

Table of Contents

Table of Contents	i
Executive Summary	ii
Introduction	1
Task II Scope and Objectives	2
Audit Methodology	2
Background Information.....	3
Task II Findings and Recommendations	4
I. Key Elements of IT Strategic Plans	5
II. Evaluation of the County of Orange IT Strategic Plan Proposed by CEO/IT	9
A. Plan Background, Approach and Methodology	10
B. Identification of IT Industry Trends/Best Practices	13
C. Identification of Organization-specific Key IT Data and Information.....	16
D. Assessment of the Organization’s Current IT Environment.....	20
E. Development of IT Strategic Goals	23
F. Development of IT Strategies.....	26
G. Development of Specific Initiatives/Projects	33
H. Implementation and Accountability	35
III. Next Steps	37
Appendices	39
Appendix A: Sample IT Strategic Plan Table of Contents	39
Appendix B: IT Strategic Plan Benchmarking	41
Appendix C: IT Strategic Plan Survey Results	42
Appendix D: Example of IT Strategic Goals, Strategies, and Initiatives/Projects...	47

Executive Summary

Preface

Chair Bates and Vice-Chair Nguyen, in response to the Board of Supervisors' (Board) postponement of the approval of the County Information Technology Strategic Plan ("Plan") in March 2009, requested that the Office of the Performance Audit Director audit the efforts of the County Executive Office/Office of Information Technology (CEO/IT). To manage the sizeable scope of the audit, it was broken down into five tasks. This report covers Task II: *Review CEO/IT Proposed Business Model (IT Strategic Plan)*.

Over the past four fiscal years, the County of Orange has spent, on average, approximately \$145 million annually on information technology. Given the magnitude of this cost center, particularly in the current financial environment, it is imperative that an effective IT Strategic Plan be implemented to ensure that scarce resources are allocated appropriately.

Unfortunately, the primary conclusion of this Task II report is that the IT Strategic Plan (Plan) developed by CEO/IT for the County of Orange does not achieve its intended purpose: to serve as an actionable roadmap for Countywide IT operations and investments over the next five years. Though it contains some informative content that provides a starting point for Countywide IT strategies, simply stated, the Plan is missing too many fundamental elements for it to be used as an effective planning tool. For instance, the Plan:

- ❖ Contains a weak assessment of the County IT environment
- ❖ Fails to demonstrate how its IT goals and strategies address identified gaps
- ❖ Does not articulate an IT-specific mission to guide Countywide IT operations
- ❖ Fails to address several critical County IT issues (e.g., outsourcing, VoIP, server consolidation)
- ❖ Contains limited IT Strategic Goals that fail to include core customers and services
- ❖ Fails to establish a prioritization framework to guide investment decisions and the selection of IT projects

This Task II report details these severe shortcomings, as well as the Plan's strengths, and then provides specific recommendations for improvement, including a timeline of proposed "Next Steps."

Audit Scope and Objectives

Per Board direction, the specific objectives of Task II address the following questions:

1. Does the Plan provide the County with an adequate roadmap to guide County information technology operations from a strong fiscal and operational management perspective? Does the Plan provide appropriate and clear mission, goals, and strategies?
2. Does the Plan provide the Board with a framework to evaluate the approval of specific projects?
3. Does the Plan appropriately identify information technology as a “support” function guided by and measured against agency/department operational needs?
4. Does the Plan identify and focus first on providing core information technology services necessary to provide employees the resources needed to accomplish their mission?
5. Are the specific IT projects mentioned in the Plan (1) consistent with the Information Technology Strategic Plan, and (2) do they add demonstrable value in terms of efficiency or effectiveness that exceeds the amount of money invested?

Audit Methodology

To evaluate the usefulness of the Plan as a management and information technology tool, the audit team, with the assistance of its IT consultant, AEF Systems Consulting, Inc., conducted the following activities:

1. Identified industry best practices for the development of an IT strategic plan and reviewed the IT strategic plans of other governmental organizations.
2. Evaluated the Plan against industry best practices, identifying the Plan’s strengths and weaknesses, and assessed the Plan’s Strategic Goals, Strategies, and Initiatives/Projects for comprehensiveness, clarity, and logical alignment.
3. Reviewed in detail the Plan’s supporting documents (e.g., other analyses that contributed to the development of the Plan). There are 16 such “Project History” documents, totaling 564 pages. Although comprehensively reviewed, the audit

team did not consider these documents to be part of the formal Strategic Plan, for several reasons: (1) page 1 of the Executive Summary states, “This executive summary...summarizes the other three volumes that make up the County’s IT strategic plan,” (2) at no point in any of the four volumes of the formal Strategic Plan is the reader referred to the supporting documents for additional, significant information, (3) the supporting documents themselves state that they are not considered part of the Strategic Plan, but rather that “the output of the strategy development workshops and attendant analysis [will be used] to craft a 3-Year Tactical Plan and 3 to 5 Year IT Strategic Plan,” and (4) unfortunately, much of the valuable raw analysis and content in these supporting documents is not highlighted or reflected in any substantive way in the four-volume, formal Strategic Plan.

4. Distributed an online survey to agency/department heads, agency/department IT managers, and stakeholders who were involved in the development of the Plan to ascertain the perceived quality of the Plan, to gauge the inclusion of agency/department input into the Plan, and to measure the Plan document’s usefulness to agencies/departments.
5. Interviewed CEO/IT executive management and consultant staff on Plan development.
6. Recommended improvements to the Plan and next steps in the completion and acceptance of a revised plan.

Background Information

In April 2006, the former County Information Technology Working Group initiated a Countywide Information Technology strategic planning process. To assist with the development of the plan, CEO/IT engaged the services of Pacific Technologies, Inc. (PTI) at a total cost of \$550,450, and Gartner, Inc., at a cost of \$42,000. In addition, CEO/IT gathered input from approximately 200 IT stakeholders across the County of Orange. A conservative estimate of internal staffing costs for this effort is approximately \$250,000 (based on the estimated 4,500 hours spent by agency/department staff in the plan development process).

The Plan document, intended to guide Countywide IT activities for the five year period from FY 08/09 to FY 12/13, was completed in September 2008 as a four-volume, 250+ page formal document. The entire document is available on an internal County

website. Also on this website are 16 additional documents (totaling 564 pages) that are under the heading “Project History Links.” The four-volume, formal Strategic Plan document was presented to and approved by the former IT Working Group in September 2008; and the formal Plan document was heard on the Board agenda in March 2009.

Key Task II Findings

To assess the Plan document, the audit team first identified the key elements of an IT Strategic Plan, which were validated by substantial research and by the IT consulting firm engaged to help with this review. The audit team then evaluated the County Plan against each of these elements. Outlined below are these key elements and the major audit findings related to each element:

Plan Background, Approach and Methodology

From a format standpoint, the Background, Approach, and Methodology sections of the Plan document are well done. From a content perspective, however, there are two important deficiencies:

- The methodology used to develop the Plan does not follow a logical process, which negatively impacts subsequent sections of the Plan document.
- From the perspective of a significant number of agency/department stakeholders, the Plan does not achieve its objectives of (1) adequately including their input, and (2) serving as an actionable roadmap to guide their IT operations.

Identification of IT Industry Trends/Best Practices

Effective IT strategic plans include a discussion of pertinent IT industry trends and best practices as they relate to a specific organization’s IT environment. Audit findings in this area include:

- The Plan document does not include an adequate discussion of external technology trends that are likely to impact Countywide IT operations.
- The Plan document does not discuss some of the major frameworks relevant to Orange County IT.

Identification of Organization-specific Key IT Data and Information

This section of the Plan should provide the reader with important contextual information about IT at the County of Orange such as a well-articulated vision and mission for IT operations, organizational charts, major IT expense categories, IT staffing numbers (in-house and contract), IT customers (e.g., the agencies/departments and residents served), and a specific description of roles and responsibilities for IT functions across the County.

Although the Plan includes some of these elements, it excludes three fundamental pieces of information (below) that are vital to understanding the role of information technology at the County. The absence of this foundational information has a crippling effect on the remainder of the Plan document:

- The Plan does not articulate an IT-specific mission or vision for the County of Orange.
- The Plan does not include a thorough discussion of the County’s “Federated IT system” and does not clearly define the role of CEO/IT in this system.
- The Plan does not mention the County’s significant use of IT contractors as part of its description of the current or proposed IT system/environment.

Assessment of the Organization’s Current IT Environment

Prior to developing IT strategies and projects/initiatives that help an organization reach its target IT environment, it is imperative that the organization first understand its current environment – its strengths, unique needs, deficiencies, and challenges. This step in the strategic planning process is of critical importance as it identifies the gaps that need to be addressed. The Plan document does not include this thorough assessment, and subsequently fails to identify specific deficiencies or needs that would drive the development of goals, strategies, and initiatives/projects. Specific shortcomings of the assessment include:

- Lack of acknowledgement of the scale and importance of major IT applications such as CAPS+, ATS, and PTMS.
- Failure to identify data that is shared across agencies/departments, to describe models of how data is currently shared, or to include an assessment of the current data models’ efficiency.

- Lack of an inventory or an assessment of the County’s IT infrastructure (e.g., servers, switches, routers, desktops).
- No performance assessment of the services provided by CEO/IT, such as telephone, server hosting, project management, application support, etc.

Development of IT Strategic Goals

An IT organization should set strategic goals that align with its mission/vision, and that address the needs and requirements identified in the assessment of the current IT environment. Developing a set of comprehensive, meaningful strategic goals is imperative in a strategic plan, as these goals drive the development of specific strategies and individual initiatives/projects. In addition, these goals provide the strategic foundation for weighing, evaluating and selecting among IT investment alternatives. Specific Plan deficiencies in this area include:

- The Plan document does not demonstrate how its goals address the County’s IT needs or deficiencies (that should have been identified in the Current State Assessment). As a result, there is no compelling rationale for pursuing these goals.
- All of the goals are fixated on the external “customer experience” (i.e., the experience of the public in interacting with the County). This focus is not misguided, but it is incomplete, as none of these goals clearly identify the role of IT as a support function to internal County customers (i.e., agencies/departments who deliver services directly to the public).
- The goals are aligned only to the overall County mission statement and guiding principles, and not to an IT-specific mission.

Development of Strategies

Once IT strategic goals are determined, a strategic plan should culminate in the development of specific IT strategies that help the organization achieve those goals. The most significant audit findings in this area include:

- The set of high-level IT strategies included in the Plan are very general and do not align with IT strategic goals. In fact, the strategies developed (e.g., “Enhance

county service delivery,” “Provide anytime, anywhere access to county government,” “Build an agile, innovative, and responsive organization”) are more like strategic goals and are not specific enough to be actionable.

- The Plan document does not identify strategies to address gaps and deficiencies in several IT areas such as Applications or IT Infrastructure. Consequently, there are several missed opportunities to address critical issues such as transitioning Applications to non-mainframe environments throughout the County and developing a unified communications network, including Voice over Internet Protocol (VoIP) implementation.
- IT Governance Strategies are articulated in the Plan, but strategies related to IT Services are incomplete and strategies related to IT Organization are missing. One issue that should have been addressed in the Plan’s strategies is outsourcing. Not only is there a significant number of contractors throughout the County, but CEO/IT is also pursuing a new IT Sourcing strategy that could drastically change how IT Services are provided to agencies/departments throughout the County.
- The Plan document devotes considerable space to the concept of Enterprise Architecture (EA)—a way to holistically view an organization’s information technology, emphasizing the need to integrate business-related strategies, needs and processes with IT. Despite its stated importance, the Plan document: (1) never explicitly states EA implementation as a formal goal for the County, (2) fails to assess the current state of EA at the County, and (3) does not provide well articulated strategies for implementation.

Development of Specific Initiatives/Projects

Following the development of IT Strategies, an IT strategic plan (especially one that is meant to be actionable) should then include specific initiatives and projects for each strategy. Audit findings in this area include the following:

- The Plan document’s “Strategic Technology Initiatives” are not aligned with any IT strategies.
- There is no framework or methodology to help policymakers and County executive management prioritize and make decisions about which specific IT initiatives/projects should be pursued.

Implementation and Accountability

The last key element of an IT strategic plan discusses plan implementation and accountability. Key audit findings include the following:

- The Plan does not include a discussion of next steps for how the overall IT Strategic Plan will be operationalized or who is responsible for ensuring that next steps are completed.
- Performance metrics, or how progress will be measured, are not identified in the Plan document.

Summary of Key Task II Recommendations

A listing of the audit's most significant recommendations include:

- Revise the strategic planning methodology to include important logical steps that ensure proper alignment and clarity. This includes developing an IT-specific mission, performing a thorough assessment of the current IT environment, developing improved IT Strategic Goals and Strategies, and including an IT project prioritization framework.
- Working with County agencies/departments, define roles and responsibilities for CEO/IT and agencies/departments IT operations, then seek approval of these roles from the Board of Supervisors and clearly communicate these roles to all IT stakeholders.
- Develop additional IT Strategic Goals that address the County's IT needs/deficiencies (including those of internal customers), consider consolidating existing external-facing Goals, and ensure that all Goals are aligned to an IT-specific Mission/Vision.
- Develop and align IT Strategies to address specific County deficiencies and business needs, once a more thorough assessment is completed.
- Articulate Enterprise Architecture implementation as a goal for the County, discuss the current state of EA at the County, and include specific strategies for how the target EA will be achieved in Orange County.

- Include a section in the revised IT Strategic Plan that discusses implementation, task ownership, and next steps for the Plan; identify performance measures for each IT Strategic Goal.

Next Steps

Given the scarcity of resources and considerable time and money spent to create the existing Plan, it is not advisable to engage external consultants in an effort to redo or revise the Plan. Instead, the audit team recommends that County staff make improvements to the existing Plan in a phased approach, according to the steps detailed below.

<p>Phase I (Q3 FY 2009/10)</p>	<ol style="list-style-type: none"> 1. With Board participation, form a temporary Oversight Group to monitor the implementation of report recommendations. 2. Define the roles and responsibilities of CEO/IT vis-a-vis agencies/departments, involving key stakeholders from both CEO/IT and agencies/departments; then seek Board approval. This task should be conducted using the current IT Sourcing governance participants, at a minimum. 3. Develop a Countywide IT vision/mission. 4. Identify a short list of critical deficiencies in the current IT environment.
<p>Phase II (Q4 FY 2009/10)</p>	<ol style="list-style-type: none"> 5. Establish improved IT Strategic Goals and define performance measures for those goals. 6. Determine current critical strategic priorities and a framework for prioritization of IT investments.
<p>Phase III (Q1 FY 2010/11)</p>	<ol style="list-style-type: none"> 7. Refresh IT Strategies and Initiatives/Projects using the newly established prioritization framework and addressing critical deficiencies.
<p>Phase IV (Q2 FY 2010/11)</p>	<ol style="list-style-type: none"> 8. Make remaining improvements to the Plan document and seek Board approval.

Introduction

Board Chair Bates and Vice-Chair Nguyen, in response to the Board of Supervisors' (Board) postponement of the approval of the Countywide Information Technology Strategic Plan in March 2009, requested that the Office of the Performance Audit Director (Office) audit the efforts and activities of the County Executive Office/Office of Information Technology (CEO/IT) and the former Information Technology Working Group. On June 2, 2009, the Board approved the scope of work for the Performance Audit of CEO/IT.

The specific goals of the Performance Audit are to:

1. Ensure that a major Countywide expense category (i.e., information technology) is efficiently and effectively managed, especially in the current fiscal climate.
2. Ensure that CEO/IT has an information technology business model that provides clarity to the Board and agencies/departments in long term information technology planning efforts and in daily information technology decision making. Identify successful governmental information technology business models and practices. Clearly define the areas of responsibility and authority assigned to CEO/IT.
3. Identify opportunities to improve CEO/IT's management of information technology operations and projects.
4. Provide recommendations to improve CEO/IT communication to the Board, County agencies/departments, and the public.

In order to effectively manage the significant scope of work for this performance audit, the Board approved the following phased approach:

- Task I: Document and Verify Current IT Resource Allocations
- Task II: Review CEO/IT Proposed Business Model (IT Strategic Plan)
- Task III: Review CEO/IT Operational Readiness
- Task IV: Review CEO/IT Performance Measurement
- Task V: Evaluate CEO/IT Communications

This document is the Task II report.

Task II Scope and Objectives

This report reviews and evaluates CEO/IT's proposed Countywide IT Strategic Plan ("Plan") completed in September 2008 and presented to the Board on March 3, 2009. The scope of work for Task II addresses the following questions:

1. Does the Plan provide the County with an adequate roadmap to guide County information technology operations from a strong fiscal and operational management perspective? Does the Plan provide appropriate and clear mission, goals, and strategies?
2. Does the Plan provide the Board with a framework to evaluate the approval of specific projects?
3. Does the Plan appropriately identify information technology as a "support" function guided by and measured against agency/department operational needs?
4. Does the Plan identify and focus first on providing core information technology services necessary to provide employees the resources needed to accomplish their mission?
5. Are the specific IT projects mentioned in the Plan (1) consistent with the Information Technology Strategic Plan, and (2) do they add demonstrable value in terms of efficiency or effectiveness that exceeds the amount of money invested?

Audit Methodology

To evaluate the usefulness of the Plan as a management and information technology tool, the audit team, with the assistance of its IT consultant, AEF Systems Consulting, Inc., conducted the following activities:

1. Identified industry best practices for the development of an IT strategic plan and reviewed the IT strategic plans of other governmental organizations.
2. Evaluated the Plan against industry best practices, identifying the Plan's strengths and weaknesses, and assessed the Plan's Strategic Goals, Strategies, and Initiatives/Projects for comprehensiveness, clarity, and logical alignment.

3. Reviewed in detail the Plan's supporting documents (e.g., other analyses that contributed to the development of the Plan). There are 16 such "Project History" documents, totaling 564 pages. Although comprehensively reviewed, the audit team did not consider these documents to be part of the formal Strategic Plan, for several reasons: (1) page 1 of the Executive Summary states, "This executive summary...summarizes the other three volumes that make up the County's IT strategic plan," (2) at no point in any of the four volumes of the formal Strategic Plan is the reader referred to the supporting documents for additional, significant information, (3) the supporting documents themselves state that they are not considered part of the Strategic Plan, but rather that "the output of the strategy development workshops and attendant analysis [will be used] to craft a 3-Year Tactical Plan and 3 to 5 Year IT Strategic Plan," and (4) unfortunately, much of the valuable raw analysis and content in these supporting documents is not highlighted or reflected in any substantive way in the four-volume, formal Strategic Plan.
4. Distributed an online survey to agency/department heads, agency/department IT managers, and stakeholders who were involved in the development of the Plan to ascertain the perceived quality of the Plan, to gauge the inclusion of agency/department input into the Plan, and to measure the Plan document's usefulness to agencies/departments.
5. Interviewed CEO/IT executive management and consultant staff on Plan development.
6. Recommended improvements to the Plan and next steps in the completion and acceptance of a revised plan.

Background Information

In April 2006, the former County Information Technology Working Group (ITWG) initiated a Countywide Information Technology strategic planning process. The process intended to accomplish the following goals:

1. A refreshed culture of information sharing among and between County business and IT staff.

2. A business-driven Countywide Five-Year IT Strategic Plan, which allows agencies/departments to provide guiding principles for the wise investment of limited resources.
3. A more inclusive Governance model.
4. A County of Orange specific Enterprise Architecture Framework.
5. A business-driven Countywide Three-Year IT Tactical Plan, which would serve as a guide for the County's IT investments over the next three years, as well as a roadmap to achieving the vision and mission of the IT Strategic Plan.

To assist with the development of the plan, CEO/IT engaged the services of Pacific Technologies, Inc. (PTI) at a total cost of \$550,450, starting in January 2007. CEO/IT also engaged Gartner, Inc., at a cost of \$42,000, to speak to County stakeholders on the value of having a Countywide or "Enterprise" Architecture.

In addition, CEO/IT gathered input from approximately 200 IT stakeholders across the County of Orange. Over the course of the Plan's development, various County staff participated in 10 focus groups, 11 half and full day workshops, nine half day working sessions, and 37 individual interviews. A conservative estimate of internal staffing costs for this effort is approximately \$250,000 (based on the estimated 4,500 hours spent by agency/department staff participating in the process, which was reported via the online survey).

The Plan document, intended to guide Countywide IT activities for the five year period from FY 08/09 to FY 12/13, was completed in September 2008 as a four-volume, 250+ page formal document. The entire document is available on an internal County website. Also on this website are 16 additional documents (totaling 564 pages) that are under the heading "Project History Links." The four-volume, formal Strategic Plan document was presented to and approved by the former IT Working Group in September 2008; and the formal Plan document was heard on the Board agenda in March 2009.

Task II Findings and Recommendations

The findings and recommendations from the audit team's analysis of the Plan are presented below. The information is organized into two parts: (I) an overview of the key elements of an IT strategic plan and (II) an evaluation of the Plan against each of these key elements.

I. Key Elements of IT Strategic Plans

This section outlines the key elements that should be included in IT strategic plans. These elements were validated by substantial research and by the audit team's IT consultant, AEF Systems Consulting, Inc. For a list of IT strategic plans that were reviewed as part of this Task II audit, see *Appendix B: IT Strategic Plan Benchmarking*.

The key elements of IT Strategic Plans include:

1. **Plan Background, Approach and Methodology:** The first component is the description of the process used to assemble the IT strategic plan, including the scope of the plan, the approach (i.e., the participants and their degree of participation, the format that participant feedback was collected, and any tools/techniques used to analyze the participant input/data), and the methodology (i.e., the steps taken to create the plan). Though minimal, this element is important so that future strategic planning efforts remain consistent, or can be improved if necessary.
2. **Identification of IT Industry Trends/Best Practices:** This key element identifies substantive trends in information technology that could be applied to improve the IT operations of the specific organization. It is important that these trends be current best practices, and not merely fads. This discussion may also introduce important IT concepts or frameworks that are addressed in later portions of the strategic plan.
3. **Identification of Organization-specific Key IT Data and Information:** This key element highlights information that is necessary to understand the overall information technology environment at the specific organization. This information includes an articulated vision/mission for the organization's IT operation, current organizational charts, major IT expense categories, IT staffing numbers, customers of IT (e.g., number of agencies/departments and constituents served), and a description of the specific roles and responsibilities of IT functions across the organization.
4. **Assessment of the Organization's Current IT Environment:** Prior to determining strategies and major strategic initiatives that will assist an organization in reaching its target (desired) environment, it is essential that the

organization first document and assess the status quo. In this analysis, there are at least three general IT service areas that require examination: (1) Applications and Data, (2) Infrastructure, and (3) IT Services, Organization, and Governance. Each of these areas must be inventoried and assessed against the organization's business needs (i.e., what an organization requires to increase the efficiency/effectiveness of its operations). Using business needs and applicable industry best practices, the strategic plan should identify its target environment as part of this assessment. Then, any gaps between the existing environment and the target environment should be addressed by developing goals, strategies and specific initiatives/projects. The three IT service areas are described in more detail below:

a. Applications and Data

Applications are computer programs (or software products) that perform (a) specific functions within a business process (e.g., purchasing), or (b) provide general tools for office and field work.

Data includes both information that can be put into a table format in a structured database, and information contained in "documents" such as formatted text or image files. An IT strategic plan usually assesses the existence and/or effectiveness of an organization's existing enterprise (i.e., organization-wide) data model for the sharing of data among multiple applications or the tracking of important data for informed IT investment decision-making.

b. IT Infrastructure

This includes all the hardware and software on which applications run, including operating systems, desktop/laptop/handheld computers, mainframes, servers, networks, switches, routers, etc.

c. IT Services, Organization, and Governance

IT Services incorporates a discussion of the types of services provided by the IT organization, such as, but not limited to, IT support, Help Desk, Application Development, and Maintenance. This section of the plan should also identify the resources needed to provide the services mentioned.

IT Organization refers to the structural hierarchy of the organization, including clear lines of responsibility and decision-making authority.

The IT Governance section should outline a governance structure that allows for (1) major IT-related business decisions to be made, as well as (2) the development and management of the technical and operational details that underlie these decisions.

5. **Selection of IT Strategic Goals:** This section identifies the IT Strategic Goals for the organization. These goals describe an IT organization’s target environment through results oriented, or process oriented statements. Goals should also reflect an organization’s priorities and align with the IT organization’s vision/mission to remain focused on its core purpose. In addition, these goals should be “business-centric” (i.e., tied to an organization’s business needs) rather than “technology-centric” (i.e., based on the assumption that the latest technology is always a good investment). The development of IT Strategic Goals must consider the assessment of the current IT environment in order to demonstrate how the goals selected address existing gaps that impede the organization’s ability to fulfill its mission.
6. **Development of IT Strategies:** Once IT Strategic Goals are delineated, the strategic plan should describe specific IT strategies that link to each goal. Strategies should describe how the Strategic Goals will be achieved.
7. **Development of Specific IT Initiatives/Projects:** This section identifies the tactical IT initiatives/projects for each IT strategy. Individual initiatives can be linked to more than one IT strategy or goal. The plan should make the distinction between projects that are currently in-flight, those that resulted from the development of the IT Strategic Plan, and those that the County can anticipate based on technology trends. One important element of this section is the inclusion of a methodology for selecting and prioritizing the projects. This methodology should align with the County’s IT goals and help decision-makers allocate resources.
8. **Plan Implementation and Accountability:** This key element discusses the next steps for operationalizing/implementing the goals, strategies, and initiatives/projects in the Plan, and who has responsibility for

tracking/measuring the achievement of these IT goals. Lastly, key performance measures that are linked to specific goals should be established, where appropriate, throughout the Plan.

II. Evaluation of the County of Orange IT Strategic Plan Proposed by CEO/IT

Though the IT Strategic Plan developed by CEO/IT for the County of Orange contains some informative content that provides a starting point for Countywide IT strategies, the primary conclusion of this evaluation is that the Plan does not achieve its intended purposes: to serve as an actionable roadmap for Countywide IT operations and investments over the next five years. The following table provides a high-level summary of the Plan’s key strengths and improvement opportunities.

Key Strengths	Key Improvement Opportunities
<ul style="list-style-type: none"> ▪ The Plan is a major step in calling attention to a mission-critical resource and significant cost center. ▪ The information-gathering process afforded Countywide IT stakeholders opportunities to provide input. ▪ The Plan identified some general deficiencies in the areas of data management, applications, IT governance, and infrastructure; it also conducted more detailed assessments in the areas of governance and applications. ▪ The Plan discusses multiple concrete strategies for improving the IT governance model and some strategies for capturing, analyzing, and utilizing data to support the business decision making process (Decision Support). ▪ The Plan acknowledges that IT goals and strategies should be driven by business needs. 	<ul style="list-style-type: none"> ▪ The Plan is missing basic key elements, such as: an IT vision/mission, definitive roles and responsibilities, a thorough assessment of the current IT environment, a specific framework for IT decision-making, and a process for measuring and ensuring the achievement of goals. ▪ The Plan aligns IT Strategic Goals only with Countywide Guiding Principles and not with an IT-specific mission/vision and principles. ▪ The Plan is missing strategies that address identified gaps/deficiencies; the strategies that are included are organized in a confusing fashion and do not address business needs. ▪ The concepts and frameworks in several sections of the Plan are generically discussed and frequently are not linked to the specific needs of the County of Orange. ▪ The Plan fails to mention or thoroughly discuss critical County IT issues such as: IT outsourcing, a converged voice/data network, and the move away from mainframe computing. ▪ The Plan includes a compendium of current or previously planned IT projects, many of which are not tied to specific IT Strategic Goals; in addition, these projects are not prioritized according to an established framework. ▪ The Plan does not adequately identify the IT needs of County agencies/departments. ▪ The Plan document does not incorporate much of the valuable analysis completed by the Plan consultant.

Moving from a summary to a detail level, the following text evaluates the Plan proposed by CEO/IT against each of the key elements previously identified:

A. Plan Background, Approach and Methodology

There are several standard strategic planning methodologies that can be utilized and tailored to the specific strategic planning approach of the organization. Some strategic plans are high-level and visionary in nature. CEO/IT indicated that that took a different approach and pursued a strategic plan that would be highly “tactical” and “actionable,” and would incorporate a significant amount of stakeholder input. As such, the audit team assessed the Plan against this objective.

Overall, from a format standpoint, the Plan Background, Approach, and Methodology are well done. The proposed Plan includes important introductory components such as acknowledgments, messages from the CEO and CIO, and a project approach and methodology. The project approach in the Plan describes the number of stakeholders involved in developing the Plan and how participant feedback was collected through a number of different workshops; the methodology details the steps that were taken to develop the Plan. This section of the Plan also appropriately includes a discussion of the anticipated benefits of the Plan. One minor format deficiency is the lack of a section detailing Project Scope. Such a section would help readers understand that the Plan covers all aspects of information technology at the County (e.g., CEO/IT, agency/department IT groups, external systems and internal systems).

From a content perspective, however, there are two important deficiencies in this area: 1) the use of an illogical strategic planning methodology, the negative consequences of which are manifested throughout the Plan document, and 2) the inadequate inclusion of agency/department input. Both of these deficiencies greatly hamper the usability of the Plan document and are discussed below.

1. Methodology

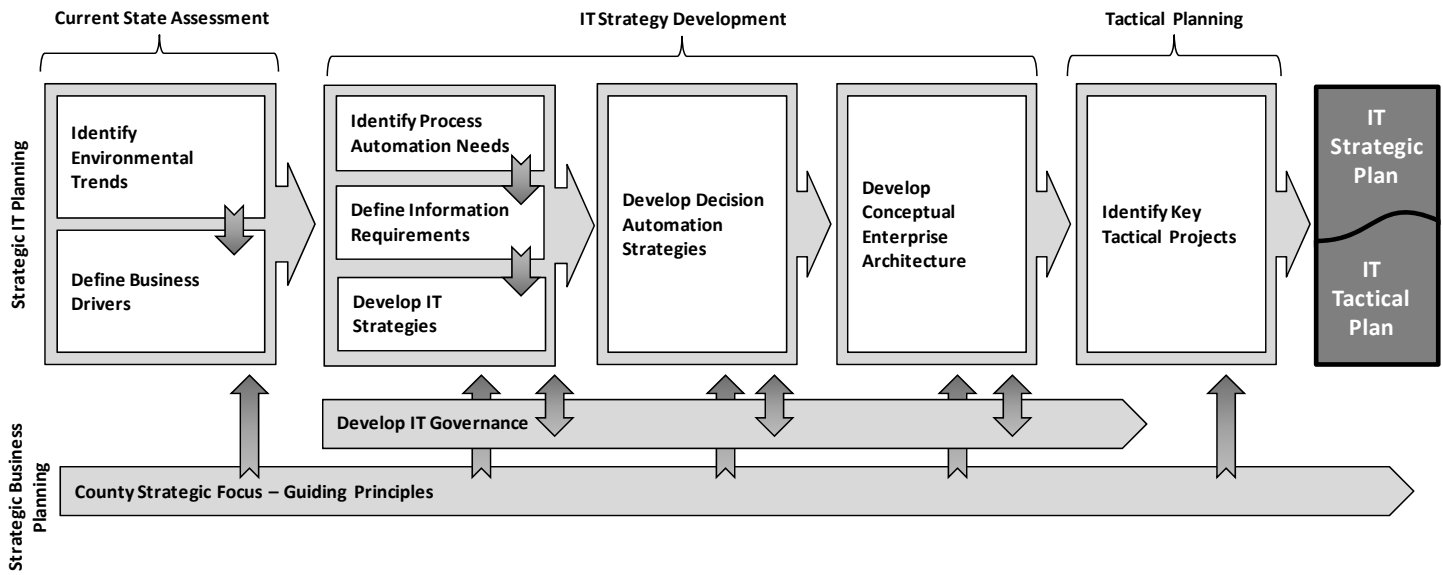
Finding 1A: The methodology used to develop the Plan does not follow a logical process.

The following is summary of the methodology’s major flaws, each of which will be examined as discrete elements of the Plan in subsequent sections of this report:

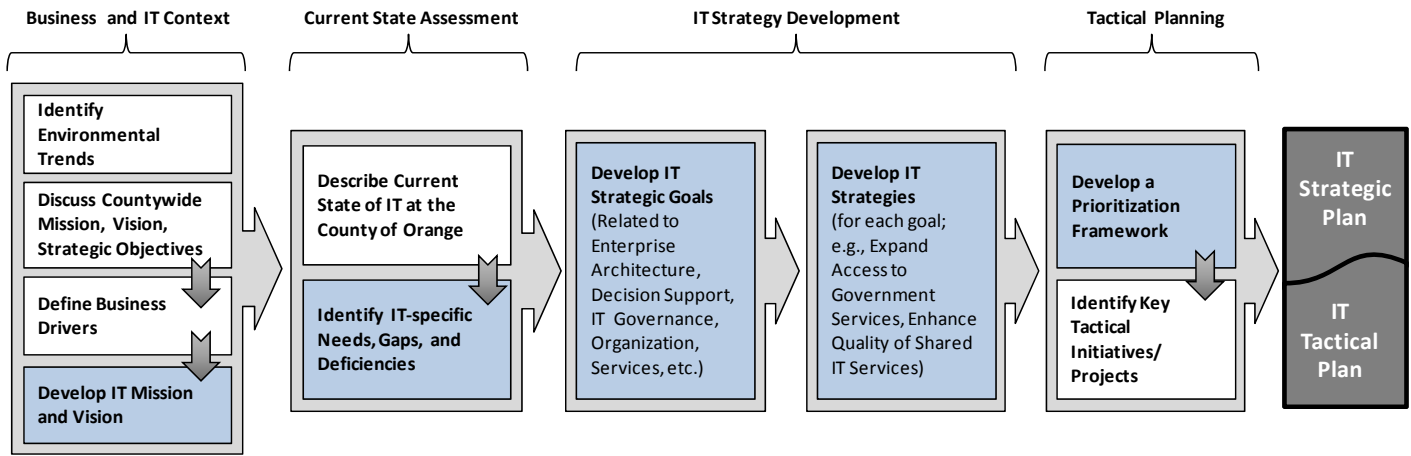
- There is no step in the methodology for creating a Countywide, IT-specific mission or vision.
- There was an insufficient assessment of the current IT environment.
- IT Strategic Goals are not aligned with an IT-specific mission/vision, and it is unclear how these goals address the needs or gaps identified in the (inadequate) Current State Assessment.
- Plan strategies are not clearly driven by IT Strategic Goals.
- Based on the scattered presentation of Plan strategies throughout the document, and discussions with CEO/IT, it appears that these strategies were developed using inconsistent processes (i.e., some strategies are high-level and were generated solely from Countywide stakeholder focus groups; some strategies are more specific to implementing Decision Support and a stronger Governance model; and some strategies are never explicitly stated but are implied in the discussion of Enterprise Architecture).
- The methodology used to develop the Plan did not include the establishment of a framework or set of criteria to prioritize the myriad of IT initiatives/projects throughout the County.

The diagram on the following page depicts the methodology used to develop the Plan juxtaposed with a methodology that uses a more logical, step-wise approach. The key differences are highlighted in blue.

Current IT Strategic Planning Methodology



Logical Alternative IT Strategic Planning Methodology



Recommendation 1A: Revise the strategic planning methodology to include important logical steps that ensure proper alignment and clarity.

2. Agency/Department Input

Finding 1B: From the perspective of a significant number of agency/department stakeholders, the Plan does not achieve its objectives of 1) adequately including their input and 2) serving as an actionable roadmap to guide their IT operations.

As noted, the audit team distributed a survey to over 200 IT stakeholders, seeking feedback on various aspects of the Plan; 48 individuals responded (approx. 25%). Respondents were asked to rate the Plan on a scale of 1 to 5 (1-most negative and 5-most positive) according to the following questions that pertain specifically to agencies/departments:

- How would you rate the IT Strategic Plan's usefulness as a roadmap to guide IT operations for your agency/department? **(2.8 out of 5)**
- How well do you think the IT Strategic Plan includes your agency/department's input? **(2.8 out of 5)**
- In your opinion, does the IT Strategic Plan clearly describe how CEO/IT will support your agency/department in the delivery of your core services? **(2.5 out of 5)**

It is interesting to note that CEO/IT respondents to the survey rated these questions only slightly higher (3.2, 2.8, and 2.8, respectively).

These tepid results are particularly disappointing in light of the significant effort made to solicit agency/department input and create an actionable roadmap for agencies/departments and policymakers to use as a guide for investing scarce resources.

B. Identification of IT Industry Trends/Best Practices

As previously noted, effective IT strategic plans include a discussion of pertinent IT industry trends and best practices as they relate to a specific organization's IT environment. The following sub-sections evaluate the Plan for its inclusion of applicable IT Industry Trends and Frameworks.

IT Industry Trends

Finding 2: The Plan does not include an adequate discussion of external technology trends that can practically assist the County in foreseeing and adequately planning for major IT changes on the horizon.

The Plan has six pages detailing various Environmental Trends and Business Drivers: Demographic, Economic, Political, Service and Technology trends. This information is highly generic in nature and more relevant for the development of a Countywide Strategic Plan than a specific IT Strategic Plan. What is missing is a more thorough set of technology trends than the three (below) that are presented in the Plan:

- Increasing use of the Internet
- Growing concern for privacy and security
- Technology-savvy workforce

These three trends are generic and rudimentary, adding little value in anticipating future technology issues for the County of Orange. In addition, notably missing from the Plan's "Technology Trends and Business Drivers" section is a discussion of the following trends, some of which are major Countywide IT issues currently at the forefront of CEO/IT's agenda, and all of which were well-recognized trends at the time the Plan was created:

- Sourcing models such as Managed Services for the outsourcing of various IT functions
- Virtualization which would allow for server consolidation and a reduction in hardware costs
- Cloud computing which allows for applications and data to be accessed remotely

Another important technology trend that is absent from the Plan is Voice over Internet Protocol (VoIP). VoIP is currently the subject of discussions between CEO/IT and the Board, and at the time the Plan was created, some agencies had already implemented VoIP, and others were considering its implementation. However, this trend is not identified or discussed in any substantive way in the Plan.

Another example is the growing public demand for accountability and meaningful performance measures. Despite the fact that the consultant hired to help the County develop the Plan identified this trend (and a number of other environmental trends) in its supporting analysis, it is not mentioned in the Plan document.

It is logical to expect that this failure to identify and discuss major technology trends directly relevant to the County's IT environment has hindered the County's ability to proactively address important, upcoming County technology issues.

Recommendation 2: Revise the Plan to include a discussion of significant IT industry trends that would be directly relevant to improving the County of Orange IT environment.

IT Industry Frameworks

Finding 3: The Plan discusses some but not all major frameworks relevant to Orange County IT that are referenced in the Plan document.

An IT Framework is a pre-defined structure or visual model that can be used as a tool to help solve or address complex IT issues. A framework can be a process flow, a diagram, a set of instructions, or a list of steps to take. Organizations can create their own frameworks customized for the organization, or they can use generic industry frameworks as a guide.

The Plan does introduce some leading industry frameworks in different sections of the report, such as Decision Support and Enterprise Architecture. However, the Plan document does not thoroughly and clearly develop these conceptual frameworks in an Orange County-specific context, and many of the diagrams and models are primarily generic. This issue is discussed in further detail in subsequent sections of this report.

In addition, some important industry frameworks utilized by CEO/IT are not included in the Plan. One example is the Information Technology Infrastructure Library (ITIL) framework, which is a set of concepts and practices for managing IT services, development and operations that can help an organization operate more efficiently and effectively. Although ITIL is mentioned briefly in later volumes of the Plan, it is done so in a cursory manner and an important opportunity is missed to explain this framework and how the County can find value in using it for its IT operations. CEO/IT implemented the ITIL framework at the County in FY 2007/08—prior to the Plan being finalized—with the help of a consultant (PA Consulting) at a cost of \$248,000.

Recommendation 3: Revise the Plan to include all major IT frameworks that are currently being used, or could be useful, in the Orange County IT environment.

C. Identification of Organization-specific Key IT Data and Information

This key element should provide the reader with important contextual information about IT at the County of Orange. Such information includes a well-articulated vision and mission for the County of Orange’s IT operation, organizational charts, major IT expense categories, IT staffing numbers (in-house and contract), IT customers (e.g., the agencies/departments and residents served), and a specific description of roles and responsibilities for IT functions across the organization.

The Plan includes some of these elements. For example, the Plan’s Introduction provides background information about the County of Orange, such as the number of residents and its ranking among other California counties. In *Volume II: Strategic Directions*, there are also sections on the Current Technical Environment and IT Leadership and Governance, which includes summary level information about the number of IT staff, total IT expenditures, and the IT governance model/organizational chart.

Notwithstanding these elements, the Plan excludes three fundamental organization-specific pieces of information that are vital to understanding the role of and providing direction for information technology at the County. The absence of this information has a crippling effect on the remainder of the Plan document.

1. IT Mission and Vision

Finding 4: The Plan does not articulate an IT-specific mission or vision for the County of Orange.

The foundation of any organization (or function) is a clear mission and inspiring vision. A mission statement answers the basic question of why an organization exists and describes the needs that the organization fulfills. It provides the criteria for judging the success of an organization and its efforts, helping to verify whether the organization is on the right track and making the right decisions. All strategies and projects should contribute to the achievement of the organization’s (in this case IT) mission. As an example, the County of San Diego lists its Countywide IT Mission as, “We will guide the enterprise toward solutions that meet the diverse needs of our County customers through continuous improvement, thought leadership and operational excellence.”

A vision statement defines the desired future state of an organization—its aspirations—and is used for long term planning. For example, in the 2003 Information Systems

Strategic Plan for Santa Clara County, the Countywide IT vision is “The County of Santa Clara shall be a leader in the use of technology to provide high-quality, cost-effective, yet equitable public services.” A shorter but equally meaningful IT vision statement from the State of Texas is, “Technology that matters.”

Without a Countywide IT-specific mission or vision, the Plan relies solely on the overall County of Orange mission statement and guiding principles as its point of reference:

County Mission Statement

“Making Orange County a safe, healthy and fulfilling place to live, work and play, today and for generations to come, by providing outstanding, cost-effective regional public services.”

County Business Guiding Principles

- *Deliver quality and timely services by leveraging our resources through innovation and technology*
- *Create and communicate a brand image of the County*
- *Engage the community to build collaborative approaches to solve regional issues*
- *Create a more accessible and transparent government that anticipates community needs*

County Cultural Guiding Principles

- *Embrace and enhance policy established by elected officials*
- *Create a safe, ethical, and caring environment that attracts, develops, and rewards an exceptional workforce*
- *Foster collaborative relationships that focus on quality customer service and results*

The County of Orange mission statement is purposely broad, given that the County is a heterogeneous, multi-functional organization comprised of some 24 different agencies/departments mandated to provide many different types of public service: Public Protection, Community Services, Environmental and Infrastructure Services, and General Government activities. Clearly, the County mission statement and guiding principles are not specific to IT, and yet it was that broad mission statement and accompanying principles to which IT strategic goals were aligned in the Plan. Failing to include an IT-specific mission and vision is a simple but significant miscue that reverberates throughout the Plan.

Recommendation 4: Include a Countywide IT-specific vision and mission statement in the Plan. Use these statements as foundational elements in the development of IT Strategic Goals, Strategies and individual Initiatives/Projects.

2. Roles and Responsibilities

Finding 5: The Plan does not include a thorough discussion of the County's "Federated IT system" and does not clearly define the role of CEO/IT in this system.

An IT business model establishes the parameters for IT operations in an organization. The County of Orange utilizes a "Federated" model, which involves both the central IT organization (CEO/IT) and agency/department IT functions in making decisions related to the level of centralization of shared services and the delineation of authority structures. There are several deficiencies in the Plan's discussion of this Federated model.

One primary deficiency is that the definition of a Federated model is not explicitly stated in the Plan. This problem is exacerbated by the Plan's inadequate description of how the Federated model applies to the County of Orange IT environment. To illustrate, the Plan only provides the following information related to this issue:

"Orange County's IT decision-making authority is centralized, for enterprise initiatives and shared resources, and distributed, for individual agency and department projects."

The simplicity of this statement ignores the existing set of complex authority relationships between CEO/IT and the various agencies/departments. Some agencies/departments operate their own data centers, some have their own email servers, some utilize a converged voice/data local area network with VoIP technology, and others obtain all their services from CEO/IT. The aggregate impact of these idiosyncratic relationships is confusion about authority structures, difficulty assessing IT from a Countywide view (e.g., understanding Countywide IT inventory), and lack of accountability—all of which contribute to inefficiencies. The Plan does not attempt to clarify this situation by defining roles and responsibilities, which is a missed opportunity to address concerns related to the roles and responsibilities of CEO/IT and agencies/departments in the County's Federated model.

A second deficiency is that the description provided for the role of CEO/IT does not clarify for whom services are rendered, nor does it spell out CEO/IT's decision-making authority:

“A centralized staff of an additional 83 IT FTEs work within the County Executive Office/Information and Technology (CEO/IT) to provide infrastructure services, including database and server administration, wide area network (WAN) services, network security, Internet services, and telephone and email services; enterprise application services including web development and intranet maintenance; customer services including help desk support; and IT administration including project management, strategic planning, and policy development.”

An important first step in the strategic planning process is to articulate the existing roles and responsibilities, convoluted and idiosyncratic though they may be. Alternatively, a revised authority structure that recommended consolidation or standardization of some services could have been proposed. In response to this recommendation, CEO/IT indicated that “given the challenges related to organizational culture, any proposed change to the Federated model would have hindered Agency cooperation in developing the plan.” Notwithstanding this concern, a clear definition of roles and responsibilities is a prerequisite for the successful creation and execution of any strategic plan.

The results of the internal survey of IT stakeholders further illustrate this foundational weakness in the Plan. When respondents were asked, “How would you rate the clarity of the plan regarding the roles and responsibilities of CEO/IT compared to the IT functions of agencies/departments,” the average score was 2.7 out of 5, with 1 being ‘Very Unclear’ and 5 being ‘Very Clear.’

Recommendation 5: Working with County agencies/departments, define roles and responsibilities for CEO/IT and agency/department IT operations, seek approval of these roles from the Board of Supervisors, and clearly communicate these roles to all IT stakeholders.

3. Use of IT Contractors/Outsourcing in the Current IT Environment

Finding 6: The Plan does not mention the County's significant use of IT contractors as part of its description of the current or proposed IT system/environment.

In the Plan's discussion of the current and proposed IT environment at the County of Orange (*Volume II: Strategic Directions*), there is no mention of the County's significant use of IT contractors. As reported in the audit team's Task I report, in FY 07/08 (the timeframe for the IT Strategic Plan), there were approximately 190 IT contractors within CEO/IT who operated the data center and provided telephone, network, and application services, as well as filled other IT functions. In today's environment (FY 09/10), that number has declined but is still significant, representing 65% of CEO/IT's total staffing resources. In addition, there are many other IT contract staff utilized throughout the County's agencies/departments.

Also, it is particularly noteworthy that the Plan does not mention the County's current 11-year, \$260 million contract with the IT service provider Affiliated Computer Systems (ACS), or that the contract expires in June 2011 and that there is the potential need to explore alternative sourcing strategies in anticipation of the contract expiration.

Without acknowledgment and discussion of contract employees as a significant staffing resource (note: the current CEO/IT Sourcing Strategy proposes the increased use of outsourcing/contractor resources), the Plan does not present a comprehensive picture of the County IT system, weakening the usefulness of the document. The consultant used to develop the Plan did conduct an IT Organizational Analysis (included in the supporting documentation) which discussed the County's use of IT Contractors, but this analysis was not incorporated into the formal Plan document.

Recommendation 6: Include a discussion of the County's use of IT contractors/outsourcing strategy in a revised version of the IT Strategic Plan.

D. Assessment of the Organization's Current IT Environment

Prior to determining/selecting major strategic initiatives to help an organization reach its target IT environment, it is imperative that the organization first understand its current environment – its strengths, unique needs, deficiencies, and challenges. This step in the strategic planning process is of critical importance as it identifies the deficiencies and gaps that need to be addressed. Indeed, it is difficult to set goals and develop strategies if an organization does not know where it currently stands.

Finding 7: The Plan does not include a thorough assessment of the current County IT environment, including the identification of specific deficiencies or needs that would drive development of goals, strategies, and initiatives/projects.

The sections below evaluate the Plan's assessment of the current IT environment for each of the following three general IT categories: (1) Applications and Data, (2) Infrastructure, and (3) IT Services, Organization, and Governance.

Applications and Data

As previously described, Applications are computer programs or software products that provide specific functions within a business process (e.g., purchasing), or general tools for office and field work. Data is the information required by the business. Applications and Data are a part of an organization's IT "architecture."

Volume II: Strategic Directions of the Plan includes a brief discussion of the current state of the County's Applications and then provides a high level summary in the form of a single page "Gap Analysis" diagram, which reviews select Applications (Enterprise Applications and Multi-Agency/Department Applications). However, there is no analysis of the "Application Components" (e.g., Application Life Cycle Management, Portfolio Management) that is defined in this section. Without a current state assessment of these components, strategies to close these gaps cannot be properly set.

Furthermore, there should be some acknowledgement of the scale and importance of certain Applications. The Plan should include a high-level discussion of these major applications, such as the recent upgrade to the County Accounting and Personnel System (CAPS+). CAPS+ is a \$40+ million project that has a tremendous impact on all agency/department operations, yet it received minimal attention in the Plan. Though a detailed assessment is not required, there should be some discussion of the application's impact and risk. Given the tremendous significance of this effort and its cost, the Plan should include a discussion of the alternatives that were weighed by the CAPS Steering Committee and background on the County's decision to upgrade its current system, and not go out to bid for a new system. While the legacy CAPS system is mentioned several times throughout the Plan and CAPS+ related projects are detailed in the *Volume IV: Tactical Plan*, there is no mention of the strategic value of CAPS+.

Similar issues exist for the assessment of the County's Data in the Plan. A strategic plan usually assesses an organization's model for the sharing of data among multiple applications, or the tracking of data that is used to guide IT investment decisions (i.e., Decision Support). *Volume III: Information Requirements and Decision Support Strategy* of the Plan is dedicated to this topic in general. However, while this volume contains some key data/information and support requirements, there is no identification of data that is shared across agencies/departments, models of how that data is currently shared,

or assessment of the current models' efficiency. Consequently, there is very little information from which to develop a strategy.

An improved assessment of both the County's Applications and Data in the Plan would assist in the identification of specific gaps and in developing strategies to reach a target IT environment.

IT Infrastructure

IT Infrastructure includes all the hardware and software on which applications run, including operating systems, desktop/laptop/handheld computers, mainframes, servers, networks, switches, and routers. It is another element that comprises an organization's IT "architecture."

The Plan does not include an inventory or assessment of the County's IT infrastructure. While *Volume II: Strategic Directions* provides definitions of the various types of infrastructure and a one-page commentary on the current state of each type, the Plan skips from this high-level description to a list of goals and strategies. As in the case of Applications and Data, there is no identification of specific deficiencies or needs that would then lead to a clear and logical set of targets for an IT strategy.

IT Services, Organization, and Governance

This portion of an IT Strategic Plan should identify and assess the types (e.g., help desk, desktop support) and quality of services provided by the IT organization, as well as the structure of the organization and any established governance model.

IT Services

Regarding IT Services, the Plan only provides a limited assessment. For example, missing from the Plan is a performance assessment of services provided by CEO/IT, such as telephone, server hosting, project management, application support, among others. An assessment of these services would also examine the performance of contractors who provide many of these services and identify gaps that can be addressed through IT strategies, initiatives, and projects. This type of assessment would also help identify whether the County's IT outsourcing strategy is working, and document any necessary changes. Typically, if an organization has a robust performance management system in place, data for conducting such an assessment is readily available.

In addition, such an assessment is necessary to determine appropriate staffing levels and whether that staff should be County or contract resources. A benefit of this analysis would be the ability to justify position growth, such as the significant increase in CEO/IT management positions over the past few years.

In the Plan's supporting documents, the Plan consultant identifies a number of staffing-related findings; however, these are not included or addressed in the formal Plan document. For example, one finding is that the County of Orange's PC to PC-Support ratio is excessive: the County has one IT-support employee for every 70-100 PCs (personal computers), while the typical public sector range is one IT-support employee for every 225-325 PCs.

Organization and Governance

An important organizational principle is that form impacts function. In any organization, clear lines of authority and effective structures must be established for the efficient accomplishment of tasks. Without an assessment of the current IT organizational structure, it is difficult to determine if any reorganization is needed to enable the accomplishment of strategic goals or initiatives.

The assessment of IT Governance in the Plan is fairly detailed. The Plan outlines the current IT Governance Model and its key characteristics, as well as the strengths and improvement opportunities for IT governance at the County.

It is important to note that the audit team did not assess IT Governance processes or the effectiveness of the IT Governance structure as part of this task of the audit. These issues will be examined in more detail in subsequent tasks of the performance audit.

Recommendation 7: Conduct a thorough assessment of the current County of Orange IT environment with respect to Services, Organization, and Governance to identify both strengths and weaknesses. Use this assessment to build a target (desired) IT environment and as the basis for developing IT Strategic Goals, Strategies, and Initiatives/Projects.

E. Development of IT Strategic Goals

An IT organization should set strategic goals that align with its mission/vision and that address the needs and requirements identified in the assessment of the current IT environment. Setting adequate strategic goals is imperative in a strategic plan. First, goals are developed for the purpose of moving an organization from its current state to

a target or desired state. Second, goals drive the development of specific strategies and individual initiatives/projects. Third, goals strengthen the methodology for weighing, evaluating and selecting among IT investment alternatives.

Finding 8: The IT Strategic Goals in the Plan are general, incorrectly aligned with only the overall County of Orange mission statement and Guiding Principles, and do not address the specific IT needs of the County.

The IT Strategic Goals identified in the Plan are:

- One Government – “County constituents and stakeholders will have one place to go for county information and online transactions.”
- Anytime, Anywhere Access – “A variety of channels including self-service options such as voice and web response – will provide constituents with 24/7 access to information and the option to do business ‘online versus in-line’. Multiple access channels, languages, and formats for people with disabilities will ensure information is accessible to all the county’s constituents and stakeholders.”
- Single-Constituent View – “A shared customer (computer screen) view across agencies and departments will improve customer service and outreach capabilities, and enable more truly constituent-centric programs and services. Customer relationship and contact management automation will help collect and maintain key information.”
- Constituent-Centric Information – “Online information and service delivery will be organized around ‘life events’ and other triggering activities, and will cut across the services offered by multiple agencies and departments.”

There are three observations to be made concerning these goals.

First, the Plan document does not demonstrate how these goals address the County’s IT needs or deficiencies (that should have been identified in the Current State Assessment of the County’s IT environment). As a result, there is no compelling rationale for pursuing the goals in the Plan document.

The second observation is that all four goals are fixated on the external “customer experience” (i.e., the experience of the public in interacting with the County). This focus is not misguided, but it is incomplete, as none of these goals clearly identify the role of IT as a support function to internal County customers (i.e., agencies/departments who directly deliver services to the public). As a comparison, contrast the County of

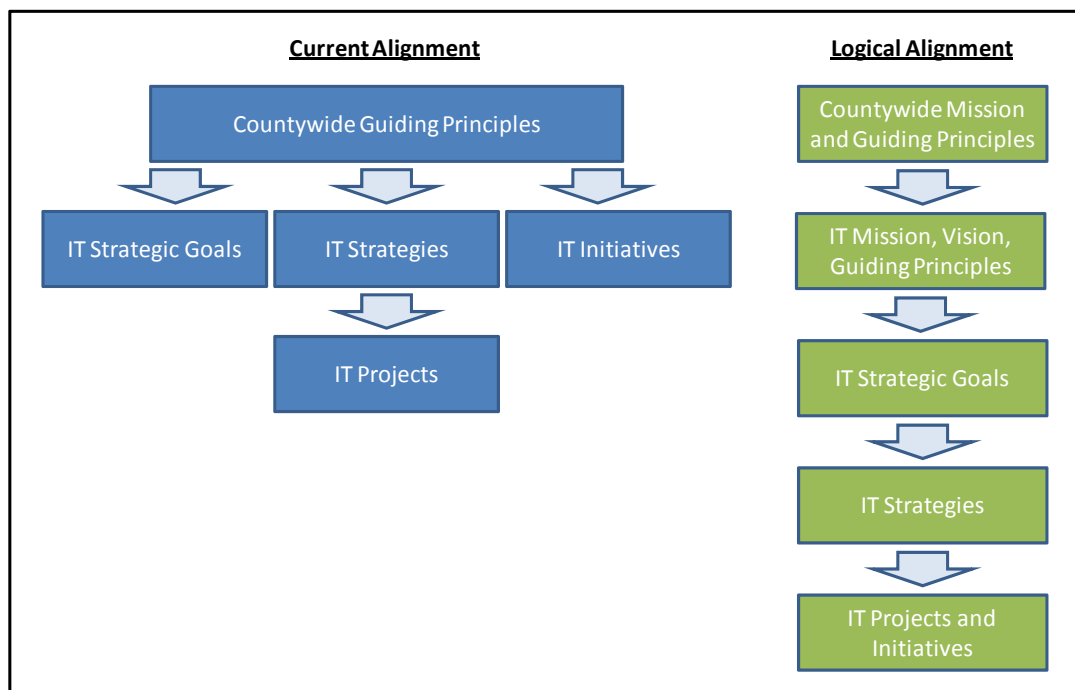
Orange’s IT goals above with the State of Washington’s goals below, which cover many different IT needs:

- *Invest in Common Systems*
- *Promote Data Sharing*
- *Promote Common IT Practices*
- *Provide an Integrated End-User Experience*
- *Improve Project Management Practices*
- *Leverage the State’s Buying Power*

Third, these goals are aligned only to the overall County mission statement and guiding principles. It is not clear how broad, organization-wide guiding principles are sufficient to support these IT Strategic Goals. For example, the County’s general Guiding Principles are:

- *Quality Service*
- *Brand Image*
- *Collaborative Approaches*
- *Accessible and Transparent Government*
- *Elected Official’s Policies*
- *Caring Environment*
- *Collaborative Relationships*

The following diagram depicts the Plan’s current approach to aligning various components, including IT strategic goals, juxtaposed with a more logical approach:



Recommendation 8: Develop additional IT Strategic Goals that address the County's IT needs/deficiencies (including those of internal customers), consider consolidating existing external-facing Goals, and ensure that all Goals are aligned to an IT-specific Mission/Vision.

F. Development of IT Strategies

Once IT strategic goals are determined, a strategic plan should culminate in the development of specific IT strategies and initiatives/projects that help the County achieve those goals. Individual strategies should be linked to at least one goal.

High-Level IT Strategies

Finding 9: The set of high-level IT strategies included in the Plan are generic and not aligned with IT-specific goals. In addition, this set of strategies fails to include important strategies suggested by CEO/IT's Plan consultant.

According to the Plan, the approach used to develop IT strategies was for participants to review Orange County's business drivers and guiding principles and assess process automation needs and information requirements. As noted earlier, this approach is missing a thorough assessment of all aspects of the current IT environment, as well as a set of well defined IT-specific strategic goals. Thus, the resulting strategies are generic, and it is unclear how they address the most critical IT needs of the County.

As a result, the set of high-level IT "strategies" in the Plan are more like strategic goals:

- (1) *Enhance county service delivery*
- (2) *Provide "anytime, anywhere" access to county government*
- (3) *Build an agile, innovative, and responsive organization*
- (4) *Foster partnership – among agencies and departments, and across the region*
- (5) *Streamline operations and improve workforce effectiveness*
- (6) *Ensure information availability and security*
- (7) *Maximize the effectiveness of IT resources*

In fact, Strategy #2 above is almost identical to one of the Plan's four Strategic Goals, "Anytime, Anywhere Access." This redundancy illustrates the importance of generating IT Strategies that will achieve and are aligned with IT Strategic Goals.

In contrast, the following example from the State of Washington’s IT Strategic Plan illustrates how IT Strategies should properly align with IT Goals:

Relationships between IT Goals and Strategies

Strategies	Goal 1: Invest in Common Systems	Goal 2: Promote Data Sharing	Goal 3: Promote Common IT Practices	Goal 4: Provided an Integrated End-user Experience	Goal 5: Improve Project Management Practices	Goal 6: Leverage the State's Buying Power
1. Create a means for acquiring, developing, and sharing qualified IT project management resources for use in government service			●		●	●
2. Build organizational capacity for agencies to transform procedures and practices through a combination of business and IT expertise		●	●		●	
3. Adopt a uniform framework and infrastructure for geographic information and related business technology	●	●	●	●		●
4. Establish common data elements for next generation, back office systems		●	●			●
5. Research and develop business models to govern shared information technology planned, financed, procured and used by multiple agencies	●	●	●			●
6. Provide mobile access for government employees to conduct government business in real time	●	●				●
7. Provide citizens with access to comprehensive, integrated information relating to government activities and services		●		●		
8. Adopt usability and accessibility standards for information technology applications, products and services		●	●	●		
9. Standardize contracting and purchasing processes to strengthen the state's e-procurement functionality and simplify business conducted with the state	●		●	●		●
10. Develop recommendations for a statewide Service Oriented Architecture (SOA) roadmap, reference framework, and program requirements to assist in education, identification, creation, and use of shared services	●	●	●	●		

The State of Texas’s IT Strategic Goals and Strategies are included in Appendix D as another example.

Ironically, in the Plan’s supporting documents, the Plan consultant listed a number of specific IT strategies that were not included in the formal Plan document. These IT strategies were grouped by “Strategic Focus Areas” such as Operations and Service Delivery, Partnership, Organizational Agility, Information Availability and Security, and IT Management. These strategies were much more specific and similar to strategies found in other IT strategic plans. Examples of strategies that were identified by the Plan consultant but were not incorporated in the Plan include:

- Support defined countywide and IT performance objectives and measures

- Define an effective IT framework to promote and support re-usability, and provide tools for agility
- Leverage vendor/purchasing efforts across the enterprise

In addition to these high level strategies, the Plan also presents strategies in various forms under three major sub-headings (Enterprise Architecture, Decision Support, and IT Organization). The audit team investigated these sections of the Plan document to identify strategies that address deficiencies or needs in the key IT areas identified earlier in the report: 1) Applications and Data, 2) IT Infrastructure, and 3) IT Services, Organization, and Governance.

Applications and Data Strategies

Applications

Finding 10: The Plan document does not identify strategies to address gaps and deficiencies in the County's various specific Applications and overall Application management.

Although the current assessment of the County's Applications includes a gap analysis that identifies the Enterprise and Multi-Agency Applications that do not meet the needs of the County, there are no strategies outlined in the Plan for closing those gaps. Similarly, the Plan includes a summary-level description of the County's challenges related to Applications (e.g., lack of integration across agency/department applications), but it is not clear how these challenges will be addressed.

Furthermore, in *Volume II: Strategic Directions*, the Plan describes the current state of several Application management components, such as Application portfolio management and Applications standards, but again, there are no strategies that address the identified deficiencies.

Two examples underscore the need for Applications-related strategies. One example was the recent OC Sheriff's Department's request to spend resources on its existing mainframe computer. OCSD indicated a desire to move its many public safety Applications off its mainframe, but stated that they had not yet engaged CEO/IT to assist them in coming up with a plan or strategy to do so. A second example is the CEO/IT-led project focused on "retiring" the mainframe computer at the OC Data Center, which houses a number of mission-critical Countywide and agency-specific

Applications, and costs millions of dollars annually in maintenance expenses. The strategic implications of these examples are significant, yet there are no strategies articulated in the Plan document that address the widely recognized need to transition Applications to non-mainframe environments throughout the County.

Recommendation 10: Develop specific Applications-related strategies that are aligned with IT Strategic Goals and address the County’s Applications deficiencies/needs.

Data

Finding 11: While the Plan document includes some Data-related strategies, it is not clear how these strategies address specific Data deficiencies in the Orange County IT environment, nor is it demonstrated how these strategies align with the IT Strategic Goals in the Plan document.

With regard to Data, there are mixed results. On a positive note, there is a separate volume of the Plan dedicated to data and information—*Volume III: Information Requirements and Decision Support Strategy*—which includes several Data-related strategies, as well as critical success factors.

However, it is not clear how these strategies were derived from specific Data deficiencies and County business needs. The Plan includes a current state description of Data in the County and some summary-level challenges; however, it is not clear that the Data-related strategies address the identified challenges. For example, one strategy is “Ensure Data Quality, Security and Privacy,” but there are no challenges or deficiencies identified in the Plan’s assessment of Data that relate to Data security and privacy.

The Plan also contains only a “Conceptual Data Model,” which is insufficient by itself as a strategic planning tool because it does not show enough detail about shared data elements and does not map the shared data elements to current or planned projects or specific IT Applications.

Recommendation 11: Align Data-related strategies to the County’s Data deficiencies and business needs. Modify the data model included in the Plan to be more specific to the County of Orange.

IT Infrastructure Strategies

Finding 12: The Plan document does not identify strategies to address gaps and deficiencies related to the County's IT Infrastructure.

Similar to the Applications area, there are no strategies related to IT Infrastructure outlined in the Plan. The Plan includes a summary-level description of the County's challenges related to IT Infrastructure and a brief description of the current state of IT Infrastructure components (e.g., Data Center, Servers, Networks) but there are no explicit strategies to address these challenges.

The absence of strategies results in additional missed opportunities to address critical County IT Infrastructure issues such as the development of a unified communications system using Voice over Internet Protocol (VoIP); the consolidation of County servers into a virtualized environment; and disengagement from all County mainframe computers.

Recommendation 12: Develop specific strategies to address important Countywide IT infrastructure issues.

IT Services, Organization and Governance Strategies

Finding 13: IT Governance strategies are clearly articulated in the Plan. However, strategies related to IT Services are incomplete, strategies related to IT Organization are missing, and strategies related to IT Governance are not aligned with IT Strategic Goals.

From a thoroughness perspective, the discussion of IT Governance is a major strength of the Plan. The Plan contains clearly articulated IT Governance strategies based on an assessment that identifies deficiencies of the existing IT Governance model. There are strategies that establish a Business Council and Business Communities of Interest groups that support increased collaboration between business managers and technology managers. The Plan diagrams both the "as-is" IT Governance model and the desired "to-be" model. These diagrams clearly communicate the recommended changes to the existing model. Another notable strategy establishes a Project Review Board.

The Plan also states that County stakeholders identified IT Governance as "the single most critical factor for the implementation of its future IT environment." As such, the

Plan authors made a conscious decision not to include or focus on strategies related to IT Organization and Services and instead concentrated on IT Governance. While IT Governance is an important component of IT, these other areas are also important and should be addressed. For example, the Plan is almost completely silent on what IT Services are provided, to whom, and by whom, throughout the County. These topics would typically be addressed under the IT Services section of the Plan document. This omission results in a number of missed opportunities. One major example is the issue of outsourcing. CEO/IT is currently pursuing a new IT Sourcing strategy that could drastically change how IT Services are provided to agencies/departments throughout the County. The IT Strategic Planning process was the ideal forum to introduce the significant changes and opportunities for cost savings that CEO/IT envisions, and to lay the strategic foundation for this vitally important initiative. CEO/IT is also pursuing an initiative to converge the Countywide voice and data networks and implement Voice over Internet Protocol (VoIP) via a managed services contract. The strategic underpinnings for this initiative are also missing from the Plan document.

Lastly, it is important to note that the audit team did not evaluate the effectiveness of the strategies pertaining to Services, Organization and Governance. These areas will be reviewed as part of Tasks III and IV of this performance audit of CEO/IT.

Recommendation 13: Revise the Plan to include important strategies related to IT Services and Organization, and demonstrate how IT Governance strategies align with IT Strategic Goals.

In addition to the strategies identified above, the Plan also devotes a considerable amount of time to addressing the concept of Enterprise Architecture, and in doing so, implies a broad strategy for the implementation of Enterprise Architecture.

Enterprise Architecture (EA) Strategies

Enterprise Architecture (EA) is a way to holistically view an organization's information technology. It emphasizes the need to integrate business-related strategies, needs, and processes with IT. Prior to the establishment of EA as a best practice in the IT industry, IT was viewed primarily from a technological perspective, with organizations focused on "IT Architecture", which is composed of Applications, Data, and IT Infrastructure (also commonly referred to as Technology). EA adds a business component to IT Architecture.

In essence, EA is a master plan for an entire IT operation and is composed of a series of visual depictions or diagrams that illustrate the relationships between different applications, sets of data, different IT infrastructure, and different business processes. These EA components assist business managers in getting meaningful answers about both the technological implications of their business decisions and the business implications of their technology decisions. When implemented effectively in an organization, EA can be a valuable tool in business strategy, analysis, and planning.

Finding 14: The discussion of EA in the Plan does not identify an explicit EA goal/vision for County of Orange IT, and there is only one unclear strategy for achieving this goal/vision in the Plan document.

The Plan devotes considerable space introducing EA and discussing its guiding principles and benefits. Notwithstanding this good introduction, there are three primary deficiencies.

First, implementation of EA, though implied, is never explicitly stated as a goal or priority for the County of Orange. This is inconsistent with the inherent significance of EA as an organization-wide initiative.

Second, there is no assessment of the current state of EA at the County. There is a “Conceptual Enterprise Architecture” diagram of the desired state of EA, but there is no assessment of the current state or an “as-is” diagram. The conceptual, target EA is not useful unless there is an “as-is” that can help the County identify its deficiencies and needs.

Third, there is only one “strategy” in the entire Plan document that directly references EA, and it is not well articulated. This strategy is located in *Volume I: Executive Summary* under “IT Organizational Strategy,” and is titled “Manage the transition to the target IT environment.” This strategy title is far too broad and its explanatory text is a jumble of non-specific initiatives that vary in scale and address only one aspect of EA, IT organization.

Unfortunately, although there is a series of “Component Roadmaps” for each EA component (e.g., Applications and Data, Infrastructure) in a supporting document to the Plan, there is no mention of these roadmaps in the Plan document.

In light of the lengthy discussion of EA in the Plan, CEO/IT’s engagement of Gartner to help explain EA to County stakeholders, and the number of workshops dedicated to the development of EA guiding principles, it is clear that CEO/IT regards EA as an

important practice for the County. However, without explicit goals and strategies for implementing EA at the County, IT stakeholders have no guidance for making this concept a reality.

Recommendation 14: Articulate Enterprise Architecture as a goal for the County, discuss the current state of EA at the County, and include specific strategies for how the target EA will be implemented in Orange County.

G. Development of Specific Initiatives/Projects

Following the development of IT strategies, an IT strategic plan should then include specific initiatives and projects for each strategy, particularly in an IT Strategic Plan that is intended to be tactically focused (such as this one).

Finding 15: The Plan’s list of “Strategic Technology Initiatives” is not aligned with IT-specific strategic goals or strategies, nor is there a methodology to prioritize these initiatives or the tactical/EA projects presented in the Plan.

In *Volume I: Executive Summary* of the Plan, a list of “Strategic Technology Initiatives” is included. Examples include: 311 Customer Service Center, Business Continuity, eGovernment, Emergency Mass Notification, Geographic Information Systems, IT Portfolio Management, and Regional Wireless. Again, as in other parts of the Plan, there is no linkage of these initiatives to an IT-specific mission, goals, and strategies. Rather, each initiative is aligned with one or more Countywide (non-IT) guiding principles.

In addition to “Strategic Technology Initiatives,” there is a list of 48 agency/department “tactical projects” and 16 Enterprise Architecture projects presented in *Volume IV: Tactical Plan*. Unlike the “Strategic Technology Initiatives,” these projects are correctly aligned with one of the high-level IT strategies presented in the Plan.

Nevertheless, both the “Strategic Technology Initiatives” and the “Tactical Projects” are discussed in isolation without any information to connect them or prioritize them against other initiatives/projects. Without contextual information, the list appears as a random compendium of projects. Clearly missing is a discussion of potential project synergies, overlaps, interrelationships, or dependencies. In 2007, the County of Santa Clara realized that their IT Three-Year Plan was missing this discussion, and consequently conducted a review to identify “overlapping projects across departments

that have different implementation schedules.” Santa Clara County IT planners described this exercise as “connecting the dots,” and noted it as a major step in developing a strategy document.

A key benefit of and reason for developing an IT Strategic Plan is its value as a guide for making IT investments. One of the practical deficiencies of the Plan is the lack of a methodology to prioritize and make decisions about which specific IT initiatives/projects should be pursued. Without this methodology, it is difficult for CEO/IT, County agency/department IT managers, or the Board of Supervisors to understand the criticality of various requests for scarce resources. The need for such a methodology is particularly important in this economic climate, when the Board and County executive management are trying to differentiate core/critical needs from possible cost cutting opportunities. Such a methodology should provide a means for the County to delineate the “nice to have” from the “need to have” IT projects.

At the time the Plan was completed, CEO/IT was in the process of establishing a formal Project Review Board to review and score proposed IT projects that are estimated to cost more than \$250,000. Now implemented, that process includes submission of a proposal to the IT Project Review Board, a governance body consisting of CEO/IT and agency/department business and IT management. This process requires a business justification for the request, and includes the scoring of IT projects on criteria such as return on investment, risk, direct benefit, architectural fit, and whether or not the project is mandated or supports critical application/infrastructure. Unfortunately, the strategic foundation for the scoring criteria is never laid out in the Plan. While the implementation of this project scoring criteria is a positive step toward developing a methodology for prioritizing initiative/projects, industry best practices suggest that such criteria should have been addressed in the Plan document in order to ensure their alignment with strategic goals and strategies.

On a positive note, each of the Tactical Projects listed in Volume IV of the Plan document discusses potential (non-quantified) benefits and estimated (quantified) costs. Similarly, the existing Project Review Board requires each new proposal to include a business case analysis, part of which includes a discussion costs and benefits.

Recommendation 15: Develop a methodology to guide and prioritize IT investment decisions and current IT resource allocations, leveraging the efforts of the existing Project Review Board.

H. Implementation and Accountability

Finding 16: The Plan does not include a discussion of next steps for how the overall IT Strategic Plan will be operationalized, who is responsible for ensuring that next steps are completed, or how success or failure will be measured.

Operationalizing the Plan

Though an IT Strategic Plan does not need to outline all the precise actions necessary to implement the Plan, it is important for policymakers and IT staff to have a sense of how the Plan is to be used. Such a discussion does not exist in the Plan, and thus there is confusion about Plan implementation. This assessment is corroborated by the feedback received from multiple respondents to the internal survey conducted by the audit team, who commented that they were unaware of the current status or outcome of the Plan.

In contrast, the County of Alameda's IT Strategic Plan outlines key implementation steps, including approval of the plan and how the plan will be distributed to agencies/departments. In another example, the IT Strategic Plan for the State of Texas states that their plan "will be used by Texas government agencies to develop the information resources sections of their 2010 strategic plans."

In addition, given the rapid changes that occur in technology and the need to be flexible in a changing business environment, industry best practice suggests that an IT Plan document needs to be reviewed, if not annually then biannually, and refreshed if necessary.

Plan "Ownership"

The Plan does not explicitly state who is responsible for making sure goals and strategies are implemented. Though the Plan does state that the (now defunct) IT Working Group "oversees the County's IT strategic planning efforts," the specific responsibility for leading and tracking the implementation of the IT Strategic Plan is never delineated.

In contrast, the City of Rancho Cucamonga's IT Strategic Plan clearly identifies its Technology Steering Committee as the group that will monitor the implementation of

the priority projects outlined in the plan. Any changes to the implementation schedule of these projects must be formally adopted, tracked, and monitored by this committee.

In another example, the County of Alameda's IT Strategic Plan includes a summary of its "review and update process" for its Plan, identifying its Information Technology Department (ITD) as responsible for reviewing the progress of projects. ITD is also responsible for reviewing and updating the plan annually.

It is a logical assumption that for the County of Orange, the central IT organization—CEO/IT—should be responsible for implementing the Plan as a whole. However, the Plan does not indicate that this is the case. This deficiency again points to the lack of clear roles and responsibilities that has been illustrated in other sections of this audit report.

Performance Measurement

Once ownership for reviewing, updating, and monitoring of implementation/progress is established, it is also important to develop performance measures to keep the Board and other leaders informed of the County's progress in achieving its IT strategic goals. In a 2006 article (*Key Questions That Government IT Strategic Plans Should Address*), industry expert Gartner states that "IT strategic plans are incomplete unless they contain performance measures used to track status and progress against stated goals and objectives."

Unfortunately, the Plan is completely silent on how progress should be measured. Without performance measures, policymakers and the public are unable to ensure accountability, which is a vital element of any strategic plan.

The State of Texas' IT Strategic Plan identifies that "through the 2010 Biennial Performance Report (November 2010), the state will describe enterprise and agency progress on the government technology goals presented in this plan." In another example, the following are IT performance measures from the State of New York's IT Strategic Plan:

- *Broadband Coverage and Adoption Rates*
- *Energy Consumption Savings from IT Consolidations*
- *E-Government Services Expansion*
- *Unit Cost Service Rates to State Agencies*
- *Enterprise License Agreements Savings*

- *Change in Staff Augmentation Rates*
- *IT Workforce Receiving Training and Certification Rates*

As with other areas of the Plan, there is valuable information in the supporting documents generated by the Plan consultant that is not included in the Plan document. The consultant recommends that the County “Develop a performance measurement program” to “assess the County’s objectives in meeting its strategic IT objectives.”

Recommendation 16: Include a section in the revised IT Strategic Plan that discusses implementation and next steps for the Plan and assigns ownership for the Plan; identify performance measurements for each IT Strategic Goal.

III. Next Steps

As demonstrated throughout this audit report, significant changes need to be made to the Plan in order for it to serve as an effective roadmap and strategic planning tool for the County. Moreover, it has been over a year since the Plan was finalized and over two years since development of the Plan began in 2007. Since that time, both the County and the IT industry have changed, rendering the Plan stale in many respects. Given these issues, the significance of IT as a cost center in County operations, and the dire fiscal situation of the County, there is an exigent need for executive management and the CIO’s office to develop a more effective Strategic Plan for guiding IT Countywide.

The Plan was developed utilizing \$600,000 of consultant services, as well as an estimated 4,500 hours of County staff time (approximately \$250,000 of internal cost). Given the current scarcity of resources and the considerable time and money spent to create the existing Plan, it is not advisable to engage external consultants in an effort to redo or revise the Plan document. By the same token, the development of a completely new Plan is not necessary or cost-effective given that there is a substantial amount of valuable analysis included in the supporting documentation that can serve as a starting point for refreshing the Plan document. Instead, the audit team recommends that County staff make improvements to the existing Plan in a phased approach, according to the steps detailed on the following page.

<p>Phase I (Q3 FY 2009/10)</p>	<ol style="list-style-type: none"> 1. With Board participation, form a temporary Oversight Group to monitor the implementation of report recommendations. 2. Define the roles and responsibilities of CEO/IT vis-a-vis agencies/departments, involving key stakeholders from both CEO/IT and agencies/departments; then seek Board approval. This task should be conducted using the current IT Sourcing governance participants, at a minimum. 3. Develop a Countywide IT vision/mission. 4. Identify a short list of critical deficiencies in the current IT environment.
<p>Phase II (Q4 FY 2009/10)</p>	<ol style="list-style-type: none"> 5. Establish improved IT Strategic Goals and define performance measures for those goals. 6. Determine current critical strategic priorities and a framework for prioritization of IT investments.
<p>Phase III (Q1 FY 2010/11)</p>	<ol style="list-style-type: none"> 7. Refresh IT Strategies and Initiatives/Projects using the newly established prioritization framework and addressing critical deficiencies.
<p>Phase IV (Q2 FY 2010/11)</p>	<ol style="list-style-type: none"> 8. Make remaining improvements to the Plan document and seek Board approval.

Appendices

Appendix A: Sample IT Strategic Plan Table of Contents

- I. Executive Summary
- II. Background
 - a. Scope of this Planning Effort
 - b. Strategic Planning Methodology (Conceptual Framework for IT Planning)
 - c. Approach (Activities and Participants in this Planning Effort)
- III. Context
 - a. Countywide Business Needs—Current and Future
 - b. Technological Trends
 - c. IT-specific Mission and Vision
 - d. Potential Partnerships, Synergies, and Interfaces with Other Agencies, Utilities, etc.
- IV. Assessment of the Current IT Environment
 - a. Applications and Data
 - i. Inventory
 1. Now In Use
 2. Development In Progress
 - ii. Assessment with Respect to Business Needs (Gap Analysis)
 1. Current Utilization
 2. Potential Capabilities
 - b. IT Infrastructure
 - i. Inventory
 1. Now In Use
 2. Development In Progress
 - ii. Assessment with Respect to Business Needs (Gap Analysis)
 1. Current Utilization
 2. Potential Capabilities
 - c. IT Support Services, Organization and Governance (Including Outsourced Services)

- i. Organization Structure, Culture, and Processes
 - ii. Staff Resources
 - 1. FTE by Skill Sets and Department (or Employer)
 - 2. Projected Turnover
 - iii. Assessment with Respect to Business Needs (Gap Analysis)
- V. IT Strategic Goals – Aligned with IT-specific mission/vision, driven by Current State Assessment, addressing business needs, and consistent with Countywide mission/goals/objectives.
- VI. Strategies—What Should Be in Place in Next Five Years (Including Cost-Benefit Analysis of Alternatives)
 - a. Applications and Data
 - b. Infrastructure
 - c. IT Support Services and Governance—Staff Resources, Organization, and Processes
- VII. Major Initiatives/Projects for Implementing the Strategies
 - a. Prioritization Framework (to identify and rank Major Initiatives/Projects)
 - b. Major Initiative/Project Profiles
 - i. Scope
 - ii. Specific Objectives (Outcomes to be Achieved)
 - iii. Phases and Key Milestones
 - iv. Dependencies and Synergies with Other Projects or Resources
 - v. Departmental Resources Needed During the Project
 - vi. Anticipated Benefits (Qualitative and Quantitative)
 - vii. Cost Estimate
 - viii. Timing Estimate
 - ix. Key Risks and Assumptions that Need to Be Revalidated
 - c. Initiative/Project Portfolio Management Plan
- VIII. Implementation and Accountability
 - a. Next Steps for operationalizing the Plan
 - b. Responsible parties for implementing the Plan’s strategies and monitoring progress in achieving goals
 - c. Performance measures to track achievement of strategic goals

Appendix B: IT Strategic Plan Benchmarking

The audit team benchmarked the current County of Orange IT Strategic Plan against the following IT strategic plans and assessments. This list includes states, counties, cities, and other organizations.

- Commonwealth of Virginia: *“Strategic Plan for Information Technology, 2007-2011”*
- State of California: *“California Information Technology Strategic Plan, 2009”*
- State of Michigan: *“Michigan IT Strategic Plan, 2008-2012”*
- State of Minnesota: *“Minnesota Enterprise Architecture White Paper, 2005”*
- State of New York: *“New York State Enterprise Information Technology Strategic Plan, 2009-2012”*
- State of Texas: *“Advancing Texas Technology, 2010-2014”*
- State of Vermont: *“Information Technology Strategic Plan, 2007-2011”*
- State of Washington: *“2008-2014 State Strategic IT Plan”*
- County of Alameda, CA: *“Information Technology Department Strategic Plan 2008-2010”*
- County of Fairfax, VA: *“FY 2010 Information Technology Plan, FY 2010”*
- County of Santa Clara, CA: *“Information Systems Strategic Plan Project, 2003”*
- County of Santa Clara, CA: *“Three-Year Information Technology Plan, 2003-2004 through 2005-2006”*
- County of San Diego, CA: *“Information Technology Strategic Plan 2010-2013”*
- City of Rancho Cucamonga, CA: *“Information Technology Master Plan, 2003-2008”*
- U.S. General Accounting Office, now Government Accountability Office, (GAO): *“Improvements Needed in Strategic Planning, Performance Measurement, and Investment Management Governmentwide, 2004”*

Appendix C: IT Strategic Plan Survey Results

1. Did you or anyone in your agency/department participate in the development of the IT Strategic Plan?

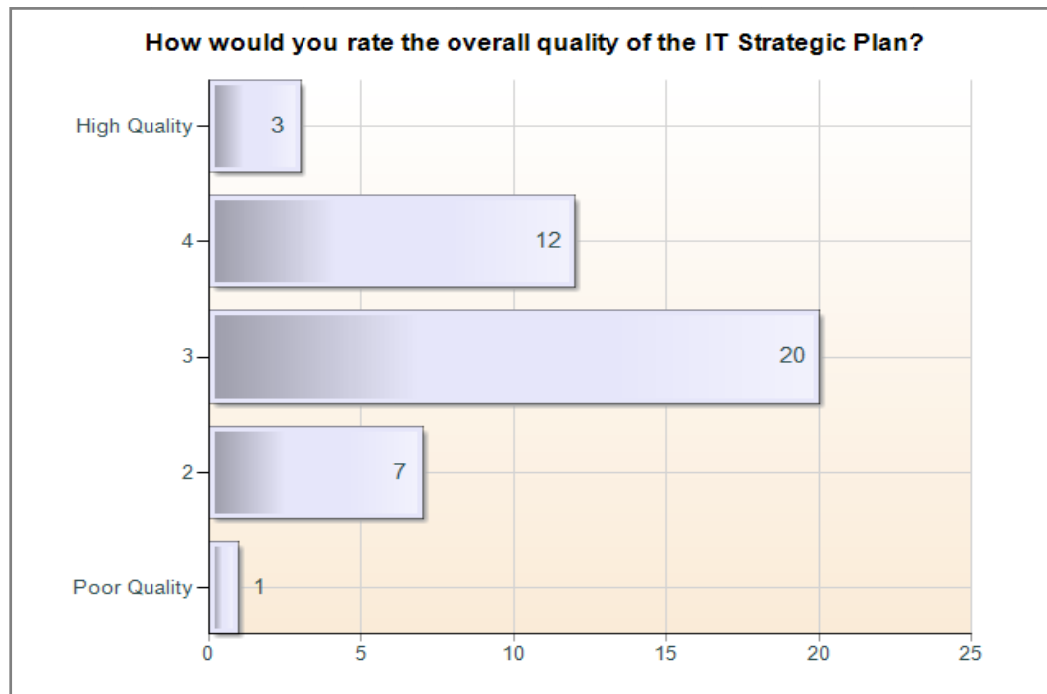
Yes – 38 (79%)

No – 10 (21%)

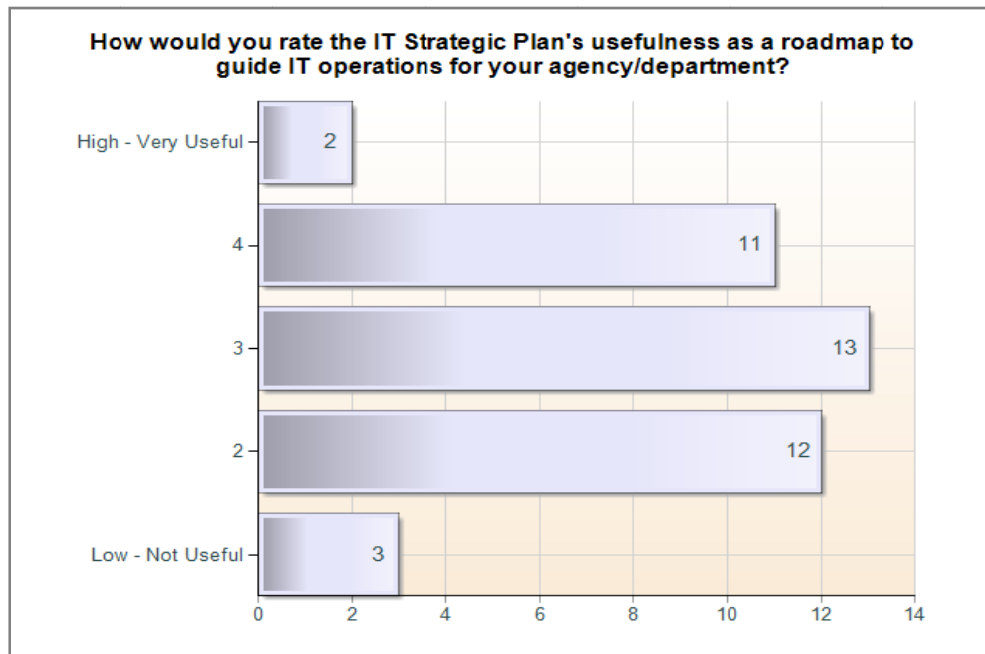
2. If you answered "Yes" to the previous question, approximately how many hours did your agency/department spend participating in the development of the IT Strategic Plan? Please provide your best guess estimate.

Approximate total number of agency/department hours spent: 4,500

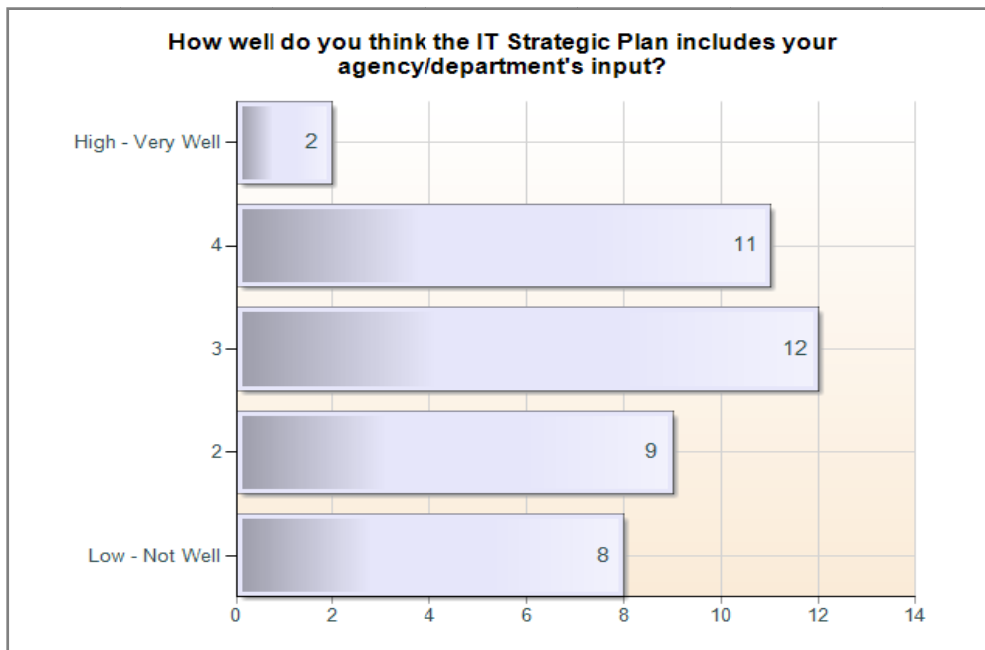
3. How would you rate the overall quality of the IT Strategic Plan?



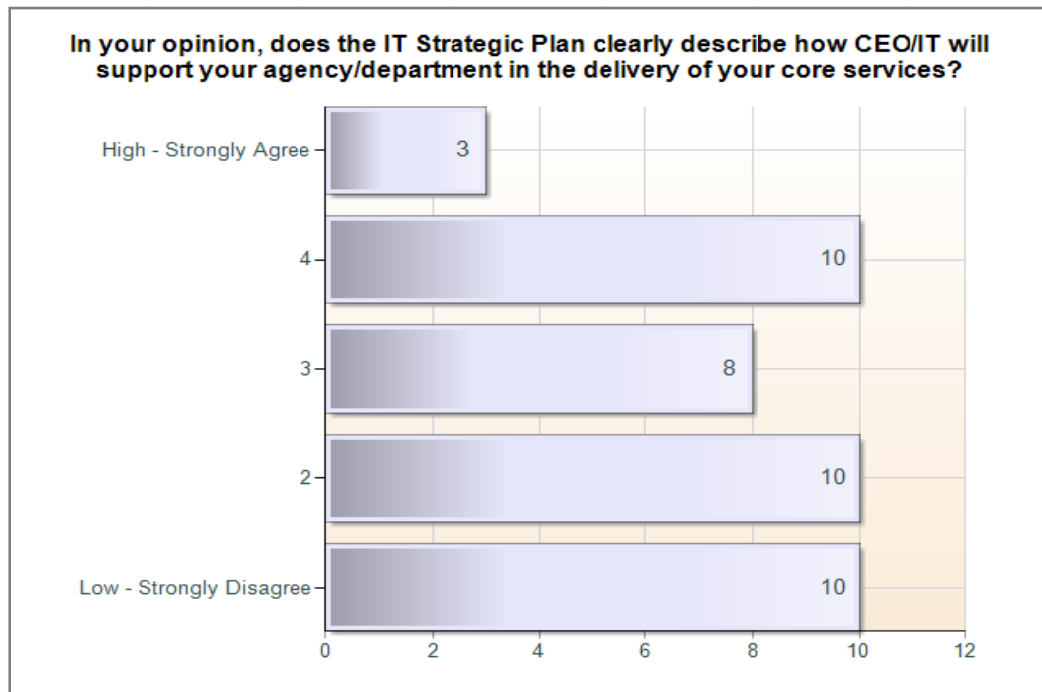
4. How would you rate the IT Strategic Plan's usefulness as a roadmap to guide IT operations for your agency/department?



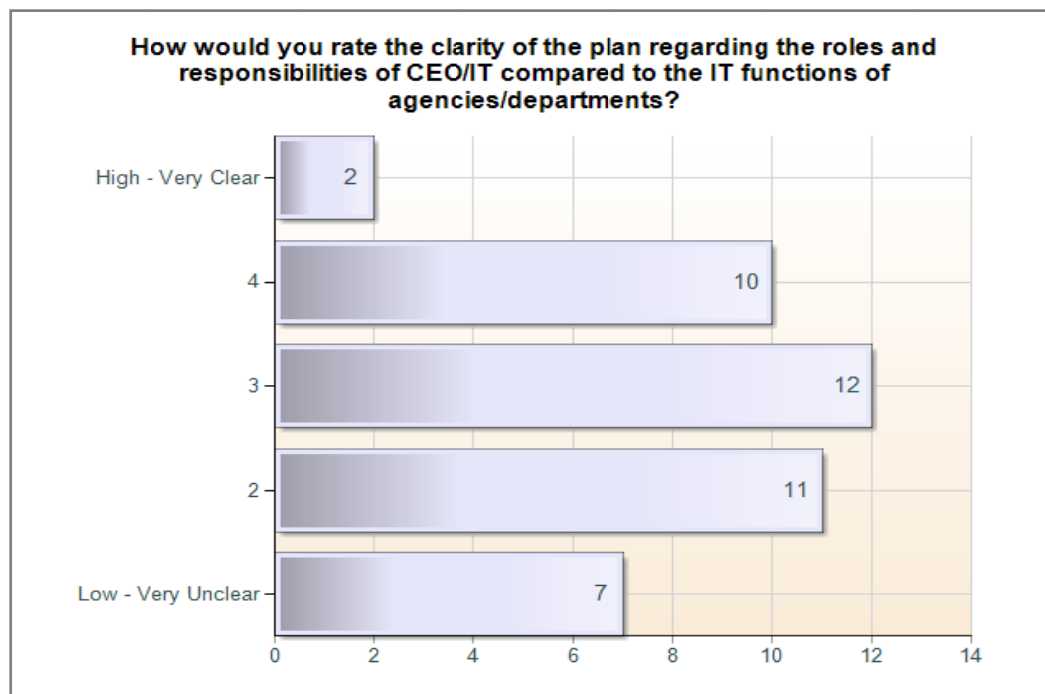
5. How well do you think the IT Strategic Plan includes your agency/department's input?



6. In your opinion, does the IT Strategic Plan clearly describe how CEO/IT will support your agency/department in the delivery of your core services?



7. How would you rate the clarity of the plan regarding the roles and responsibilities of CEO/IT compared to the IT functions of agencies/departments?



8. Are you currently an employee of CEO/IT?

Yes – 9 (21%)

No – 33 (79%)

9. In which agency/department were you working at the time the IT Strategic Plan was developed?

Agency/Department	Number of Respondents	Percent Respondents
Assessor	1	2%
Auditor Controller	1	2%
Board of Supervisors	1	2%
CEO	2	5%
CEO/IT	6	15%
Child Support Services	1	2%
Clerk of the Board	1	2%
County Counsel	2	5%
Court	1	2%
District Attorney	1	2%
Health Care Agency	4	10%
Internal Audit	1	2%
John Wayne Airport	1	2%
OC Community Resources	2	5%
OC Public Works	7	17%
Probation	1	2%
Public Defender	1	2%
Social Services Agency	6	15%
Treasurer-Tax Collector	1	2%
Grand Total	41	100%

10. Please provide any additional comments about the IT Strategic Plan (e.g., comments related to the process of developing the plan or the plan itself).

Sample responses (does not include most negative or most positive responses):

“Too many sweeping changes in too short of a time, timely communication was lacking, too many projects with little or no benefit to the agencies.”

“Thought the initial plan was good and made sense. Have no idea what’s actually happening with it.”

“The document does not make clear what level or amount of resources will be required by our Agency to address the priorities and projects identified in the Plan. The lack of specificity in many of the plan elements makes it difficult to understand the benefits or impacts.”

“The Plan assumed funding and inter-Agency cooperation that does not exist; hence the results of the plan are not achievable.”

“The plan appears to be generic and does not have much specific information related to the county agencies and departments’ operations.”

“In the strategic plan development session I attended it appeared to have all of the appropriate staff in the room in order to be a productive session. Staff from Gartner were there to facilitate the process. After walking out of the session (3+ hours) it seemed to be more of a courtesy or gesture of good will in order to gain buy in on the process and the plan. As with many initiatives from the CEO/IT office, there are good concepts however the communication, planning and execution of the projects in order to make them a success, is lacking.”

“I believe that the current IT strategic plan is more project-orientated than it is visionary. I believe that a good IT strategic plan should establish a clear vision of where the organization wants to go and the high level steps on how to accomplish the vision.”

“Although the IT Strategic Plan appears to be comprehensive, it is not directly applicable to agency business programs.”

Appendix D: Example of IT Strategic Goals, Strategies, and Initiatives/Projects

The following is a list of the State of Texas's IT strategic goals, strategies to achieve those goals, and corresponding initiatives/projects:

Goal 1 – Strengthen and Expand the Use of Enterprise Services and Infrastructure

Strategy 1.1 – Enhance Capabilities of the Shared Infrastructure

Data Center Services Infrastructure

Communications Technology Services Infrastructure

Statewide Portal Infrastructure

Strategy 1.2 – Leverage Shared Applications

Enterprise Resourcing Planning

Email Messaging

Strategy 1.3 – Leverage the State's Purchasing Power

Product and Services Portfolio Expansion

Goal 2 – Secure and Safeguard Technology Assets and Information

Strategy 2.1 – Align the State's Approach to Enterprise Security with Other State and National Strategies

State Enterprise Security Plan

Response and Recovery Capabilities

Strategy 2.2 – Integrate Identity Management, Credentialing, and Access Privileges

Identity Management Services

Goal 3 – Serve Citizens Anytime, Anywhere

Strategy 3.1 – Expand and Enhance Access to Agency Services

Multi-Channel Access

Rural Broadband Expansion

Strategy 3.2 – Facilitate Open and Transparent Government

Best Practices for Information Access

Goal 4 – Pursue Excellence and Foster Innovation across the Enterprise

Strategy 4.1 – Link Technology Solutions to Workplace Innovations

Workplace Productivity and Collaboration

Strategy 4.2 – Pursue Leading-Edge Strategies for Application Deployment

Cloud Computing
Specifications, Toolkits, and Application Marketplace
Legacy Systems Modernization
Strategy 4.3 – Optimize Information Asset Management
Best Practices for Managing Digital Information
Strategy 4.4 – Promote the Use and Sharing of Information
Health Information Exchange
Statewide Communications Interoperability
Justice Information System Integration
Enterprise Geospatial Services