Supplemental Analysis
1994-95 Budget Bill

LAO
50 years of service

Item 8860-001-001
Department of Finance
(Page H-103 of the Analysis)

Because the OIT has failed to adequately carry out its responsibilities, we recommend: (1) as a long-term solution, the enactment of legislation to transfer the responsibility for statewide information technology leadership and oversight to a new, separate office reporting to the Governor, (2) as an interim step, a reduction of $1 million proposed for support of the OIT in Item 8860, in order to provide for the first six months funding in 1994-95 for the office, and the creation of a new budget item in the amount of $1 million to provide funds for the remaining six months, subject to submission of a report to the Legislature by December 1, 1994, that includes, among other things, a corrective action plan. (Reduce Item 8860-001-001 by $1 million, and create Item 8860-010-001 in the amount of $1 million.)

OFFICE OF INFORMATION TECHNOLOGY

In our *Analysis of the 1994-95 Budget Bill*, we withheld recommendation on $2 million proposed to support the Department of Finance's Office of Information Technology (OIT). We indicated that there are serious, fundamental problems with the manner in which the state plans and implements major information technology projects, and noted that we were conducting a review of the state's information technology infrastructure. This supplemental analysis includes the major findings and recommendations of that review as they relate to the OIT. A more comprehensive report on information technology will be forthcoming.

Major Problems With State's Information Technology

Since 1983, the OIT has had overall responsibility for the oversight of information technology within the executive branch. State departments are required to apply information technology consistent with extensive and detailed policy contained in the State Administrative Manual, with all activities subject to the review and approval of the OIT.

Without the use of information technology, California state government would virtually grind to a halt. Almost every state agency uses information technology in some manner, with some agencies totally dependent on computer-based systems to perform their primary mission. State agencies have grown increasingly reliant on computers—total state expenditures for information technology, including telecommunications, exceeds $1 billion annually and is growing. However, we find

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that this growth has continued to occur in the absence of strong central leadership, including planning, coordination, and oversight—and often in the absence of effective departmental plans. This has resulted in major problems, lost opportunities, and a significantly costlier application of computer technology without commensurate benefits. Our review found that the problems facing state information technology fall into four primary categories:

- Statewide leadership.

- Statewide oversight.

- Statewide coordination.

- Effective uses of information technology.

Figure 1 identifies specific problems in each of these categories.

Figure 1

Major State Information Technology Problems

☑ **Statewide leadership**
- There is no statewide plan for information technology.
- There is no centralized, effective leadership to chart and guide the state's course for its growing reliance on information technology.
- Statewide standards do not exist in specific, key areas.

☑ **Statewide oversight**
- There is a redundancy of data maintained in separate computer systems.
- Costly database management systems proliferate and are replicated at various data centers.
- Non-compatible computing systems continue to proliferate.

☑ **Statewide coordination**
- There is no centralized, effective coordination of the state's many information technology activities.
- The proliferation of separately maintained computer networks continues.
- There is inadequate coordination of the activities of major data centers.

☑ **Effective uses of information technology**

- Despite the expenditure of billions of dollars to implement information technology, neither the executive, judicial, or legislative branches of government can easily access the mountain of data stored in the state's computer files and convert it to useful information.

- Departments which are not sufficiently skilled in the uses of information technology are not provided adequate oversight, guidance or help in their efforts to apply information technology.

The net effect of these problems is an annual expenditure for information technology which is *not* producing an optimum return on the state's investment. In many instances, it's not even producing a reasonably good return on the investment. As a result, funds which could be used to develop new applications are used instead to pay for duplication and costly implementations.

Our review indicates that the OIT bears significant responsibility for these problems—particularly problems related to leadership, oversight, and coordination.

OIT Bears Substantial Responsibility for Problems

In establishing the OIT in 1983, the Legislature stated its intent that the office provide leadership, oversight, and coordination of the state's information technology efforts. Specifically, the office was to:

- Identify new applications for information technology.

- Improve productivity and service to clients.

- Assist agencies in designing and implementing uses of information technology.

- Ensure the appropriate compatibility of systems and interchange of data and information.

- Facilitate the attainment of such goals as the one-time collection of data, the minimum

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duplication of records, and the maximum availability of information at the lowest overall cost.

The Legislature provided OIT with specific statutory guidance in carrying out its responsibilities. These are detailed in the Government Code and summarized in Figure 2.

Figure 2

The OIT's Major Responsibilities

☑ Develop plans and policies for the uses of information technology as a means of saving money, increasing worker productivity and improving services to the public.

☑ Approve proposed expenditures for information technology projects only if published policies and procedures have been followed and met.

☑ Develop coordinated plans and policies regarding the data centers, information technology personnel and office automation, including the use of personal computing and electronic mail.

Lack of Leadership by the OIT

Failure to Implement Information Systems Effectively. Our review of the OIT's performance over the past several years indicates that the office has not fulfilled its leadership role, and that this has resulted in a more costly statewide implementation of computer systems. There are some obvious examples of this failure, as demonstrated by continued major, costly difficulties experienced by several departments, including the Departments of Motor Vehicles (DMV) and Social Services, in their efforts to implement information technology systems effectively. A number of these problem projects are described in our *Analysis of the 1994-95 Budget Bill.* (Please see our analysis of the Department of Motor Vehicles, page A-54; Department of Social Services, page C-113; Department of Corrections, page D-55; Board of Equalization, page H-71, and Stephen P. Teale Data Center, page H-110.)

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In addition, specific statutory goals—such as ensuring that data are collected once instead of several times—have not been realized to any significant degree. Thus, separate agencies continue to develop information technology applications independent of other state agencies, even though they may all be collecting the same information (for example, the names of businesses, tax identification numbers, business addresses). Such duplication not only results in additional state costs, but it tends to make work more difficult for those about whom the data are being collected, as businesses, for example, often find themselves having to provide the same information to several different agencies (or even the same agency for different programs).

Failure to Lead the Way With Emerging Technologies. On occasion, the OIT has delayed approving proposals to apply relatively new or emerging technologies, despite their benefits for the state. The OIT has typically done this when the technology has moved faster than the OIT's understanding of either the technology itself or how it could be applied to improving governmental operations.

For example, when the Stephen P. Teale Data Center was trying to establish a statewide Geographic Information System (GIS) capability, the OIT was initially resistant because it did not understand much about the technology or how it could be applied to state operations. The OIT should have led the state to effective applications of these technologies, rather than primarily performing the traditional "control" role for which the OIT and its predecessor offices have been criticized.

OIT Has Tended to Focus on Procedure and Process. The OIT has tended to focus its efforts on developing, modifying, and enforcing policies, and the procedures and processes related to them. The more difficult challenges which the OIT was established to meet remain unresolved. For example, OIT has no strategic plan, with an implementation component, for the state's uses of information technology. Instead, it has issued publications indicating the direction the state should go with information technology. Its most recent publication, *Strategic Directions for Information Technology in California State Government 1993-1999*, is replete with

"shoulds" and *"musts,"* including numerous activities the OIT "should" do; however, there are no schedules, no assignment of responsibility, and no measurable objectives to fulfill the shoulds and musts.

Standards Not Established. Geographic Information Systems (GIS), Electronic Funds Transfer (EFT), and Electronic Data Interchange (EDI) are relatively recent technologies. The OIT has essentially been an observer as departments implement applications of these technologies. As a result, some departments have joined together on a voluntary basis in an attempt to ensure the best application of these technologies (for example, several departments have worked together to apply EFT). While standards *could* result from these separate activities, it is important that the administration as a whole stay on top of these and other emerging technologies to ensure that standards *will* be developed, ensuring that the state's uses of these technologies occur within a statewide context.

Moreover, despite a statutory requirement that the OIT develop plans and policies regarding e-mail, there is no state electronic mail (e-mail) standard. Consequently, many systems exist. This situation has resulted in isolated islands of electronic communication because the OIT has not published requirements which would ensure that independent e-mail systems installed by departments be able to communicate easily with each other and the mainframe-based e-mail system used by over 40,000 state workers.

No Plan for the Internet. The Internet is a collection of thousands of computer networks worldwide, providing access to millions of users. Individual networks become a part of the Internet by deciding to connect to it. In this manner, the Internet's reach is constantly expanding as more and more organizations sign on. While California state government (through the Teale Data Center) is among those who have joined the Internet, the OIT has no official position on the Internet, nor has it published any guidelines for use of this network by state workers. While the OIT has advised some departments separately as to some safeguards they should consider regarding use of the Internet, it has allowed usage of a new information technology application to expand statewide without any central

position or policy guidance. The failure of the OIT to be *ahead* of the curve on new technologies has not worked to the state's advantage in the past, and it is not likely to do so with respect to the Internet, either.

Inadequate Access to Statewide Data. The OIT has provided minimal leadership, or planning, for facilitating access to the state's various data bases. At present, despite the investment of billions of dollars in information systems over the past 20 years, neither the executive nor legislative branches of government are able to tap into a "corporate" data base of this information via a computer system. That is because the state's various computer systems have been implemented on a fairly independent basis, with no provision that the information be linked except in a few isolated instances, such as law enforcement. Moreover, there are no current plans to move toward the establishment of a corporate data base, which could consist of a linkage of computer files. The only movement in this direction has come from the Legislature (for example, AB 2451 [Bates], and AB 2523 [Bowen], both of which would facilitate public access to the state's computer-based files, and Ch 1235/93 [AB 1624, Bowen], which provides public access to certain computer files maintained by the Legislative Counsel Bureau).

Lack of Oversight and Coordination

Inadequate Oversight of Projects. Our review identified numerous examples of inadequate oversight by the office. Here are three examples.

- *The DMV's Database Redevelopment Project.* In our *1994-95 Analysis,* we describe the DMV's Database Redevelopment Project (please see page A-54 of the *Analysis*), which has failed despite the acquisition of a new computer system, and an expenditure in excess of $40 million over several years. Recently, the DMV has proposed to abandon the project and pursue an alternative course, stating that the original approach was flawed. Not only did the OIT approve that original approach, based on its review of the DMV's Feasibility Study Report, but the OIT was also responsible to oversee the

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implementation of the new database system, including the review of periodic progress reports.

- *The DMV's Network 2000 Project.* In another example involving the DMV, the Network 2000 project, we noted in our *Analysis* (please see page H-112) that a state data center received approval to enter into a questionable contract with the DMV for this project, with serious fiscal implications for the data center and its clients. We also noted that the same data center was able to acquire a mainframe computer for the Network 2000 project with the OIT's approval, at an excessive cost and in a questionable manner. In reviewing these activities, we determined that the OIT had approved the data center's actions without having an adequate understanding of the data center's plans for the new computer, or the true costs and benefits of the data center's contract with the DMV for the Network 2000 project.

- *Proliferation of Personal Computer Systems.* The OIT has not been effective in overseeing the state's implementation of personal computer systems, which have proliferated in the absence of an overall plan. Consequently, many incompatible systems have been installed over the years, often within the same organization. This has tended to inhibit state departments from developing an integrated approach to the management of information. Moreover, a lack of standards has resulted in duplication, as evidenced by departments maintaining multiple versions of database, spreadsheet, and word-processing software. This multiplicity of hardware and software systems ends up not only costing money, but results in retraining of staff when an organization either shifts staff to other systems or attempts to standardize its systems. While there are good reasons for having some diversity of equipment and software, it makes no sense to allow such diversity to be determined in the absence of an overall state plan

which will ensure that diversity results in cost-effective computer systems.

Just Saying "No" is Not Enough. Departments which propose to apply information technology to improve their operations must have an approved Feasibility Study Report (FSR). In those situations where the OIT believes that a department is sufficiently expert in applying information technology, it has delegated FSR approval authority to the department, within specified limits. All other FSRs must be submitted to the OIT for review and approval. In some instances, if an information technology project is not well-defined, or the FSR is in some other way deficient, and the deficiencies cannot be resolved to the OIT's satisfaction, the project will not be approved. While such an action may well prevent an inappropriate or flawed application of information technology, it does nothing to help the requesting department solve its problem through the use of information technology. From the OIT's perspective, that is the department's problem. Consequently, in saying "no," the OIT has performed one part of its statutory responsibility (review and approval), but has failed another (its advocacy role to help departments to apply information technology effectively).

Oversight Requires Appropriate Intervention. In order to facilitate the state's application of information technology, current law authorizes advanced technology projects involving partnerships among the state, other governmental jurisdictions and the private sector. Such projects must be approved by the OIT. The Health and Welfare Data Center's (HWDC's) INFO/California touch screen kiosk project, which has received national attention, was initiated as an advanced technology project. While this project is now poised for a statewide implementation, the Teale Data Center (TDC) continues to work on its own advanced technology project which would essentially duplicate the service the HWDC project is intended to provide. While the Teale Data Center project would involve a new communications technology, there is no apparent reason why the HWDC program could not be modified to use the new technology, thereby eliminating the duplication of effort associated with the use of information kiosks. Although

the TDC project has not been submitted to the OIT for review, the project is mentioned in the TDC's Annual Report and should be well-known to the OIT. We believe that the OIT has the responsibility to intervene in information technology projects regardless of whether formal "approval" documents have been submitted.

CONCLUSION

Our review of OIT's performance leads us to conclude that the office has failed to carry out the mission articulated for it by the Legislature in the enabling law. This is because it has defined for itself a much narrower mission, one which has focused efforts on developing and enforcing procedures and processes. As a result, major problems with the state's use of information technology remain unresolved. Moreover, this situation is likely to worsen as state departments attempt to improve their operations through the increased use of information technology.

Given the urgency of the situation, and the real need to make government more cost-effective—a need that the proper application of information technology *can* help to meet—we recommend the enactment of legislation to transfer the responsibility for statewide information technology leadership and oversight to a new, separate office reporting to the Governor. We believe that such a transfer is warranted not only because of the OIT's failure to adequately carry out the mission established for it by the Legislature, but also because the OIT's focus on the development and enforcement of procedures suggests that its placement in a control agency environment may have influenced its priorities. We also believe that the increasingly essential nature of information technology to all governmental operations argues strongly in favor of placing the statewide information technology leadership and oversight responsibility at the highest possible executive level. Placement at this level also would enable the office to leverage resources from the considerable body of expertise available in the state's community of information technology specialists and managers.

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Recognizing, however, that legislation will take some time to be adopted, and that the need for improvement is urgent, we recommend that the administration submit a corrective action plan to the Legislature which addresses the issues raised in this Supplemental Analysis. We also recommend that the Legislature reduce Item 8860-001-001 by $1 million, to provide the OIT one-half of the amount requested for 1994-95, enough for six months of operation at the proposed staffing level, and establish a new item, 8860-010-001, to provide the remaining $1 million, subject to submittal of the corrective action plan to the Legislature by December 1, 1994. Accordingly, we recommend adoption of the following Budget Bill Item:

8860-010-001—For support of the Office of Information Technology, Department of Finance, contingent upon the Department of Finance submitting to the chairpersons of the fiscal committees, and the Chairperson of the Joint Legislative Budget Committee, not later than December 1, 1994, a corrective action plan which (1) addresses the issues raised in the *Supplemental Analysis of the Office of Information Technology* issued by the Legislative Analyst's Office on May 3, 1994, (2) identifies specific actions to be taken to resolve those issues, including an implementation schedule, and (3) recommends a restructuring of the state's information technology leadership and oversight activities so as to better meet legislative intent expressed in law (Government Code Sections 11700 et al.) 1,000,000