

California Home

Thursday, Dec

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG \*\*NEW!\*\*](#)[SID Policy \*\*NEW!\*\*](#)[Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.


 My CA

## Request for Proposal (RFP)

[Proc Main](#)

### Description:

The Request for Proposal process can be lengthy, typically a year or more. The goal is to provide the bidders with sufficient information to allow them to propose a viable solution to the business problem. The RFP should describe what the vendor will be required to build, as well as the required processes and data that must be provided. The RFP is composed of several parts and must be carefully reviewed to ensure the information presented is correct and agreed to with all appropriate stakeholders.

The project should actively involve their DGS representative in this RFP development and review process to ensure that all applicable contract terms and conditions are included and that any recent procurement regulations have been included or considered.

Once the RFP has been documented, it must be reviewed by the appropriate stakeholders, including user representatives, sponsor representatives, Legal, DGS, DOF and, in some cases, federal stakeholders.

The following depicts the typical contents and order of an RFP, and some helpful tips. Consult the DGS representative for the most current guidance and regulations.

#### I. [Introduction](#)

#### II. [Rules Governing Competition](#)

#### III. [Current System](#)

#### IV. [Proposed System](#)

- ⚡ Identify known performance standards/service levels which must be achieved. The RFP may require the vendor to document their approach to performance modeling and show how their solution meets the required levels.

#### V. [Administrative Requirements](#)

- ⚡ The bidder must clearly indicate if they are proposing any current or former state employees. This is important to ensure that there is no conflict of interest or other violation of applicable statutes. The project should clearly indicate this requirement in the staffing section and should remind the bidder during the bidders conference.
- ⚡ Identify the [development standards/methodologies, design standards, coding standards, testing standards](#), and quality standards which the vendor must adhere to. Even if the vendor is allowed to propose their own methodology, the RFP should at least reference the minimum standards which should be adhered to such as specific IEEE standards and/or PMI's PMBOK, etc.

- ⚡ Identify the [implementation strategy](#), [BPR strategy](#) (if appropriate), and [M&O strategy](#), even if the project office will be performing some or all of the activities. This is to provide context for the vendor to know what is desired and how the vendor must interface to these activities.
- ⚡ Discuss the expected level of configuration management and require access to and proof of configuration management activities.
- ⚡ Discuss the process for contractor staff (and subcontractor staff) approval, including reviewing resumes, the option to interview the staff, and the requirement for State approval of the staff member prior to the staff member beginning work on the project.

#### **VI. Technical Requirements**

#### **VII. Deliverable List and Acceptance Process**

- ⚡ Define the desired [vendor deliverables](#) and the [deliverable review process](#) and timelines. Review time should be commensurate with deliverable size and complexity.
- ⚡ Define the [DEDs and DED process](#) for key deliverables. Ensure that key deliverables are adequately described in the RFP, and that appropriate standards (IEEE, MIL-STD DID) are referenced or a suitable example is cited for each deliverable requiring a DED.
- ⚡ Be sure to require a Technology Refresh Plan or schedule to allow the system to keep pace with new versions and technology. This plan may be included as part of another document (e.g., Software Development Plan, M&O Plan or Configuration Management Plan), or may be a stand alone plan.
- ⚡ Monthly or weekly contractor status reports are a must.

#### **VIII. Cost Instructions**

#### **IX. Proposal and Bid Format**

#### **X. Evaluation**

#### **XI. Demonstrations** (if applicable)

Appendix - [Model Contract with Statement of Work](#) (DGS link)

- ⚡ The DGS representative will help to guide the project on the current model contract, and work with the project if there are specific clauses which need modification or should be added.
- ⚡ The contract should discuss how contract extensions (if used) will be exercised. These extensions should be at the sole discretion of the State.

Appendix - [System Requirements Specification \(SyRS\)](#)

### **References:**

- ⚡ [State Administrative Manual \(SAM\)](#) (DGS link), Section 5221
- ⚡ [IEEE/EIA 12207.0-1996](#) (link to pdf), Standard for Information Technology Software life cycle processes, March 98, Paragraph 5.1.2.
- ⚡ [Focus Group: Lessons Learned from the Procurement Phase](#),

Aug 2001.

**Outline:**

☞ [RFP Outline](#) (MS Word)

**Samples and Supporting Materials:**

☞ [CWS-CMS M&O Re-Bid RFP \(2001\)](#)

☞ [EBT ITP \(1999\)](#)

☞ [DHS CMSNet E47 RFP \(2002\)](#)

☞ [OSHPD MIRCal RFP \(1999\)](#)



- [HHSDC Home](#)
- [BP Home Page](#)
- [The MSC](#)
- [CMM](#)
- [POST Enterprise](#)
- [The Project Office](#)
- [Life Cycle Processes](#)
- [Search BP](#)
- [HHSDC Links](#)
- [Resources Library](#)
- [QAWG NEW!](#)
- [SID Policy NEW!](#)
- [Contact Us](#)



The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.

 

My CA

## RFP Section 1 - Introduction

[Proc Main](#)

[RFP Main](#)

This section of the RFP provides an overview of the RFP and key information regarding the procurement. The sections typically include:

- 1.1. PURPOSE OF THIS REQUEST FOR PROPOSALS
- 1.2. SCOPE OF THE RFP AND VENDOR ADMONISHMENT
- 1.3. AVAILABILITY
- 1.4. DEPARTMENT OFFICIAL
- 1.5. DEPARTMENT CONTACT
- 1.6 PROJECT RESPONSIBILITY
  - 1.6.1. Project Organization
  - 1.6.2. Project Oversight
- 1.7. KEY ACTION DATES

California Home

Thursday, Dec

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG \*\*NEW!\*\*](#)[SID Policy \*\*NEW!\*\*](#)[Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.


 My CA

## RFP Section 2 - Rules Governing Competition

[Proc Main](#) [RFP Main](#)

This section describes the bidding process as well as the RFP conditions and contract information. The subsections typically include the following. Consult the DGS representative for the most current guidance and regulations.

1. RULES GOVERNING COMPETITION
  1. IDENTIFICATION AND CLASSIFICATION OF RFP REQUIREMENTS
    1. Requirements
    2. Desirable Items
    3. RFP Documents
  2. BIDDING PROCESS
    1. General
      - Procurement Schedule*
      - Acknowledgement of Receipt*
      - Notice of Intent to Propose*
      - Questions Regarding the RFP*
    2. Bidder's Conference
      - Interpretations and Addenda*
      - Draft Proposal*
      - Confidential Discussions and Amended Proposals*
      - Discussion Memorandum*
    3. Final Proposal
    4. Submission of Proposals and Bids
    5. Withdraw and Resubmission/Modification of Proposals
    6. Rejection of Bids
    7. Evaluation and Selection
    8. Demonstration
    9. Errors in Final Proposal
    10. Flawed Final Proposals
    11. Bidder Selection
    12. Agreement Negotiations
    13. Award of Contract
    14. Debriefing
  3. RFP CONDITIONS
 

See also [SID sample RFP Conditions](#)

    1. General
    2. Request for Proposal Documents
    3. Incurring Costs
    4. Bonds
    5. Discounts
    6. Restrictions on Lobbying
    7. Conflict of Interest
    8. Exemption to the RFP
    9. Rights to Pertinent Materials
    10. Modifications to Scope of Work
    11. Joint Proposals
    12. Confidentiality
    13. Right of State to Reject Proposals
    14. False and misleading statements

15. Non-Conforming Proposals
16. Signature of Proposals
17. Air or Water Pollution Violations
18. Fair Employment and Housing Commission Regulations
19. Acknowledgement of Understanding of Terms
4. CONTRACTUAL INFORMATION
  1. Contract Form
  2. Specific Terms and Conditions
  3. Approval of Proposed Contract
  4. Term of Contract
5. OTHER INFORMATION
  1. Protests
  2. Procurement Library
  3. News Releases
  4. Disposition of Proposals and Bids
  5. Contacts for Information

Exhibit II–A COMPETITIVE BIDDING AND BID RESPONSIVENESS

California Home

Thursday, Dec

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG \*\*NEW!\*\*](#)[SID Policy \*\*NEW!\*\*](#)[Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.

search

 My CA

## RFP Conditions

Proc Main

RFP Main

The following sample RFP Conditions were extracted from a prior SID ITP (Invitation to Partner), and are provided for reference. Consult the [SAM](#) (DGS link), Section 5221 and the DGS representative for additional guidance.

### 1. Request for Proposal Conditions

#### 1. General

This RFP, the evaluation of responses, and the award of any resultant contract shall be made in conformance with current competitive bidding procedures as they relate to the procurement of goods and services by public bodies in the State of California. A bidder's Final Proposal is an irrevocable offer for 45 days following the scheduled date for contract award. A bidder may extend the offer in writing in the event of a delay caused by a protest of the intended award.

#### 2. RFP Documents

This RFP includes, in addition to an explanation of the State's needs which must be met, instructions which prescribe the format and content of bids to be submitted and the model of the contract to be executed between the State and the successful bidder. If a bidder discovers any ambiguity, conflict, discrepancy, omission, or other error in the RFP, he/she shall immediately notify the State of such error in writing and request clarification or modification of the document. The word "bid" is used throughout this RFP to mean "propose" or "proposal" as appropriate.

#### 3. Incurring Costs

The State and its agents are not liable for any costs incurred by any Bidder in responding to this RFP. Further, Bidders may not incur reimbursable costs in anticipation of award.

#### 4. Bonds

The State reserves the right to require a supply contract bond or faithful performance bond from the vendor in an amount not to exceed the amount of the contract.

#### 5. Discounts

In connection with any discount offered, except when provision is made for a testing period preceding acceptance by the State, time will be computed from date of delivery of the supplies or equipment as specified, or from date

correct invoices are received in the office specified by the State if the latter date is later than the date of delivery. When provision is made for a testing period preceding acceptance by the State, date of delivery shall mean the date the supplies or equipment are accepted by the State during the specified testing period. Payment is deemed to be made, for the purpose of earning the discount, on the date of mailing the State warrant or check.

Cash discounts of less than twenty (20) days or less than one half of one percent (.5%) will not be considered in evaluating offers for award purposes unless otherwise specified by the State in this RFP; however, offered discounts of less than twenty (20) days will be taken if payment is made within the discount period, even though not considered in the evaluation of offers.

## 6. Restrictions on Lobbying

Bidders shall comply with all certification and disclosure requirements prescribed by Section 319, Public Law 101-121 (31 United States Code Section 1352) and any implementing regulations, and shall be responsible for ensuring that all sub-contractors or sub-grantees of funds provided under the Agreement also fully comply with all such certifications and disclosure requirements.

## 7. Conflict of Interest

No State employee or consultant whose position with the State enables such employee or consultant to influence the selection of the winning Bidder for this RFP, or any competing RFP, and no spouse or economic dependent of such employee or consultant, shall be currently employed or been employed within the last six months in any capacity by a Bidder, or have any other direct or indirect financial interest in the selection of the winning Bidder.

## 8. Exceptions to the RFP

The format of the RFP must be followed and all requested information must be submitted as indicated. Any exceptions taken to the RFP terms and conditions must be clearly identified in the Proposal.

## 9. Rights to Pertinent Materials

All responses, inquiries, and correspondence relating to this RFP and all reports, graphs, statistics, displays, schedules, exhibits, and other documentation produced by the Bidder that are submitted as part of the proposal shall become the property of the State after the proposal submission deadline. This RFP shall be open to public inspection after award of contract, except to the extent the Bidder designates trade secrets or other proprietary data to be confidential. Material so designated will accompany the proposal and each page will be clearly marked and readily separable from the proposal in order to facilitate public inspection of the non-confidential portion of the proposal. Prices, makes and models, or catalog numbers of the items offered, deliveries, and terms of payment will be publicly available regardless of any designation to the contrary. The State will endeavor to restrict distribution of the material designated as confidential or proprietary to only those individuals involved in the review and analysis of proposals. Bidders are cautioned that materials designated as confidential may nevertheless be subject to disclosure to any citizen under the California law.

## 10. Modifications to Scope of Work

In the event that sufficient funding is not or does not become available to complete each task in the scope of work, the State may amend the scope of work to meet available funding. In the event that any additional installations or services are required as identified herein, the State reserves the right to add such installation or services by amending the scope of work and contract.

## 11. Joint Proposals

A joint Proposal (two or more Bidders bidding jointly on one Proposal) may be submitted and each participating Bidder must sign the joint Proposal. If the contract is awarded to joint Bidders, it shall be one indivisible contract. Each joint Bidder will be jointly and severally responsible for the performance of the entire contract, and the joint Bidders must designate, in writing, one individual having authority to represent them in all matters relating to the contract. The State assumes no responsibility or obligation for the division of orders or purchases among the joint Bidders.

## 12. Confidentiality

Final Proposals are public upon opening; however, the contents of all Proposals, Draft Proposals, correspondence, agenda, memoranda, working papers, or any other medium which discloses any aspect of a Bidder's Proposal shall be held in confidence until notice of Intent to Award. Bidders should be aware that marking a document "confidential" or "proprietary" in a Final Proposal will not keep that document, after notice of Intent to Award, from being released as part of the public record, unless a court has ordered the State not to release the document. The content of all working papers and discussions relating to the Bidder's Proposal shall be held confidential indefinitely unless the public interest is best served by an item's disclosure because of its direct pertinence to a decision, agreement or the evaluation of the proposal.

Any disclosure of confidential information by the Bidder is a basis for rejecting the Bidder's Proposal and ruling the Bidder ineligible to further participate. Any disclosure of confidential information by a State employee is a basis for disciplinary action, including dismissal from State employment, as provided by Government Code Section 19570 et seq.

## 13. Right of the State to Reject Proposals

The State may reject any or all proposals and may waive any immaterial deviation or defect in a proposal. The State's waiver of any immaterial deviation or defect shall in no way modify the ITP documents or excuse the Bidder from full compliance with the ITP specifications if awarded the contract.

## 14. False or Misleading Statements

Proposals which contain false or misleading statements or which provide references which do not support an attribute or condition claimed by the Bidder may be rejected. If, in the opinion of the State, such information was intended to mislead the State in its evaluation of the Proposal and the attribute, condition, or capability is a requirement of this RFP, it will be the basis for rejection of the Proposal.

## 15. Non-Conforming Proposals

Any Proposal may be determined to be non-conforming and ineligible for consideration if it does not comply with requirements of this RFP.

## 16. Signature of Proposals

A cover letter (which shall be considered an integral part of the submission) and Standard Agreement Form 2 shall be signed by an individual who is authorized to bind the bidding firm contractually. The signature must indicate the title or position that the individual holds in the firm. An unsigned Final Proposal shall be rejected.

The Draft Proposal must also contain the cover letter and Standard Agreement Form 2, similarly prepared, including the title of the person who will sign, but need not contain the signature.

## 17. Air or Water Pollution Violations

Unless the contract is less than \$5,000 or with a sole source Contractor, Government Code Section 4477 prohibits the State from contracting with a person, including a corporation or other business association, who has been determined to be in violation of any State or federal air or water pollution control law. Government Code Section 4481 requires the State Water Resources Control Board and the Air Resources Board to notify State agencies of such persons.

Prior to an award, the State shall ascertain if the intended awardee is a person included in notices from the Boards by reference to notices. In the event of any doubt of the intended awardee's identity or status as a person who is in violation of any State or federal air or water pollution law, the State will notify the appropriate Board(s) of the proposed award and afford the Board(s) the opportunity to advise the State that the intended awardee is such a person.

No award will be made to a person who is identified, either by the published notices or by advice, as a person in violation of State or federal air or water pollution control laws.

## 18. Fair Employment and Housing Commission Regulations

California Government Code Section 12990 requires all State Contractors to have implemented a Nondiscrimination Program before entering into any contract with the State. The Department of Fair Employment and Housing (DFEH) randomly selects and reviews State Contractors to ensure their compliance with the law. DFEH periodically disseminates a list of bidders who have not complied. Any bidder so identified is ineligible to enter into any State contract.

## 19. Disposition of Proposals and Bids

All materials submitted in response to this RFP will become the property of the State of California and will be returned only at the State's option and at the Bidder's expense. The Master Copy shall be retained for official files and will become a public record after the date and time for Final Proposal

submission as specified in Section 1.7.2, Procurement Schedule. However, confidential financial information submitted in support of the requirement to show Bidder responsibility will be returned upon request.

## 20. Acknowledgement of Understanding of Terms

By submitting a proposal, each Bidder shall be deemed to acknowledge that it has carefully read all sections of this RFP; including all forms, schedules, and exhibits hereto, and has fully informed itself as to all existing conditions and limitations.



[HHSDC Home](#)

[BP Home Page](#)

[The MSC](#)

[CMM](#)

[POST Enterprise](#)

[The Project Office](#)

[Life Cycle Processes](#)

[Search BP](#)

[HHSDC Links](#)

[Resources Library](#)

[QAWG](#) **NEW!**

[SID Policy](#) **NEW!**

[Contact Us](#)



The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.



My CA

## RFP Section 3 - Current System or Problem

[Proc Main](#) [RFP Main](#)

This section describes the current system or problem to provide the bidder with background on the problem. It should describe the current automated system (if any), manual processes, workload and performance data, and organizational profile(s).

The project may choose to reference a [Concept of Operation](#) which includes a description of the current system, as well as the desired future operations.

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG NEW!](#)[SID Policy NEW!](#)[Contact Us](#)

search

 My CA

## Concept of Operations (ConOps)

### Description:

The Concept of Operation (ConOp or ConOps) describes system characteristics for a proposed system from the **users' viewpoint**. It includes a description of the current system or situation, new system concept, business scenarios, summary of impacts and a summary of advantages, disadvantages, and limitations. The ConOp can be supplemented with data flow diagrams and business rule descriptions.

The ConOp is typically included in the RFP for information to supplement the System Requirements Specification. The ConOp is an excellent bridge between the user community and the system developers since it allows the users to express their needs in their own language and helps the developer understand how the new system will be used in the business environment.

### References:

- ⌘ [IEEE 1362-1998](#) (link to pdf), Guide for Information Technology-System Definition - Concept of Operation Document

### Outline:

- ⌘ [Concept of Operation Outline](#) (MS Word)
- ⌘ [MIL-STD-498 DID for an Operational Concept Document](#) (pdf)

### Samples and Supporting Materials:

- ⌘ [CCSA Project Concept of Operations](#) (pdf)
- ⌘ [OSHDP Concept of Operations](#) (pdf)
- ⌘ [Appendix B - Use Cases Overview](#) (pdf)



- [HHSDC Home](#)
- [BP Home Page](#)
- [The MSC](#)
- [CMM](#)
- [POST Enterprise](#)
- [The Project Office](#)
- [Life Cycle Processes](#)
- [Search BP](#)
- [HHSDC Links](#)
- [Resources Library](#)
- [QAWG \*\*NEW!\*\*](#)
- [SID Policy \*\*NEW!\*\*](#)
- [Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.



My CA

## RFP Section 4 - Proposed System

[Proc Main](#)   [RFP Main](#)

This section provides information on the desired system. The description should include the automated system (if any), new business processes, workload and performance goals and requirements, and organizational profile(s).

The project may choose to reference a [Concept of Operation](#) which includes a description of the proposed system, as well as the current operations.



California Home

Thursday, Dec

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG \*\*NEW!\*\*](#)[SID Policy \*\*NEW!\*\*](#)[Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.


 My CA

## RFP Section 5 - Administrative Requirements

[Proc Main](#) [RFP Main](#)

This section of the RFP typically contains all the non-technical requirements with which the bidder must comply. This includes project management, implementation, demonstration, validation and training plans to allow the project to adequately evaluate the bidder's understanding and capability to deliver the requested services.

SID usually tailors this section to discuss administrative requirements used to evaluate whether the vendor has sound project management and system development **methodologies**, and the organization and **experience** to successfully implement them.

With this in mind the typical SID subsections are as follows. Consult your DGS representative for further guidance and tailoring considerations.

### 1. INTRODUCTION

- 1.1 Purpose of Administrative Requirements
- 1.2 Project Constraints (if applicable)
- 1.3 Project Assumptions and Dependencies (if applicable)

### 2. PAST PERFORMANCE

### 3. PROJECT ORGANIZATION

- 3.1 External Interfaces
- 3.2 Internal Interfaces
- 3.3 Roles and Responsibilities

### 4. PROJECT MANAGEMENT REQUIREMENTS

#### 4.1 Project Planning Processes

##### 4.1.1 Staffing Plan

**Note:** The bidder must clearly indicate if they are proposing any current or former state employees. This is important to ensure that there is no conflict of interest or other violation of applicable statutes. The project should clearly indicate this requirement in the staffing section and should remind the bidder during the bidders conference.

##### 4.1.2 Work Plan

- 4.1.2.1. Work Activities
- 4.1.2.2. Schedule Allocation

4.2 Control Processes

- 4.2.1. Requirements Control
- 4.2.2. Schedule Control Plan
- 4.2.3. Budget Control
- 4.2.4. Quality Control
- 4.2.5. Reporting
- 4.2.6. Metrics Collection
- 4.2.7. Risk Management
- 4.2.8. Project Closeout

These processes are primarily derived from:

- IEEE 12207, Standard for Information Technology Software life cycle processes
- IEEE 1058, Standard for Software Project Management Plans.

5. SUPPORTING PROCESSES

5.1. Configuration Management

- 5.1.1. Requirements Management
- 5.1.2. System Configuration Management
- 5.1.3. Software Configuration Management
- 5.1.4. Document Configuration Management

5.2. Quality Management

- 5.2.1. Product Assurance
  - 5.2.1.1. Verification and Validation
  - 5.2.1.2. Joint Reviews

5.2.2. Process Assurance

- 5.2.2.1. Audits

5.2.3. Problem Resolution Process

5.3. Communication Management

- 5.4. Reviews and Audits
- 5.5. Problem Resolution
- 5.6. Subcontractor Management

6. TECHNICAL PROCESSES

6.1. SYSTEM DEVELOPMENT REQUIREMENTS

Identify the development standards/methodologies, design standards, coding standards, testing standards and quality standards which the vendor must follow. Even if the vendor is allowed to propose their own methodology, the RFP should at least reference the minimum standards which should be adhered to such as specific IEEE standards and/or PMI's PMBOK, etc.

"System Development" is referring only to system development processes.

- 6.1.1. System Development Planning
- 6.1.2. Development Infrastructure
- 6.1.3. System Requirement Analysis
- 6.1.4. System Architectural Design
- 6.1.5. Software Requirements Analysis

- 6.1.6. Software Architectural Design
- 6.1.7. Software Detailed Design
- 6.1.8. Software Coding and Unit Testing
- 6.1.9. Software Integration
- 6.1.10. Software Qualification System Testing
- 6.1.11. System Integration
- 6.1.12. System Qualification Testing
- 6.1.13. Pilot Operation
- 6.1.14. System Acceptance Testing

## 6.2. SYSTEM IMPLEMENTATION

Identify the **implementation strategy**, **BPR strategy** (if appropriate), and **M&O strategy**, even if the project office will be performing some or all of the activities. This is to provide context for the vendor to know what is desired and how the vendor must interface to these activities.

- 6.2.1. Implementation Planning
- 6.2.2. Implementation Communication
- 6.2.3. Training
- 6.2.4. Site Preparation
- 6.2.5. Data Conversion
- 6.2.6. System Initial Operating Period

## 6.3. OPERATIONS REQUIREMENTS (if applicable)

- 6.3.1. Operations Planning
- 6.3.2. Operational Support
- 6.3.3. System Administration
  - 6.3.3.1. Performance Monitoring
  - 6.3.3.2. Backup and Recovery
- 6.3.4. Help Desk
- 6.3.5. Project Phase-Out and Transfer to a New Contractor

## 6.4. MAINTENANCE AND ENHANCEMENT REQUIREMENTS (if applicable)

- 6.4.1. Maintenance Planning
- 6.4.2. Problem Identification
- 6.4.3. Modification Analysis
- 6.4.4. Modification Implementation in Test Environment
- 6.4.5. Maintenance Review/Acceptance Testing
- 6.4.6. State-wide Implementation and Verification

## 6.5. SYSTEM TEST AND ACCEPTANCE TEST

- 6.5.1. Test Phases
- 6.5.2. Test Planning
- 6.5.3. Test Facilities and Tools
- 6.5.4. Evaluation and Reporting
- 6.5.5. Problem Resolution

6.5.6 Regression Testing



[HHSDC Home](#)

[BP Home Page](#)

[The MSC](#)

[CMM](#)

[POST Enterprise](#)

[The Project Office](#)

[Life Cycle Processes](#)

[Search BP](#)

[HHSDC Links](#)

[Resources Library](#)

[QAWG](#) **NEW!**

[SID Policy](#) **NEW!**

[Contact Us](#)



search

My CA

## Project Concept - Development Standard

Most projects should be able to use [IEEE 12207.0-1996](#), (link to pdf) Standard for Information Technology Software Life Cycle Processes. The software development standard recommends a phased approach to include requirements analysis, design, code, and test. The standard suggests objectives and deliverables for each phase. The standard also defines responsibilities for the acquirer, supplier and supporting organizations. [IEEE 1062-1998](#), (link to pdf) Recommended Practice for Software Acquisition, is also useful in helping to guide the project.

There are additional [industry standards](#) that further define elements and work products from the life cycle, such as quality assurance and configuration management.

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG](#) **NEW!**[SID Policy](#) **NEW!**[Contact Us](#)

search

 My CA

## Design Standards

Design standards specify what and how the design elements should be documented to clearly and completely present the system design. The design methodology should be selected based on the type and approach to the project. For instance, design documents will be structured differently for a batch processing system and a web-based database.

The design standards should indicate minimum content for design documents, the types of design documents, and in some cases, the methods for presenting design material (i.e.: required diagrams such as workflow diagrams, batch processing timelines, data flow diagram, etc.).

### References:

- ⌘ [IEEE 1016-1998](#) (link to pdf), Recommended Practice for Software Design Descriptions

### Samples :

- ⌘ [Outline for a Design Document \(including DB and HW\)](#) (MS Word)



[HHSDC Home](#)

[BP Home Page](#)

[The MSC](#)

[CMM](#)

[POST Enterprise](#)

[The Project Office](#)

[Life Cycle Processes](#)

[Search BP](#)

[HHSDC Links](#)

[Resources Library](#)

[QAWG](#) **NEW!**

[SID Policy](#) **NEW!**

[Contact Us](#)



## Coding Standards

The purpose of coding standards are to ensure consistent, maintainable, well documented code. Developers use the coding standards as guidelines during development and the Process QA staff use the coding standards during reviews and audits to ensure the standards are being followed.

Coding standards should not be overly restrictive, but should provide enough guidance such that the developed code is consistently structured. Coding standards identified in the RFP should be general and provide a basic framework. During the design phase, programming language specific standards may be imposed, if necessary.

### General Samples:

- ✂ [Guidelines on Coding Style](#) (MS Word)
- ✂ [General Coding Standards from EDD](#) (MS Word)

### Language Specific Samples:

- ✂ [NASA's C Style Guide](#) (pdf)
- ✂ [GeoSoft Java Style Guide](#) ([link](#) or [PDF from 2002](#))
- ✂ [Coding Conventions for C++ and Java](#) ([link](#) or [PDF from 2002](#))
- ✂ [Miscellaneous specific standards from UCLA](#) ([link](#) or PDFs below)
  - ✂ [Introduction](#)
  - ✂ [CICS Related Standards](#)
  - ✂ [COBOL Standards](#)
  - ✂ [JCL Coding Standards](#)
  - ✂ [PowerBuilder Guidelines](#)
  - ✂ [Report Standards](#)
  - ✂ [QMF Standards](#)
  - ✂ [Screen, Function Key and Online Help Standards](#)
  - ✂ [Walkthrough Guidelines](#)
    - ✂ [Programming Checklist](#)
  - ✂ [SQL-Related Standards](#)



My CA


[HHSDC Home](#)
[BP Home Page](#)
[The MSC](#)
[CMM](#)
[POST Enterprise](#)
[The Project Office](#)
[Life Cycle Processes](#)
[Search BP](#)
[HHSDC Links](#)
[Resources Library](#)
[QAWG NEW!](#)
[SID Policy NEW!](#)
[Contact Us](#)



 My CA

## Testing Standards

[Test Main](#)

Testing standards help to provide guidelines for minimum types of testing and test cases, and to ensure that all test materials are complete.

The RFP should identify for each **test phase**:

- ⌘ **Test strategy** which describes the approach and expected participation during testing
- ⌘ **Roles and responsibilities** (MS Word) for all test participants
  - ⌘ In some cases, the **IV&V vendor** manages and/or performs system and/or acceptance testing to provide an impartial assessment of the system's usability and adequacy.
  - ⌘ Note that the roles will vary slightly depending if the project is for a new system development or for continuing M&O, due to the difference in staffing and organization, and the stronger emphasis on regression testing.
- ⌘ **Expectations for test documentation** content and preparation
- ⌘ **Expectations for testing environments**
  - ⌘ Number and type of separate test environments required
  - ⌘ Who is responsible for providing the various environments
  - ⌘ Who will be responsible for installing and managing the environments
  - ⌘ What is the purpose and general configuration of each environment
  - ⌘ Who will own the environments (i.e., are the environments are considered a development tool owned by the vendor, or a deliverable retained by the State after contract end)
- ⌘ **Expectations for configuration management**
  - ⌘ How will the test environments be managed and how will changes to the environments be tracked?
  - ⌘ How will version control of the software units be maintained and how will fixes be introduced?
  - ⌘ How will version control of the test documentation be maintained?
  - ⌘ Who is responsible for collecting and maintaining the master copies of test documentation and results?
  - ⌘ How will test data be managed (both electronic and paper)?
  - ⌘ See also **Configuration Management**
- ⌘ **Expectations for quality assurance**
  - ⌘ Specific exit criteria which must be met for the test phase to close. For general exit criteria, [click here](#).

## References:

- ⌘ IEEE **829-1998**, Standard for Software Test Documentation (link to pdf)

⚡ [IEEE 1008-1987](#) (R 1993), Standard for Software Unit Testing (link to pdf)

### **Samples and Supporting Materials:**

⚡ [Testing Responsibility Assignment Matrix \(RAM\)](#) (MS Word)

⚡ [Test Summary Matrix](#) (MS Word)



[HHSDC Home](#)

[BP Home Page](#)

[The MSC](#)

[CMM](#)

[POST Enterprise](#)

[The Project Office](#)

[Life Cycle Processes](#)

[Search BP](#)

[HHSDC Links](#)

[Resources Library](#)

[QAWG](#) **NEW!**

[SID Policy](#) **NEW!**

[Contact Us](#)



The Implementation phase includes all the activities necessary for the project office to transition from a development/testing environment to a production environment using the new system.



My CA

## Implementation Strategy

[Impl Main](#)

The implementation strategy defines the general approach for the system implementation. The intent of the implementation strategy is to identify the assumptions and establish the framework for the implementation section of the Request for Proposal (RFP). The strategy should identify the activities that you expect the Contractors to address in their proposals. The strategy should also define how the project office expects to divide implementation responsibilities between the State and Contractor.

Once the Contract is awarded, the Contractor and/or State will develop a detailed [Implementation Plan](#) that must be consistent with this strategy. Typical implementation issues include:

**Stakeholder and customer communications.** What are the State and Contractor roles for communicating with the customers and stakeholders? What methods of communication will be used?

**Infrastructure preparation.** What are the State and Contractor roles for infrastructure preparation? How many offices will receive the system? How many users need equipment at each office? Will the system use any existing state infrastructure?

**Data conversion.** If there is an existing database, who (State, Contractor, third party vendor) will do the data conversion to the new database? Will there be data validation and cleansing? How much conversion can be automated? What tools will be needed?

**System rollout.** If the system is implemented across the state, how will it be rolled out? Will there be "big bang" or incremental implementation? If incremental, what is the criteria for deciding the order in which offices receive the system?

Will the system software be developed incrementally? If so, what are the criteria for deciding what goes in each release? How will the new releases be rolled out?

If a system is being replaced, how will the operations be switched over? Will there be a pilot operation? Will there be a time of parallel operation? If so, how long?

**Training.** What are the State and Contractor's roles for training? What are the user classes? How many people will need training in each class? What type of training will they need?

**Change management.** What are the State and Contractor authorities in implementation?

**Business Process Reengineering.** Will business process re-engineering be required? Will new policies be required? If the system required staff reorganization, how will staff positions be converted and/or established?

**Help Desk procedures.** When must help desk services be available? What is the

expected response time? Will Contractor and/or State staff maintain the help desk?

**Change Request.** How will changes to the implementation plan be submitted and approved? How will changes to the system be submitted and approved?

**Problem Resolution.** What are the State and Contractor roles in implementation problem resolution?

**Sample:**

✎ [WDTIP Implementation Strategy](#) (pdf)

California Home

Thursday, Dec

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG \*\*NEW!\*\*](#)[SID Policy \*\*NEW!\*\*](#)[Contact Us](#)

The Implementation phase includes all the activities necessary for the project office to transition from a development/testing environment to a production environment using the new system.

search

 My CA

## Implementation Plan

[Impl Main](#)

An implementation plan should address (as a minimum) the following information:

- ⌘ Capacity monitoring.
- ⌘ Security implementation.
- ⌘ Backup & recovery execution.
- ⌘ Contingency execution.
- ⌘ Stakeholder management.
- ⌘ Project communications.
- ⌘ Interface certification.
- ⌘ Data conversion.
- ⌘ User training.
- ⌘ System testing and certification.
- ⌘ Pilot operations and evaluation.
- ⌘ System acceptance.

### Outline:

- ⌘ [WDTIP Implementation Plan DED](#) (pdf)

### Samples and Supporting Materials:

- ⌘ [WDTIP Implementation Plan](#) (pdf)
  - ⌘ [WDTIP Appendix 1 - Applicable All County Letters](#) (pdf)
  - ⌘ [WDTIP Appendix 3.1 - Roles and Responsibilities](#) (pdf)
  - ⌘ [WDTIP Appendix 3.2 - Implementation Timeline](#) (MS Project)

- ✂ [WDTIP Appendix 5.1 - Data Conversion Related Deliverables Table](#) (pdf)
- ✂ [WDTIP Appendix 5.2 - Data Conversion Milestone Plan](#) (pdf)
- ✂ [WDTIP Appendix 5.3 - Required County Information Table](#) (pdf)
- ✂ [WDTIP Appendix 7.1 - Training Schedule](#) (pdf)
- ✂ [WDTIP Appendix 7.2 - Training Evaluation Form](#) (pdf)
- ✂ [WDTIP Appendix 9.1 - Help Desk Procedures](#) (pdf)
- ✂ [WDTIP Appendix 9.2 - Level 1 Help Desk Recommendations](#) (pdf)
- ✂ [WDTIP Appendix 9.3 - Help Desk Ticket](#) (pdf)
- ✂ [WDTIP Appendix 9.4 - County Resource Table](#) (pdf)
- ✂ [WDTIP Appendix 9.5 - Help Desk Job Description](#) (pdf)
- ✂ [WDTIP Appendix 9.A - Phone Contact Log](#) (pdf)
- ✂ [WDTIP Appendix 10 - Change Request Form](#) (pdf)


[HHSDC Home](#)
[BP Home Page](#)
[The MSC](#)
[CMM](#)
[POST Enterprise](#)
[The Project Office](#)
[Life Cycle Processes](#)
[Search BP](#)
[HHSDC Links](#)
[Resources Library](#)
[QAWG \*\*NEW!\*\*](#)
[SID Policy \*\*NEW!\*\*](#)
[Contact Us](#)



 My CA

## Business Process Re-engineering (BPR)

### Purpose:

The purpose of Business Process Re-engineering (BPR) is to help prepare the users for the new or modified automated system that is being developed. The focus is on understanding current processes and assisting users to modify or use new processes that incorporate the use of the automated system functionality. Training and measuring process effectiveness are important parts of the BPR/BPI effort. The goals of BPR are

- ⌘ To simplify the existing processes
- ⌘ To streamline the existing processes
- ⌘ To ensure that the correct processes are being automated by the new system (i.e., some processes don't really need to be automated)
- ⌘ To ensure that the automation is addressing the process needs (i.e., don't automate just for the sake of automating)

This does not necessarily mean the elimination of all manual processes. Some new processes may be a combination of manual and automated activities.

In some cases, an organizational change or re-design may be part of the effort or it may be a simultaneous effort.

### Definitions:

- ⌘ Business Process Re-engineering (BPR) - Analysis and re-design of business workflows and processes to improve performance. The true sense of BPR usually involves a radical or far-reaching approach (such as a "clean slate" approach). This type of BPR may also include an organizational re-design.
- ⌘ Business Process Improvement (BPI) - A less-radical and sometimes incremental approach. Changes are made to existing processes and new processes are developed only as needed (instead of re-working all processes). Organizational changes are less likely to occur.

**TIP**

Usually, SID performs BPI, although it is often referred to as BPR, using the term in a more generic sense. This web site uses the term BPR for both BPR and BPI.

### Process Relationships and Dependencies:

- ⌘ [To the SID Lifecycle Framework](#) (the big picture)
- ⌘ [To the Primary Processes](#)

☞ [To the Supporting Processes](#)

### **Process Details:**

☞ [General Approach to the Process](#)

☞ [Process Steps For New Systems Acquisitions](#)

☞ [Process Steps For Maintenance and Operations](#)

☞ [Risks and Considerations](#)

☞ [Work Products and Deliverables](#)

### **Tools:**

☞ None at this time

### **References:**

☞ [BPR Responsibility Assignment Matrix](#) (MS Word)

### **Samples:**

☞ None at this time


[HHSDC Home](#)
[BP Home Page](#)
[The MSC](#)
[CMM](#)
[POST Enterprise](#)
[The Project Office](#)
[Life Cycle Processes](#)
[Search BP](#)
[HHSDC Links](#)
[Resources Library](#)
[QAWG NEW!](#)
[SID Policy NEW!](#)
[Contact Us](#)


The purpose of M&O is to continue operational support of the system in production, including periodic maintenance, fixes and changes, until the system is replaced or retired.


 My CA

## Maintenance and Operations (M&O) Strategy

[M&O Main](#)

The M&O strategy defines the general approach for maintenance and operations activities. The intent of the M&O Strategy is to identify the assumptions and establish the framework for the M&O section of the Request for Proposal. The Strategy should identify the activities that you expect the Contractors to address in their proposals and to re-affirm within the organization the strategy to be used for M&O activities once the project is completed.

The strategy should define how the project office expects to divide M&O responsibilities between the State and Contractor(s). Once the Contract is awarded, the Contractor and/or State will develop a detailed **M&O Plan** that must be consistent with this strategy. Typical M&O issues include:

**M&O Responsibilities.** Who is responsible for performing what activities? Consider the following organizations: project staff, HHSDC operations staff, prime contractor, subcontractor, county staff, sponsor staff, outsourced consultants.

**Transition Activities.** Once the system is put into production, who has the primary responsibility for the system? Is the prime contractor initially responsible as part of the acquisition contract? If not, how will the transition of responsibilities be performed?

**Training.** If the prime contractor is not responsible for the M&O activities, has sufficient time and training been provided for each of the staff and staffing levels? What are the State and Contractor's roles for training on the new system? What are the user classes? How many people will need training in each class? What type of training will they need? Is on-the-job training and mentoring included to allow hands-on learning?

**Knowledge Transfer.** If the prime contractor is not responsible for the M&O activities, have sufficient time and opportunities been provided for each of the staff and staffing levels to learn from the contractor? A period of 6-12 months is generally recommended so that staff may experience a complete year's processing including peaks/valleys and end of the year processing activities.

**Change Control.** How will changes to the system be handled? What is the process and how are each of the participants involved? Who is responsible for analysis and approvals?

**Day-to-Day Operations.** How will day-to-day operations be handled and by whom? What is the process and who is responsible for resolution of any problems?

**Maintenance.** How will maintenance activities be handled and by whom? What is the process and who is responsible for scheduling and notifications of the work?

**Help Desk Procedures.** Will Contractor and/or State staff maintain the help desk? Are third-party vendors also involved? When must help desk services be available? What is the expected response time? If there are multiple help desks (for instance, county and

state help desks), what is the escalation process and problem closure process?

**Sample:**

✍



- [HHSDC Home](#)
- [BP Home Page](#)
- [The MSC](#)
- [CMM](#)
- [POST Enterprise](#)
- [The Project Office](#)
- [Life Cycle Processes](#)
- [Search BP](#)
- [HHSDC Links](#)
- [Resources Library](#)
- [QAWG NEW!](#)
- [SID Policy NEW!](#)
- [Contact Us](#)



## Maintenance and Operations (M&O) Plan

[M&O Main](#)



My CA

### Description:

The Maintenance and Operations Plan is used to describe how the project will manage their M&O phase and operations. It should present the specific approach to M&O, the anticipated life of the system, roles and responsibilities, and specific activities that are necessary to maintain the system.

Some projects choose to have a separate, more detailed Operations Plan. In this case, the M&O Plan focuses specifically on strategy, approach and management of the system. See also [M&O Strategy](#).

### References:

- ⌘ [SIMM, Section 16 - M&O Plan Guidelines](#) (pdf)

### Outline:

- ⌘ [M&O Plan Outline](#) (MS Word)



- [HHSDC Home](#)
- [BP Home Page](#)
- [The MSC](#)
- [CMM](#)
- [POST Enterprise](#)
- [The Project Office](#)
- [Life Cycle Processes](#)
- [Search BP](#)
- [HHSDC Links](#)
- [Resources Library](#)
- [QAWG \*\*NEW!\*\*](#)
- [SID Policy \*\*NEW!\*\*](#)
- [Contact Us](#)



The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.



My CA

## RFP Section 6 - Technical Requirements

[Proc Main](#)   [RFP Main](#)

This section should be one paragraph stating that the Contractor shall develop a system that meets the requirements stated in the [System Requirements Specification](#) (SyRS) in Appendix B of the RFP.

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG NEW!](#)[SID Policy NEW!](#)[Contact Us](#)

search

 My CA

## System Requirements Specification (SyRS)

### Description:

The primary product of the Project Office requirements development is the System Requirements Specification (SyRS). The SyRS is included in the RFP to define the minimum contractual requirements (thresholds) that the Contractor's solution must meet unless changed by State action.

The requirements baselined in the SyRS are used throughout the product life cycle. During system design, requirements are allocated to subsystems, hardware, software, operations, and other major components of the system. During system development, the SyRS is a guide to constructing the system. The SyRS is also used to write appropriate system verification plans. The system test plans are also generated from the system requirements. During the implementation phase, test procedures based on requirements from the SyRS. During the validation process, the SyRS is used to provide the customer with a basis for acceptance of the system.

### References:

- ⌘ [IEEE 830-1998](#) (link to pdf), Recommended Practice for Software Requirements Specifications
- ⌘ [IEEE 1233-1998](#) (link to pdf), Guide for Developing System Requirements Specifications

### Outline:

- ⌘ [SyRS Outline and Description](#) (MS Word)

# System Requirements Specification Description

The following template format and content is primarily based on project experience and IEEE 830, Recommended Practice for the Software Requirements Specification (SyRS). Additional content is from IEEE 1233, Guide for Developing System Requirements Specifications and J-Std-16, Standard for IT Software Life Cycle Software Development, Section F.2.2. The Project Office may use a different format but should consider all the content elements listed.

1. Scope
  - 1.1 Identification of the Project
  - 1.2 System Overview
  - 1.3 Document Overview
  - 1.4 Acronyms and Glossary
2. Reference Documents
3. System Description
  - 3.1 Product Perspective
  - 3.2 Product Functions
  - 3.3 User Classes and Characteristics
  - 3.4 Workload Characteristics
  - 3.5 Operating Environment
    - 3.5.1 Hardware
    - 3.5.2 Software
    - 3.5.3 Communications
  - 3.6 Design and Implementation Constraints
  - 3.7 Assumptions and Dependencies
4. Specific Requirements
  - 4.1 Functional Business Requirements
    - 4.1.x Business Function X
      - 4.x.1 Description and Priority
      - 4.x.2 Stimulus/Response Sequences
      - 4.x.3 Functional Requirements
  - 4.2 System Internal Data Requirements
    - 4.2.1 Information flows
    - 4.2.2 Data construct specifications
    - 4.2.3 Data dictionary
  - 4.3 Forms and Reports
    - 4.3.1 Form x
      - 4.3.1.1 Description
      - 4.3.1.2 Source
      - 4.3.1.3 Destination
      - 4.3.1.4 Conditions and Exceptions
  - 4.4 External Interface Requirements
    - 4.4.1 User interfaces

# System Requirements Specification Description

- 4.4.2 Hardware Interfaces
- 4.4.3 Software interfaces
- 4.4.4 Communications interfaces
- 4.5 Internal Interface Requirements
- 4.6. Other Requirements
  - 4.6.1 Performance Requirements
  - 4.6.2 Safety Requirements
  - 4.6.3 Security Requirements
  - 4.6.4 System Quality Attributes
  - 4.6.5 Business Rules
  - 4.6.6 Logistics-related Requirements
- 5. Precedence and Criticality of Requirements
- 6. Qualification Provisions
- Annex A: Glossary
- Annex B. Work Flow Analysis Models (optional)
- Annex C. Information flow diagrams (optional)
- Annex D. System Data Flow Diagrams
- Annex E. Data dictionary
- Annex F Forms and Reports
- Annex G. To-be-determined List

**1. Scope.** This section should be divided into the following sections.

1.1) **Identification.** This section shall contain a full identification of the system to which this document applies, including, as applicable, identification number(s), title(s), abbreviation(s), version number(s), and release number(s).

1.2) **System Overview.** This section shall briefly state the purpose of the system to which this document applies. It shall describe the general nature of the system; summarize the history of system development, operation, and maintenance; identify the project sponsor, acquirer, user, developer, and maintenance organizations; identify current and planned operating sites; and list other relevant documents. This section shall also describe the context of the product being developed such as new development or an updated release to an existing system.

1.3) **Document Overview.** This section shall summarize the purpose and contents of this document and shall describe any security or privacy protection considerations associated with the document's use.

**2. Referenced Documents.** This section shall list the number, title, revision, date, and source of all documents referenced in this specification.

## **3. System Description .**

**3.1 System Objectives.** Describe the major business objectives of the system. These objectives could be any important business benefit such as compliance with Federal or State

## System Requirements Specification Description

mandates, increased revenue, improved productivity, improved maintainability of an existing system, etc.

**3.2 Functional Summary.** Summarize the high-level functions the product must perform. Note that the details will be provided in Section 4. Organize the functions to make them easy to understand for non-technical readers. It may be helpful to include a picture such as a top-level activity hierarchy and data flow diagram.

**3.3 User Classes and Characteristics .** Identify various user classes for this system and describe their pertinent characteristics. If available, provide an estimate for the expected number of users and skill levels. Some requirements might pertain only to certain user classes. Distinguish the most important user classes for this system from those whom it is less critical to satisfy.

**3.4 Workload Characteristics .** Summarize the estimate for expected workload such as number of transactions and number of cases per week, month, and year, estimated number of new cases established per week, month or year, etc.

**3.5 Operating Environment.** Depending upon the nature of the system, the computer resources covered in these sections may constitute the environment of the system (as for a software system) or components of the system (as for a hardware-software system).

**3.5.1. Computer Hardware Requirements.** This section shall specify the requirements, if any, regarding computer hardware that is required to be used by, or incorporated into, the system. The requirements shall include, as applicable, number of each type of equipment, type, size, capacity, and other required characteristics of processors, memory, input/output devices, auxiliary storage, communications/network equipment, and other required equipment.

This section shall identify any resource utilization restrictions for the computer hardware that must be used. For example, if the system must use an existing mainframe and share it with another system, this section would define restrictions such as maximum allowable use of processor capacity, memory capacity, input/output device capacity, auxiliary storage device capacity, and communications/network equipment capacity. The requirements (stated, for example, as percentages of the capacity of each computer hardware resource) shall include the conditions, if any, under which the resource utilization is to be measured.

**3.5.2. Computer Software Requirements .** This section shall specify the requirements, if any, regarding computer software that is required to be used by, or incorporated into, the system. Examples include operating systems, database management systems, communications/ network software, office applications, utility software, input and equipment simulators, and test software. The correct nomenclature, version, and documentation references of each such item of software shall be provided.

**3.5.3. Computer Communications Requirements.** This section shall specify the additional requirements, if any, concerning the computer communications that are required to be used by, or incorporated into, the system. Examples include geographic locations to be linked; configuration and network topology; transmission techniques; data transfer rates; gateways; required system use times; type and volume of data to be transmitted/received; time boundaries for transmission/reception/response; peak volumes of data; and diagnostic features.

## System Requirements Specification Description

**3.6 Design and construction constraints.** This section shall specify the requirements, if any, that constrain the design and construction of the system. These requirements may be stated as items that must be used or avoided. These requirements may be specified by reference to appropriate commercial or government standards and specifications. Examples include requirements concerning:

- a) The use of a particular development standard. Projects with significant software development are required to follow the guidelines in IEEE 12207, Standard for Information Technology - Software Life Cycle Process. If the supplier does not use this standard, they must show how their processes map to the IEEE 12207 standard.
- b) The avoidance of proprietary components as practical
- c) Use of a particular system architecture or requirements on the architecture, such as required subsystems; use of standard, or existing components; or use of acquirer-furnished property (equipment, information, or software).
- d) Use of particular design or construction standards; use of particular data standards; use of a particular programming language and workmanship requirements. Physical characteristics of the system such as dimensional limits or interchangeability of parts.
- e) Materials that can and cannot be used; requirements on the handling of waste products; limits on the electromagnetic radiation that the system is permitted to generate, etc.
- f) Use of nameplates, part marking, serial and lot number marking, and other identifying markings.
- g) Flexibility and expandability that are required to be provided to support anticipated areas of growth or changes in technology or business requirements.

**3.7 Assumptions and Dependencies.** List any factors that could affect the requirements stated in the SyRS. This could include issues associated with the development or operating environment. For example, there could be pending legislation that could affect the system. Also identify any dependencies between the project and external factors. For example, if the system under development integrates with another system and if the other system is not ready in time for integration testing, the schedule would be delayed.

### 4. Specific Requirements

**4.1. Functional Business Requirements.** This section should be divided into sections to itemize the requirements associated with each business function of the system. A “business function” is defined as a group of related requirements. The word “business function” may be replaced with “capability,” “subject area,” “object,” or other term useful for presenting the requirements.

Each requirement shall be assigned a project-unique identifier to support testing and traceability and shall be stated in such a way that an objective test can be defined for it. The degree of detail to be provided shall be guided by the following rule: include those characteristics of the system that are conditions for system acceptance; defer to design descriptions those characteristics that the acquirer is willing to leave up to the developer. If

## System Requirements Specification Description

there are no requirements in a given section, the section shall so state. If a given requirement fits into more than one section, it may be stated once and referenced from the other sections. Conventions needed to understand the requirements shall be presented or referenced.

4.1.x)(**Business function**). This section shall identify a required business function and itemize the requirements associated with the function. If the function can be more clearly specified by dividing it into constituent functions, the constituent functions shall be specified in sections. The requirements shall specify required behavior of the system and shall include applicable parameters, such as, sequencing, accuracy, capacities (how much/how many), priorities, continuous operation requirements, and allowable deviations based on operating conditions. Function and sequencing descriptions can be supplemented with work flow models and diagrams. If the model or diagrams are sizable, they should be summarized in this section and the details should be put in Annex B. The requirements shall include, as applicable, required behavior under unexpected, unallowed, or “out of bounds” conditions, requirements for error handling, and any provisions to be incorporated into the system to provide continuity of operations in the event of emergencies.

**4.2 System Internal Data Requirements.** This sub section shall specify the requirements imposed on data internal to the system. Included shall be requirements, if any, on databases and data files to be included in the system. If all decisions about internal data are left to the design or to requirements specifications for system components, this fact shall be so stated.

This section describes the data and data flow required for the system. This section may summarize the information flow and provide detailed diagrams Annex C. The data dictionary should be summarized in this section and the detailed data listing should be provided in Annex E. The data dictionary should include characteristics of individual data elements that the system is required to use, such as:

- 1) Names/identifiers
- 2) Data type (alphanumeric, integer, etc.)
- 3) Size and format (such as length and punctuation of a character string)
- 4) Units of measurement (such as meters, dollars, nanoseconds)
- 5) Range or enumeration of possible values (such as 0-99)
- 6) Accuracy (how correct) and precision (number of significant digits)
- 7) Priority, timing, frequency, volume, sequencing, and other constraints, such as whether the data element may be updated and whether business rules apply
- 8) Security and privacy protection constraints
- 9) Sources (setting/sending entities) and recipients (using/receiving entities)

**4.3 Forms and Reports.** This section defines the content and/or format of forms and reports required for the business functions. As a minimum, this section should specify the form/report content. If available, a recommended form/report format should be provided in Annex F. It should be understood that the report format is a guideline, not a requirement. The State should be able to make minor changes in the format within the scope of the contract. This section also identifies the expected frequency and volume for each form/report. This section identifies the triggers and exceptions for form/report generation.

## System Requirements Specification Description

**4.4 System External Interface Requirements.** This section specifies the requirements that ensure the system will connect properly to external components. This section should be divided into subsections to specify the requirements, if any, for the system's external interfaces to include user, hardware, software and communication. This section may reference one or more Interface Requirements Documents (IRDs) or other documents containing these requirements (such as data dictionaries, standards for communication protocols, and standards for user interfaces) in place of stating the information here.

It is important to compare the stated requirements to the interfacing entities capabilities and note any differences in these characteristics (such as different expectations about the size, frequency, or other characteristics of data elements) to ensure the systems are compatible.

**4.4.1. Interface identification and diagrams.** This section shall identify the interfacing entities and illustrate the required external interfaces of the system. The identification of each interface shall include a project-unique identifier and shall designate the interfacing entities (systems, hardware items, software items, users, etc.) by name, number, version, and documentation references, as applicable. The identification shall state which entities have fixed interface characteristics and which are being developed or modified. One or more interface diagrams shall be provided to depict the interfaces.

This section shall define the characteristics for each interface. The following describes all the possible elements of an interface description that will need to be defined for the system before system design. However, the project may not have all this information available at the time of RFP development. If so, this section can be tailored to accommodate the information available. The Statement of Work can include a requirement that the supplier finish the definitions before system design begins.

The requirements shall include the following, as applicable, presented in any suitable order:

- a) Priority that the system is required to assign the interface
- b) Requirements on the type of interface (such as real-time data transfer, storage-and-retrieval of data, etc.) to be implemented
- c) Required characteristics of individual data elements that the system is required to provide, store, send, access, receive, etc., such as:
  - 1) Names/identifiers
  - 2) Data type (alphanumeric, integer, etc.)
  - 3) Size and format (such as length and punctuation of a character string)
  - 4) Units of measurement (such as meters, dollars, nanoseconds)
  - 5) Range or enumeration of possible values (such as 0-99)
  - 6) Accuracy (how correct) and precision (number of significant digits)
  - 7) Priority, timing, frequency, volume, sequencing, and other constraints, such as whether the data element may be updated and whether business rules apply
  - 8) Security and privacy protection constraints
  - 9) Sources (setting/sending entities) and recipients (using/receiving entities)

## System Requirements Specification Description

d) The flow of data that the system is required to provide, store, send, access, receive, etc. This section shall summarize the data flow and the detailed data flow diagrams should be included in Annex D to include:

- 1) Names/identifiers
- 2) Data elements in the flow and their structure (number, order, grouping)
- 3) Sources (setting/sending entities) and recipients (using/receiving entities)
- 5) Relationships among data packages, such as sorting/access characteristics
- 6) Priority, timing, frequency, volume, sequencing, and other constraints, such as whether the data package may be updated and whether business rules apply
- 7) Security and privacy protection constraints

e) Required characteristics of the user interface. If available, this description includes the user interface screens. The screens would be summarized in this section and the detailed layout provided in an Annex.

f) Required characteristics of communication methods that the system is required to use for the interface, such as:

- 1) Project-unique identifier(s)
- 2) Communication links/bands/frequencies/media and their characteristics
- 3) Message formatting Flow control (such as sequence numbering and buffer allocation)
- 5) Data transfer rate, whether periodic/periodic, and interval between transfers
- 6) Routing, addressing, and naming conventions
- 7) Transmission services, including priority and grade
- 8) Safety/security/privacy protection considerations, such as encryption, user authentication, compartmentalization, and auditing

g) Required characteristics of protocols the system is required to use for the interface, such as:

- 1) Project-unique identifier(s)
- 2) Priority/layer of the protocol
- 3) Packeting, including fragmentation and reassembly, routing, and addressing
- 4) Legality checks, error control, and recovery procedures
- 5) Synchronization, including connection establishment, maintenance, termination
- 6) Status, identification, and any other reporting features

h) Other required characteristics, such as physical compatibility of the interfacing entity(ies) (dimensions, tolerances, loads, voltages, plug compatibility, etc.)

**4.5. System internal interface requirements.** This sub section shall specify the requirements, if any, imposed on interfaces internal to the system. If all internal interfaces are left to the design or to requirement specifications for system components, this fact shall be so stated.

**4.6. Other Nonfunctional Requirements.** This section lists any other nonfunctional requirements.

## System Requirements Specification Description

4.6.1 Performance Requirements. This section shall state any performance requirements for various usage scenarios and explain their rationale to help the developers make a suitable design. As a minimum the Project Office should consider the following attributes which are defined by IEEE 610, Standard Glossary of Software Engineering Terminology:

1. Operational Speed to include:
  - a) response time - The elapsed time between the end of an inquiry or command to an interactive computer system and the beginning of the system's response.
  - b) port-to-port time - The elapsed time between the application of a stimulus to an input interface and the appearance of the response at an output interface.
  - c) think time - The elapsed time between the end of a prompt or message generated by an interactive system and the beginning of a human user's response.
  - d) turnaround time - The elapsed time between the submission of a job to a batch processing system and the return of completed output.
2. Capacity to include:
  - a) through put - The amount of work that can be performed by a computer system or component in a given period of time; for example, number of jobs per day.
  - b) memory capacity - The maximum number of items that can be held in a given computer memory; usually measured in words or bytes.
  - c) channel capacity - The maximum amount of information that can be transferred on a given channel per unit of time; usually measured in bits per second or in baud.
  - d) storage capacity - The maximum number of items that can be held in a given storage device; usually measured in words or bytes.
3. Availability. The degree to which a system or component is operational and accessible when required for use. Often expressed as a probability.
4. Back up and recovery times. Time it takes a system, component, file, procedure, or person available to replace or help restore a primary item in the event of a failure or externally caused disaster.

4.6.2 **Safety Requirements**. This section shall specify the system requirements, if any, concerned with preventing or minimizing unintended hazards to personnel, property, and the physical environment. Examples include restricting the use of dangerous materials, handling, and storing; escape provisions from enclosures; and grounding of electrical systems.

4.6.3 **Security and Privacy Protection Requirements**. This sub section shall specify the system requirements, if any, concerned with maintaining security and privacy protection. The requirements shall include, as applicable, the security/privacy protection environment in which the system is required to operate, the type and degree of security or privacy protection to be provided, the security/privacy protection risks the system is required to withstand, required safeguards to reduce those risks, the security/privacy protection policy that is required to be met, the security/privacy protection accountability the system is required to provide, and the criteria that are required to be met for security/privacy protection certification/accreditation.

## System Requirements Specification Description

4.6.4 **System quality attributes.** This section shall specify the requirements, if any, pertaining to system quality attributes. As a minimum, this section should consider the following attributes which are defined in IEEE 610, Standard Glossary of Software Engineering Terminology:

1. **Reliability.** The ability of a system or component to perform its required functions under stated conditions for a specified period of time.
2. **Maintainability.** (1) The ease with which a software system or component can be modified to correct faults, improve performance or other attributes, or adapt to a changed environment. Also: extendibility; flexibility. (2) The ease with which a hardware system or component can be retained in, or restored to, a state in which it can perform its required functions.
3. **Ease of distribution.** The ease with which a system or component can be distributed to users (not defined in IEEE).
4. **Usability.** The ability of the system to meet user requirements; the ease of use.
5. **Trainability.** The ease at which a user can be trained to use the system.
6. **Total ownership cost.** Total cost of staff and other resources to develop, operate, and maintain the system over its entire life cycle.

4.6.5 **Business Rules.** This section shall list any operating principles for the system, such as which roles can perform which functions under specific circumstances. These are not functional requirements in themselves, but they might imply certain functional requirements to enforce the rules.

4.6.6 **Logistics-related Requirements.** This section shall specify the system requirements, if any, concerned with logistics considerations. These considerations may include: system maintenance, software maintenance, supply-system requirements, impact on existing facilities, and impact on existing equipment.

4.7. **Other Requirements.** This section shall specify additional system requirements, if any, not covered in the previous sections. Examples include legal requirements or requirements for system documentation, installation, operation, or maintenance if not already covered in another contractual document. Add any new sections to the SyRS that are pertinent to the system. Otherwise, omit this section.

**5. Precedence and Criticality of Requirements.** This section shall specify, if applicable, the order of precedence, criticality, or assigned weights indicating the relative importance of the requirements in this specification. Examples include identifying those requirements deemed critical to safety, to security, or to privacy protection for purposes of singling them out for special treatment. If all requirements have equal weight, this sub section shall so state.

**6. Qualification provisions.** This section shall define a set of qualification methods and shall specify the method(s) to be used to ensure that each requirement has been met. A table may be used to present this information, or each requirement in Section 4 through 9 may be annotated with the method(s) to be used. Qualification methods may include:

- a) **Demonstration:** The operation of the system, or a part of the system, that relies on observable functional operation not requiring the use of instrumentation, special test equipment, or subsequent analysis.

## System Requirements Specification Description

- b) Test: The operation of the system, or a part of the system, using instrumentation or other special test equipment to collect data for later analysis.
- c) Analysis: The processing of accumulated data obtained from other qualification methods. Examples are reduction, interpolation, or extrapolation of test results.
- d) Inspection: The visual examination of system components, documentation, etc.
- e) Special qualification methods: Any special qualification methods for the system, such as special tools, techniques, procedures, facilities, acceptance limits, use of standard samples, preprocessing or periodic production samples, pilot models, or pilot lots.

**Annexes** . Annexes may be used to provide information published separately for convenience in document maintenance (e.g., charts, classified data). As applicable, each annex shall be referenced in the main body of the document where the data would normally have been provided. Annexes may be bound as separate documents for ease in handling. Annexes shall be lettered alphabetically (A, B, etc.). The annexes may include:

**Annex A – Glossary.** Define all the terms necessary for the reader to understand the SyRS.

**Annex B – Work Flow Analysis Model** . This optional section defines the system work flow model. This model should record the processes required to conduct business. Activities can be organized into functions, defined as high level descriptions of what is done in an organization, and elementary processes, defined as the lowest level, fundamental activities performed. The model should include an activity hierarchy along with a definition of each activity in the model. The model should also identify information that is being impacted by the activity described.

**Annex C.** Information flow diagrams (optional). This optional section includes information flow diagrams showing how the data is transferred among business functions.

**Annex D.** System Data flow diagram. This section defines the data flow associated with the system.

**Annex E.** Data dictionary

Data element 1

- Name
- Representation
- Units/Format
- Precision/accuracy
- Range

Data element 2

- Name
- Representation
- Units/Format
- Precision/accuracy
- Range

.  
. .  
.

## System Requirements Specification Description

Data element N

Name  
Representation  
Units/Format  
Precision/accuracy  
Range

Annex F Forms and Reports. This optional annex defines the format for forms and reports.

Form 1

Content  
Content explanation

Form 2

Content  
Content explanation

.  
.  
.

Form n

Content  
Content explanation

Annex G. To-be-determined List. It is possible that the acquirer does not have enough information at the time of RFP release to define all the requirements in sufficient detail. This annex identifies any system requirements that need to be determined or clarified after RFP release. The list should indicate when the update is expected and if there are any contingencies that may affect that date.

California Home

Thursday, Dec

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG NEW!](#)[SID Policy NEW!](#)[Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.

search

 My CA

## RFP Section 7 - Deliverable List

[Proc Main](#)[RFP Main](#)

The following are Contractor deliverables to consider for a typical system development project based on the IEEE 12207 life cycle.

If a system is developed in multiple builds or phases, planning for each build or phase should be interpreted to include: a) overall planning for the contract, b) detailed planning for the current build or phase, and c) planning for future builds or phases covered under the contract to a level of detail compatible with the information available.

See also the [samples at the bottom of the page](#).

**Initiation Phase.** During the initiation phase, the Contractor will develop project plans and strategies. This phase begins as soon as the contractor starts and typically lasts 30-90 days. The deliverables include:

- ✍ Project Management Plan
- ✍ Staffing Plan
  - ✍ May be addressed in Project Mgmt Plan
- ✍ System Development Plan
- ✍ Design/Coding Standards Guide
  - ✍ Optional, may be addressed in System Development Plan
- ✍ Communication Plan
  - ✍ May be addressed in Project Mgmt Plan for small to medium sized projects
- ✍ Configuration Management Plan
  - ✍ May be addressed in Project Mgmt Plan for small projects
- ✍ Risk Management Plan
  - ✍ May be addressed in Project Mgmt Plan for small to medium sized projects
- ✍ Quality Assurance Plan (includes Test and Evaluation Strategy)
- ✍ Documentation Plan
  - ✍ May be addressed in Quality Assurance Plan
- ✍ Sub-contract Management Plan (as applicable)
- ✍ Implementation Plan (for State-wide rollout)
- ✍ Transition Plan (transition to M&O and/or transition from legacy system to new system)
- ✍ Transfer Plan (transfer of operations to a new contractor at end of contract period and/or from an existing legacy provider)

**Project Management.** Project Management is performed throughout the system life cycle. The deliverables are for project tracking and status reporting to include:

- ✍ Monthly Project Mgt and Risk Status Report
- ✍ Master Workplan with updates
- ✍ Weekly Status Meeting with work plans and action items
- ✍ Annual Strategic Planning Report (to help project office estimate next year's costs)

- ✧ Corrective Action Plan (CAP)/Get Well Plan (as required)

**System Requirements Analysis.** The developer shall define and record the requirements to be met by the system and the methods to be used to ensure that each requirement has been met. The Contractor may develop the system in distinct, testable components. In that case, they may produce separate deliverables for each configurable item (CI). The deliverables include:

- ✧ Updated System Requirements Specification (SyRS)
- ✧ Interface Requirements Specification (IRS) (as applicable)
- ✧ Capacity and Performance Plan(s)
- ✧ System Requirements Risk Assessment
- ✧ Logical Data Model (optional)

**Implementation and Delivery Requirements Analysis.** The developer shall define requirements for implementing and delivering the system to the end users. The deliverables include:

- ✧ Implementation Plan (updated)
- ✧ Site Preparation Plan
- ✧ Equipment Inventory Report
- ✧ Equipment Delivery and Installation Plan
- ✧ Interface Management Plan, if appropriate
- ✧ Change Leadership Plan, if appropriate
- ✧ Business Process Re-engineering Plan, if appropriate
- ✧ County Readiness Guide
- ✧ County Implementation Guide
- ✧ Support Services Plans (Training, Operations Support, Maintenance, Help Desk, etc.)

**System Design Phase.** The Contractor shall define and record system-wide design decisions (that is, decisions about the system's behavioral design and other decisions affecting the selection and design of system components). The Contractor shall also define and record the architectural design of the system (identifying the components of the system, their interfaces, and a concept of execution among them) and the traceability between the system components and system requirements. The results shall include be documented in System Architectural Design Description and Interface Design Description. The Contractor shall also define methods to integrate and test the system design. The deliverables of this phase include:

- ✧ System Architectural Design Description (SADD)
- ✧ System Interface Design Description (SIDD)
- ✧ Integration Management Plan
- ✧ Joint Application Design (JAD) session(s) agenda and minutes (as applicable)
- ✧ Preliminary System Test Plan
- ✧ Capacity and Performance Study
- ✧ System Design Risk Assessment
- ✧ Joint System Design Review agenda, material, and minutes

**Software Requirements Analysis Phase.** The developer shall define and record the software requirements to be met by the software application, the methods to be used to ensure that each requirement has been met, and the traceability between the application requirements and system requirements. The Contractor may develop the software in distinct, testable components. In that case, they may produce separate deliverable for

each software item.

- ✗ Software Requirements Specification (SRS)
- ✗ Software Interface Requirements Specification (as applicable)
- ✗ Database Requirements Specification (as applicable)
- ✗ Preliminary Data Conversion Plan (optional)
- ✗ Software Requirements Risk Assessment
- ✗ Joint System Design Review agenda, material, and minutes
- ✗ Interim Analysis Work Products. The project office should receive and evaluate work products that lead to the development of the requirements specifications. The objective is to be able to evaluate the Contractor and give them feedback at small intervals rather than waiting to the end of the phase and having to review and provide feedback on one large deliverable. These products will depend on the Contractor's development methodology defined in their proposal. These products may include:
  - o Use Cases
  - o Business Context Model
  - o Business Process Model
  - o Data Flow Diagrams (high-level)
  - o Screen/Report Layouts
  - o Screen Navigation Maps
  - o Logical Data Model
  - o Physical Data Models
  - o Reverse Engineering Analysis (when upgrading legacy systems)
  - o Screen/Report prototypes

**Software Preliminary Design Phase.** The Contractor shall define and record software design decisions, the preliminary software design of the system, and the traceability between the system components and system requirements. The Contractor shall also define software test and implementation methods. The deliverables include:

- ✗ Preliminary Software Design Description (SDD)
- ✗ Preliminary Software Interface Design Description (IDD)
- ✗ Preliminary Database Design Description (DDD or DBDD)
- ✗ Preliminary System Implementation Plan
- ✗ Preliminary Software Test Plan (STP)
- ✗ Software Design Risk Assessment
- ✗ Preliminary Software Design Review agenda, material, and minutes
- ✗ Interim Work Products This depends on Contractor development methodology but may include:
  - o Joint Application Design (JAD) session(s) agenda and minutes
  - o Data Flow diagrams
  - o Screen/Report Layouts
  - o Screen Navigation Maps
  - o Logical Data Model
  - o Physical Data Models
  - o Business Rules
  - o Database Schema
  - o Physical Data Dictionary

**Software Detailed Design Phase.** The Contractor shall define and record software design decisions, the software design of the system, and the traceability between the system components and system requirements. The Contractor shall define the methods to test and implement the software. The Contractor shall also provide user manuals and

training plans. The deliverables include:

- ✧ Software Design Description (SDD)
- ✧ Software Interface Design Description (IDD)
- ✧ Database Design Description (DDD or DBDD)
- ✧ System Architecture Design Description (SADD)
- ✧ System Architecture Interface Design Description (SAIDD)
- ✧ System Architecture Acquisition Plan
- ✧ System Test Plan (STP)
- ✧ System Implementation Workplan
- ✧ Data Conversion Plan Workplan (as applicable)
- ✧ Design Risk Assessment
- ✧ Preliminary User's Manual
- ✧ Preliminary System Administrator's Manual
- ✧ Detailed Design Review agenda, material, and minutes
- ✧ Interim Work Products. This depends on Contractor development methodology but may include:
  - Joint Application Design (JAD) session(s) agenda and minutes
  - Data Flow diagrams
  - Screen/Report Layouts
  - Screen Navigation Maps
  - Logical Data Model
  - Physical Data Models
  - Business Rules
  - Database Schema
  - Physical Data Dictionary

**Design Implementation/Code and Construction Phase.** The Contractor shall perform software coding, implementation and unit testing.

- ✧ Source Code and Software Development Files
- ✧ Joint Code Review agenda, material, and minutes
- ✧ Software Test Descriptions (test procedures)
- ✧ Software Integration Plan
- ✧ Prototype System Test Report
- ✧ Completed Source Modules
- ✧ Unit Test Report
- ✧ System Risk Assessment
- ✧ Integration Test Readiness Review agenda, material, and minutes

**Integrated Software Test** (in test environment).

- ✧ Integration System Test Sign Off
- ✧ Training Curriculum
- ✧ Joint System Test Readiness Review agenda, material, and minutes

**System Integration.**

- ✧ System Integration Test Report
  - ✧ May include test results, test data, test scripts, etc.
- ✧ Deficiency Reports from System Integration Test

- ✧ Software Version Description
- ✧ Hardware Bill of Materials
- ✧ System User's Manual
- ✧ System Operator's Manual
- ✧ System/Software Maintenance Manual
- ✧ Help Desk Procedures
- ✧ Updated System Architectural design (SADD) and Software Design Descriptions (SDD)
- ✧ System Integration Test Plan
  - ✧ May include Stress and Performance Tests
- ✧ System Qualification Test Plan
- ✧ System Integration Test Sign Off
- ✧ Training Course Lesson Plans and Materials
- ✧ Pilot Evaluation Plan, if appropriate
- ✧ Joint Qualification Test Readiness Review agenda, material, and minutes

**Qualification Test with Pilot.** The Contractor shall assist in conducting qualification testing under pilot operation of the system at a user facility. The deliverables include:

- ✧ Deficiency Reports
- ✧ Capacity and Performance Report for Qualification Testing
- ✧ Qualification Test Report
  - ✧ May include test results, test data, test scripts, etc.
  - ✧ Should include Stress and Performance Tests

**System Installation and Acceptance Test.** The Contractor shall install the system for the end-users. This typically involves a state-wide rollout. The Contractor shall test and collect metrics for the system as it is rolled out. Once implementation is complete, the Contractor shall conduct a system acceptance/stress test under normal system operation as well as peak loads.

- ✧ Detailed Implementation Work plan (weekly)
- ✧ Delivered and installed system hardware and COTS
- ✧ Installed Application Software
- ✧ Initialized Databases
- ✧ Converted/Loaded Data (as applicable)
- ✧ Help Desk software and hardware
- ✧ Site Installation Inspection Report
- ✧ Backup and Recovery Plan and Procedures
- ✧ Disaster/Emergency Preparedness Plan, if appropriate
- ✧ User and Administrator Training
- ✧ User Outreach Newsletters and Bulletins
- ✧ Final Service Level Agreement (SLA)
- ✧ System Operations and Maintenance Training
- ✧ System Acceptance Test Deficiency Reports
- ✧ Support preparation of Acceptance Test Report (prepared by acquirer)
  - ✧ May include test results, test data, test scripts, etc.
  - ✧ Includes Stress and Performance Tests, as appropriate

**System Initial Operation.** The Contractor shall continue to track deficiencies during an initial operation period. The Contractor will correct deficiencies and at the end of that period, the Contractor will release a final version of the application. The Contractor shall

perform regression testing before the final release. The Contractor shall update and deliver the related system documentation.

- ✘ County Readiness Determination/Approval Report
- ✘ Initial Operation Assessment Report
- ✘ Initial Operation Deficiency Reports
- ✘ Pilot Evaluation Report
- ✘ Regression Test Plan
- ✘ Software Source Code
- ✘ Software Version Description Document
- ✘ Hardware Bill of Materials
- ✘ Capacity and Performance Report for Initial Operation
- ✘ System Training
- ✘ System User's Manual
- ✘ System Operator's Manual
- ✘ System Design Description and Software Design Description
- ✘ System Initial Operation Sign off

**Transition to Maintenance and Operation (M&O).** The Contractor shall prepare the system and documentation to transition the system from development to maintenance and operation.

- ✘ Transition Workplan
- ✘ Operation Plan
- ✘ Maintenance Plan
- ✘ Configuration Management Plan, updated
  - ✘ Change Management Procedures
- ✘ System Management Plan
- ✘ Move, Add, Change (MAC) Plan, if appropriate
- ✘ Problem Management Plan
- ✘ Transfer Plan, updated (transfer of operations to a new contractor at end of contract period)
- ✘ Technology Refresh Plan/Schedule

### **Samples:**

- ✘ [OSHPD List of Deliverables](#) (MS Word)

California Home

Thursday, Dec

[HHSDC Home](#)[BP Home Page](#)[The MSC](#)[CMM](#)[POST Enterprise](#)[The Project Office](#)[Life Cycle Processes](#)[Search BP](#)[HHSDC Links](#)[Resources Library](#)[QAWG NEW!](#)[SID Policy NEW!](#)[Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.

search

 My CA

## RFP Section 8 - Cost Instructions

[Proc Main](#)[RFP Main](#)

This section of the RFP provides the bidders with specific instructions for completing the cost proposal section of the RFP. Refer to the [SAM](#) (DGS link) Section 5221 and DGS representative for additional guidance.

The subsections typically include:

- ⌘ **Introduction to the Cost Section** - Provides basic instructions for completing the cost forms, and describes how the project will evaluate the cost proposals (i.e., lowest cost, best value, etc.). This should include the evaluation period for the costs.

All associated costs must be described including:

- ⌘ Hardware and Software
- ⌘ Contractor and State Personnel
- ⌘ Facilities, Setup and Deliveries
- ⌘ Training
- ⌘ Program, File and Data Conversion
- ⌘ Purchase Price, Options, Credits, etc.

- ⌘ **Cost Definitions** - Defines the types of costs the RFP requests. The following are the typical categories:

- ⌘ Continuing (Recurring) Costs
- ⌘ One-Time (Non-Recurring) Costs
- ⌘ Cost Adjustments

- ⌘ **Cost Assumptions** - Describes any known assumptions that the bidder should consider in estimating their costs. The bidder should describe any additional assumptions in their proposal and clearly indicate the rationale for the assumptions. This section is not part of the DGS model, but is recommended by SID to ensure that the costs across all proposals were derived in a similar manner (to compare apples-to-apples).



- [HHSDC Home](#)
- [BP Home Page](#)
- [The MSC](#)
- [CMM](#)
- [POST Enterprise](#)
- [The Project Office](#)
- [Life Cycle Processes](#)
- [Search BP](#)
- [HHSDC Links](#)
- [Resources Library](#)
- [QAWG \*\*NEW!\*\*](#)
- [SID Policy \*\*NEW!\*\*](#)
- [Contact Us](#)



The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.



My CA

## RFP Section 9 - Proposal and Bid Format

[Proc Main](#) [RFP Main](#)

This section should describe the format of the proposals that are submitted. It should describe any specific forms, the number of copies, the arrangement of the proposal documents, and any other specific instructions which must be adhered to. Refer to the **SAM** (DGS link) Section 5221 and the DGS representative.



- [HHSDC Home](#)
- [BP Home Page](#)
- [The MSC](#)
- [CMM](#)
- [POST Enterprise](#)
- [The Project Office](#)
- [Life Cycle Processes](#)
- [Search BP](#)
- [HHSDC Links](#)
- [Resources Library](#)
- [QAWG NEW!](#)
- [SID Policy NEW!](#)
- [Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.

 

My CA

## RFP Section 10 - Evaluations

[Proc Main](#)

[RFP Main](#)

This section describes how the bidder proposals will be evaluated and selected. The project should discuss how the various sections will be evaluated, including how evaluation points will be assigned, if certain sections are weighted, and the maximum points available. Evaluations should be based on objective criteria as much as possible. The information in this section should match the information contained in the [Proposal Evaluation Plan](#).





- [HHSDC Home](#)
- [BP Home Page](#)
- [The MSC](#)
- [CMM](#)
- [POST Enterprise](#)
- [The Project Office](#)
- [Life Cycle Processes](#)
- [Search BP](#)
- [HHSDC Links](#)
- [Resources Library](#)
- [QAWG NEW!](#)
- [SID Policy NEW!](#)
- [Contact Us](#)



The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.



My CA

## Proposal Evaluation Plan

[Proc Main](#)

### Description:

The Proposal Evaluation Plan explains the Evaluation Team organization and how the proposals will be received, analyzed, and scored to select the "Best Value" bidder. The "Best Value" is the proposal that best meets the State's needs overall, when cost, mandatory requirements, and scorable elements are considered.

The key elements of the evaluation are usually cost, response to technical requirements, and proof of successful past performance. The proposed staffing should also be reviewed to identify any current or former state employees that are being proposed. If such staff are being proposed, it is critical to perform a thorough review of their resume to ensure that applicable statutes are not being violated. Consult Legal staff if there are any questions or concerns, and any decisions or concerns should be documented in the procurement evaluation materials.

See also the [Consultant Acquisition page](#) for additional information about evaluating contractors and staff.

### References:

- ⌘ [California Acquisition Manual \(CAM\)](#) (DGS link)
  - ⌘ Section 3.5.3, Evaluating Solicitation Responses
  - ⌘ Section 3.6.1 Contract File Documentation

### Outline:

- ⌘ [Evaluation Plan Outline](#) (MS Word)

### Samples and Supporting Materials:

- ⌘ [CCSA Evaluation Plan \(1999\)](#) (MS Word)
- ⌘ [EBT Evaluation Manual \(1999\)](#) (MS Word)
  - ⌘ [EBT Project Management Plan Score sheet](#) (MS Word)
  - ⌘ [EBT Project Management Plan Scoring Summary Report](#) (MS Word)
  - ⌘ [EBT Capacity Plan Score sheet](#) (MS Word)
  - ⌘ [EBT Capacity Plan Scoring Summary Report](#) (MS Word)
  - ⌘ [EBT Implementation Plan Score sheet](#) (MS Word)
  - ⌘ [EBT Implementation Manager Interview Summary Report](#) (MS Word)
- ⌘ [EDD Evaluation Procedures](#) (MS Word)
- ⌘ [CWS/CMS M&O Re-Bid Evaluation Handbook \(2000\)](#) (pdf)
- ⌘ [CalWIN Evaluation Handbook](#) (MS Word)
  - ⌘ [CalWIN Criteria - General Feasibility](#) (MS Word)
  - ⌘ [CalWIN Criteria - Corporate Background and Experience](#) (MS Word)
  - ⌘ [CalWIN Criteria - Interim Maintenance](#) (MS Word)

- ⚡ [CalWIN Criteria - Project Staffing](#) (MS Word)
- ⚡ [CalWIN Criteria - Technical Criteria](#) (MS Word)
- ⚡ [CalWIN Criteria - Understanding of Project](#) (MS Word)
- ⚡ [CalWIN Criteria - Detailed Approach to Project Task and Work Plan](#) (MS Word)
- ⚡ [CalWIN Criteria - Solution to CalWIN Requirements](#) (MS Word)



- [HHSDC Home](#)
- [BP Home Page](#)
- [The MSC](#)
- [CMM](#)
- [POST Enterprise](#)
- [The Project Office](#)
- [Life Cycle Processes](#)
- [Search BP](#)
- [HHSDC Links](#)
- [Resources Library](#)
- [QAWG NEW!](#)
- [SID Policy NEW!](#)
- [Contact Us](#)

The procurement phase includes all the activities necessary for the project office to develop a Request For Proposal (RFP) / Invitation To Partner (ITP), select a vendor, and award a contract to a prime contractor who can develop the system in accordance with the system requirement and master project plan.



My CA

## RFP Section 11 - Demonstrations

[Proc Main](#)   [RFP Main](#)

This section is used to require the bidder to demonstrate their capabilities to be responsive. Often this is used to view and evaluate a similar system in another state or county to determine effectiveness of the implementation and how well the system performs. This is especially useful when dealing with a Commercial-Off-The-Shelf (COTS) or Modified-Off-The-Shelf (MOTS) product.

The section should describe what the demonstration's purpose is, what the criteria for demonstration are, and where the demonstration can be held. If the demonstration will be held out-of-state, the bidder may be asked to handle some of the travel costs (due to state restrictions).



# REQUEST FOR PROPOSAL OUTLINE

*Use the level of detail as shown in this model. Additional sections may be used as appropriate.*

1. INTRODUCTION AND OVERVIEW OF REQUIREMENTS
  - 1.1. PURPOSE OF THIS REQUEST FOR PROPOSALS
  - 1.2. SCOPE OF THE RFP AND VENDOR ADMONISHMENT
  - 1.3. STRUCTURE OF THE RFP
  - 1.4. AVAILABILITY
  - 1.5. DEPARTMENT OFFICIAL
  - 1.6. DEPARTMENT CONTACT
  - 1.7. PROJECT RESPONSIBILITY
    - 1.7.1. Project Organization
    - 1.7.2. Project Oversight
  - 1.8. KEY ACTION DATES
2. RULES GOVERNING COMPETITION
  - 2.1. IDENTIFICATION AND CLASSIFICATION OF RFP REQUIREMENTS
    - 2.1.1. Requirements
    - 2.1.2. Desirable Items
    - 2.1.3. RFP Documents
  - 2.2. BIDDING PROCESS
    - 2.2.1. General
    - 2.2.2. Procurement Schedule
    - 2.2.3. Acknowledgement of Receipt
    - 2.2.4. Notice of Intent to Propose
    - 2.2.5. Questions Regarding the RFP
    - 2.2.6. Bidder's Conference
    - 2.2.7. Interpretations and Addenda
    - 2.2.8. Draft Proposal
    - 2.2.9. Confidential Discussions and Amended Proposals
    - 2.2.10. Discussion Memorandum
    - 2.2.11. Final Proposal
    - 2.2.12. Submission of Proposals and Bids
    - 2.2.13. Withdraw and Resubmission/Modification of Proposals
    - 2.2.14. Rejection of Bids
    - 2.2.15. Evaluation and Selection
    - 2.2.16. Demonstration
    - 2.2.17. Errors in Final Proposal
    - 2.2.18. Flawed Final Proposals
    - 2.2.19. Bidder Selection
    - 2.2.20. Agreement Negotiations
    - 2.2.21. Award of Contract
    - 2.2.22. Debriefing
  - 2.3. RFP CONDITIONS
    - 2.3.1. General
    - 2.3.2. Request for Proposal Documents

# REQUEST FOR PROPOSAL OUTLINE

- 2.3.3. Incurring Costs
- 2.3.4. Bonds
- 2.3.5. Discounts
- 2.3.6. Restrictions on Lobbying
- 2.3.7. Conflict of Interest
- 2.3.8. Exemption to the RFP
- 2.3.9. Rights to Pertinent Materials
- 2.3.10. Modifications to Scope of Work
- 2.3.11. Joint Proposals
- 2.3.12. Confidentiality
- 2.3.13. Right of State to Reject Proposals
- 2.3.14. False and misleading statements
- 2.3.15. Non-Conforming Proposals
- 2.3.16. Signature of Proposals
- 2.3.17. Air or Water Pollution Violations
- 2.3.18. Fair Employment and Housing Commission Regulations
- 2.3.19. Acknowledgement of Understanding of Terms
- 2.4. CONTRACTUAL INFORMATION
  - 2.4.1. Contract Form
  - 2.4.2. Specific Terms and Conditions
  - 2.4.3. Approval of Proposed Contract
  - 2.4.4. Term of Contract
- 2.5. OTHER INFORMATION
  - 2.5.1. Protests
  - 2.5.2. Procurement Library
  - 2.5.3. News Releases
  - 2.5.4. Disposition of Proposals and Bids
  - 2.5.5. Contacts for Information
  - 2.5.6. Exhibit II–A COMPETITIVE BIDDING AND BID RESPONSIVENESS
- 3. CURRENT SYSTEM OR PROBLEM
- 4. PROPOSED SYSTEM
- 5. ADMINISTRATIVE REQUIREMENTS *(This section describes the project requirements for system development, operation, and maintenance based on IEEE 12207. The requirements include expected processes, milestones, and deliverables. The deliverables must be consistent with the deliverable list in Section 7.0. The Bidder will respond to these requirements by submitting a Project Management Plan based on IEEE 1058 as described in Section. This section along with the Contractor's responses will be used to develop the Contract Statement of Work)*
  - 5.1. INTRODUCTION
    - 5.1.1. PURPOSE OF ADMINISTRATIVE REQUIREMENTS
    - 5.1.2. PROJECT CONSTRAINTS (if applicable)
    - 5.1.3. PROJECT ASSUMPTIONS AND DEPENDENCIES (if applicable)
  - 5.2. PAST PERFORMANCE
  - 5.3. PROJECT ORGANIZATION

# REQUEST FOR PROPOSAL OUTLINE

- 5.3.1. External interfaces
- 5.3.2. Internal structure
- 5.3.3. Roles and responsibilities

## 5.4. PROJECT MANAGEMENT REQUIREMENTS

### 5.4.1 Project Planning Processes

- 5.4.1.1 Staffing plan
- 5.4.1.2 Work plan
  - 5.4.1.2.1. Work activities
  - 5.4.1.2.2. Schedule allocation

### 5.4.1. Control Processes

- 5.4.1.1. Requirements control
- 5.4.1.2. Schedule control plan
- 5.4.1.3. Budget control
- 5.4.1.4. Quality control
- 5.4.1.5. Reporting
- 5.4.1.6. Metrics collection
- 5.4.1.7. Risk management
- 5.4.1.8. Project closeout

## 5.5. SUPPORTING PROCESSES

### 5.5.1. Configuration Management

- 5.5.1.1. Requirements Management
- 5.5.1.2. System Configuration Management
- 5.5.1.3. Software Configuration Management
- 5.5.1.4. Document Configuration Management

### 5.5.2. Quality Management

- 5.5.2.1. Product Assurance
  - 5.5.2.1.1. Verification and Validation
  - 5.5.2.1.2. Joint Reviews
- 5.5.2.2. Process Assurance
  - 5.5.2.2.1. Audits
- 5.5.2.3. Problem Resolution Process

### 5.5.3. Communication Management

- 5.5.4. Reviews and Audits
- 5.5.5. Problem Resolution
- 5.5.6. Subcontractor Management

## 5.6. TECHNICAL PROCESSES

- 5.6.1. SYSTEM DEVELOPMENT REQUIREMENTS *(Note that these are project requirements for processes and deliverables required in developing the system. The system's functional and performance requirements are in the Section 6, Technical Requirements)*

- 5.6.1.1. System Development Planning
- 5.6.1.2. Development Infrastructure
- 5.6.1.3. System Requirement Analysis
- 5.6.1.4. System Architectural Design
- 5.6.1.5. Software Requirements Analysis

# REQUEST FOR PROPOSAL OUTLINE

- 5.6.1.6. Software Architectural Design
- 5.6.1.7. Software Detailed Design
- 5.6.1.8. Software Coding and Unit Testing
- 5.6.1.9. Software Integration
- 5.6.1.10. Software Qualification Testing
- 5.6.1.11. System Integration
- 5.6.1.12. System Qualification Testing
- 5.6.1.13. Pilot Operation
- 5.6.1.14. System Acceptance Testing
- 5.6.2. SYSTEM IMPLEMENTATION
  - 5.6.2.1. Implementation Planning
  - 5.6.2.2. Implementation Communication
  - 5.6.2.3. Training
  - 5.6.2.4. Site Preparation
  - 5.6.2.5. Data Conversion
  - 5.6.2.6. System Initial Operating Period
- 5.6.3. OPERATIONS REQUIREMENTS (if applicable)
  - 5.6.3.1. Operations Planning
  - 5.6.3.2. Operational Support
  - 5.6.3.3. System Administration
    - 5.6.3.3.1. Performance monitoring
    - 5.6.3.3.2. Backup and Recovery
  - 5.6.3.4. Help Desk
- 5.6.4. MAINTENANCE AND ENHANCEMENT REQUIREMENTS (if applicable)
  - 5.6.4.1. Maintenance Planning
  - 5.6.4.2. Problem identification
  - 5.6.4.3. Modification analysis
  - 5.6.4.4. Modification implementation in test environment
  - 5.6.4.5. Maintenance review/acceptance testing
  - 5.6.4.6. State-wide implementation and verification
- 5.7. SYSTEM TEST AND ACCEPTANCE
  - 5.7.1. Test Planning
  - 5.7.2. Test facilities and tools
  - 5.7.3. Evaluation and Reporting
  - 5.7.4. Problem Resolution
- 6. TECHNICAL REQUIREMENTS

The Contractor shall develop a system that meets the requirements stated in the System Requirements Specification (SyRS) included as Appendix B.
- 7. DELIVERABLE LIST AND ACCEPTANCE PROCESS
- 8. COST INSTRUCTIONS
  - 8.1. INTRODUCTION
  - 8.2. COST DEFINITIONS
    - 8.2.1. Continuing Costs
    - 8.2.2. One-Time Costs

# REQUEST FOR PROPOSAL OUTLINE

- 8.2.3. Cost Adjustments
- 8.3. EFFORT AND COST ESTIMATION METHODS
- 9. PROPOSAL AND BID FORMAT
  - 9.1. INTRODUCTION
  - 9.2. FINAL BID FORMAT AND CONTENT
    - 9.2.1. Cover letter
    - 9.2.2. Volume I—Response to Requirements
      - 9.2.2.1. Past Performance
      - 9.2.2.2. Project Management Plan
      - 9.2.2.3. Proposed System
    - 9.2.3. Volume II—Cost Data and Completed Contract
    - 9.2.4. Volume III—Literature
  - 9.3. CONCEPTUAL PROPOSAL CONTENT
  - 9.4. DETAILED TECHNICAL PROPOSAL FORMAT AND CONTENT
  - 9.5. DRAFT BID FORMAT AND CONTENT
- 10. EVALUATION
  - 10.1. RECEIPT
  - 10.2. EVALUATION OF CONCEPTUAL PROPOSALS
  - 10.3. EVALUATION OF DETAILED TECHNICAL PROPOSALS
  - 10.4. EVALUATION OF DRAFT BIDS
  - 10.5. EVALUATION OF FINAL BIDS
- 11. DEMONSTRATIONS
  - 11.1. GENERAL
  - 11.2. PREPARATION
  - 11.3. REQUIREMENTS

*Use the appropriate model contract(s) and include the corresponding instructions for completing the contract in final form.*

APPENDIXES: A - MODEL CONTRACT (with Statement of Work)  
B – SYSTEM REQUIREMENTS SPECIFICATION

Appendix B – System Requirements Specification

- 1) Scope
  - a) Identification
  - b) System Overview
  - c) Document Overview
- 2) Reference Documents
- 3) System Description
  - a) Product Perspective
  - b) Product Functions
  - c) User Classes and Characteristics
  - d) Workload Characteristics
  - e) Operating Environment
    - i) Hardware
    - ii) Software

# REQUEST FOR PROPOSAL OUTLINE

- iii) Communications
- f) Design and Implementation Constraints
- g) Assumptions and Dependencies
- 4) Specific Requirements
  - a) Functional Business Requirements
    - i) Business Function X
      - (1) Description and Priority
      - (2) Stimulus/Response Sequences
      - (3) Functional Requirements
    - b) System Internal Data Requirements
      - i) Information flows
      - ii) Data construct specifications
      - iii) Data dictionary
    - c) Forms and Reports
      - i) Form x
        - (1) Description
        - (2) Source
        - (3) Destination
        - (4) Conditions and Exceptions
    - d) External Interface Requirements
      - i) User interfaces
      - ii) Hardware Interfaces
      - iii) Software interfaces
      - iv) Communications interfaces
    - e) Internal Interface Requirements
    - f) Other Requirements
      - i) Performance Requirements
      - ii) Safety Requirements
      - iii) Security Requirements
      - iv) System Quality Attributes
      - v) Business Rules
      - vi) Logistics-related Requirements
  - 5) Precedence and Criticality of Requirements
  - 6) Qualification Provisions
    - a) Annex A: Glossary
    - b) Annex B. Work Flow Analysis Models (optional)
    - c) Annex C. Information flow diagrams (optional)
    - d) Annex D. System Data Flow Diagrams
    - e) Annex E. Data Dictionary
    - f) Annex F Forms and Reports
    - g) Annex G. To-be-determined List