State of California

Department of Technology

Stage 2 Alternatives Analysis

Preparation Instructions

Statewide Information Management Manual – Section 19B

August 2016

INTRODUCTION TO
THE STAGE 2 ALTERNATIVES ANALYSIS

Overview

Statewide Information Management Manual (SIMM) Section 19B, Stage 2 Alternatives Analysis, is the second stage of the Project Approval Lifecycle and provides a basis for project management, program management, executive management, and state-level control agencies to understand and agree on how the proposal's business objectives will be achieved, to evaluate multiple alternative solutions, determine which alternative will yield the highest probability of success, and to develop an acquisition strategy/plan for procuring services if needed. The Stage 2 Alternatives Analysis instructions have been prepared to help State of California Agencies and state entities[1] meet the Department of Technology requirements for documentation of proposals for projects.

Clarifications

✓ A Stage 1 Business Analysis must be approved by the Department of Technology or, if delegated, the Agency Chief Information Officer prior to conducting a Stage 2 Alternatives Analysis.

✓ Proposal reporting requirements are initially determined as part of the Stage 1 Business Analysis but may change as the proposal progresses though the Project Approval Lifecycle.

✓ For proposals anticipated to be reportable, Agencies/state entities are required to submit a Stage 2 Preliminary Assessment prior to the development of the Stage 2 Alternatives Analysis.

✓ For proposals anticipated to be reportable, Agencies/state entities are required to submit a Stage 2 Alternatives Analysis to the Department of Technology.

✓ For proposals anticipated to be reportable, a Stage 2 Alternatives Analysis must be approved by the Department of Technology prior to conducting a Stage 3 Solution Development.

✓ For proposals anticipated to be non-reportable, Agencies/state entities must receive Stage 2 Alternatives Analysis approval from the Agency/state entity's Director, as applicable.

Stage 2 Alternatives Analysis Reporting Requirements

For proposals that are anticipated to be reportable, the Department of Technology requires specific information from Agencies/state entities to carry out its responsibilities in approving the Stage 2 Alternatives Analysis. To evaluate an Agency/state entity's Stage 2 Alternatives Analysis, the Department of Technology needs to fully understand the business investment justification. Each proposal must provide sufficient detail to describe the baseline processes, business requirements, alternative solutions, recommended solution, and staffing plan.

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[1]**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.

Each Agency or state entity is responsible to ensure its Stage 2 Alternatives Analyses meet Department of Technology requirements. The Stage 2 Alternatives Analysis must be comprehensive and cannot rely on verbal or subsequent written responses (e.g., emails) to the Department of Technology staff's questions to provide needed justification for the submission. Incomplete submissions that fail to provide relevant information in written form may be returned without consideration at the discretion of the Department of Technology.

The Department of Technology may, at its discretion, request additional information from the Agency or state entity.

Changes to Previously Approved Submittals

As a proposal progresses through each stage of the Project Approval Lifecycle, further analysis is conducted, uncertainties are cleared, and data used for decision-making improves. As additional information is collected (e.g., cost estimates, schedules, and business objectives), the information submitted in an earlier stage can be refined. If information from a previously approved Stage 1 Business Analysis needs to be updated, the Agency/state entity should submit an updated Stage 1 Business Analysis along with the Stage 2 Alternatives Analysis submittal.

Changes to Reportability Status

If at any stage in the Project Approval Lifecycle a proposal initially anticipated to be non-reportable now meets any of the reportability criteria as per State Administrative Manual (SAM) 4819.37, the Agency/state entity is required to resubmit a Stage 1 Business Analysis and Stage 2 Alternatives Analysis with all sections completed for Department of Technology review and approval.

Stage 2 Alternatives Analysis Transmittal Requirements

The Project Approval Executive Transmittal Form, located in SIMM Section 19G, will be used to satisfy the transmittal requirements for Stage 2 Alternatives Analysis.

- ✓ State entities are required to sign and submit the Project Approval Executive Transmittal to their governing Agency for approval.

- ✓ Agencies are required to sign and submit the Project Approval Executive Transmittal to the Department of Technology.

Exception – State entities that are not governed by Agencies can sign and submit the Project Approval Executive Transmittal directly to the Department of Technology.

> *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.*

The Stage 2 Alternatives Analysis should be submitted to the Department of Technology through the CIO Project Oversight email address at: (ProjectOversight@state.ca.gov).

Project Approval Executive Transmittal

The Transmittal template (available in SIMM Section 19G) contains the approving Agency/State entity executive signatures, with the following components:

1. **State Entity Name:** Enter the state entity name that prepared the Stage 2 Alternatives Analysis. Designate one state entity as owner if multiple state entities have a role in the proposal.

2. **Agency Name**: Enter the Agency name that prepared the Stage 2 Alternatives Analysis. Designate one Agency as owner if multiple Agencies have a role in the proposal. This field is not required for state entities not governed by an Agency.

3. **Name of Proposal:** Enter the proposal name as determined by the Agency/state entity in the approved Stage 1 Business Analysis.

4. **Department of Technology Project Number**: Enter the project number assigned by the Department of Technology during the Stage 1 Business Analysis (in "0000-000" format).

5. **Submission Deliverable**: Select the Stage/Gate deliverable(s), as applicable.

6. **Approval Signatures:** The Agency/state entity executive approval signatures are required, documenting commitment and 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, Agency Information Officer and the Agency Secretary.

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Stage 2 Alternatives Analysis Main Form Instructions

2.1 General Information

Section 2.1 General Information should already be completed from the "Stage 2 Preliminary Assessment" submission. If no changes are needed, proceed to Section 2.4 Submittal Information. Refer to SIMM 19A.1 Preparation Instructions, Preliminary Assessment for Stage 2 – General Instructions to complete the Stage 2 Preliminary Assessment.

2.4 Submittal Information

Note: Prior to submitting a Stage 2 Alternatives Analysis, the Agency/state entity must complete and submit the Preliminary Assessment for Stage 2.

Contact Information:
Select the "Contact Information" checkbox if the same information from Section 2.2 Preliminary Submittal, Contact Information, is to be used. If selected, the following fields will auto-populate; otherwise, enter the information as indicated.

Contact First Name: Enter the first name for Agency/state entity person who will be the primary point-of-contact for control agency questions and comments.

Contact Last Name: Enter the last name for Agency/state entity person who will be the primary point-of-contact for control agency questions and comments.

Contact Email: Enter the email address of the contact provided above.

Contact Phone Number: Enter the ten-digit phone number of the contact provided above.

Submission Date: Select the date the Stage 2 Alternatives Analysis is being submitted to the Department of Technology for review.

Submission Type: Select one of the following types of submission.

New Submission: Initial submission to the Department of Technology.

Updated Submission (Pre-Approval): Updated submission based on review and feedback from the Department of Technology, critical partners or other stakeholders prior to formal approval.

Updated Submission (Post Approval): If Stage 2 Alternatives Analysis has been previously approved by the Department of Technology and new information or updates are required, the submittal should be updated based on new information. For instance, as a proposal progresses through each stage of the Project Approval Lifecycle, further analysis is conducted, uncertainties are cleared, and data used for decision-making improves, in this case an update to the Stage 2 Alternatives Analysis may be required.

Withdraw Submission: An Agency/state entity may decide to withdraw the Stage 2 Alternatives Analysis for various reasons (e.g., change in direction, feasibility, budgetary issues, etc.). If an Agency/state entity wishes to withdraw a previously submitted or approved proposal from further consideration, check this field and submit the Stage 2 Alternatives Analysis to the Department of Technology.

If "Withdraw Submission" is selected, select the reason for the withdrawal from the dropdown menu. If "Other," specify the reason in the space provided.

Contact your Department of Technology ITPOD Oversight Manager and Agency Information Officer (if applicable) to inform them of your intention to withdraw the proposal. The Department of Technology will send a written confirmation of withdrawal and communicate to all associated stakeholders. Once a proposal is withdrawn, the Agency/state entity will be required to submit a new Stage 2 Alternatives Analysis to continue with a proposal for the same or a similar request.

Sections Updated: If either Submission Type "Updated Submission (Pre-Approval)" or "Updated Submission (Post Approval)" is selected, then indicate the sections where updates have been made.

Summary of Changes: Provide a concise summary of changes made.

**Note**: Highlight or otherwise indicate new or changed text within the modified section.

Project Approval Executive Transmittal: Scan and attach the signed Project Approval Executive Transmittal for Stage 2 Alternatives Analyses; use the transmittal form located in SIMM Section 19G.

Condition(s) from Previous Stage(s)

In order to provide status and information on the previous stage's approval conditions, the Agency/state entity will use the Gate 1 Scorecard and address each approval condition by providing a concise narrative on their plan to address each approval condition. The Agency/state entity response may include a variety of strategies to address the condition (e.g., condition to be addressed in Stage 3 Solution Development, condition to leverage other department services is being pursued through an Interagency Agreement, condition to mitigate the lack of experienced project management staff is being addressed by leveraging Department of Technology's California Project Management Office to assist with the project).

Use the Gate 1 Scorecard to obtain any approval conditions from the previous stage.

Condition #: Enter the assigned condition number(s) (e.g., 1.1, 1.2, and 1.3).

Conditional Category: Select the conditional category (or type in as appropriate).

Condition Sub-category: Select the condition sub-category from the previous stage (or type in as appropriate).

Condition: Enter the condition from the previous stage.

Assessment: Select the assessment. If "Other" is selected, type the assessment.

Agency/state Entity Response: Provide a narrative of the Agency/state entity's response to the condition.

Status: Select the condition status. If "Other" is selected, type the status.

2.5 Baseline Processes and Systems

An understanding of current business processes (which may include manual processes) and supporting systems, also known as the current "as is" solution (if any), is needed to successfully perform an effective alternatives analysis.

2.5.1 Description

Provide a brief narrative description of the current baseline business processes and supporting systems that will be impacted by this proposal. This description will contain a general context for the baseline processes and systems that are to be further detailed in Section 2.5.3 Current Architecture Information. Additionally, document existing system costs, both information technology and program, using completed Financial Analysis Worksheets (FAWs). Refer to "SIMM Section19F Financial Analysis Worksheets Preparation Instructions" for the details on how to complete the FAWs. The completed FAWs will be included as an attachment in "Section 2.14 Financial Analysis Worksheets."

2.5.2 Business Process Workflow

Attach current Business Process Workflow diagrams for all existing business processes related to this proposal. The Business Process Workflow consists of mapping a series of necessary business functions that depict an abstract graphical view of real work and personnel under different situations or timeframes. The workflow should include the events that initiate each process (i.e., the trigger event) and the results of those processes. The attachments must be in Portable Document Format (PDF). The workflow should include the following components:

- Business Process – Illustrate the active roles and the activity the role conducts during the business process. Include the parallel processes as well as sequential steps in a process that execute the successful completion of the business process.
- Business Rules – Any business policies or procedures that dictate the need for the business process.
- Trigger Events – One or more events that directly start a business process (e.g., receive a request, phone call, or a scheduled date).
- Results – One or more outcomes from the execution of a business process.
- Data Dictionary – List of database files, number of files, relationships to other data, and elements that depict the data structure. This documentation may be submitted along with the workflow diagram.

2.5.3 Current Architecture Information

The Agency/state entity business and technical teams will collaborate to complete the information contained within the Architecture Information. The business team will complete, or provide to the technical team, the business processes for the current solution. The technical team will complete, or provide to the business team, the technical-related items (e.g., application, system, or component; Commercial off-the-shelf [COTS], Modified off-the-shelf [MOTS] or custom solution; runtime environment; system interfaces; data center location; and, security).

Document each business process and the supporting technology for the current solution. Only discuss business programs and supporting technology affected by the proposal as identified in Stage 1 Business Analysis, Section 1.7 Program Background and Context. If a business process is completely manual and does not currently have any supporting technology, only identify the business process and leave the other fields of the table blank. The Architecture Information should align with Section 2.5.2 Business Process Workflow. For each business process identified, provide the following:

Business Function/Process (es): Enter the business process name as referenced by the Agency/state entity. If many business processes are grouped under business functions (particularly for large systems), identify the respective business function.

Use the "Insert Business Function/Process" and enter the business process name if another business process uses the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces; data center location; and, security.

Application, System, or Component: Enter the name of the application, system or component that supports the associated business process.

Use the "Insert Application, System or Component" for each application, system, or component and identify separately if multiple applications, systems or components support the business process.

COTS, MOTS or Custom: Select either "Commercial off-the-shelf (COTS)," "Modified off-the-shelf (MOTS)" or "Custom solution" to identify the type of application, system or component used. For a COTS or MOTS product, provide the name of the COTS or MOTS product utilized in the system. For a custom solution, enter the primary technology used to build the system (e.g., .NET, Java, etc.).

- COTS product – Typically, a ready-made computer hardware or software product for specific uses and available for sale to the general public. COTS products are designed to be installed without requiring custom development. For example, Microsoft Office is a COTS product that is a packaged software solution for businesses and individuals. The Federal Acquisition Regulation (FAR) defines the rules for COTS products.

- MOTS product – Typically, a COTS product with source code made available to the purchaser to allow for modifications. The product may be customized by the purchaser, by a vendor, or by another party to meet the requirements of the customer. Since MOTS product specifications are written by external sources, purchasers may not have control of future changes to the product.

- Custom solution – Typically, computer software developed for a specific customer to accommodate the customer's particular requirements, preferences, and expectations.

Runtime Environment: Identify the runtime environment for the current system, as follows:

Cloud Computing Used: Specify if the current system uses Cloud Computing. If "Yes," choose the applicable type and complete the remaining Runtime Environment fields as specified:

- If Software as a Service (SaaS) selected, do not complete further Runtime Environment fields.
- If Platform as a Service (PaaS) or Infrastructure as a Service (IaaS), do not complete the Hardware field but complete the remaining Runtime Environment fields.

Server/Device Function: Enter the function of each server/device that the current system leverages (e.g., Web service, database, network routers, workstations, tablets, etc.)

Hardware: Enter the hardware that the current system leverages (e.g., IBM pSeries, HP Blade Server, etc.).

Operating System: Enter the operating system that the current system leverages (e.g., Microsoft Windows, UNIX, z/OS, etc.).

System Software: Enter the system software that the current system leverages (e.g., Oracle WebLogic Server, Microsoft SQL Server, EMC Documentum, etc.).

Select "Insert System Software" to add additional system software information if the Business Function/Process uses more than one application, system, or component.

System Interfaces: Enter the name(s) of system(s) that exchange data with the current system using interface files, web services, etc. Identify systems within scope of the proposed project that interface with each other. Also identify systems outside the scope of the proposed project that interface with the baseline systems. Provide a brief description of the purpose of each interface. If the system exchanges data with other entities, specify the name of the entity. Examples include but are not limited to the following:

- Federal partners
- Local city/county partners
- State agency entity partners
- Judicial branch
- Universities
- Researchers

Data Center Location: Select the location of the data center where the current system is hosted.
- State Data Center: A data center operated by the Department of Technology, Office of Technology Services (OTech).
- Agency/State Entity Data Center: A data center independently operated by an Agency/state entity.
- Commercial Data Center: A data center operated by a solution provider or vendor contracted by the Agency/state entity.
- Other: If not one of the above, type the location of the data center where the current system is hosted.

Security: Indicate the security and privacy characteristics of the current system.

Access: Indicate who is authorized to access the current system. Use the check boxes provided to select all that apply:

- Public: The current system is accessible to public parties with or without restricted access.

- Internal State staff: The current system is accessible to internal state staff with or without restricted access.
- External State staff: The system is accessible to state staff from other Agencies/state entities, with or without restricted access.
- Other: Specify who else is authorized to access the current system.

Type of Information: Identify the types of information that require protection. See the SAM Section 5305.5 for more information. Use the check boxes provided to select all that apply:

- Personal: Select if personally identifiable information (e.g., social security numbers, demographic information, etc.) is collected, processed and/or presented by the system.
- Health: Select if diagnosis, treatment, provider, insurance, or billing information is collected, processed and/or presented by the system.
- Tax: Select if IRS safeguards or state or local tax information policies (similar to the Federal IRS safeguards) are required to protect information contained in state or local tax submissions.
- Financial: Select if confidential or sensitive financial information is maintained (e.g., payment processing, salaries, budget, credit card numbers, contract amounts, etc.)
- Legal: Select if confidential or sensitive legal information is maintained (e.g., arrest records, court records, incarceration records, contracts, lawsuits, legal documents, etc.)
- Confidential: Select if other types of confidential or sensitive information are maintained by the system (e.g., business trade secrets, investigations, enforcement actions, etc.)
- Other: Specify the type of information that requires protection.

Protective Measures: Identify how the information is currently protected. Use the check boxes provided to select all that apply:

- Technical Security: Select if hardware and software security measures (e.g., firewalls, virus protection, intrusion detection/prevention, etc.) are used to protect the networks, servers, workstations, and other devices in the infrastructure.
- Identity Authorization and Authentication: Select if the current system requires restricted access to either state employees and/or to the public.
- Physical Security: Select if servers and network devices are secured with environmental security measures (e.g., door locks, surveillance equipment, etc.)
- Backup and Recovery (Technology Recovery): Select if data is backed up and stored offsite.
- Other: Specify how the information is currently protected.

Data Management: Indicate the data owner and custodian of the current system.
Data Owner (Owner of information assets): Identify the individual and their organizational unit with the responsibility for making classification, categorization, and control decisions regarding information assets. See SAM Section 5305.5 for more information.

- Name: Enter the name of the Data Owner.
- Title: Enter the title of the Data Owner.
- Business Program: Enter the name of the Business Program with controlling ownership of the data.

Data Custodian (Custodian of information): Identify the individual and their organizational unit which is the caretaker for the proper use and protection of information assets on behalf of the information asset owner (e.g., a data center or information processing facility). See SAM Section 5305.5 for more information.

- Name: Enter the name of the Data Custodian.
- Title: Enter the Title of the Data Custodian.
- Business Program: Enter the name of the Business Program that is the custodian of the data.

2.5.4 Current Architecture Diagram

Attach a diagram (in PDF) that depicts the business processes and supporting systems identified in Section 2.5.3 Current Architecture Information to provide a visual understanding of the relationships between the business processes, information, applications, technology, and any system interfaces. Indicate the primary user groups and their interaction with business processes and systems.

2.5.5 Security Categorization Impact Table

Attach a table (in PDF) that categorizes and classifies the Agency/state entity's information assets (e.g., paper and electronic records, automated files, databases requiring appropriate protection from unauthorized use, access, disclosure, modification, loss, or deletion). The categorization and classification of information assets is a prerequisite for determining the level of protection needed. Each information asset for which the Agency/state entity has ownership responsibility shall be inventoried and identified. Refer to SIMM 5305-A Information Security Program Management Standard for additional information on security categorization. The ISO will assist in the business and organizational security risk assessment of information assets. Use the following groups to categorize and classify the information assets:

- Public Information (not exempt from disclosure under Government Code (GC) Sections 6250-6265].
- Confidential Information (exempt from disclosure under GC Sections 6250-6265 or has disclosure restrictions in accordance with other applicable state or Federal laws)
- Sensitive Information (which requires special precautions to protect from unauthorized use, access, disclosure, modification, loss, or deletion).
- Personal Information (e.g., Social Security Number, driver's license/California identification card, financial account number, medical/health information, etc.)
- Description and useful value of the information asset.
- Owner of the information asset.
- Custodians of the information asset.
- Users of the information asset.
- Classification of information.
- FIPS Publication199 categorization and level of protection (Low, Moderate, or High).
- Importance of information asset to the execution of the state entity's mission and program function.
- Potential consequences and impacts if confidentiality, integrity and availability of the information asset were compromised.
- Potential consequences and impacts if confidentiality, integrity and availability of the information asset were compromised.

SIMM 5305-A Information Security Program Management Standard, Information Asset Owners, Responsibility, Number 3, provides:

> "Subject to executive management review, classifying information assets, including each record, file, or database for which it has ownership responsibility in accordance with the need for precautions in controlling access to and preserving the security and integrity of the information asset."

Refer to the Federal Information Processing Standards (FIPS) Publication 199 and SIMM 5305-A for additional information regarding the categorization and classification of information assets:

http://csrc.nist.gov/publications/fips/fips199/FIPS-PUB-199-final.pdf.)

http://www.cio.ca.gov/Government/IT_Policy/SIMM/SIMM5305_A.PDF).

Security Categorization Impact Table Summary

Select "Low," "Moderate," or "High" for each security objective category (i.e., Confidentiality, Integrity, and Availability) from FIPS Publication 199, *Standards for Security Categorization of Federal Information and Information Systems*. The summary security categorizations are further detailed below:

Security Categorization Impact Table Summary			
Security Objective	**LOW**	**MODERATE**	**HIGH**
__Confidentiality:__ Preserving authorized restrictions on information access and disclosure, including means for protecting personal privacy and proprietary information.	The unauthorized disclosure of information could be expected to have a **limited** adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized disclosure of information could be expected to have a **serious** adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized disclosure of information could be expected to have a **severe or catastrophic** adverse effect on organizational operations, organizational assets, or individuals.
__Integrity__: Guarding against improper information modification or destruction, and includes ensuring information non-repudiation and authenticity.	The unauthorized modification or destruction of information could be expected to have a **limited** adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized modification or destruction of information could be expected to have a **serious** adverse effect on organizational operations, organizational assets, or individuals.	The unauthorized modification or destruction of information could be expected to have a **severe or catastrophic** adverse effect on organizational operations, organizational assets, or individuals.

Security Categorization Impact Table Summary			
Security Objective	**LOW**	**MODERATE**	**HIGH**
**Availability**: Ensuring timely and reliable access to and use of information.	The disruption of access to or use of information or an information system could be expected to have a **limited** adverse effect on organizational operations, organizational assets, or individuals.	The disruption of access to or use of information or an information system could be expected to have a **serious** adverse effect on organizational operations, organizational assets, or individuals.	The disruption of access to or use of information or an information system could be expected to have a **severe or catastrophic** adverse effect on organizational operations, organizational assets, or individuals.

When determining the security objective categorization, consider the impact if the information does not remain confidential, the measures required to maintain authenticity and guard against unauthorized modification or removal, and the disruption caused if the information is not maintained or updated.

2.6 Mid-Level Solution Requirements

A requirement is a documented representation of a condition or function that must be met or possessed by a solution or solution component to satisfy a contract, standard, specification, or other documented criteria. The main objective or goal in defining requirements is to communicate stakeholder objectives, needs, and outcomes. In the Stage 1 Business Analysis, business goals and objectives form the initial business requirements for the proposal. Business process workflows produced during Stage 2 Alternatives Analysis provide business context for further elaboration of the business requirements into mid-level solution requirements (i.e. functional, non-functional, and project/transition requirements) defined in Stage 2. Mid-level solution requirements specify the conditions, functionality, quality of service, and capabilities a solution must have in order to meet the business need or solve the business problem as described in the Stage 1 Business Analysis. For the purposes of the Project Approval Lifecycle, mid-level solution requirements are sub-classified into functional requirements, non-functional requirements and project/transition requirements. Mid-level solution requirements enable an Agency/state entity to:

- Evaluate multiple alternative solutions
- Determine which alternative will yield the highest probability of success
- Develop an acquisition strategy/plan for procuring services if needed

The Stage 2 Alternatives Analysis Mid-Level Solution Requirements serve as a bridge between business objectives established in Stage 1 and the more detailed solution requirements developed as part of the Stage 3 Solution Development, as summarized below:

Requirements in the Project Approval Lifecycle

Stage 1 – Business Analysis	Stage 2 – Alternatives Analysis	Stage 3 – Solution Development	Stage 4 – Project Readiness and Approval
• **Business Requirements -** Goals, objectives and outcomes identified. • **Stakeholder Needs Captured**	• **Process Flows** - The graphic representation of the business processes. • **Mid-Level Solution Requirements -** • Characteristics of a solution scope and quality of service. They describe the conditions, functionality and capabilities that a solution must have to satisfy the business needs identified in the objectives; they are sub-classified into functional, non-functional and project/transition requirements • **Functional Requirements** - Feature level information to validate the size of the system. Generally they are "what" the business has identified they want. • **Non-Functional Requirements -** Information to validate alternatives. Generally they are what/how non-business (i.e., technologists) want or need to satisfy what the business has identified they want. • **Project/Transition Requirements -** Information to validate the feasibility of cost and schedule. Generally they are temporary in nature and exist while the Project is progressing through project phases prior to project close and the solution becomes the new "as-is."	• **Detailed Solution Requirements** - They represent large groupings of concise specifications that when combined deliver an expected quality of service and functionality of a solution. They are sub-classified into functional, non-functional and project/transition requirements. • **Detailed Functional Requirements** - Specifications to ensure the system meets stakeholder needs. • **Detailed Non-Functional Requirements** - Specifications to ensure the system operates as required; identifies qualities of the system and constraints on the system. • **Detailed Project/Transition Requirements** - Specifications to ensure the system is built on time and budget and meets quality levels. • **Detailed Mandatory/Optional Requirements** - Specifications on optional requirements (e.g., maintenance and operations after first year of operations) that will be implemented at the option of the state. • **Administrative Requirements** - Requirements that are defined by the Department of Technology, STPD and included under a separate section of a solicitation.	• **Baseline Functional Requirements** - Information to test and subsequently maintain the desired functionality in the system. • **Baseline Non-Functional Requirements** - Information to test and subsequently maintain the quality and operational aspects of the system, within the defined constraints. • **Baseline Project/Transition Requirements –** Information to test and subsequently maintain the quality, budget and time constraints. • **Baseline Mandatory/Optional Requirements –** Information to subsequently maintain and validate the need to implement optional requirements (e.g., maintenance and operations after first year of operations).

Refer to SIMM 19B.3 for the Mid-Level Solution Requirements Template to document requirements. The Mid-Level Solution Requirement Template Instructions are provided below. The Mid-Level Solution Requirements Template introduces a component of traceability that is initially developed as part of Stage 2 Alternatives Analysis and will be further elaborated in Stage 3 Solution Development. Traceability will help to ensure that what is delivered by the completed solution is neither more nor less than what was agreed to by the project stakeholders. See SIMM 17 for a sample Requirements Traceability Matrix template and user instructions.

Alternatively, Agencies/state entities may choose to document their mid-level solution requirements via "Use Cases." If "Use Cases" are used, the Agency/state entity will be required to provide detailed functional requirements in Stage 3 Solution Development. A sample "Use Case" is provided below.

Requirements: Attach the requirements detail in Excel, PDF or another electronic format.

Mid-Level Solution Requirements Template Instructions

The SIMM Section 19B.3 Mid-Level Solution Requirements Template is an Excel tool Agencies/state entities can use to document requirements for the Project Approval Lifecycle. The fields included in the Mid-Level Solution Requirements Template are required and must be included in an Agency/state entity's requirement documentation submission. Agencies/state entities may utilize another requirement documentation format as long as the required fields are included in their requirements documentation submission. Additionally, Agencies/state entities may include more fields than those provided in the Mid-Level Solution Requirements Template. The Mid-Level Solution Requirements Template introduces a component of traceability that is initially developed as part of Stage 2 Alternatives Analysis and will be further elaborated in Stage 3 Solution Development. Traceability helps to ensure that what is delivered by the completed solution is neither more nor less than what was agreed to by the project stakeholders. See SIMM 17 for a sample Requirements Traceability Matrix Template and user instructions.

If using the Mid-Level Solution Requirements Template, enter the "Project Number" and "Agency/State Entity Name" on the *Instructions* tab. This will automatically populate each corresponding "Requirement Type" tab. Refer to the template's *Instructions* tab for specific steps to combine all requirement types onto one worksheet.

<u>Enter Requirements</u> – Use the *corresponding* tab for the "Requirement Type" (e.g., Functional Mandatory tab, Functional Desirable tab, Non-Functional Mandatory tab, etc.) to enter the mid-level solution requirements. The following information is required:

Objectives Reference – Enter the "Objective Number" from the Stage 1 Business Analysis Section 1.10 Business Problems or Opportunities and Objectives Table to reference each functional requirement to one of the objectives identified in the Stage 1 Business Analysis. This will show the linkage, or "traceability," of the requirements back to the project objectives.

Requirement Category – Enter the Agency/state entity defined requirement category that aligns with the functional area (e.g., HR, IT, SYS, etc.)

Requirement Number – Enter the Agency/state entity defined requirement number. This number will in most cases be used for traceability purposes.

Main Business Capability/Function – Enter the name of the business function which this requirement will help address. For example: Eligibility and Enrollment.

Sub Business Capability/Function – Enter the sub business capability/function that is expected to occur as a result of a main business capability/function. For example: Determine eligibility.

Business Process – Enter a brief description of the business process. The description should identify the event that triggers the business process, the series of business process activities, and the data manipulated by the business process. For example: Process Claim – This business process receives the original or adjusted claim information and validates that the required information has been completed.

Requirement – Enter the requirement that supports the main business and/or sub-business capability or functional needs and the corresponding objective.

Requirement Type – The requirement type (i.e., functional, non-functional, project/transition, etc.) will automatically populate based on the corresponding tab's requirement type. The requirement types are as follows:

Functional Requirements – Functional requirements represent the business objectives, needs and outcomes of all stakeholders. They should be organized and presented in context of and with a baseline business process/workflow that they describe. They provide a description of what an enabling solution should provide and specify essential details of a solution for stakeholders as a means to express and manage expectations. They describe actions and operations that the solution must be able to perform. They can describe services, reactions, and behaviors of the solution. They also describe information the solution will manage. The requirements should be expressed in business terms and should not include any technical references. The requirement should identify "what" is required to meet the business objective, not "how" the requirement will be implemented.

For example:

- The solution shall provide the functionality to list available plans and benefit designs online, via the internet.

- The solution shall provide on-line help features including:
  - How-to examples
  - An index of all provided features
  - A glossary of terms
  - System documentation as described in Section XX of RFP XX
  - Key command instructions

- The solution shall allow end users to print reports, text, tables, maps, and charts/graphs in hardcopy form, on end user's local or network printers.

- Edit errors shall provide user with range of correct values for the field in question.

Non-Functional Requirements – Non-functional requirements provide criteria to evaluate the operation of an enabling solution and primarily represent qualities of (expectations and characteristics) and constraints on (e.g., governmental regulations) the solution. They capture conditions that do not directly relate to the behavior or functionality of the solution, but rather describe environmental conditions of an effective solution or productive qualities of the solution. Mid-level non-functional requirements also define quality of service requirements, such as those relating to required capacity, speed, security, privacy, availability, response time, throughput, usability, and the information architecture and presentation of the user interfaces. Mid-level non-functional requirements could include the following:

- ■ Quality Requirements (include 'abilities') –
  - Reusability
  - Maintainability
  - Reliability
  - Security
  - Portability

  For Example:
  - o Solution shall require authorized users to change their password monthly.
  - o Interruptions of system availability for planned maintenance shall be scheduled.
  - o Data fields specified in Form XX shall be consistent with the data element definitions specified in the data dictionary.
  - o Logical and physical access to the system will be restricted to authorized users.
  - o Password-based authentication will authorize users to the system.

- ■ Human Factors (include required characteristics for the outcomes of interaction with human users) –
  - Performance
  - Usability
  - Availability
  - Efficiency
  - Safety

  For Example:
  - o Solution shall notify the user when a new is new record is submitted.
  - o Solution shall support all concurrent users, without degradation of system performance and/or functionality.
  - o Solution shall provide menu-driven navigation.
  - o Browser-based users will gain access to the system via a single login.
  - o Solution shall provide simultaneous on-line query access.

- ■ Design Constraints (requirements that limit the options open to a solution designer) –
  - Standards
  - Policies
  - Data center options
  - Interfaces

  For Example:
  - o System shall encrypt all data while in transit and at rest.

- End users shall perform queries against the database using SAS Business Analytics software.

- System shall provide a web-based interface.

- System shall provide data access to the record level using Windows based graphical interface.

- Provide data access for end users without the prior programming knowledge.

Project/Transition Requirements – Project/transition requirements describe capabilities that the solution must have in order to facilitate the transition from the current state of the enterprise to a desired future state. Mid-level project/transition requirements are differentiated from other requirement types because they are usually temporary in nature and will not be needed once the transition is complete. They typically cover process requirements imposed through the contract, such as mandating a particular design method, administrative requirements, data conversion and migration from existing systems, interfaces, skill gaps that must be addressed, and other related changes required to reach the desired future state.

Mid-level project/transition requirements could include the following:

- Project Requirements

  - Compliance requirements

  - System Development Life Cycle (SDLC) or system element implementation process requirements

  - Project management and reporting

  For Example:

  - Contractor shall specify and follow an industry-standard SDLC methodology, such as Waterfall, or Rational Unified Process.

  - Contractor shall provide weekly status reports.

  - Contractor shall develop a Microsoft Project schedule, detailing all project tasks greater than 40 hours of effort.

- Transition Requirements

  - Data conversion and migration

  - Production turnover and transition (help desk, operations, application support)

  - User preparation and transition (training)

  - Customer preparation and transition (communications, data interchange)

  - Organizational changes

  - Infrastructure preparations

  For Example:

  - Contractor shall be responsible for loading all data supplied by the department into the new system.
  - Contractor shall be responsible for providing monthly Enterprise Resource Planning system training to a maximum of 20 users per class, for a period of 12 months.

- o Contractor shall provide on-line, hands-on use of the system as an essential part of training.
- o Contractor shall provide on-call telephone support and user-assistance.
- ■ Operation and Support (requirements that specify the physical environment in which the system will operate and provisions for sustaining the operational effectiveness and use of the system) –

    For Example:

    - o Contractor shall provide up to 2,000 hours each year of technical consultation and services for system maintenance.
    - o Contractor shall provide sufficient licenses for 400 concurrent end users.
    - o Contractor shall perform preventative maintenance and update the system in response to system defects.
    - o Contractor shall provide on-call support 24 hours a day, seven days a week.

- ■ Vendor Qualification Requirements
    - Experience of the vendor and its subcontractors
    - Performance Bonds and Insurance
    - Provision of audited financial statements

    For Example:

    - o Contractor must have completed two (2) projects within the past five (5) years with primary responsibility for implementing similar business functions identified in this solicitation.
    - o Contractor shall provide resumes and three references for all proposed staff that shall fill the positions detailed in the Contractor Staffing Requirements section of this RFP.
    - o Contractors' proposed Project Manager shall be a certified Project Management Professional by the Project Management Institute.

Priority: The priority of each functional requirement will automatically populate based on the corresponding tab's requirement priority type, as follows:

- Mandatory – "Must have" requirements that are critical to the functionality of the solution.
- Desirable – "Nice to have" features – features that are not critical to the functionality of the solution.

Business Owner/Stakeholder: Specify a business owner/stakeholder or stakeholder group that benefits from the implementation of the requirement. This business owner/stakeholder will become the owner of the requirement to ensure that the requirement is implemented correctly in the system. The business owner/stakeholder identified should align with Stage 1 Business Analysis, Section 1.4 Business Sponsor and Key Stakeholders.

Use Case (Sample):

Use Case ID:	Enter a unique numeric identifier for the use case (e.g. UC-1.2.1)
Use Case Name:	Enter a short name for the use case using an active verb phrase (e.g., Load file update).
Created By:	**Last Updated By:**
Date Created:	**Last Revision Date:**
Actors:	[An actor may use, install, start, maintain, shut down, be another system, receive/provide information, or in any way interact with the system. Different actors may interact within the system to complete an activity or goal. Name the actor that will initiate this use case (primary) and any other actors who will interact within the use case (secondary). For example: Financial Management (primary).]
Description:	[Provide a brief description of the reason for and outcome of this use case (e.g., Send disbursement instructions.]
Trigger:	[Identify the event that initiates the use case. This could be an external business event or system event that causes the use case to begin, or it could be the first step in the normal flow. For example: Updated instructions for disbursements.]
Preconditions:	[List any activities that must take place, or any conditions that must be true, before the use case can be started. Number each pre-condition. For example: 1. Identify new disbursement instructions. 2. Develop new disbursement instructions. 3. New disbursements instructions reviewed.]
Post conditions:	[Describe the state of the system at the conclusion of the use case execution. Include what must happen even if the actor's goal is not achieved and what happens when the actor's goal is achieved. Number each post-condition. For example: 1. New disbursement instructions distributed. 2. Update processes.]
Normal Flow:	[Provide a detailed description of the actions and system responses that will take place during execution of the use case under **normal, expected** conditions. This dialog sequence will ultimately lead to accomplishing the goal stated in the use case name and description. For example: The system shall process disbursement status update.]
Alternative Flows: [Alternative Flow 1 – Not in Network]	[Document **legitimate** branches from the main flow to handle special conditions (or extensions). For each alternative flow, reference the branching step number of the normal flow and the condition which must be true in order for this extension to be executed. For example: If undeliverable electronically, mail disbursement instructions to the physical address.]
Exceptions:	[Describe any anticipated **error conditions** that could occur during execution of the use case, and define how the system is to respond to those conditions. For example: Audit for any disbursement instructions returned undeliverable and process manually.]
Includes:	[List any other use cases that are included ("called") by this use case. Common functionality that appears in multiple use cases can be split out into a separate use case that is included by the ones that need that common functionality. For example: Email list containing disbursement users.]
Frequency of Use:	[How often will this use case be executed. This information is primarily useful for designers. For example: Disbursement instructions updated monthly.]
Special Requirements:	[Identify any additional requirements, such as nonfunctional requirements, for the use case that may need to be addressed during design or implementation. These may include performance requirements or other quality attributes. For example: Ability to maintain disbursement instructions.]
Assumptions:	[List any assumptions that were made in the analysis that led to accepting this use case into the product description and writing the use case description. For example: The Financial Management group maintains the disbursement instructions.]
Notes and Issues:	[List any additional comments about this use case or any remaining open issues or items to be determined that must be resolved.]

2.7 Assumptions and Constraints

Assumptions/Constraints: Enter each assumption and constraint.

Use the "Insert Assumption/Constraint" to add additional assumptions/constraints.

To be able to identify the solution requirements, a certain number of assumptions and constraints are necessary. By definition, an assumption is something that is accepted as true or is certain to happen, without proof. Constraints place limits or conditions on the proposed project. Therefore, the list of assumptions and constraints should be reasonable and, if possible, be supported by quantifiable information. Assumptions and constraints should be realistic and accurate; otherwise, the overall credibility of the business case can be negatively affected.

Examples of assumptions include:

- Staff working hours occur on an 8:00am-5:00pm schedule.
- Dedicated staff will remain in their current roles.
- Dedicated staff will cross train one another.
- Replacement parts will be on site within four hours of notification.
- New hardware is functional.
- Normal availability of services and support.
- Project funding will be approved and remain available throughout the project lifecycle.

Examples of constraints include:

Project Factors
- Hard deadline
- Predetermined budget
- Subject matter expertise
- Contract provisions
- Privacy or security considerations
- Time-limited grant funds

External Factors
- Social factors
- Environmental issues or concerns
- Political reasons
- Economic factors
- Technological issues

Internal Factors
- Resources
- Expertise
- Business requirements
- Legal requirements
- Facilities

Description/Potential Impact: Describe the assumption/constraint and the potential impact on the proposed project if not addressed.

This narrative should identify how the assumption/constraint was identified. Include how any financial impacts were identified and determined.

2.8 Dependencies

Dependencies are elements or relationships in a project reliant on something else occurring before the function, service, interface, task, or action can begin or continue. Dependencies may involve another project (e.g., a program in a project is waiting on deliverables or staff from another project before it can continue) or be reliant on another area within a project (e.g., a team must complete a deliverable before another team can begin their task). Dependencies should be related to the business need or solution requirements and not a specific option.

Element: Enter the element with dependencies on another function, service, interface, task, or action before it may begin or continue.

Use the "Insert Element" to add additional dependent elements.

The element specifies the function, service, task, or action that is dependent on something else before it may begin or continue.

Description: Enter the description for the element.

The dependency's element description should highlight the manner a particular initiative or entity (internal or external) associated with the proposed project relies on a specific enabling function, service, interface, task, or action to begin or continue. For example, data preparation for migration may be dependent on documenting both the business rules and current data dictionary descriptions. Therefore, the data preparation for migration is dependent on the completion of these tasks before it can begin.

2.9 Market Research

Agencies/state entities are required to perform market research to collect information and analyze the capabilities of vendors in the existing market. Market research determines whether the business needs identified in this proposal can be met by products or services available in the marketplace; whether commercial practices regarding customizing, or modifying products or tailoring services are available to meet the business needs or objectives of the proposal. Market research is also used to determine how many vendors, if any, can provide solutions to the business problem or opportunity of the proposal. This can shape the procurement strategy, which helps determine the type and content of the product description or statement of work, develops the support strategy, refines requirements, and identifies evaluation factors used for the solicitation. Market research should be aligned with the proposal's business, technical and functional objectives, including cost estimates.

Note: Refer to the Market Research Guidelines for additional guidance on performing market research located at: http://cio.ca.gov/otp/docs/Market-Research-Guidelines.pdf

2.9.1 Market Research Methodologies/Timeframes

Methodologies Used to Perform Market Research: Select all methodologies used to perform market research for this proposal.

Refer to State Contracting Manual (SCM) Chapter 13, Market Research Guidelines for general descriptions of the methodologies listed:

- Request for Information (RFI)
- Internet Research
- Vendor Forums/Presentations
- Collaboration with other Agencies/state entities or governmental entities
- Trade shows
- Published literature
- Leveraged Agreements
- Other, specify methodology used in space provided

Time spent conducting market research: Select the cumulative timeframe that the Agency/state entity spent conducting market research, as follows:

- 1 Month
- 2 Months
- 3 Months
- 4 Months
- 5 Months
- 6 Months
- 7 Months
- 8 Months
- 9 Months
- 10 Months
- 11 Months
- 12 Months
- Over 1 Year

Date market research was started: Enter the date market research activities began.

Date all market research was completed: Enter the date all market research activities were completed.

2.9.2 Results of Market Research

Provide a concise narrative description of the approach used to perform market research. The narrative should include a brief description of the following:

- How results were analyzed?
- Who was involved in the analysis of results (technical staff, key stakeholders, business sponsors, etc.)?
- How results effected requirements development?
- How results effect procurement methodologies?
- Alignment of results with the recommended alternative.

2.10 Alternative Solutions

The Department of Technology expects Agencies/state entities to conduct a thorough analysis of all feasible alternatives that will meet the proposal's objectives and requirements. Agencies/state entities must consider **at least two alternatives** in addition to the recommended alternative. The "do nothing" alternative will not count toward the two minimum alternative requirements.

Proposals submitted with only the recommended solution and no other alternatives considered will not be accepted without a detailed discussion describing the specific research undertaken to justify why no other possible alternative exists.

__Note__: The subsections within Section 2.10 should be repeated for each alternative solution considered.

2.10.1 Solution Type

The Agency/state entity will designate only **one** alternative solution as the "Recommended" solution based on an analysis of which alternative best satisfies the previously defined objectives and requirements. All other alternatives will be designated by the Agency/state entity as an alternative.

Select: "Recommended" or "Alternative" for the alternative solution.

2.10.2 Name

Enter the name for the alternative solution considered.

2.10.3 Description

Enter a brief narrative that describes the alternative, including what the alternative is and why the alternative was considered.

Approach: Select each approach used to address the problems and meet the objectives and requirements, as follows:
- Increase staff – new or existing capabilities
- Modify the existing business process or create a new business process
- Reduce the services or level of services provided
- Utilize new or increased contracted services
- Enhance the existing IT system
- Create a new IT system
- Perform a business-based procurement to have vendors propose a solution.
- Other, specify in space provided

Instructions for a Business-based Procurement

Agencies/state entities may consider a business-based procurement as one of the potential alternatives in the Stage 2 Alternatives Analysis. A business-based procurement is a procurement method that allows vendors to propose a solution based on the Agency/state entity's business requirements and supporting information. If the Agency/state selects a business-based procurement as the recommended alternative, the Agency/state entity must include the following information within the initial Stage 2 Alternatives Analysis submission (refer to the following Business-based Procurement chart):

- **Sections 2.1 – 2.9 (all sections/sub-sections)**

- **Section 2.10 Alternative Solutions (identified sub-sections only)**

  2.10.1 Solution Type –

  Select the solution type (i.e., Recommended or Alternative).

  2.10.2 Name

2.10.3 Description

2.10.4 Benefit Analysis

Perform a benefits analysis of a business-based procurement and identify the advantages and disadvantages of this approach.

2.10.5 Assumptions and Constraints (optional – provide if any are known)

- **Section 2.11 Recommended Solution** (identified sub-sections)

2.11.1 Rationale for Selection

If a business-based procurement is the recommended alternative, include only the rationale for selecting the business- based procurement process.

2.11.3 Procurement and Staffing Strategy

Complete as much of the "Procurement and Staffing Strategy" as possible with the information that is know at this time. During Stage 4 Project Readiness and Approval, but prior to signing a contract, the Agency/state entity will be required to submit a revised Stage 2 Alternatives Analysis that includes the vendor's proposed solution as the recommended alternative.

2.11.5 Project Phases

2.11.6 High Level Proposed Project Schedule

Detail the milestones and timelines of the planning and procurement processes. In addition, this section must include a more general schedule for the project development, implementation, and maintenance/operation phases.

2.11.7 Cost Summary

This section, and the associated Financial Analysis Worksheets, should include the estimated cost of the planning and procurement phases. In addition, this section must include a general cost estimate of the project development, implementation, and maintenance/operations resources for the expected duration of the project.

- **Section 2.12 Staffing Plan** (all sub-sections)

- **Section 2.13 Data Conversion/Migration**

- **Section 2.14 Financial Analysis Worksheets**

Since the technical details of the solution will not be known until the procurement is conducted, some sections of the Stage 2 Alternatives Analysis will be deferred to Stage 4 Project Readiness and Approval. Prior to contract award, the Agency/state entity must complete all deferred sections of the Stage 2 Alternatives Analysis and resubmit the Stage 2 Alternatives Analysis to the Department of Technology for review and approval with the Stage 4 Project Readiness and Approval. The following table identifies the sections of the Stage 2 Alternatives Analysis that are deferred to Stage 4 Project Readiness and Approval.

Business-based Procurement	
Stage 2 Alternatives Analysis Sections	**Submission Requirements**
2.5 Baseline Processes and Systems	
2.5.1 Description	◯
2.5.2 Business Process Workflow	◯
2.5.3 Current Architecture Information	◯
2.5.4 Current Architecture Diagram	◯
2.5.5 Security Categorization Impact Table	◯
2.6 Mid-Level Solution Requirements	◯
2.7 Assumptions and Constraints	◯
2.8 Dependencies	◯
2.9 Market Research	
2.9.1 Methodologies/Timeframes	◯
2.9.2 Results of Market Research	◯
2.10 Alternative Solutions	
2.10.1 Solution Type	◯
2.10.2 Name	◯
2.10.3 Description	◯
2.10.4 Benefit Analysis	◯
2.10.5 Assumptions and Constraints	Optional (if any)
2.10.6 Implementation Approach	Defer to Stage 4
2.10.7 Architecture Information	Defer to Stage 4
2.11 Recommended Solution	
2.11.1 Rationale for Selection	◯
2.11.2 Technical/Initial Complexity Assessment	Defer to Stage 4
2.11.3 Procurement and Staffing Strategy	Optional (if known)
2.11.4 Enterprise Architecture Alignment	Defer to Stage 4
2.11.5 Project Phases	◯
2.11.6 High Level Proposed Project Schedule	◯
2.11.7 Cost Summary	◯
2.12 Staffing Plan	◯
2.12.1 Administrative	◯
2.12.2 Business Program	◯
2.12.3 Information Technology (IT)	◯
2.12.4 Testing	◯
2.12.5 Data Conversion/Migration	◯
2.12.6 Training and Organizational Change Management	◯
2.12.7 Resource Capacity/Skills/Knowledge for Stage 3 Solution Dev.	◯
2.12.8 Project Management	◯
2.12.9 Organization Charts	◯
2.13 Data Conversion/Migration	◯
2.14 Financial Analysis Worksheets	◯

2.10.4 Benefits Analysis

Benefits Analysis also known as "Cost Benefits Analysis" (CBA) is a systematic approach to estimating the strengths and weaknesses of alternatives that address the problems and meet the objectives and requirements for business. It is a technique used to determine options that provide the best approach for the adoption and practice in terms of benefits in resources, time, cost savings, etc.

Broadly, benefits analysis has two purposes:

1. To determine if it is a sound investment/decision (justification/feasibility).

2. To provide a basis for comparing alternatives. This involves a comparison of the total expected cost against the total expected benefits to determine whether the benefits outweigh the costs and by how much.

As part of the Stage 2 Alternatives Analysis, the benefits analysis information requested is not required to be at the level of granularity one might find in a complete and traditional cost benefits analysis; however, it is included to provide a comparison of advantages/benefits and disadvantages of one alternative in contrast to other alternatives being considered.

In the following Benefits/Advantages and Disadvantages sections provide a benefit analysis in terms of benefits/advantages versus disadvantages of the alternative being described. Describe cost and schedule difference between alternatives, e.g., alternative 1 has a 10 percent lower cost than alternative 2, and alternative 2 could be completed in one year less than alternative 3. Do not reword an advantage into a disadvantage.

Benefits/Advantages: List the advantages of the alternative in relation to the other alternatives considered.

> An advantage may be that one alternative meets certain functional requirements better than another alternative, or to provide consistency with the Agency/state entity's overall strategy for information management.

Use the "Insert Benefit/Advantage" to add additional benefits/advantages.

Disadvantages: List the disadvantages of the alternative solution in relation to other alternatives considered.

> A disadvantage may include the need for significant technical staff support, or the security implications of implementation in multiple locations.   List any disadvantages that are not apparent from simply assessing the costs and benefits.

Use the "Insert Disadvantage" to add additional disadvantages.

Anticipated Time to Achieve Objectives After Project Go-Live

Objective Number: Enter the objective number for each objective identified in the Stage 1 Business Analysis.

Use the "Insert Objective Number" to add additional objective numbers.

Objective Timeframe: Select the anticipated timeframe to achieve each of the proposal's business objectives.

Financial Benefit: Select the anticipated timeframe from the proposed project go-live date to achieve a financial benefit (as applicable) within the provided financial benefit categories (i.e., increased revenues, cost savings, cost avoidance, cost recovery).

A financial benefit category may be left blank if there is no anticipated financial benefit to be achieved. Each financial benefit category should be identified as a business driver in the Stage 1 Business Analysis, Section 1.5, defined as follows:

- **Increased Revenues:** Any addition to cash or other current assets that does not increase any liability or reserve and does not represent the reduction or recovery of expenditure (e.g., reimbursements and/or abatements). Revenues are a type of receipt generally derived from taxes, licenses, fees, or investment earnings. Revenues are deposited into a fund for future appropriation and are not available for expenditure until appropriated (Uniform Codes Manual). SAM Section 6602 defines revenues as, "Any changes in the amounts of operating income received by state and local agencies as the result of an executive regulation…includes taxes, state and/or federal assistance, fees, licenses, and so forth."

- **Cost Savings:** As defined by SAM Section 6602, "Both actual budget reductions and the 'freeing up' of staff and/or resources for reassignment to other areas of legitimate concern of the agency."

- **Cost Avoidance:** Benefits that occur when future program needs are met at less cost than would otherwise have been required. Such program needs can include new program services, increased program service levels, or replacement of current systems.

- **Cost Recovery:** The Federal government portion for their share of expenditures for providing Medicaid services, administering the Medicaid program, and certain other human service programs recovered by the State.

2.10.5 Assumptions and Constraints

Provide a narrative on the assumptions and known constraints associated with the alternative being described. Include costing assumptions and any financial impacts that this alternative will have on other projects underway or contemplated by the Agency/state entity. The narrative should identify how the assumptions/constraints were identified and include how any financial impacts were identified and determined.

2.10.6 Implementation Approach

Use the checkboxes provided to specify the implementation approach information for the solution.
- Identify the type of existing IT system enhancement or new system proposed using the following options (select all that apply):

  - Enhance the current system
  - Develop a new custom solution
  - Purchase a Commercial off-the-Shelf (COTS) system
  - Purchase or obtain a system from another government agency (Transfer)
  - Subscribe to a Software as a Service (SaaS) system
  - Other, specify in the space provided

- Identify cloud services to be leveraged using the following options (select all that apply):

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- Software as a Service (SaaS) provided by OTech
- Software as a Service (SaaS) provided by commercial vendor
- Platform as a Service (PaaS) provided by OTech
- Platform as a Service (PaaS) provided by commercial vendor
- Infrastructure as a Service (IaaS) provided by OTech
- Infrastructure as a Service (IaaS) provided by commercial vendor
- No cloud services will be leveraged by this alternative. Provide a description of why cloud services are not being leveraged in the space provided

    Refer to SAM Section 4983, which states in part, "…Agencies/state entities must evaluate Cloud Computing as an alternative for all reportable and non-reportable IT projects. Whenever feasible, Agencies/state entities must utilize cloud services provided by the Office of Technology Services (OTech). If required services are not available through OTech, Agencies/state entities must utilize other commercially available Software as a Service (SaaS), Platform as a Service (PaaS), or Infrastructure as a Service (IaaS) cloud service models when feasible and cost effective…"

- Identify who will modify the existing system or create the new system using the following options (select all that apply):

    - Agency/state entity IT staff
    - A vendor will be contracted
    - Inter-agency agreement will be established with another governmental agency. Specify Agency name(s).
    - Other, specify in the space provided

- Identify the implementation strategy using the following options:

    - All requirements will be addressed in this proposed project in a single implementation
    - Requirements will be addressed in incremental implementations in this proposed project
    - Some requirements will be addressed in this proposed project. The remaining requirements will be addressed at a later date. Specify the year when the remaining requirements will be addressed in area provided.

- Identify if the technology implemented for the proposed project will be mission critical or public facing:
    - Check the box if the proposed project is considered mission critical and public facing. Chapter 404, Statutes of 2010 (AB 2408) specifies that mission critical and public facing applications be housed in a Tier III or equivalent data center.

2.10.7 Architecture Information

The Agency/state entity business and technical teams will collaborate to complete the information contained within the Architecture Information. The business team will complete, or provide to the technical team, the business processes for the proposed solution. The technical team will complete, or provide to the business team, the technical-related items (e.g., application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces; data center location; and, security) for the proposed alternative solution. The Architecture Information should align with Section 2.5.2 Business Process Workflow.

Document the business processes and supporting technology of the alternative solution. For each business process identified in Stage 1 Business Analysis Section 1.7 Program Background and Context, provide the following:

Business Function/Process(es): Enter the business process name as referenced by the Agency/state entity. If many business processes are grouped under business functions (particularly for large systems), identify the respective business function.

Use the "Insert Business Function/Process" and enter the business process name if another business process uses the same application, system, or component; COTS, MOTS or custom solution; runtime environment; system interfaces; data center location; and, security.

Application, System, or Component: Enter the name of the application, system or component that supports the associated business process.

Use the "Insert Application, System or Component" for each application, system, or component and identify separately if multiple applications, systems or components support the business process.

COTS, MOTS or Custom: Select either "Commercial off-the-shelf (COTS)," "Modified off-the-shelf (MOTS)" or "Custom solution" to identify the type of application, system or component used. For a COTS or MOTS product, provide the name of the COTS or MOTS product utilized in the system. For a custom solution, enter the primary technology used to build the system (e.g., .NET, Java, etc.).

- COTS product – Typically, a ready-made computer hardware or software product for specific uses and available for sale to the general public. COTS products are designed to be installed without requiring custom development. For example, Microsoft Office is a COTS product that is a packaged software solution for businesses and individuals. The Federal Acquisition Regulation (FAR) defines the rules for COTS products.

- MOTS product – Typically, a COTS product with source code made available to the purchaser to allow for modifications. The product may be customized by the purchaser, by a vendor, or by another party to meet the requirements of the customer. Since MOTS product specifications are written by external sources, purchasers may not have control of future changes to the product.

- Custom solution – Typically, computer software developed for a specific customer to accommodate the customer's particular requirements, preferences, and expectations.

Runtime Environment: Identify the runtime environment for the alternative, as follows:

Cloud Computing Used?: Specify if the alternative will use Cloud Computing. If "Yes," choose the applicable type and complete the remaining Runtime Environment fields as specified:

- If Software as a Service (SaaS) selected, do not complete further Runtime Environment fields.
- If Platform as a Service (PaaS) or Infrastructure as a Service (IaaS), do not complete the Hardware field but complete the remaining Runtime Environment fields.

Server/Device Function: Enter the function of each server/device that the alternative system leverages (e.g., Web service, database, network routers, workstations, tablets, etc.)

Hardware: Enter the hardware that the alternative system leverages (e.g., IBM pSeries, HP Blade Server, etc.).

Operating System: Enter the operating system that the alternative system leverages (e.g., Microsoft Windows, UNIX, z/OS, etc.).

System Software: Enter the system software that the alternative system leverages (e.g., Oracle WebLogic Server, Microsoft SQL Server, EMC Documentum, etc.).

Use the "Insert System Software" and enter the system software information if the application, system, or component uses additional system software.

System Interfaces: Enter the name(s) of system(s) that exchange data with the alternative system using interface files, web services, etc. Identify systems within scope of the proposed project that interface with each other. Also identify systems outside the scope of the proposed project that interface with the baseline systems. Provide a brief description of the purpose of each interface. If the system exchanges data with other entities, specify the name of the entity. Examples include but are not limited to the following:

- Federal partners
- Local city/county partners
- State agency entity partners
- Judicial branch
- Universities
- Researchers

Data Center Location: Select the location of the data center where the alternative system is hosted.
- State Data Center: A data center operated by the Department of Technology, Office of Technology Services (OTech).
- Agency/State Entity Data Center: A data center independently operated by an Agency/state entity.
- Commercial Data Center: A data center operated by a solution provider or vendor contracted by the Agency/state entity.
- Other: If not one of the above, type the location of the data center where the alternative system will be hosted.

Security: Indicate the security and privacy characteristics of the alternative system.

Access: Indicate who is authorized to access the alternative system. Use the check boxes provided to select all that apply:
- Public: The alternative system will be accessible to public parties with or without restricted access.
- Internal State staff: The alternative system will be accessible to internal state staff with or without restricted access.
- External State staff: The alternative system will be accessible to state staff from other Agencies/state entities, with or without restricted access.
- Other: Specify who else is authorized to access the alternative system.

Type of Information: Identify the types of information that require protection. See the SAM Section 5305.5 for more information. Use the check boxes provided to select all that apply:

- Personal: Select if personally identifiable information (e.g., social security numbers, demographic information, etc.) will be collected, processed and/or presented by the alternative system.
- Health: Select if diagnosis, treatment, provider, insurance, or billing information will be collected, processed and/or presented by the alternative system.
- Tax: Select if IRS safeguards or state or local tax information policies (similar to the Federal IRS safeguards) are required to protect information contained in state or local tax submissions.
- Financial: Select if confidential or sensitive financial information will be maintained (e.g., payment processing, salaries, budget, credit card numbers, contract amounts, etc.)
- Legal: Select if confidential or sensitive legal information will be maintained (e.g., arrest records, court records, incarceration records, contracts, lawsuits, legal documents, etc.)
- Confidential: Select if other types of confidential or sensitive information will be maintained by the system (e.g., business trade secrets, investigations, enforcement actions, etc.)
- Other: Specify the type of information that requires protection.

Protective Measures: Identify how the information will be protected. Use the check boxes provided to select all that apply:

- Technical Security: Select if hardware and software security measures (e.g., firewalls, virus protection, intrusion detection/prevention, etc.) will be used to protect the networks, servers, workstations, and other devices in the infrastructure.
- Identity Authorization and Authentication: Select if the alternative system will be required to restrict access to either state employees and/or to the public.
- Physical Security: Select if servers and network devices will be secured with environmental security measures (e.g., door locks, surveillance equipment, etc.)
- Backup and Recovery (Technology Recovery): Select if data will be backed up and stored offsite.
- Other: Specify how the information will be currently protected.

Data Management: Indicate the data owner and custodian of the alternative system.

Data Owner (Owner of information assets): Identify the individual and their organizational unit who will be responsible for making classification, categorization, and control decisions regarding information assets. See SAM Section 5305.5 for more information.

- Name: Enter the name of the Data Owner.
- Title: Enter the title of the Data Owner.
- Business Program: Enter the name of the Business Program with controlling ownership of the data.

Data Custodian (Custodian of information): Identify the individual and their organizational unit which will be the caretaker for the proper use and protection of information assets on behalf of the information asset owner (e.g., a data center or information processing facility). See SAM Section 5305.5 for more information.

- Name: Enter the name of the Data Custodian.
- Title: Enter the Title of the Data Custodian.
- Business Program: Enter the name of the Business Program that is the custodian of the data.

Use the "Insert Alternative Solution" for each alternative solution considered. Follow the instructions provided in Section 2.10 for each alternative.

2.11 Recommended Solution

The recommended solution section provides additional information on the recommended alternative solution described in section 2.10. It also provides additional information on the course of action proposed in the proposal. This section should incorporate sufficient detail to allow decision-makers to confirm the feasibility of the recommended alternative in terms of:

1. Objectives and requirements

2. Overall program costs and benefits

3. Resources (time, funding, people, expertise)

2.11.1 Rationale for Selection

Provide a narrative to support the rationale for selecting the recommended approach/solution.

This information should be supported by the information collected during market research as described in Section 2.9 Market Research. Provide the following:

- Describe how the recommended alternative meets the identified requirements and objectives.
- Discuss the recommended alternative's business advantages over the other alternatives.
- Discuss the disadvantages of the recommended alternative and why those disadvantages did not eliminate the alternative.
- Consider the following factors:
  - Alignment with Agency/state entity and state strategies for business and information technology
  - Availability of Agency/state entity resources
  - Availability of contracting resources
  - Availability of COTS software
  - Availability of funding. This should align with the funding source identified in the Stage 1 Business Analysis Preliminary Assessment Section 1.3.2 Impact Assessment.

Attach any relevant documentation that supports the rationale for the selection of the recommended approach/solution.

2.11.2 Technical/Initial CA-PMM Complexity Assessment

Using the recommended alternative, Agencies/state entities will determine the proposal's Overall Complexity Zone. The Overall Complexity Zone will identify the remaining Stage 2 Alternatives Analysis sections which require Department of Technology review and approval. To determine the proposal's Overall Complexity Zone, a combined Technical Complexity and Business Complexity is used, in conjunction with the with the recommended alternative's estimated cost as a percentage of the Agency/state entity's delegated cost threshold (as determined by the Department of Technology per SAM Section 4819.39 and reflected in SIMM Section 15) .

The Business Complexity Score was previously determined as part of the Stage 2 Preliminary Assessment and agreed upon with the Department of Technology as part of the Gate 1 Collaborative Review. The Technology Complexity and Complexity Zone are determined as follows:

Complexity Assessment: Use the Complexity Assessment self-assessment tool (that was used to establish the Business Complexity score in the Stage 2 Preliminary Assessment) to complete the Technical Complexity based on the applicable information captured in the Stage 1 Business Analysis and the Stage 2 Alternatives Analysis. Ensure that the Business Complexity score previously determined is entered in the Complexity Assessment self-assessment tool.

Technical Complexity Score: Enter the Technical Complexity score in the space provided.

Complexity Zone: Select the Complexity Zone for this proposal.

- Zone I, select "Low Criticality/Risk"
- Zone II/III, select "Medium Criticality/Risk"
- Zone IV, select "High Criticality/Risk"

The complexity zone is a combination of the Business Complexity score and Technical Complexity score and will be used to determine the Overall Complexity Zone. This serves as the initial complexity zone for this proposed project.

__Note__: The Complexity Zone is indicated by a red ball in the Complexity Diagram within the Complexity Assessment tool.

Refer to the SIMM Section 45 Appendix C and D for the Complexity Assessment template and instructions.

__Note__: Following the submission of the Stage 2 Alternatives Analysis, the Department of Technology will perform its own assessment of the proposal using the SIMM Section 45 Appendix C and D for the Complexity Assessment template and instructions. The results will be evaluated by the Department of Technology in order to communicate any additional content requirements related to either additional deliverable content and/or risk mitigation strategies to be utilized during the next stage of deliverable development. The Stage 2 Alternatives Analysis, including the Complexity Assessment Score and Complexity Zone, will be discussed at the Gate 2 Collaborative Review.

Scalability Table (Remaining Sections)

The scalability is determined by the Overall Complexity Zone category (i.e., Low, Medium, High), in conjunction with the recommended alternative's estimated cost as a percentage of the Agency/state entity's delegated cost threshold. Using the combined result, determine the sections (indicated by a solid circle) in the Scalability Table below that must be submitted to the Department of Technology for review and approval (see example below).   The remaining sections are delegated to the Agency/state entity Director for review and approval.

Example: An Agency/state entity with a delegated cost threshold of $1 Million has selected an alternative with an estimated cost that is **greater than** 120% (or $200,000) over their delegated cost threshold and an overall Complexity Zone of medium. The Agency/state entity must submit a Stage 2 Alternatives Analysis with the same content as a high Complexity Zone (last column) proposal to the Department of Technology for review and approval.

If the Agency/state entity selected an alternative with an estimated cost that is **less than** 120% of their delegated cost threshold and an overall Complexity Zone of Medium, the Agency/state entity must submit a Stage 2 Alternatives Analysis with the same content as a Medium Complexity Zone (middle column) proposal to the Department of Technology for review and approval.

Note: *The Department of Technology reserves the right to request, at any time, a copy of the fully completed Stage 2 Alternatives Analysis*

S2AA Sections	Overall Complexity (Business and Technical)		
	Low	Medium =< 120% DCT	Medium >120% DCT & High
2.11.3 Procurement and Staffing Strategy	◯	◯	◯
2.11.4 Enterprise Architecture Alignment	◯	◯	◯
2.11.5 Project Phases		◯	◯
2.11.6 High Level Proposed Project Schedule	◯	◯	◯
2.11.7 Cost Summary	◯	◯	◯
2.12 Staffing Plan			
2.12.1 Administrative			◯
2.12.2 Business Program			◯
2.12.3 Information Technology (IT)			◯
2.12.4 Testing			◯
2.12.5 Data Conversion/Migration			◯
2.12.6 Training and Organizational Change Management			◯
2.12.7 Resource Capacity/Skills/Knowledge for Stage 3 Solution Development			◯
2.12.8 Project Management	◯	◯	◯
2.12.9 Organization Charts		◯	◯
2.13 Data Conversion/Migration	◯	◯	◯
2.14 Financial Analysis Worksheets	◯	◯	◯

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2.11.3 Procurement and Staffing Strategy

Detail the planned procurement and staffing strategy for this proposal in the Procurement and Staffing Strategy information. This information will be used by the Department of Technology Statewide Technology Procurement Division (STPD) to help facilitate procurement activities and ensure alignment with current procurement guidelines. The information will also be used by the Department of Technology ITPOD Oversight Manager to ensure proper project staffing considerations for remaining project approval lifecycle activities through project implementation.

Activity: Select the applicable project-related activities. **_Note_**: _Separate detailed information is required for each activity._

Use the "Insert Activity" to add additional activities.

The activities listed may occur after Stage 2 Alternatives Analysis approval and throughout project execution phases:

- Solicitation Development
- Requirements Elicitation
- Cost Estimating
- Business Analysis
- Technical Analysis
- Project Management
- Conduct Procurement
- Independent Verification and Validation (IV&V)
- Project Oversight
- Organizational Change Management
- Testing
- Design
- Data Cleansing
- Data Validation
- Data Conversion
- Data Migration
- Training
- Integration/Development
- Contract Management
- Enterprise Architecture
- Quality Assurance
- Technical Installation of Hardware
- Technical Installation of Software
- Maintenance
- Operations
- Other (specify)

Responsible: For each project-related activity identified, check the applicable state staff or contractors or other responsible party who will perform the activity (check that apply). If "Other" is selected, type in the responsible party.

The project-related procurement and staffing activity may be performed by Agency/state entity staff, Department of Technology Statewide Technology Procurement Division (STPD) staff, Department of Technology Information Technology Project Oversight Division (ITPOD) staff, Department of Technology California Project Management Office (CA-PMO) staff, Department of General Services (DGS) staff, contractors, or other staff not listed. If "Other," type the staff that will perform the activity.

When Needed: Check the stage or stages (as applicable) of the Project Approval Lifecycle when services will be needed, as follows:

- Stage 3 Solution Development (during procurement development)
- Stage 4 Project Readiness and Approval (vendor selection and project planning)
- After project is approved (after Stage 4 Project Readiness and Approval)

Cost Estimate Verification: Check all the applicable methods used to estimate the cost associated with the activity:

- Market research conducted (MR)
- Cost estimate provided (CE)
- Department of Technology CE
- DGS CE
- Request for Information conducted (RFI)
- Comparable vendor services have been used on previous contracts (CV)
- Leveraged Procurement Agreements (LPA)

The costs will be detailed in the Financial Analysis Worksheets. <u>Note</u>: For cost estimates related to Department of Technology staff (i.e., STPD, ITPOD, CA-PMO), contact your ITPOD Oversight Manager for additional information. For cost estimates related to DGS staff, contact DGS.

Complete the "Procurement Vehicle" and "Contract Type" only if "Contractor" was selected in the "Responsible" column to perform the project-related activities.

Procurement Vehicle: Select the type of procurement process that will be used to procure contract services. See the State Contracting Manual (SCM Volume 3 Chapter 13) for descriptions of these processes.

- Formal Solicitation (IFB/RFP)
- Request for Offer/Master Service Agreement (RFO/MSA)
- Request for Offer/California Multiple Award Schedules (RFO/CMAS)
- Request For Offer/Software Licensing Program (SLP)
- Request For Offer/Western States Contracting Alliance (WSCA-NASPO)
- Request For Offer/Information Technology Consulting Services (ITMSA)
- Request For Offer/State Price Schedules (SPS)
- Request For Offer/Statewide Contracts (SCC)
- Non-Competitive Bid (NCB)
- Request for Quote (RFQ)
- Small Business/DVBE Option
- Pre-qualified Master Agreement Contractor (PMAC)
- Other – If "Other," specify in space provided
- None

Contract Types: Select the anticipated method used to pay the contractor. See the State Contracting Manual (SCM) for descriptions of these methods.

- Fixed Price (FP)
- Time and Materials (T&M)
- Percentage of Benefit (POB)
- Savings Based
- Other – If "Other," specify in space provided

DGS Delegated Purchasing Authority: Select "Yes" if any of the activities identified in the "Procurement and Staffing Strategy" will result in a competitive or non-competitive solicitation that will be over the Agency/state entity's DGS delegated purchasing authority. An Agency/state entity's DGS delegated purchasing authority can be found at:

   www.dgs.ca.gov/pd/programs/delegated.aspx

2.11.4 Enterprise Architecture Alignment

Provide a brief description of how this proposal will move the Agency/state entity closer to reaching the Agency/state entity's target enterprise architecture.

Information Technology Capability Table: Select the existing or new enterprise information technology capabilities that may be needed to meet the business objectives of this proposed project. No selection required if an information technology capability is not applicable to the proposal.

2.11.5 Project Phases

Agencies/state entities should plan IT proposed projects to be implemented in independent phases, especially those that are expected to take longer than one year to develop and implement. When planning for phased project implementation, specific phases should meet the following criteria:

- 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.

- Funding may be identified and/or approved separately for each phase or for the entire project.

- 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.

- A supplier will be paid when, and if, the phase deliverable is completed, tested and accepted.

- Subsequent phases may be redesigned depending on the results of early phases.

Description: Provide a narrative of the Agency/state entity's overall plan for the proposal phases, which includes the duration of critical tasks, major milestones, and major tasks (e.g., software modification, data conversion, installation, training for end users, training for technical staff, etc.)

Phase: Describe the project phases planned for this proposal and what each phase will deliver; or justify why phasing is not appropriate

Use the "Insert Phase" to add additional phases.

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.

Phase Deliverables: Describe the core functionality or deliverable that will result in the completion of the phase.

Use the "Insert Phase Deliverable" to add additional deliverables to a phase.

2.11.6 High Level Proposed Project Schedule

Identify high-level tasks for the project. Each project is different and requires a unique set of tasks.

Project Planning Start Date: Select the project planning start date.

The project planning start date is the date an Agency/state entity begins a Stage 2 Alternatives Analysis. The planning phase of an IT project proposal begins with the Stage 2 Alternatives Analysis and ends at the conclusion of Stage 4 Project Readiness and Approval (Gate 4).

Project Planning End Date: Select the project planning end date.

The project planning end date should reflect the conclusion of project planning activities; the last date that project planning activities are estimated to be completed at the conclusion of Stage 4 Project Readiness and Approval (Gate 4).

Project Start Date: Select the proposed project start date.

The project start date is the date an IT project proposal is both approved and funded. For most projects dependent on a funding request, this date will be July 1st of the year the project funding is approved. For projects without this dependency, the project start date is the project approval date (Gate 4 approval).

Project End Date: Select the proposed project end date.

The project end date should reflect the conclusion of project activities; the last date that project activities are estimated to be completed. This should exclude any activities related to the Post Implementation Evaluation Report (PIER).

Activity Name: Select the activity name from the dropdown provided. Type the name of the activity if the proposed activity is not listed.

The proposed project activities identified in this table should represent the highest level of proposed project-related activities that will result in the completion of major project deliverables as shown in the following example. Each proposed project is different and may require a unique set of activities. As appropriate, indicate that the Agency/state entity has planned for activities such as procurement, design, development and/or software modification, testing, data conversion, installation, training for end users, training for technical staff, deployment, etc. If planning on leveraging an agile development approach, specify the activities accordingly. The following activities are provided:

- Stage 3 Solution Development
- Solicitation Development
- Solicitation Package Review
- Stage 4 Project Readiness and Approval
- Pre-solicitation for Industry Comments
- Solicitation Release
- Solicitation Protest Period
- Solicitation Negotiations
- Solicitation Award
- Requirements
- Data Conversion
- Design
- Development
- Data Migration
- Testing
- Training
- Deployment
- Go Live
- Maintenance and Operations
- Other (specify)

Use the "Insert Activity Name" to add additional activities.

Note: Agencies/state entities are required to include "Stage 3 Solution Development" and "Stage 4 Project Readiness and Approval" activities in the High Level Proposed Project Schedule. These dates should align with the desired funding dates identified in SIMM 05A.

Start Date: Provide an estimated start date for each activity identified.

End Date: Provide an estimated end date for each activity identified.

Waterfall Example:

Activity Name	Start Date	End Date
Stage 3 Solution Development		
Stage 4 Project Readiness and Approval		
Requirements		
Design		
Development		
Testing		
Training		
Deployment		
Conversion		
Go Live		

Agile Example:

Task Name	Start Date	End Date
Stage 3 Solution Development		
Stage 4 Project Readiness and Approval		
Planning		
Sprint 1		
Requirements		
Design		
Development		
Testing		
Sprint 2		
Requirements		
Design		
Development		
Testing		
Training		
Deployment		
Go Live		

2.11.7 Cost Summary

Utilizing the FAWs, provide the following cost related information from the Summary tab. See "SIMM 19F Financial Analysis Worksheets Preparation Instructions" on how to complete the FAWs.

Total Planning Cost: Enter the sum of all costs associated with planning activities conducted in Stage 2 through Stage 4. The planning costs are broken down in the FAWs' Alternative tab, the value intersects the "Total Cost" row and the "Planning Total" Column.

Total Project Cost: Enter the sum of all planning and project costs. This can be found in the FAWs' Summary tab, the value intersects the "Total Cost" row and the "Project Total" Column.

    The total project cost is the sum of ALL costs associated with the project planning phases (Stage 2 through Stage 4) and the project execution phase (design, development and implementation), plus one full year of maintenance and operations costs.

Average Proposed Operations Cost: Enter the average proposed operations costs for this proposal. This can be found in the FAWs' Summary tab; the value intersects the "Total Cost" row and the "Average Proposed Operations Costs" Column.

2.12 Staffing Plan

Staff planning is the process of identifying how and when labor needs will be met to ensure that the proposed project has sufficient staff with the appropriate skill sets and experience. Staff planning will identify and document project roles, responsibilities and reporting relationships and result in the creation of a Staff Management Plan (PMBOK®) or Human Resource Management Plan (CA-PMM). In the following sections, provide a concise description of the approach to staffing the proposed project including contingencies for business/program, IT, or administrative areas to maintain ongoing operations in conjunction with the proposed project. These narratives should address both the resource needs to perform the work required in Stages 3 and 4 of the Project Approval Lifecycle, including subject matter experts identified, and the impact the project will have on existing operations and mitigation strategies throughout the life of the project. This narrative should also identify how the Agency/state entity will supply sufficient numbers of knowledgeable internal resources for projects that are anticipated to have a strong dependency on vendors.

2.12.1 Administrative

Describe the capacity and capability of administrative resources needed to maintain ongoing operations of the Agency/state entity in conjunction with proposed project workload. This narrative should include the experience level of procurement, contract management and budget staff.

2.12.2 Business Program

Describe the capacity and capability of existing business program resources needed to maintain the business operations of the Agency/state entity's business programs that will be impacted by this proposal. This narrative should identify how the Agency/state entity will maintain ongoing program operations in conjunction with proposed project workload. If changes to business processes were identified in Section 1.11 Business and Stakeholder Capacity of Stage 1 Business Analysis, the narrative should also identify business program resources needed to perform business process reengineering activities.

2.12.3 Information Technology (IT)

Describe the capacity and capability of existing IT resources to both support this proposal and maintain existing responsibilities. This narrative should identify how the Agency/state entity will maintain ongoing operations while the proposed project or any other initiative is underway.

2.12.4 Testing

Describe the capacity and capability of the Agency/state entity's testing program and resources that will support all stages of testing (system, integration, security, performance, regression, user, etc.). This narrative should identify the dedicated resources to be assigned to support testing and adequately describe the skills and experience of these resources.

2.12.5 Data Conversion/Migration

If this proposal will require data conversion/migration activities, provide a brief description of the Agency/state entity's plan for data conversion/migration. Describe the capacity and capability of the Agency/state entity's resources that will support this effort.

2.12.6 Training and Organizational Change Management

Describe the capacity and capability of training and organizational change management needed to support this proposal. This narrative should identify any business disruption and customer impacts which are anticipated to result with this proposal and include a description of the resources, processes, and methodologies in place to provide training and organizational change management services to mitigate any disruption.

2.12.7 Resource Capacity/Skills/Knowledge for Stage 3 Solution Development

Stage 3 Solution Development will require business program knowledge, technical knowledge, and procurement knowledge to effectively develop requirements, evaluation criteria, and contract deliverables. Describe the capacity, skill, and knowledge of the Agency/state entity's procurement program and resources that will support the procurement effort (solicitation development, bidding, evaluation, contract award, etc.). This narrative should adequately describe the skills and experience of these resources that will be assigned to support procurement activities. The narrative should also address the following:

- Does the Agency/state entity's governance framework include procurement related decision-making in addition to project decision-making?
- Does the Agency/state entity's procurement office have experience using the proposed procurement methodologies identified in section 2.11.3 Procurement and Staffing Strategy? Does the Agency/state entity's procurement office have experience using the STPD Streamlined Template?
- Is the Agency/state entity's procurement office familiar with protest types or use of Public Contract Code (PCC) 6611?

2.12.8 Project Management

2.12.8.1 Project Management Risk Assessment: The Project Management Risk Assessment aids in assessing the maturity of an organization as a whole and their ability to carry out projects. This model will evaluate such elements as:

- Organizational commitment to a well-defined, mature project management process
- Existence of predicated management commitment, functions, and systems
- Competence of participants in any project management endeavor
- Organizational project management environment (e.g., tools, infrastructure) and how well these are integrated
- Measurement metrics in the organization and how well they are used and any applicable past performance
- Organization's continuous improvement process

This assessment is to be completed by the Agency/state entity as part of the Stage 2 Alternatives Analysis and verified by the Department of Technology during the Gate 2 collaborative review meeting. The results of the assessment may be evaluated by the California Project Management Office solely to identify potential service offerings.

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Complete the Project Management Risk Assessment (located in SIMM Section 45 Appendix A) to determine the Agency/state entity's Project Management Risk Assessment score. (Refer to SIMM Section 45 Appendix B for the Project Management Risk Assessment Preparation Instructions). *__Note__: Only complete the questions identified as Stage 2 in the "Required Stage" column*.

Project Management Risk Score: Enter the score. Attach an electronic copy of the Project Management Risk Assessment.

2.12.8.2 Project Management Planning: Indicate the status of the following project management plans or project artifacts. Select "Yes" if the plan/artifact is complete, approved by the designated Agency/state entity authority, and available for Department of Technology review. Select "No" if the plan/artifact is under development, pending review/approval or not yet started and provide the status in the space provided. Select "Not Applicable" if the plan/artifact is not needed for the proposed project and provide an explanation in the space provided.

Select the project management plan/artifact status (i.e., "Yes," "No" "or "Not Applicable") for each of the following:

- Project Charter
- Scope Management Plan
- Risk Management Plan
- Issue and Action Item Management Plan
- Communication Management Plan
- Schedule Management Plan
- Human Resource Management Plan
- Staff Management Plan
- Stakeholder Management Plan
- Governance Plan

2.12.9 Organization Charts

Attach organization charts in PDF to show the Agency/state entity and proposed project reporting relationships for all parties involved in the project. To better assess this project's impact on the Agency/state entity, the following charts/information is required:

1. Proposed Project Organization Chart

   a. Project Team, including number and classification of team members. Organization chart should depict all of the state and vendor staff (if known prior to Stage 3 Solution Development) involved at any time in the project lifecycle. State staff identified on the organization chart should align with the new and existing staff identified in the FAWs.

      i. Agency/state entity project management staff, including the Project Manager and Project Management Office (PMO) support staff.

      ii. Agency/state entity business staff that will participate in the project, such as the Program Manager, program analysts, and subject matter experts.

      iii. Agency/state entity information technology staff, including architects, systems analysts, software developers, quality assurance analysts, and requirements analysts.

    iv.   Vendor staff (if contracted or planned to contract) as identified in Section 2.11.3 Procurement and Staffing Strategy.

  b. Business Sponsors and Key Stakeholders identified in Stage 1 Business Analysis.

2. Proposed Procurement Organization Chart

  a. Procurement Team, including number and classification of procurement team members. Organization chart should depict all of the state and vendor staff (if known) involved during Stage 3 Solution Development and Stage 4 Project Readiness and Approval. State staff identified on the organization chart should align with the new and existing staff identified in the FAWs.

    i.   Agency/state entity procurement staff, including the Procurement Official, Backup Procurement Official, Procurement Manager, Contract Manager, Legal Reviewer, Information Security Officer Reviewer, Budget Manager/Reviewer.

    ii.   Agency/state entity project management staff, including the Project Manager and PMO support staff.

    iii.   Agency/state entity business staff that will participate in the procurement effort, such as the subject matter experts and evaluation team members.

    iv.   Agency/state entity information technology staff, including architects, systems analysts, quality assurance, and requirements analysts.

    v.   Vendor staff (if contracted or planned to contract) as identified in Section 2.11.3 Procurement and Staffing Strategy.

  b. Business Sponsors and Key Stakeholders identified in Stage 1 Business Analysis.

3. Impacted Program(s) Organization Chart

4. Information Technology Organization Chart

5. Agency/state Entity Organization Chart

2.13 Data Conversion/Migration

Data conversion/migration is the process whereby data from its current sources (e.g., existing legacy systems, hardcopies, document images, etc.) is extracted, transformed, and loaded to a new system or format. Despite many lessons learned and best practices regarding data conversion/migration, many legacy system modernization project implementations fail to survey and prepare their legacy data prior to data conversion/migration, which oftentimes leads to the untimely discovery of dirty, duplicate, incomplete, and/or incorrect data. Consequently, new data conversion/migration tasks are identified that result in unanticipated project tasks, costs, resource needs, and schedule overruns.

Some of the key challenges for data conversion/migration include, but are not limited to:

- Lack of data governance
- Data conversion/migration planning was done without a clear understanding of the current environment, data architecture, and data quality of the existing legacy system
- Lack of staff expertise in data conversion/migration
- Lack of clearly established and realistic data conversion/migration requirements, key stakeholder expectations, and data conversion/migration acceptance criteria
- Lack of documented and/or refined data quality business rules and data dictionaries

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Agencies/state entities can mitigate most of the known risks associated with data conversion/migration by proactively taking necessary steps to establish a clear understanding of the current environment, data architecture, and quality of the legacy data, and plan accordingly to get the data ready for conversion/migration before the data conversion/migration process begins.

Select the data conversion/migration activity status (i.e., "Not Started," "In Progress," "Completed," or "Not Applicable") for each of the following:

Activity	Definition
Data Conversion/Migration Planning	The process of outlining all required project processes and activities to ensure successful data conversion/migration and the creation of a comprehensive set of plans to manage the data conversion/migration project from initiation until the implementation phase (e.g., establish scope, roles and responsibilities, and data governance; identify risks, constraints, assumptions, data conversion/migration requirements, project team, and data preparation).
Data Conversion/Migration Requirements	The conditions that must be met in order to deem the data conversion/migration successful.
Current Environment Analysis	The process of gathering and compiling information about the current environment to create a blueprint of the current legacy data architecture.
Data Profiling	The process of examining the data available in an existing data source (e.g., a database or a file) and collecting statistics and information about that data
Data Quality Assessment	The process of exposing technical and business data issues in order to plan data cleansing and data enrichment strategies.
Data Quality Business Rules	A business rule expresses specific constraints on the creation, update, and removal of data within a business function. For example, the record of a purchase order may not be entered if the customer's credit rating is not adequate.
Data Dictionaries	A data dictionary is a centralized repository of metadata or information about data, such as its relationship to other data, related business rules, its format and default values. Typically, a data dictionary provides a descriptive list of names, definitions, and attributes of data elements to be captured in an information system or database. It describes the definitions or the expected meaning and acceptable representation of data for use within a defined context of data elements within a dataset.
Data Cleansing and Correction	Data cleansing (or data cleaning, data scrubbing) is the process of detecting and correcting (or removing) corrupt or inaccurate records from a record set, table, or database.

If "Not Applicable" was selected for any of the data conversion/migration activities identified above, provide a brief explanation in the area provided as to why the activity is not applicable.

If "Not Started" was selected, provide a brief description of when the activity is planned to begin and the anticipated completion date.

Attach completed data conversion/migration documentation, if applicable. Use the "Insert Attachment" to add additional data conversion/migration activity attachments.

2.14 Financial Analysis Worksheets

Attach the FAWs for this proposal. The FAWs should document the cost and resource assumptions the Agency/state entity made during the Project Approval Lifecycle. The FAWs 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. See "SIMM 19F Financial Analysis Worksheets Preparation Instructions" for direction on how to complete the FAWs for the Stage 2 Alternatives Analysis.

Gate 2 Alternatives Analysis Evaluation Scorecard

The Gate 2 Alternatives Analysis Evaluation Scorecard is the methodology the Department of Technology will use to communicate feedback and final disposition on the Stage 2 Alternatives Analysis submitted to the Agencies/state entities. The Evaluation Scorecard will be available to Agencies/state entities to view and to use as a tool for reviewing the quality of their own submissions internally prior to submission.

The Gate 2 Alternatives Analysis Evaluation Scorecard is located under SIMM Section 19B.

Preliminary Assessment for Stage 3 – General Instructions

The purpose of the Stage 3 Preliminary Assessment is to help recognize and mitigate project risks early in the Project Approval Lifecycle (PAL). Additionally, the Preliminary Assessment provides the Department of Technology and its Critical Partners with an opportunity to provide guidance during the collaborative development process, with the goal of mitigating risks. The Preliminary Assessment will be evaluated by the Department of Technology in order to communicate requirements related to either additional deliverable content and/or risk mitigation strategies to be utilized prior to moving on to the next stage.

The Stage 3 Preliminary Assessment should be completed following the Stage 2 Alternatives Analysis submission and is to be discussed at the Gate 2 Collaborative Review, prior to beginning development of the Stage 3 Solution Development. If the Stage 3 Preliminary Assessment is submitted after the Gate 2 Collaborative Review has taken place, the ITPOD Oversight Manager will schedule a meeting with the Agency/state entity and Critical Partners to address the Stage 3 Preliminary Assessment and provide guidance. The Stage 3 Preliminary Assessment should be submitted to the Department of Technology through the CIO Project Oversight email address at: (ProjectOversight@state.ca.gov).

3.1 General Information

Agency or State Entity Name: Select the Agency/state entity name that prepared and is responsible for the Stage 3 Solution Development. Designate one Agency/state entity as owner if multiple Agencies or state entities have a role in the proposal.

Organization Code: Organization Code populates automatically once the Agency/state entity name is selected.

Proposal Name: Enter the proposal name as determined by the Agency/state entity in the approved Stage 1 Business Analysis.

Department of Technology Project Number: Enter the project number assigned by the Department of Technology provided during the Stage 1 Business Analysis.

3.2 Preliminary Submittal Information

Preliminary Contact Information:

Contact First Name: Enter the first name for Agency/state entity person who will be the primary point-of-contact for control agency questions and comments.

Contact Last Name: Enter the last name for Agency/state entity person who will be the primary point-of-contact for control agency questions and comments.

Contact Email: Enter the email address of the contact provided above.

Contact Phone Number: Enter the ten-digit phone number of the contact provided above.

Preliminary Submission Date: Enter the date the Stage 3 Preliminary Assessment is being submitted to the Department of Technology for review.

Preliminary Assessment Transmittal: Scan and attach the signed Preliminary Assessment Transmittal for the Preliminary Assessment for Stage 3; use the transmittal form located in SIMM Section 19G.

3.3 Stage 3 Preliminary Assessment

During the PAL, circumstances may arise that impact project planning and the information contained in previously approved project approval lifecycle deliverables may change. It is important to keep all planning information contained in the deliverables current. This may require an Agency/state entity to correct and resubmit previously submitted information contained in project approval deliverables.

3.3.1 Solicitation Readiness

The answers to the following questions will determine if additional details are needed to substantiate the proposal. Depending on the response, the Agency/state entity may need to be prepared to discuss additional information during the Gate 2 Collaborative Review.

1. When planning a solicitation, historical knowledge and experience with similar technology solution procurements and management can accelerate the procurement process and reduce overall project risk. Leveraging lessons learned from past experiences can help anticipate problems and replicate successes. Before initiating the solicitation process, Agencies/state entities are expected to perform an analysis of like and/or similar procurement efforts they have completed to gain an understating and identify similar elements in the anticipated solicitation. Select "Yes" if the project team has experience procuring the type of solution recommended for this proposal. Select "No" if the project team does not have experience procuring the type of solution recommended for this proposal. Select "Not Applicable" if the project will not require a solicitation (e.g., Agency/state entity only using internal staff resources, services secured through an interagency agreement [IAA], etc.). Please note that type of solution recommended for this proposal is identified in Section 2.10 Implementation Approach and Section 2.11 Recommended Solution in the Stage 2 Alternatives Analysis.

2. The Agency/state entity's Procurement Official is responsible for all procurement activities associated with this proposal. Select "Yes" if the Agency/state entity's Procurement Official has reviewed and understands their role and responsibility, and authority to guide the procurement activities, as defined in the California Department of Technology Statewide Technology Procurement Division's (STPD) Memorandum of Understanding (MOU). Select "No" if the Agency/state entity's Procurement Official has not reviewed the STPD MOU and needs further assistance understanding the responsibilities of this role and its interaction with STPD oversight activities. Select "N/A" if STPD will not have oversight authority. Refer to SAM Section 5200.5 for additional information regarding STPD oversight authority.

3. The State of California's General Provisions – Information Technology (IT General Provisions) (Form GSPD-401IT), as applicable, are standard terms and conditions that shall be used or incorporated by reference in all competitive solicitations and purchase documents for IT goods and services (written or verbal) valued in excess of $4,999.99. No changes may be made to the IT General Provisions without prior approval from DGS or STPD. Approval must be obtained by STPD prior to exiting Stage 3, Part A. Refer to SAM Section 5230.1 (issued 01/2016) and SCM Volume 3 for instructions. Review the GSPS 401IT to determine if changes are required. Select "Yes" if the Agency/state entity anticipates proposing modification to the IT General Provisions for the primary solicitation. Select "No" if the Agency/state entity does not anticipate modification to IT General Provisions for the primary solicitation. Select "N/A" if the IT General Provisions do not apply. STPD approval must be obtained prior to exiting Stage 3, Part A.

4. The solicitation may include agency specific provisions tailored to meet an Agency/state entity's specific business need (e.g., facility security requirements, Federal funding requirements, and any unique provisions specific to an Agency/state entity). Select "Yes" if the Agency/state entity anticipates adding Agency/state entity specific provisions for the primary solicitation. Select "No" if the Agency/state entity does not anticipate adding Agency/state entity specific provisions for the primary solicitation.

5. When a procurement requires STPD oversight, the SIMM 195 STPD Solicitation Template must be used in order to standardize the format and provide for consistent solicitation language. The solicitation template contains mandatory and suggested language, instructional information, and some areas that may be tailored for unique solicitations. Refer to the SIMM 195 STPD Solicitation Template Instructions for guidance to develop the solicitation. Select "Yes" if the Agency/state entity will need guidance to complete the components of the SIMM 195 STPD Solicitation Template. Select "No" if the Agency/state entity will not need guidance on the SIMM 195 STPD Solicitation Template. Select "N/A" if the procurement will not require the use of the SIMM 195 STPD Solicitation Template (e.g., Request for Offer (RFO), Non-Competitive Bid).

6. The Agency/state entity will need to consider and plan the activities and steps to be used during the procurement process to ensure the success of the procurement effort. Refer to SIMM 185 STPD Estimated Timeline for Department Procurement Planning for additional information. Select "Yes" if the Agency/state entity anticipates guidance will be needed to establish the project's procurement planning approach. Select "No" if the Agency/state entity will not need guidance. Select "N/A" if the project will not require a solicitation (e.g. Agency/state entity only using internal staff resources, services secured through an interagency agreement [IAA], etc.).

7. Solicitations must contain key action dates that provide bidders specific times and dates by which actions must be taken or completed during the solicitation process (e.g., question and answers, submission dates, etc.). STPD will review the key action dates as part of the Stage 3, Part A approval. Refer to the SIMM 195 STPD Solicitation Template for additional information. Select "Yes" if the Agency/state entity anticipates guidance will be needed to develop the key action dates for the primary solicitation. Select "No" if the Agency/state entity will not need additional guidance to develop key action dates for the primary solicitation. Select "N/A" if the project will not require a solicitation (e.g., Agency/state entity only using internal staff resources, services secured through an interagency agreement (IAA), Non-Competitive Bid [NCB], etc.).

8. A Statement of Work (SOW) protects the state and the contractor by identifying and documenting the details of the work to be performed. The SOW is unique to each procurement document and must be included within all IT reportable solicitations (as applicable). STPD will review the SOW as part of the Stage 3, Part A approval. Refer to the SIMM 180 STPD SOW Guidelines and SAM 4983.1 Cloud First policy, respectively, for instructions on SOW development. Select "Yes" if the Agency/state entity will need guidance to identify the applicable SOW components for the primary solicitation, per Sections 3.7.1 and 3.7.2. Select "No" if the Agency/state entity will not need guidance for the primary solicitation. Select "N/A" if the procurement will not involve an SOW (e.g., Agency/state entity only using internal staff resources, etc.).

9. The STPD Pre-Solicitation is a process to informally release the draft solicitation package to the vendor community prior to formal release. This process provides the vendor community with an opportunity to review the draft solicitation and provide important input prior to formal release. STPD will review the Pre-Solicitation package as part of the Stage 3, Part B activities. Refer to the SCM, Vol. 3 for additional information. The information gathered from this process will provide an opportunity for Agency/state entity's to reinforce the solicitation package (e.g., further refine solution requirements, establish a more accurate cost methodology , improve evaluation criteria/model, validate requirements, measure risk, and gauge the strength of the solicitation, etc.). Select "Yes" if the Agency/state entity will need an explanation of the STPD Pre-Solicitation process on how to conduct it for the primary solicitation. Select "No" if the Agency/state entity will not need explanation of the Pre-Solicitation process. Select "N/A" if the procurement will not require a Pre-Solicitation (e.g., Request for Offer [RFO], NCB).

3.3.2 Solicitation Evaluation Strategy Readiness

1. An evaluation methodology is the prescribed criteria (e.g., scoring, points, etc.) that will be applied to all solicitations and used to determine the basis for contractor selection and award. The evaluation methodology provides for accurate evaluation of a bidder's proposal, represents key areas of importance, and supports meaningful distinction and comparison between competing proposals. There are various methodologies that may be used to establish evaluation criteria (e.g., value effective, lowest cost). Agencies/state entities are advised to begin discussing the evaluation methodology during the development of Stage 2 Alternatives Analysis mid-level solution requirements to ensure the selected contractor can best meet the solution requirements and achieve the project's business objectives.

STPD will review the evaluation methodology as part of the Stage 3, Part A approval. Select "Yes" if the Agency/state entity will need guidance to develop the evaluation methodology for the primary solicitation. Select "No" if the Agency/state entity will not need guidance. Select "N/A" if the procurement will not require an evaluation methodology (e.g., Agency/state entity only using internal staff resources, services secured through an interagency agreement [IAA], NCB, etc.).

2. The cost worksheets are a critical component in the evaluation methodology and serve as a basis for comparing cost or prices proposed by bidders. Cost worksheets provide a clear breakdown of costs associated with services, deliverables and payment milestones. Cost worksheets should be grouped by categories (e.g., contractor personnel hourly rates, equipment, materials and supplies, software licensing, system integration services, training, maintenance and operation, optional extension years for maintenance and operation, etc.). Cost worksheets are unique to each project; therefore, the format may vary. STPD will review the cost worksheets as part of the Stage 3, Part A approval. Refer to SIMM 195 STPD Solicitation Template for additional information. Select "Yes" if the Agency/state entity will need guidance to develop the cost worksheets for the primary solicitation. Select "No" if the Agency/state entity will not need guidance. Select "N/A" if the procurement will not involve cost worksheets (e.g., Agency/state entity only using internal staff resources, etc.).

3. The payment models allow the Agency/state entity to control and set contractor payments for accepted deliverables and/or performance. It is recommended that the Agency/state entity divide the proposed payments into distinct milestones or phases, with each milestone or phase resulting in the delivery of measurable deliverables and/or performance results. STPD will review the payment models prior to the release of the solicitation. Select "Yes" if the Agency/state entity will need guidance to develop a payment model for the primary solicitation. Select "No" if the Agency/state entity will not need guidance to develop a payment model. Select "N/A" if the procurement will not require a payment model (e.g., Agency/state entity only using internal staff resources).

3.3.3 Requirements Readiness

1. Mid-level solution requirements, developed as part of the Stage 2 Alternatives Analysis, include functional, non-functional, and project/transition requirements that specify project needs in a manner designed to effectively compare alternatives and select a recommended solution. Stage 3 Solution Development requires that the mid-level solution requirements be further matured and formalized to provide vendors/contractors a clear understanding of the elements and functions necessary for a particular solution. The mid-level requirements should include all project-related requirements. Additionally, Agencies/state entities should have a standardized process for documenting each requirement type. Requirements maturity also entails that each requirement be assigned ownership responsibilities (state owned versus contractor), as well as priority levels and scoring. Unclear and ambiguous solution requirements will result in misunderstandings with contractors, resulting in increased costs, time delays and negative project scope impacts. Agencies/state entities should be prepared to assign the resources necessary to mature requirements. Refer to the Requirements Guidelines in SIMM 19C for additional guidance with requirements maturity. Select "Yes" if the Agency/state entity has a plan to mature the Stage 2 mid-level solution requirements into refined, detailed Stage 3 solution requirements. Select "No" if the Agency/state entity does not have a plan to mature the Stage 2 mid-level solution requirements.

2. Detailed requirements that accurately capture the full and specific needs of a proposal are an essential building block in the development of a successful solution. The earlier in proposal development that an Agency/state entity identifies the resource(s) with the necessary expertise to develop Stage 3 solution requirements enhances the proposal's ability to fully meet business needs. Select "Yes" if the Agency/state entity needs guidance to refine Stage 3 solution requirements. Select "No" if the Agency/state entity does not need guidance.

3. The Agency/state entity may anticipate the use of vendor or consulting services to assist in refining Stage 3 solution requirements. Select "Yes" if the Agency/state entity anticipates the use of a vendor or consulting services to refine Stage 3 solution requirements. Select "No" if the Agency/state entity does not anticipate the use of a vendor or consulting services to refine Stage 3 solution requirements.

3.3.4 Governance

1. An effective governance (decision-making) structure is an essential foundation for project success. Establishing and sustaining effective governance throughout the project lifecycle will result in effective and timely decision making by focusing on structure, people, and information through the application of core governance principles.

   As a project progresses through the project approval lifecycle, it is important that the governance structure be expanded to include stakeholders and external partners (e.g., contractors, system integrators, etc.). Select "Yes" if the Agency/state entity's governance structure (as identified in the Stage 1 Business Analysis Section 1.12.1) has been structured to capture input from all project stakeholders and external partners. Select "No" if the Agency/state entity's governance structure has not been structured to capture input from all project stakeholders and external partners.

2. Early determination of how an Agency/state entity will govern, approve, recommend, and manage change in a project plays a significant role in the overall solution's development and ability to effectively move forward. Further, the identification on how the governance structure will be used in relation to the requirements development process plays a significant role in ensuring standardized, thorough, and authorized solution development. Select "Yes" if the Agency/state entity has identified the governance structure to be used in the development of Stage 3 solution requirements. Select "No" if the Agency/state entity has not identified the governance structure to be used in the development of Stage 3 solution requirements.

3.3.5 Security

1. Agencies/state entities must implement information security and privacy, and technology recovery policies, standards and guidelines to further strengthen and protect information assets while assuring project goals and objectives are being met. The Agency/state entity's Information Security Officer (ISO) is responsible for overseeing compliance with information security and privacy requirements and should be involved in the development of security and privacy related mid-level solution requirements developed during Stage 2 Alternatives Analysis. Select "Yes" if the Agency/state entity's ISO has reviewed all security and privacy related mid-level solution requirements. Select "No" if the Agency/state entity's ISO has not reviewed all security and privacy related mid-level solution requirements.

3.3.6 Organizational Readiness

1. The timely attainment of skilled staff resources is critical to successfully deliver IT projects. It can take a considerable amount of lead time to obtain and orient staff for large and complex initiatives. Stage 3 Solution Development requires that the Procurement and Staffing Strategy, developed as part of the Stage 2 Alternatives Analysis (Section 2.11.3), be further matured to align with the work breakdown structure (WBS) and broken down to assign staff resources to each project activity. Select "Yes" if the Agency/state entity has a plan to mature the Stage 2 Procurement and Staffing Strategy into a mature Stage 3 staffing allocation that aligns with the WBS. Select "No" if the Agency/state entity does not have a plan to mature the Stage 2 Procurement and Staffing Strategy.

3.3.7 OTech Services

1. The recommended solution may leverage California Department of Technology, Office of Technology Services (OTech) services, such as CalCloud, Telecom, Networking, etc. Additionally, the OTech Architecture Branch provides consultation services to support data center hosting services related to solicitation development. Select "Yes" if the Agency/state entity intends to engage OTech for architecture consultation services (e.g., service offerings, preliminary design consultation, etc.). Select "No" if the Agency/state entity does not intend to engage OTech for architecture consultation services.