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**State of California**  
**Department of Technology**

**Feasibility Study Report**

**Preparation Instructions**

**Statewide Information Management Manual – Section 20**

**June 2014**

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## INTRODUCTION TO THE FEASIBILITY STUDY REPORT

### Overview

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The California Department of Technology (Department of Technology) is a cabinet-level state entity, responsible for information technology (IT) project review, approval, and oversight for the state. As the state's central organization on IT, the Department of Technology is also responsible for establishing and enforcing statewide information technology strategic plans, policies, standards and enterprise architecture. Government Code Sections 11545 and 11546 documents the authority and responsibilities of the Department of Technology.

The requirements for initially justifying projects through the Feasibility Study Report (FSR), including the circumstances in which FSRs must be approved by the Department of Technology, are described in the State Administrative Manual (SAM) Sections 4920 through 4942.

The FSR instructions guide State of California Agencies/state entities<sup>1</sup> in the development of the necessary documentation of feasibility studies for information technology (IT) project proposals.

The FSR provides a basis for project management, program management, and executive management, and state-level control agencies to understand and agree on business problems or opportunities, and the need for IT expenditures to address them. The FSR provides a summary of the results of the feasibility study and should be prepared at a level of detail commensurate with the scope and complexity of the proposed technical solution. Sufficient technical detail should be included in the FSR to demonstrate that the proposed solution to the business problem or opportunity is workable and realistic. Agencies/state entities are required to complete all sections and subsections of the FSR, including the Information Technology Project Summary Package.

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<sup>1</sup> **State entity:** Includes every state office, officer, department, division, bureau, board, and commission, including Constitutional Officers. "State entity" does not include the University of California, California State University, the State Compensation Insurance Fund, the Legislature, or the Legislative Data Center in the Legislative Counsel Bureau.

# Feasibility Preparation Instructions

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## Purpose of the FSR

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The California Department of Technology's (Department of Technology) approval of IT projects will be based on an evaluation of overall costs, benefits, competing statewide needs, and investment risks to the state over the life of the IT project initiatives. To determine whether these investments should be approved, the Department of Technology will:

- 1) Evaluate each FSR, any related budget request, and any supporting documentation, to determine the project initiative's consistency with the state's IT policies and standards;
- 2) Evaluate the FSR, any related budget request, and any supporting documentation, for business and fiscal factors that establish the merits of the proposed investment; and
- 3) Consider the Agency/state entity's assessment of the potential business risks that impact the expected benefits to be derived from the proposed IT expenditures.

Agencies/state entities must provide sufficient information in the FSR and any supporting documentation to allow the Department of Technology to evaluate the business and fiscal factors of a proposed IT project. The documentation provided must demonstrate to the Department of Technology the relative need for, cost of, and benefits of the proposed IT investment. Specifically, the information must establish that the Agency/state entity's business case will receive meaningful business value from the proposed IT expenditure.

In an environment of competing needs, a business case is a compelling justification to spend public resources on IT to address an Agency/state entity's business needs. The business case is centered on (1) business problems that substantially and adversely impact operations and/or the delivery of services, (2) business opportunities that may substantially improve operations and/or the delivery of services, (3) revenue generation or true cost savings, or (4) a legislative mandate.

Business value promotes substantial and sustainable increases in:

- *Operational efficiency* (ability to produce desired effect with minimum expenditure of time, effort, personnel, or money as manifested in cost savings and/or cost avoidances);
- *Service effectiveness* (type, quantity, or quality of services delivered in response to, and aligned with, statutory and policy requirements).

The Department of Technology requires specific information from Agencies/state entities to carry out its responsibilities in approving the expenditures and funding for IT activities, initiatives, or projects (hereinafter referred to as "proposals"). To evaluate an Agency/state entity's proposed expenditures for IT proposals; the Department of Technology needs to fully understand the business/investment justification for the proposal. Each proposal must provide sufficient detail to describe the underlying assumptions, objectives, alternatives considered, proposed solution, plan to accomplish the proposed solution, impact on program service delivery, programmatic and financial benefits to be achieved, and all costs associated with the proposal, including the methods of calculation and sources of data for all fiscal data used. These proposals are typically documented in FSRs.

During the review process, the Department of Technology may request additional information to complete its analysis of the FSR. However, verbal or subsequent written responses are not considered part of the FSR. The FSR must be comprehensive and may need to be revised to include that additional information. Proposals that are incomplete and fail to provide relevant

information in written form may be returned without consideration at the discretion of the Department of Technology.

Agencies/state entities submitting IT proposals that meet one or more of the Department of Technology reporting criteria must follow the documentation requirements defined in the State Administrative Manual (SAM) and these instructions. Each Agency/state entity is responsible for ensuring its IT proposals meet Department of Technology requirements. At its discretion, the Department of Technology may request additional information from the Agency/state entity.

The Department of Technology will review each FSR emphasizing the following elements of the proposal:

- 1) The description of the Agency/state entity's program(s), program objectives and current business processes to be impacted by the IT proposal.
- 2) The description of the business problem or opportunity prompting this request.
- 3) The description of the **measurable business objectives** which must be met to solve the problem or realize the opportunity. This includes describing the projected quantified programmatic and financial benefits (revenue generation, savings, and cost avoidances) to be achieved by meeting the business objectives.
- 4) The description of the business functional requirements that must be met with any proposed solution including confidentiality, security and privacy.
- 5) A narrative or tabular display showing which business objectives address the identified business need and which business functions address each identified business objective (traceability matrix).
- 6) The analysis of the existing system(s) and all feasible alternatives identifying to what extent the problems will be resolved, opportunities will be realized, program and financial benefits will be achieved, and other factors considered in the analysis and selection.
- 7) The description of the assumptions used and the expected functionality associated with each alternative that explains how the stated benefits and objectives will be achieved.
- 8) The description of the selected solution, and the business process after implementation of the solution, including the analytical basis as to why the selected solution best meets the problem/opportunity and the associated assumptions/constraints.
- 9) The description of the proposed project evaluation methodology for measuring pre- and post-project conditions in evaluating and measuring achievement of the project objectives and benefits.
- 10) The description of proposed procurement and implementation strategies.
- 11) The detailed description of the current cost of any existing system that the proposal will be replacing or modifying in support of the programmatic function.
- 12) The detailed description of the proposed costs, financial benefits, and funding by fiscal year for each year of the project.
- 13) The identification of proposed funding sources (e.g. General Fund, federal funds, special funds) and proposed funding mechanism (e.g. budget augmentation, reimbursement or redirection, identifying the fund source for any redirections).

- 14) The project schedule with identification of phases and major milestones for implementation activities, project completion, realization of benefits, decommissioning any displaced systems, and completion/submission of the Post Implementation Evaluation Report; and
- 15) The California Project Management Methodology (CA-PMM) Complexity Assessment determination (see SIMM Section 17 D).

### **FSRs with a Business-Based Procurement**

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For those FSRs that initially recommend a business-based procurement and the proposed technical solution is not determined in the FSR, the Agency/state entity must submit a Special Project Report (SPR) to the Department of Technology for review and approval prior to contract award. Conditions for proceeding with the procurement process will be fully outlined in the FSR approval letter. The FSR will focus on:

- 1) The various alternatives considered to reach the conclusion that a business-based procurement is the best solution;
- 2) A project cost and schedule that details the planning and procurement resources, milestones, and timelines; and
- 3) A general estimate of the development, implementation, and maintenance/operations resources, costs, milestones, and timelines for the expected duration of the project.

### **FSR Submission Requirements**

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All FSR submissions must:

- 1) Include the Information Technology Project Request Feasibility Study Report Executive Approval Transmittal Form
- 2) Be submitted in searchable PDF format
- 3) Have an Excel version of the Economic Analysis Workbook (EAW) attached
- 4) Must be sent via e-mail per the instructions in SIMM 05A

## FSR PREPARATION INSTRUCTIONS

### 1.0 Executive Approval Transmittal

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A formal signature page will accompany each FSR submitted to the Department of Technology. The page will identify specific information relating to the proposal and will contain the signatures of the approving Agency/state entity executives. The Transmittal template is available in SIMM Section 20A, following are the components:

1. **State Entity Name:** Enter the name of the state entity<sup>2</sup> that prepared the FSR and is responsible for the proposal. If an FSR represents a proposed project in which multiple state entities will have a role, one Agency/state entity should be designated as owner.
2. **Project Title:** Enter the official name of the project as determined by the Agency/state entity.
3. **Project Acronym:** Enter the official abbreviation for the proposed project that will be used as a common reference to the project. Projects are often more commonly known by their acronym, e.g., the Statewide Automated Welfare System (SAWS).
4. **State Entity Priority:** Enter the state entity's priority assigned to the project. The priority assignment is a sequential number where "1" is the highest priority. The number should be consistent with the priority ranking assigned by the state entity's IT Capital Plan.
5. **Agency Priority:** Enter the Agency-wide priority assigned to the project. If the state entity does not report through an Agency, this priority would match the state entity priority listed on the Agency's IT Capital Plan.
6. **Approval Signatures:** The signatures of executives within the Agency/state entity are required, documenting commitment and appropriate involvement at the Agency/state entity level. The required signatures include those of the Information Security Officer, Enterprise Architect, Chief Information Officer, Budget Officer, State Entity Director (or Chief Deputy Director), Agency Information Officer, and Agency Secretary (or Agency Undersecretary).

### 1.1 IT Accessibility Certification

Following the Transmittal signature page, the IT Accessibility Certification page must be completed to certify that the project meets Government Code 11135 (Federal Section 508 of the Rehabilitation Act of 1973), or that the project meets one or more of the exceptions.

### 2.0 Information Technology: Project Summary Package

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An Information Technology Project Summary Package must be prepared and attached to each FSR. Instructions for completing the Project Summary Package follow. The Project Summary Package template is available in SIMM Section 20B.

### 2.1 Section A: Executive Summary

1. **Submittal Date:** The date the FSR is submitted to the Department of Technology.

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2. **Type of Document:** Indicate the type of document being submitted: Feasibility Study Report (FSR).
  - a. **Project Number:** Enter the Project Number if previously assigned by the Department of Technology<sup>3</sup>
3. **Project Title:** Enter the official name of the project as determined by the Agency/state entity and as listed on the signature page.
  - a. **Project Acronym:** Enter the official abbreviation for the proposed project that will be used as a common reference to the project.
  - b. **Estimated Project Start Date:** Enter the most accurate projection available for the estimated start date (MM/DD/YYYY).
  - c. **Estimated Project End Date:** Enter the most accurate projection available for the estimated completion date (MM/DD/YYYY).
4. **Submitting Agency/State Entity:** Enter the name of the Agency/state entity that prepared the FSR and is responsible for the proposed project described in the FSR. If an FSR represents a proposed project in which multiple Agencies/state entities will have a role, one Agency/state entity should be designated as owner.
5. **Reporting Agency:** Enter the name of the reporting Agency for the state entity, if any.
6. **Project Objectives:** Provide a brief summary of the project's primary business-based objectives as described in Section 3, or, if applicable, as approved in the Stage 1 Business Analysis.
7. **Proposed Solution:** Provide a brief statement summarizing the proposed solution as documented in the FSR.
8. **Major Milestones:** Identify the major milestones for project procurement, development, and implementation related to project deliverables and for which project metrics can be applied, and the estimated completion date for each milestone. Milestones typically represent measurable events, such as delivery of a product. Targeted events that should be included are contract signing, requirements definition, design completion, development completion, testing, production, and post-implementation evaluation. Any other key management checkpoints critical to project success, such as procurement dates or partial implementation dates, should also be included. , e.g. completion dates for Statement of Work, technical requirements evaluation/assessment factors and values, solicitation key action dates (release dates and contract award date), and schedule for obtaining adequate funds (i.e. Budget Change Proposal or any financing with General Services Golden State Financial (\$) Marketplace (GS \$Mart). Include the date the Post Implementation Evaluation Report (PIER) will be completed.
  - a. **Key Deliverables:** Identify the key deliverables associated with the major milestones and their estimated completion dates.

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<sup>3</sup> Applies to IT decisions provided by predecessor entities such as the California Technology Agency, the Office of the State Chief Information Officer, or the Department of Finance.

## 2.2 Section B: Project Contacts

**Contact Information:** Supply the names, phone numbers, fax numbers, and e-mail addresses of the principals involved in the project:

- Executive Contacts: Agency Secretary (if any), State Entity Director, Budget Officer, Information Security Officer, Enterprise Architect, Chief Information Officer (CIO), and the Project Sponsor.
- Direct Contacts: Document Preparer; Primary Contact; Contract Manager; and Project Manager.

## 2.3 Section C: Project Relevance to Agency/state entity Plans

1. **What is the date of your current Technology Recovery Plan (TRP)?** Enter the date of the TRP on file with the Department of Technology's Office of Information Security.
2. **What is the date of your current Agency Information Management Strategy (AIMS)?** Enter the date the AIMS was last approved by the Department of Technology.
3. **For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.** Indicate whether the proposed project is identified in the Agency/state entity's AIMS and/or strategic business plan, and enter the corresponding page number in that document.
4. **Is the project reportable to control agencies? If YES, check all that apply:**
  - a. The project involves a budget action.
  - b. The new system development or acquisition is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.
  - c. The estimated total development and acquisition costs exceed the Department of Technology's established Agency/state entity delegated cost threshold and the project does not meet the criteria of a desktop and mobile computing commodity expenditure (see SAM 4989 – 4989.3). This information and your assigned IT Project Oversight Consulting Manager can be found on the Department of Technology's website.  
[http://www.cio.ca.gov/Contact\\_Us/staff\\_assignments.html](http://www.cio.ca.gov/Contact_Us/staff_assignments.html)
  - d. The project meets a condition previously imposed by the Department of Technology.

## 2.4 Section D: Budget Information

The data from the Economic Analysis Worksheets (EAW) for each fiscal year should be summarized in this section. If the proposal modifies or replaces an existing operation, savings

and cost avoidances should be based upon comparison with the current method of program operation. If the FSR addresses a new program operation, estimated costs associated with the proposed information technology capability should be provided. If the proposed solution will increase program income (i.e., tax revenues, collectible audit exceptions, accounts receivable, etc.), the increased income should be reflected on the Economic Analysis Summary.

1. **Budget Augmentation Required?** Check whether or not a budget augmentation will be required to complete the proposed project (Yes/No). Identify the requested dollars by fiscal year throughout the project from the Project Funding Plan.
2. **Project Costs:** Summarize IT project costs from the Proposed Alternative Worksheet found in the back of the FSR.
3. **Project Financial Benefits:** Indicate the amount of cost savings to be realized each fiscal year from the Project Funding Plan Worksheet in the EAW. Also enter the Revenue Increase amounts by fiscal year from the Proposed Alternative Worksheet in the EAW. Refer to SIMM 20C for EAW Instructions.

## 2.5 Section E: Vendor Project Budget

- **Vendor Cost for FSR Development.** If a vendor assisted the Agency/state entity conduct the feasibility study and documented the results in the FSR, identify the cost of these resources.
- **Vendor Name:** If a vendor assisted the Agency/state entity conduct the feasibility study and documented the results in the FSR, identify the name of the individual or company.

### Vendor Project Budget

1. **Fiscal Year:** Enter the fiscal years from beginning through completion of the proposed project.
2. **Primary Vendor Budget:** Enter the estimated costs for the primary vendor by fiscal year.
3. **Independent Oversight Budget:** Enter the estimated costs for independent project oversight and project management contract costs by fiscal year.
4. **IV&V Budget:** Enter the estimated costs for independent verification and validation contract costs by fiscal year.
5. **Other Budget:** Total other vendor budgets.
6. **Total Vendor Budget:** Total of the estimated contract costs by fiscal year.

## 2.6 Section F: Risk Assessment Information

1. **Risk Management Plan:** Indicate whether the Agency/state entity has prepared a Risk Management Plan for the proposed project (Yes/No).

2. **The General Comments area** is used to provide a high-level summary of the Agency/state entity's Risk Management Plan.

### **3.0 Business Analysis**

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Append the Stage 1 Business Analysis along with the Gate 1 Scorecard (approved by the Department of Technology) as Appendix A along with the FSR submission. Instructions on how to prepare the Stage 1 Business Analysis along with supporting materials can be found in SIMM Section 19A.

Until July 21, 2014, for concepts approved **prior** to September 11, 2013 (Technology Letter (TL) 13-02), complete and attach the Stage 1 Business Analysis without the Gate 1 Scorecard to the submission of this FSR as Appendix A. Instructions on how to prepare the Stage 1 Business Analysis along with supporting material can be found in SIMM Section 19A.

If an IT concept was approved prior to September 11, 2013 (TL 13-02) yet has not had an FSR submitted to the Department of Technology by July 21, 2014, those prior approved concepts must go through the Stage 1 Business Analysis process. Department of Technology approval of the Stage 1 Business Analysis must be obtained prior to the development of a feasibility study.

### **4.0 Baseline Analysis**

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#### **4.1 Current Method**

Often the Agency/state entity must examine several existing information systems, as well as related manual processes, before it can understand the information management practices related to the problem or opportunity. Reviewing the current methods of operation will:

1. Help ensure that the full technical and managerial implications of the problem or opportunity are understood; and
2. Provide a baseline against which potential advantages and disadvantages of changes in information management systems may be measured.

If a current information system exists, either manual or automated, explore the following characteristics of the existing system:

1. The objectives of the current system;
2. The ability of the system to meet current and projected program and workload requirements (e.g., processing backlogs or increasing system demands);
3. Level of user and technical staff satisfaction with the system;
4. Data input (e.g., key entry, optical character recognition), related manual procedures, processing (e.g., data validation routines) and output characteristics;
5. Data characteristics (content, structure, size, volatility, completeness, accuracy, etc.);
6. System provisions for security, privacy and confidentiality;

7. Equipment requirements of the current system (e.g., processors, peripherals, and communications devices);
8. Software characteristics (e.g., application software, operating system software, etc.);
9. Internal and external interfaces;
10. Personnel requirements, including management, data entry, operations, maintenance, and user liaison;
11. System documentation (format, availability, and accuracy); and
12. Failures of the current system to meet the objectives and functional requirements of an acceptable response to the problem or opportunity.

Some of the factors listed above apply primarily to automated systems. Investigation of manual operations should be similar in scope, but tailored to the special characteristics of such operations. Existing system costs, both information technology and program, should be documented through completion of the EAW (see the EAW Section 8.0).

## **4.2 Technical Environment**

Agency/state entity staff will find it helpful to review the organizational, managerial, and technical environment within which the proposed solution will be implemented. Identify assumptions and constraints that affect the problem or opportunity and that will impact the implementation of an acceptable solution. Consider the following factors:

1. The expected operational life of a proposed solution.
2. The necessary interaction of a proposed solution with other systems, Agency/state entity programs, and organizations (such as sharing of information or intergovernmental data exchange).
3. State-level information processing policies, such as the enterprise system strategy.
4. Financial constraints, including fiscal year limitations and potential financial impact on local government.
5. Legal and public policy constraints (such as confidentiality, security and privacy, the Freedom of Information Act, the Information Practices Act, the California Public Records Act, the State Records Management Act, or other legislatively mandated requirements).
6. Agency/state entity policies and procedures related to information management.
7. Anticipated changes in equipment, software, or the operating environment.
8. Availability of personnel resources for development and operation of information management applications, including required special skills and potential recruitment.

### 4.2.1 Existing Infrastructure

This section should briefly describe the Agency/state entity's existing infrastructure and technical architecture to provide a context in which the proposed solution will be implemented. Identify any Agency/state entity, as well as statewide, technical standards or constraints that might appropriately narrow the range of reasonable technical alternatives. Relevant technical standards might relate to the following areas:

1. Desktop workstations
2. LAN servers
3. Network protocols
4. Application development software
5. Personal productivity software
6. Operating system software
7. Database management software
8. Application development methodology
9. Project management methodology

The Agency/state entity may also use this section to document additional technical requirements of a proposed solution, such as technical staff training. **However, if the Agency/state entity proposes a business-based procurement approach, the FSR will include few technical requirements, but instead focus on business requirements.**

## 5.0 Proposed Solution

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The Proposed Solution Section identifies the alternative which best satisfies the previously defined objectives and functional requirements. It also provides additional information on the course of action proposed in the FSR. This section should incorporate sufficient detail to allow decision-makers to confirm the advantages and disadvantages of the recommended alternative in terms of:

1. Objectives and functional requirements
2. Overall program costs and benefits
3. Resources (time, funding, people, expertise)
4. Potential risks associated with the alternative

If the proposed solution is to undertake a business-based procurement seeking a technical solution from vendors, this section should include only the rationale for selecting the business-based procurement process. At the completion of the procurement process, but prior to signing a contract, the Agency/state entity will be required to submit an SPR describing the vendor's proposed solution and any changes in the Agency/state entity scope of work, as required by the Department of Technology in its initial FSR approval letter.

A business-based procurement solution must include a detailed procurement plan and schedule, including the estimated cost of the procurement process. In addition, this solution must include a more general plan and schedule and costs for the project development, implementation, and maintenance phases.

## 5.1 Solution Description

If the Agency/state entity has identified a technical solution, identify the proposed solution and discuss the impacts upon implementation of the solution. A graphic representation is helpful when describing system architecture. If a business based solution is planned, do not address items 1, 2, and 3 since they will likely be unknown.

Address each of the following subjects, *if applicable to the solution*:

1. **Hardware:** What type of equipment will the proposed solution require? Provide sufficient detail regarding the equipment components, such as processors, workstations, peripherals, and communications devices to allow a complete understanding of the requirements.
2. **Software:** What are the software requirements associated with the solution? Include operating system software, application software, and database management software.
3. **Technical platform:** Briefly describe the technical platform on which the solution will operate.
4. **Development approach:** Use the check boxes below and additional narrative to explain how the Agency/state entity plans to develop the proposed system in terms of percentages of Customer off the Shelf System (COTS), Modified off the Shelf System (MOTS), or Custom Development.

Select and estimate percentage of each

COTS %?  MOTS %?  Custom Development %  Others  None

5. **Integration issues:** Are there other systems with which the solution must interoperate, and who will be responsible for ensuring successful integration?
6. **Procurement approach:** Prior to submission of the FSR for Department of Technology review, Agencies/state entities must consult with the Department of General Services - Procurement Division to ensure alignment with current procurement guidelines. Use the check boxes below and additional narrative to explain the planned procurement vehicle and contract type. Also describe how the procurement approach was selected and compare and contrast procurement approaches if alternatives were considered. A lease / purchase analysis by fiscal year may be included for proposed acquisition of equipment. (See SAM Sections 5206-5208).

a. Proposed Prime Vendor Procurement Vehicle(s)

IFB  RFI  CMAS  MSA  IFB  RFO  RFP  Others  None

b. Proposed Prime Vendor Contract Type

Fixed Price  Time and materials  Percentage of Benefit  Other

- c. Market research is critical in determining the selection of the appropriate procurement methodology. The extent of the research depends on such factors as urgency, estimated dollar value, complexity and past experience. Briefly describe the extent and results of the market research, documenting:
- The results and effect of market research in formulating the requirements.
  - Prospective sources that can meet the business/project objectives and cost or price estimates developed.
- d. When personal services are sought, include a justification pursuant to Government Code section 19130.
- e. Identify efforts to achieve certified Small Business (SB) and certified Disabled Veteran Business Enterprise (DVBE) goals.
- f. Indicate the contract(s) term, including maintenance years.
- g. Indicate types of IT goods/services, procurement vehicle/quantity, and contract dollar values. For instance, there are a number of acquisition components embedded in an IT project, e.g., FSR, in some instances an SPR, Independent Validation and Verification, and Independent Project Oversight, procurement services, as well as Design, Development and Implementation (D, D, and I). Agencies/state entities may use a matrix to display this information, such as the following example:

**Table 1 - CONTRACT TABLE SAMPLE**

<b>CONTRACT TABLE:</b>										
Enter expected project related contracts. If "other" is selected, list on separate line item below. Add as many lines as needed.										
<b>Contract Number</b>	<b>Type of Contract</b>	<b>Has the contract been awarded (Yes/No)</b>	<b>If so, what is the date of the award? If not, what is the planned award?</b>	<b>Start date of Contract</b>	<b>End date of Contract</b>	<b>Total Value of Contract</b>	<b>Will this be an Interagency Acquisition? (Yes/No)</b>	<b>Will this contract be performance based (Yes/No)</b>	<b>Will this be competitively awarded? (Yes/No)</b>	<b>What, if any, alternative financing option(s) are being used? i.e., Loan, grant, or other</b>
	Primary Solution Vendor									
	IV&V									
	IPO									
	Other									

7. **Technical interfaces:** Are there other systems, either internal or external, with which the proposed solution is required to interface? If so, are there any significant issues in establishing the interface, and how will this be accomplished?
8. **Accessibility:** What are the accessibility requirements of the proposed system (Government Code 11135 and Section 508), and how were they determined? What measures will the Agency/state entity use to meet these accessibility requirements?
9. **Testing plan:** Briefly describe the Agency/state entity's plan for unit, system, and acceptance testing. Are there any significant anticipated testing issues?
10. **Resource requirements:** Identify the expected human resource requirements, in terms of staffing and training, and technical requirements for implementation, maintenance, and ongoing operation of the proposed solution. Consider training requirements for both user and technical staff.
11. **Training plan:** Briefly describe the Agency/state entity's training plan for preparing program staff to use the system and for technical staff to develop, operate, and maintain the system.
12. **On-going maintenance:** How will the Agency/state entity provide for ongoing operations and maintenance of the system? What are the availability requirements of the proposed system? Discuss the Agency/state entity's long-term maintenance and operations strategy and how it will address those availability requirements (include a discussion of applicable warranties and maintenance agreements).
13. **Information security:** What are the security requirements of the proposed system, and how were they determined? What types of safeguards will the Agency/state entity implement to ensure the required security of the information processed and maintained by the proposed solution?
14. **Confidentiality:** What are the confidentiality requirements associated with the information processed and maintained by the proposed system? What measures will the Agency/state entity use to meet these confidentiality requirements?
15. **Impact on end users:** What is the anticipated impact of the new system on its end users, and what actions are planned to address these issues? Consider change acceptance, training needs, and modifications in the way in which work activities will be completed.
16. **Impact on existing system:** What is the expected impact on the existing system? If the existing system will need to be supported for a period of time, have resources for this effort been considered? Have data conversion issues been addressed? If the proposed solution would divert staff or other resources from other projects, indicate the effect of such a diversion on Agency/state entity programs.
17. **Consistency with overall strategies:** Discuss the alignment of the proposed project with the Agency/state entity's Agency Information Management Strategy (AIMS) and strategic business plan, as well as the state's strategic direction for information technology.
18. **Impact on current infrastructure:** Will the proposed solution require any changes to the Agency/state entity's existing information technology infrastructure? Will additional processing or communications capacity be required to support the solution, and have related costs been included?

19. **Impact on data center(s):** If the solution requires processing support from one of the state's data centers, has the Agency/state entity coordinated with the data center? Does sufficient support capability currently exist at the data center, or will the data center's infrastructure need to be augmented? Have cost estimates been provided by the data center and included in the EAWs (see EAW Section 8.0)?

20. **System Hosting/ Data Center Consolidation:** Use the check boxes and describe the entity planned to host the system.

- OTech Managed Services  OTech Federated Data Center  Agency/state entity  
 Outsourced/Other \_\_\_\_\_

Is the proposed solution consistent with the state's requirement that all new non-mainframe systems, except those used for LAN and office automation functions, be sited at one of the major data centers unless the Agency/state entity can provide compelling business requirements for alternate siting and identify all costs and activities associated with the support of the system?

21. **Backup and operational recovery:** What are the business requirements for recovery of the proposed IT system following a site or regional disaster, and how will the Agency/state entity address those requirements on an ongoing basis? Identify all one-time and ongoing costs associated with the proposed operational recovery plan.

22. **Public access:** Does the proposed solution provide direct public access to state databases by private sector organizations or individuals? If so, what data safeguards are required, and how will they be implemented and maintained on an ongoing basis?

## 5.2 Rationale for Selection

Explain the rationale for selection of the proposed solution. This should be a detailed rationale, but it may be summarized if the reasons are clearly explained elsewhere, such as in the solution description. In this section, describe how the proposed solution best meets the objectives and requirements of a response to the problem or opportunity. Also describe the assumptions and constraints that impacted the selection of the proposed solution.

## 5.3 Other Alternatives Considered

It is rare that any IT project focused on business problems/opportunities, business objectives, and business requirements would have only one solution (other than "do nothing"). The Department of Technology expects Agencies/state entities to conduct a thorough analysis of all feasible alternatives that will meet the project's objectives and requirements. FSRs submitted with only the proposed solution and no other feasible alternatives considered (the "do nothing" alternative does not meet the requirement of an alternative analysis) will not be accepted without a detailed discussion describing the specific research undertaken to justify why no other possible alternative exists.

Each alternative should be assessed in terms of its ability to satisfy the previously defined objectives and functional requirements. This section should include a description of the

alternative solutions considered but not selected. Typical alternatives include creating a new manual system, enhancing an existing automated system, developing a new automated system in-house, and purchasing a commercial-off-the-shelf system (with or without modifications). Automated system solutions may include a variety of technological alternatives, such as personal computers, local area networks, office systems, minicomputers, and use of one of the state's data centers.

An example follows:

An Agency/state entity has determined that its current automated information system for caseload management does not meet its requirements. The data is not compatible with the data of related Agency/state entity programs; insufficient data validation is performed, resulting in a significant percentage of records in error; and the system is so complex that users must receive extensive training.

The Agency/state entity might identify the following possible alternative solutions:

- Modify the software for the current system to improve data validation and ease of use
- Develop a new caseload management system to meet program requirements
- Develop an Agency/state entity enterprise database system, combining data from related programs

### **5.3.1 Describing Alternatives**

Describe each alternative that will satisfy those objectives and requirements. Include in that description the following components:

1. **Description:** Provide a high-level description of the alternative, explaining how it meets or does not meet the functional requirements and, ultimately, the stated objectives. Include information that will allow the reviewer to verify the stated conclusions.
2. **Costs:** For alternatives that fully satisfy the objectives and functional requirements, estimate the associated one-time (development/acquisition costs), continuing (operations/maintenance costs), and total project costs. Include the costs of the system and those portions of the Agency/state entity program(s) impacted by the system. The costs of the feasible alternatives considered must be included in the EAW (Section 8.0).

For business-based procurements, include the costs of the procurement phase in addition to costs outlined above.

3. **Benefits:** The nature and magnitude of economic benefits that would result from implementing the alternative should be described if these differ from the benefits that would be achieved through other alternatives considered. The nature of any intangible benefits that would result from implementing the alternative should also be described. These benefits generally consist of improved levels of service

(in terms of improved timeliness or quality necessary for complying with specified policies).

4. **Advantages:** List the advantages of the alternative relative to the other alternatives considered. An advantage may simply be to meet certain functional requirements better than another alternative, or consistency with the Agency/state entity's overall strategy for information management.
5. **Disadvantages:** Relative to the other alternatives considered, list any disadvantages that are not apparent from simply assessing the costs and benefits. Examples might include the need for significant technical staff support, or the security implications of implementation in multiple locations.

## 6.0 Project Management Plan

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Preparing a good Project Management Plan is essential to managing a project successfully. The project plan clarifies expectations and becomes the road map for successful completion. Agencies/state entities are required to follow the California Project Management Methodology (see SIMM Section 17, CA-PMM). Once planning activities have begun, the following documentation must be included in the FSR as evidence of thorough project planning. The level of detail must be commensurate with the scope, complexity and risk of the project.

### 6.1 Project Organization

To better assess this project's impact on the Agency/state entity, the Department of Technology needs current organization charts for the following:

1. The project team, including number and classification of team members. Include any planned vendors positions.
2. The impacted program organization(s)
3. The Information Systems organization
4. The Agency/state entity

### 6.2 Project Plan

#### 6.2.1 Project Phasing

Agencies/state entities should plan information technology projects to be implemented in independent phases, especially those that are expected to take longer than one year to develop and implement. Phases should consist of the smallest set of tasks, resources and risks, and utilize the shortest implementation schedules that will deliver **useful and measurable business results**. Whenever possible, the initial project phase will be confined to delivering the essential core functionality that will provide the greatest portion of the benefits of the proposed system.

When planning for phased project implementation, specific phases should meet the following criteria:

1. A phase is an economically and programmatically separable segment and should have an independent and substantial programmatic use even if no additional components are acquired.
2. Funding may be identified and/or approved separately for each phase or for the entire project.
3. Each phase, being separate and distinct, should provide value as a standalone project so that if a supplier relationship is terminated after a phase, the work completed is still of value.
4. A supplier will be paid when, and if, the deliverable is completed, tested and accepted.
5. Subsequent phases may be redesigned depending on the results of early phases.

In this section of the FSR, describe the phases planned for this project and what each phase will deliver; or justify why phasing is not appropriate.

Project Phase	Phase Deliverables

### 6.2.2 Project Schedule

Based on the project's work breakdown structure (e.g., Gantt Chart) identify high-level tasks for the project. Each project is different and requires a unique set of tasks. As appropriate, indicate that the Agency/state entity has planned for tasks such as procurement, design, development/programming and/or software modification, data conversion, installation, training for end users, training for technical staff, etc.

For the tasks identified, also provide a summary schedule for status reporting against which completion of tasks during the course of the project will be monitored. The schedule should focus on the duration of critical tasks, major management decision points, and progress reporting milestones. The milestones should reflect products and major events that may be readily identified as completed or not completed on the specified due date. Milestones should be spaced at reasonable intervals to allow management or control Agency/state entity monitoring of project progress.

## 6.3 Authorization Required

Identify any special authorization that must be obtained for the proposed alternative; e.g., Federal agency funding approval or State legislative review. Explain the steps that have been taken to obtain the required authorization and the results of those steps.

## 7.0 Risk Register

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Using the Risk Management Plan contained in the CA-PMM Toolkit (see SIMM Section 17C) complete the template and paste into this section. If using another tool that has equivalent or more detail, print or copy from the tool in use and paste into this section. The complete list from the Risk Register must be included with the FSR submission to the Department of Technology and the risk list must include priority.

## 8.0 Economic Analysis Worksheets (EAWs)

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The economic analysis should document the cost and resource assumptions the Agency/state entity made during the feasibility study process. Examples include the amount allocated for ongoing maintenance and projected workload growth. This section should also document any special conditions or issues related to the source(s) of funding for the proposed project. (The special conditions may be documented as footnotes on the EAWs.)

The proposed project should be estimated for at least one full year beyond implementation in order to reflect estimated ongoing maintenance and operations costs and establish the ongoing baseline support costs of the new system. If the program supported by the proposed project is cyclical in nature, the economic analysis should reflect the system in operation for one complete cycle.

The Economic Analysis Worksheets (EAWs) provide a standard format for documenting the projected costs and financial benefits of the current method of operation and the proposed alternative. The worksheets are used to perform cost analyses of the full range of alternatives under consideration. The following Economic Analysis Worksheets **must** be included in the FSR:

1. **Existing System Cost Worksheet:** documenting the current and projected operations/maintenance costs of the current method of operation (baseline). This worksheet reflects the cost of maintaining the existing systems and program process if the proposed solution is not implemented;
2. **Proposed Alternative Worksheet:** documenting the projected one-time costs (development/acquisition costs), continuing costs (operations/maintenance costs), and impacted program costs of the *proposed* alternative;
3. **Alternative System Worksheet(s):** documenting the projected one-time costs (development/acquisition costs), continuing costs (operations/maintenance costs), and impacted program costs of other alternatives that satisfactorily meet the objectives and functional requirements;

4. **Economic Analysis Summary:** comparing the estimated costs of the proposed alternative, other alternatives meeting the objectives and functional requirements, and the existing system; and,
5. **Project Funding Plan:** documenting the estimated resources needed for implementing the proposed system and the necessary budget actions anticipated.

After completing the study and EAWs, make sure you have considered this question:

*Is there a monetary return on investment (ROI) that is not listed as an opportunity? If so, what is the payback period?*

Opportunity/objective statements often omit the most compelling reasons to invest in a project. If the economic analysis is performed correctly and entered into the EAWs, savings, revenue, and avoidances are automatically calculated into the EAW Summary sheet in Section 8 of the FSR. The beginning of ROI shows as the first positive number on the EAW Summary sheet named "Net (Cost) or Benefit". The payback period the year the "Cum.Net (Cost) or Benefit" row shows a positive number. Numbers in brackets are negative.

In the example below, the project begins making a profit of \$5,612,512 in Fiscal Year 2016/17. The payback period in this example is off the sheet so the submitter has noted it at the bottom of the sheet.

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>EXISTING SYSTEM</b>										
Total IT Costs	7.5	2,704,240	7.5	2,704,240	7.5	2,704,240	7.5	2,704,240	45.0	16,225,440
Total Program Costs	235.6	20,007,000	235.6	20,007,000	235.6	20,007,000	235.6	20,007,000	1413.6	120,042,000
Total Existing System Costs	243.1	22,711,240	243.1	22,711,240	243.1	22,711,240	243.1	22,711,240	1458.6	136,267,440
<b>PROPOSED ALTERNATIVE</b>										
Total Project Costs	20.5	5,358,112	21.5	5,454,151	21.5	5,454,151	13.5	1,772,744	107.1	23,729,033
Total Cont. Exist. Costs	222.6	21,139,140	209.6	20,402,038	185.6	19,094,592	181.6	15,325,984	1255.5	119,281,343
Total Alternative Costs	243.1	26,497,252	231.1	25,856,189	207.1	24,548,743	195.1	17,098,728	1362.6	143,010,376
COST SAVINGS/AVOIDANCES	0.0	(3,786,012)	12.0	(3,144,949)	36.0	(1,837,503)	48.0	5,612,512	96.0	(6,742,936)
Increased Revenues		0		0		0		0		0
Net (Cost) or Benefit	0.0	(3,786,012)	12.0	(3,144,949)	36.0	(1,837,503)	48.0	5,612,512	96.0	(6,742,936)
Cum. Net (Cost) or Benefit	0.0	(7,372,996)	12.0	(10,517,945)	48.0	(12,355,448)	96.0	(6,742,936)		

The proposed project will produce a \$5.6 million annual benefit beginning in 2016-17 with a breakeven point after the second full year of implementation.

Note: The first two fiscal years of this EAW example were deleted to fit on the page.

**EAW Instructions and the EAW templates are available in SIMM Section 20, Item C.**

## 9.0 Business Functional Requirements

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This section must provide a complete description of the essential characteristics that the proposed solution must incorporate to satisfy each objective. For example, an objective might be "to mail 98% of the benefit checks by the end of the fifth working day of each month." A related functional requirement might be that "the response must be capable of producing xx checks during one work shift". Describe the functional requirements in sufficient detail for executive and program management and control Agency/state entity staff to understand the functions to be performed by the information technology; examples follow.

<b>Inputs</b>	<b>Outputs</b>	<b>Files</b>	<b>Scope of Effort</b>	<b>Security Requirements</b>	<b>Interface requirements</b>
data groups	data groups	data groups	number of users	maintain data integrity	interactions with other organizations
volumes	volumes	size	number of locations	satisfy confidentiality and security requirements	information sharing
frequency	frequency	retention period			reporting requirements
source	quality	update frequency			
quality	media	volumes			
media	distribution				
seasonal variation					
accuracy					

The functional requirements should also describe information processing requirements and special requirements related to staffing and training.

## **Appendix A – Stage 1 Business Analysis**

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Attach the approved Stage 1 Business Analysis as Appendix A of this FSR.