities that provides clarity to city personnel and the public.

## **RECOMMENDATIONS**

1. Each city within the County should consider creating and implementing a strategic technology plan, and identifying funds to do so.
2. Each city should consider identifying the technology needs of the city over a minimum of a five-year period in the strategic technology plan.



3. Each city should consider identifying technology projects and costs in the city budget.
4. Each city should consider identifying any technological objectives and needs that are common to multiple departments within the city in the technology plan and developing integrated programs to increase efficiency and cost savings.
5. Each city should consider reviewing its technology plan on an annual basis and updating it as appropriate.

## REQUIRED RESPONSES

	<u>Findings</u>	<u>Recommendations</u>
City of Antioch	1-6	1-5
City of Brentwood	1-6	1-5
City of Clayton	1-6	1-5
City of Concord	1-6	1-5
Town of Danville	1-6	1-5
City of El Cerrito	1-6	1-5
City of Hercules	1-6	1-5
City of Lafayette	1-6	1-5
City of Martinez	1-6	1-5
Town of Moraga	1-6	1-5
City of Oakley	1-6	1-5
City of Orinda	1-6	1-5
City of Pinole	1-6	1-5
City of Pittsburg	1-6	1-5
City of Pleasant Hill	1-6	1-5
City of Richmond	1-6	1-5
City of San Pablo	1-6	1-5

City of San Ramon	1-6	1-5
City of Walnut Creek	1-6	1-5