



Request for Proposal No. 2011-6339

May 18, 2012

**Information Technology Consultants
Spring-Fed Pool Refresh No. 1**

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

**INFORMATION TECHNOLOGY CONSULTANTS
SPRING-FED POOL REFRESH NO. 1**

REQUEST FOR PROPOSAL NO. 2011-6339

SCHEDULE OF EVENTS

RFP Release Date	May 18, 2012
Deadline to Submit Questions for Bidder's Conference	May 25, 2012, 3:00 p.m., PST
Bidder's Conference (Optional)	June 4, 2012 at 10:00 a.m., PST
Submission of Intent to Participate (Optional)	June 4, 2012., 3:00 p.m., PST
Deadline to Submit Written Technical Questions	June 5, 2012., 3:00 p.m., PST
Post Response to Questions	June 19, 2012
Final Filing Date	July 3, 2012 at 3:00 p.m., PST
Preliminary Review*	July 3, 2012 - July 24, 2012
Evaluation of Proposals*	July 24, 2012 – August 24, 2012
Finalists Selected*	TBD
Post Notice of Intent to Award*	TBD
CalPERS Anticipated Contract Performance Start Date*	TBD

* All dates after the Final Filing Date are tentative and subject to change by issuance of a CalPERS eBusiness Alert.

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
INFORMATION TECHNOLOGY CONSULTANTS SPRING-FED POOL
REFRESH NO. 1

REQUEST FOR PROPOSAL NO. 2011-6339

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
II.	PURPOSE.....	1
III.	RULES OF PROCUREMENT	2
A.	General Provisions	2
B.	Spring-Fed Pool General Information	3
C.	Adding Firms to the IT Consultants Spring-Fed Pool.....	4
D.	Removing Firms to the IT Consultants Spring-Fed Pool	4
E.	Changing IT Consultants Spring-Fed Pool Criteria	4
F.	Termination of the IT Consultants Spring-Fed Pool Criteria	5
G.	Statement of Work and Purchase Order Information	5
H.	Scope of the RFP and Vendor Admonishment	6
IV.	SERVICES TO BE PROVIDED AND MINIMUM QUALIFICATIONS	6
1.0	Project Oversight Services	8
2.0	Project Management Services	19
3.0	Architecture.....	29
4.0	Data Services	35

5.0	Application Development.....	38
6.0	Data Base Administration	45
7.0	Systems Support.....	47
7.1	Data Network.....	47
7.2	Telecommunications	50
7.3	Content Management	53
7.4	Wintel Platform	56
7.5	Unix/Linux Platform.....	59
7.6	Mainframe.....	61
7.7	Data Backup Management	64
7.8	Storage Management	67
7.9	Application Servers	69
7.10	Desktop Services.....	72
8.0	Release Management/Quality Assurance/Configuration Management.....	75
9.0	Technical Writing	78
10.0	Disaster Recovery.....	82
11.0	Management Support Services.....	85
12.0	Business Process Re-engineering.....	92
13.0	IT Security.....	96
14.0	Training Services	99
15.0	Business Transformation/Transition	100
16.0	Specialized IT Support Services for Investment Systems/Business ..	104
17.0	User Experience (UX) Design, Strategy and Research	110
V.	BIDDER'S CONFERENCE (OPTIONAL)	117

VI.	NOTICE OF INTENT TO PARTICIPATE (OPTIONAL)	117
VII.	PROPOSAL REQUIREMENTS	117
A.	Technical Proposal	118
1.	Cover Letter.....	118
2.	Proposal/Proposer Certification Sheet	118
3.	Statement of Qualifications and Minimum Qualifications Certification.....	118
4.	California Taxpayer and Shareholder Protection Act Declaration	118
5.	Darfur Contracting Act Declaration.....	119
6.	Client Reference and Contractor History.....	119
7.	Proposal Questionnaire	120
8.	Disabled Veteran Business Enterprise Contract Participation	120
9.	Subcontractors	120
10.	Required Attachments Certification Checklist.....	120
11.	Joint Venture Submittals.....	121
12.	Preference Programs	121
13.	Disabled Veteran Business Enterprise Program Incentive	122
14.	CalPERS Contract-Related Disclosure Form	123
B.	Fee Proposal	123
VIII.	SUBMISSION OF PROPOSALS	123
IX.	EVALUATION PROCESS	126
A.	Preliminary Review	126
B.	Technical Proposal Evaluation	127
C.	Fee Proposal Evaluation	128
D.	Award of Contract	128

X.	GENERAL INFORMATION	129
A.	eBusiness Alerts	129
B.	Errors and Omissions	129
C.	Questions Regarding the RFP	129
D.	CalPERS Restricted Contact Policy	130
E.	Addenda	130
F.	Clarifications	130
G.	Protest Procedures	131
H.	Other Criteria.....	132
	1. Right to Reject Any or All Proposals	132
	2. Proposer's Costs	132
	3. Review of Proposals Subsequent to Contract Award	132
	4. Subcontracting Subsequent to Contract Award	133
	5. Conflict of Interest	133
	6. Corporate Qualifications To Do Business In California ...	133
	7. Follow-On Contracts	133
	8. Execution of Contract	133
	9. News Releases	134

EXHIBITS

- 1. Sample Statement of Work**
- 2. CalPERS Joint Venture Policy**
- 3. Proposal Evaluation Sheet**
- 4. CalPERS Restricted Contact Policy**
- 5. Proposed Contract**
- 6. Question and Answer Document From Request for Proposal No. 2009-5397**

ATTACHMENTS

- A. Proposal/Proposer Certification Sheet**
- B. Statement of Qualifications and Minimum Qualifications Certification**
- C. California Taxpayer and Shareholder Protection Act Declaration**
- D. Darfur Contracting Act Declaration**
- E. Client Reference and Contractor History**
- F. Proposal Questionnaire**
- G. Disabled Veteran Business Enterprise Contract Participation**
- H. List of Proposed Subcontractors**
- I. Required Attachments Certification Checklist**
- J. Contract-Related Disclosure Form**
- K. Fee Proposal**
- L. Letter of Intent to Participate**

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

INFORMATION TECHNOLOGY CONSULTANTS SPRING-FED POOL

I. INTRODUCTION

The California Public Employees' Retirement System (CalPERS) manages pension and health benefits for more than 1.6 million California public employees, retirees, and their families. It provides benefits for more than 1,134,397 active and inactive members and approximately 492,513 retirees. CalPERS membership is divided approximately in thirds among current and former employees of the state, schools, and participating public agencies.

CalPERS is a defined benefit retirement plan. It provides benefits based on a member's years of service, age, and highest average compensation. In addition, benefits are provided for disability and death, with payments in some cases going to survivors or beneficiaries of eligible members.

CalPERS was established by State law in 1932 to provide retirement benefits for state employees. In 1939, public agency and non-teaching school employees were allowed to participate. In 1962, state law authorized CalPERS to provide health benefits to state employees. The health benefits program was expanded in 1967 to include public agency and school employees. CalPERS began offering long-term care insurance on a not-for-profit basis in 1995.

II. PURPOSE

On January 1, 2011, the Information Technology Services Branch (ITSB) of CalPERS established the Information Technology Consultants "Spring-Fed Pool". CalPERS now seeks to refresh the IT Consultants Spring Fed Pool by soliciting proposals from qualified information technology service providers (herein called Proposers) that can provide varied and specialized services in order to add to the existing pool. The goal of this Request for Proposal (RFP) is to refresh the Spring-Fed Pool of best-value information technology service providers from which CalPERS can draw on an as-needed basis. The 5 year contract period for the pool will end on December 31, 2015.

The overall goal in augmenting the Spring-Fed Pool of information technology consultants is to continue to provide CalPERS with:

- Competitive cost for IT consulting services
- Competitive selection of contractors based on evaluated criteria
- Simplification of procurement for necessary services

- Reduction in delay in meeting needs and/or in completing projects
- Employment of flexible/adaptable/streamlined processes and technology
- Expedition and improvement of services to all CalPERS customers (internal and external)

Note: The IT Spring-Fed Pool is a different procurement method than the CalPERS Vendor Pool. The IT Spring-Fed Pool is used strictly for IT consulting services.

III. RULES OF PROCUREMENT

A. General Provisions

Responses to this RFP will be evaluated based on evidence of past performance (client references) and the Fee Proposal. Successful vendors that pass the Minimum Qualifications and score a minimum of 70 points on the evaluation will be placed into the Spring Fed Pool. Proposers will be rejected from inclusion in the Pool by failing to meet the minimum qualifications, the minimum score requirements or the RFP requirements set forth in this document.

CalPERS has divided the minimum qualifications section into seventeen (17) general business areas – referred to as “service verticals” – where it is anticipated that consulting services will be needed during the term of the contract. The Systems Support vertical requires specialized technical skills and therefore, has been further divided into “sub-verticals”. A listing of the verticals can be found in Section IV, Services to be Provided/Minimum Qualifications.

Proposers may choose to bid on one or more of the service verticals when submitting Proposals. It is not a requirement of this RFP to bid on all of the service verticals nor are Proposers required to bid on all classifications within a given vertical. However, Proposers must be able to supply the consulting services bid upon for the full term of the contract.

Hourly rates proposed in the Fee Proposal will represent the maximum hourly rate that a vendor can charge for those services during the term of the contract. The hourly rates must be calculated according to the methodology in this document. The hourly rates that are proposed are fixed for the duration of the contract. **No Per Diem and/or additional expenses will be paid as a result of this contract.** If the Proposer anticipates that such costs will be incurred by the Proposer, those costs should be factored into the “hourly rate” and the “factored rate” then used when submitting the Fee Proposal. Proposers are allowed a maximum of a five (5) percent Cost Of Living Adjustment (COLA) each fiscal year

(July – June) after Year 3 for all positions. The Proposer must identify the COLA on the Fee Proposal for years four and five. For clarification purposes, please refer to the following chart for the COLA schedule for proposed hourly rates:

HOURLY RATES	EFFECTIVE DATES	
YEAR 1	JANUARY 1, 2011 – JUNE 30, 2012	
YEAR 2	JULY 1, 2012 – JUNE 30, 2013	COLA increase not allowed
YEAR 3	JULY 1, 2013 – JUNE 30, 2014	COLA increase not allowed
YEAR 4	JULY 1, 2014 – JUNE 30, 2015	COLA increase allowed
YEAR 5	JULY 1, 2015 – DECEMBER 31, 2015	COLA increase allowed

B. Spring-Fed Pool General Information

Successful Proposers that pass the Minimum Qualifications and score a minimum of 49 points (out of 70) on the technical evaluation will move on to the fee evaluation. A minimum of 70 points cumulative must be scored in the Technical and Fee Proposal evaluations in order to be awarded a contract. Contracts awarded from this RFP will be in the amount of zero dollars (\$0) and will place the successful Proposers into a Spring-Fed Pool for each service vertical and classification awarded. A copy of the contract (Standard Agreement – STD 213) is included in this document as Exhibit 5. **There will be no negotiations of any terms and conditions.** By responding to this RFP, the Proposer agrees to CalPERS terms and conditions in Exhibit 5.

After evaluation of the RFP, a list will be produced of all verticals with classifications, successful Proposer's name, score and hourly rate listed. This list, along with the information gathered in Attachment F, Proposal Questionnaire, will allow CalPERS to select the most appropriate Proposer for each specific project.

By awarding a contract for participation in this Pool, CalPERS does not make any guarantees as to how many, if any, actual procurements might

be made to any one company. The term of the Pool shall be for five (5) years, ending December 31, 2015.

C. Adding Firms to the IT Consultants Spring-Fed Pool

The purpose of refreshing the IT Consultants Spring-Fed Pool will be solely for the purpose of adding new eligible vendors or to allow vendors with existing contracts in the Pool to apply for additional verticals. The Pool will not be refreshed to allow for adjustments in the proposed cost of services by vendors who have already been awarded a contract as the result of previous proposals. At the discretion of CalPERS, the Pool may be updated as follows:

- On an as needed basis – prospective firms will be notified by CalPERS through public advertisement.
- Proposers must comply with all policies and procedures set forth in the RFP and must respond within the time period stated in the RFP.
- CalPERS will evaluate each Proposal as described in the original RFP and add qualified Proposers to the Pool list.

D. Removing Firms to the IT Consultants Spring-Fed Pool

Vendors may be removed from the Pool and/or SOWs may be terminated as prescribed in Section F. Termination of the proposed contract. (See Exhibit 5). In addition, if the vendor contact information changes and CalPERS is not notified, after a reasonable attempt to contact vendor has passed without success, the vendor may be removed from solicitation distribution lists.

E. Changing IT Consultants Spring-Fed Pool Criteria

CalPERS may change the Pool criteria as follows:

- At the sole discretion of CalPERS, ITSB will notify OSSD of the intent to make any changes deemed necessary. Changes may be required to meet the needs of the business as the business evolves over time. Typically, changes would involve the addition of new service verticals to the Pool.
- When changes are made to the service vertical criteria, CalPERS will determine the criteria that Proposers must meet in order to provide the service. RFP materials will be updated to include the new criteria.
- Vendors existing in the Pool will have equal opportunity to bid on any additions or modifications made to the criteria or requirements

of the RFP. If they choose to bid on existing and/or new verticals, it may result in a new contract. If they choose to not bid on the changes, it will not affect their standing in other verticals of the Pool.

- Interested parties that have registered as a CalPERS eBusiness Partner through the CalPERS website will receive notice when a complete revised RFP packet has been posted to the CalPERS website. Proposers will be required to follow all RFP policies and procedures as contained in the RFP.

F. Termination of the IT Consultants Spring-Fed Pool Criteria

In order to dissolve the Pool, CalPERS must determine that the Pool no longer serves the best interests of CalPERS, its members, and/or its beneficiaries. In the event the Pool is terminated, all vendors currently active in the Pool will be notified.

G. Statement of Work and Purchase Order Information

During the term of the Pool, and when there is a need for services using this Pool of pre-qualified firms, CalPERS will develop a Statement of Work (SOW) to provide a description of the services needed and whether the subsequent Purchase Order will be “time and materials” or “deliverables” based. SOWs and Purchase Orders will be issued consistent with the conditions set forth in Government Code Section 19130(b). At the sole discretion of CalPERS, the SOW will be provided to pre-qualified firms in the Pool via e-mail or a hard copy letter mailed via the United States Postal Service or a combination of both. The firm must provide documentation and/or resumes that certify the key personnel identified for the SOW meet the minimum qualifications for that vertical and classification. When a firm is selected, the consultant(s) retained through this process who will work at the CalPERS headquarters site will be required to sign additional security documents prior to providing any services and a Purchase Order will be generated to finalize the procurement.

CalPERS has the sole discretion to choose which of the following options it will use in the procurement process for each project:

1. In those instances where a range of services is desired and all of the firms in the Pool within a specific classification can provide the service(s), all firms within that classification may be asked to submit a response to the SOW. The response may include the proposed methodologies used to complete the task, specific staff assigned/resumes, and proposed costs. The selection of the firm will be based on the required expertise, the best overall proposed

methodology or solution to the task, and/or the cost. A Purchase Order will formalize the terms and conditions of the services for each project and will be subject to the terms and conditions of the Pool contract.

2. For tasks requiring the services or expertise of a firm that specializes in a particular area, has unique knowledge or a specific solution that other firms may not possess, CalPERS will work directly with that firm to negotiate the best terms. The Purchase Order will formalize the terms and conditions for each project and will be subject to the terms and conditions of the Pool contract.

When the selected vendor invoices CalPERS as a result of the Purchase Order and provision of services, the invoice must include the Purchase Order number, name of the contractor, name of employee(s), a detailed description of the dates worked, the hours worked on those days, and a description of the work performed.

H. Scope of the RFP and Vendor Admonishment

This RFP contains the instructions governing the requirements for submitting the Technical and Fee Proposals. It describes the format in which proposal information is to be submitted and the materials to be included. This RFP also addresses the requirements that Proposers must meet to be eligible for consideration, as well as addressing the responsibility of Proposers for services provided. Proposals must be submitted in the required format and be responsive to all administrative and technical requirements to be eligible for award.

If a Proposer expects to be afforded the benefits of the steps included in this RFP, the Proposer must take the responsibility to:

- Carefully review the contents of this entire RFP.
- If clarification is required, ask appropriate questions within the identified RFP Schedule of Events timeline.
- Make sure that all procedures and requirements of the RFP are accurately followed and appropriately addressed.
- Carefully reread the entire RFP before submitting a proposal.

IV. SERVICES TO BE PROVIDED AND MINIMUM QUALIFICATIONS

The seventeen (17) service verticals and ten (10) sub-verticals for this RFP are as follows:

- 1.0 Project Oversight Services
- 2.0 Project Management Services
- 3.0 Architecture
- 4.0 Data Services
- 5.0 Application Development
- 6.0 Data Base Administration
- 7.0 Systems Support
 - 7.1 Data Network
 - 7.2 Telecommunications
 - 7.3 Content Management
 - 7.4 Wintel Platform
 - 7.5 Unix/Linux Platform
 - 7.6 Mainframe
 - 7.7 Data Backup Management
 - 7.8 Storage Management
 - 7.9 Application Servers
 - 7.10 Desktop Services
- 8.0 Release Management/Quality Assurance/Configuration Management
- 9.0 Technical Writing
- 10.0 Disaster Recovery
- 11.0 Management Support Services
- 12.0 Business Process Re-engineering (BPR)
- 13.0 IT Security
- 14.0 Training Services
- 15.0 Business Transformation/Transition
- 16.0 Specialized IT Support Services for Investment Systems/Business
- 17.0 User Experience (UX) Design, Strategy and Research

Descriptions of the seventeen (17) service verticals follow. Within each service vertical is a listing of the classifications to be bid. Each service vertical will only include those classifications that CalPERS has deemed appropriate. When bidding a service vertical, please read all descriptions carefully. Although the same classification may be used in multiple service verticals, both general and specific minimum requirements may differ. If responding on more than one service vertical, the hourly rate may differ between verticals even in the event the same classification is used in both.

Multi-year projects may require Knowledge Transfer documentation and procedures at the time of the Statement of Work/Purchase Order Process (Exhibit 1, Sample Statement of Work, Knowledge Transfer).

The Minimum Qualifications must be met when submitting responses to a Statement of Work for a project.

1.0 Project Oversight Services

Project oversight is the independent and external monitoring of CalPERS project deliverables. Oversight of projects may generally include tasks associated with Independent Verification and Validation (IV&V) and/or Independent Project Oversight Consultant (IPOC) activities.

IV&V duties will generally include the review of both products and processes, with a particular emphasis on the technical aspects of the products. IV&V oversight will insure that the deliverables of a project have met all requirements and conditions set forth in the project plans.

The IPOC externally monitors the project management efforts of CalPERS. The focus is on process and products from a management, process, and quality perspective; not the in-depth technical reviews associated with IV&V. The IPOC supports CalPERS by providing oversight and project management reviews and assessments on selected life-cycle development methodologies.

Project oversight will employ best practices based on Project Management Institute's PMBOK® Guide, IEEE standards, and/or the Information Technology Infrastructure Library (ITIL).

Specifically, the oversight vendor may perform the following IV&V related activities on behalf of CalPERS:

- Review and evaluate project deliverables for completeness, consistency, accuracy, and measurability. Deliverables may include:
 - Project Planning Documents/Feasibility Study Reports (FSR)
 - Request for Proposals (RFP)
 - Requirements specifications
 - System specifications
 - Design documentation
 - Source code
 - Test plans and results
 - Architecture documentation
 - Interface requirements specifications
 - Interface design specifications
 - User manuals/help guides
 - Operations manuals

- Back-up and recovery plans
 - Business continuity plans
- Review and evaluate the software lifecycle processes according to established best practices.
- Conduct and/or witness system testing, acceptance testing and evaluation of test results.
- Conduct risk assessment.
- Perform estimates of project cost and size.
- Conduct proposed change requests analysis.
- Conduct contract analysis.
- Conduct traceability analysis.
- Conduct configuration management assessment.
- Conduct installation configuration audit.
- Conduct architectural reviews to determine if the proposed design is fundamentally sound and will meet performance, scalability, and security considerations.
- Validate certifications, validate cost results, and validate claims submitted to the Project Manager.
- Conduct independent assessments on development efforts, production systems, or major changes to production systems.
- Verify disaster recovery plans.
- Review and determine whether the products of each phase/step in the development lifecycle adhered to a standard:
 - Fulfillment of minimum requirements at the completion of each phase; and
 - Are internally complete, consistent, and provide sufficient foundation to advance to the next phase of the project.

Specifically, the oversight vendor may perform the following IPOC related activities on behalf of CalPERS:

- Conduct assessments measured against best practices of the following:
 - Organizational and governance structure for projects
 - Project plans, schedules, and strategies for completeness and adequacy
 - Project deliverables as identified in the project plan
 - Project schedule for completeness, estimates to complete, and ability of the project to meet scheduled dates
- Conduct independent risk analysis.
- Conduct independent requirements traceability analysis.
- Conduct facilitation and recording services.
- Prepare monthly and ad-hoc reports.
- Analyze project management plans and processes, such as:
 - Project Risk Management
 - Project Issues Management
 - Project Schedule Management
 - Project Deliverables Management
 - Project Quality Management
 - Project Change Management (organizational)
 - Project Scope Management
 - Project Cost Management
 - Project Communication Management
 - Project Procurement Management
- Develop oversight metrics for period measuring and reporting.
- Develop escalation procedures to escalate issues above the project manager.
- Evaluate contractor deliverables.

- Evaluate contracts issued by CalPERS.
- Review Request for Proposals (RFP).

1.0.a. Senior Technical Specialist/Lead: Functions at the expert level under the general direction of an oversight project manager, as the lead of an IV&V or IPOC team, or independently as a high level technician, performing analytical work in project oversight reviews and assessments on selected life-cycle development methodologies.

- Must possess a minimum of five (5) years experience of project oversight or comparable experience providing services for projects \$10 million or larger in size; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have at least three (3) completed oversight projects that specifically included verification and validation of deliverables, risk management, and report development.
- Must have experience in development, production, and alternative procurement Request for Proposal (RFP) documentation and procedures that includes required RFP sections; evaluation and selection plans; facilitation of vendor conferences; and contract review and evaluation.
- Must have experience in the development of business, technical, and administrative requirements.
- Must have experience in the development and administration of traceability matrices.
- Must have experience in providing independent oversight on information technology projects.
- Must have a proven track record in assisting organizations in bringing large projects in on schedule and within budget and scope.
- Must have demonstrated a proven methodology for providing services.
- Must possess a Project Management Professional (PMP) or equivalent certification.

- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must have the ability to establish and maintain cooperative working relationships and to use inter-disciplinary teams effectively in conducting the project.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

1.0.b. Technical Specialist: Functions at the journey level under the general direction of an oversight project manager, senior technician, or technical lead, performing analytical work in the oversight of a specific project. May participate with other specialists on projects of a complex nature or broad scope.

- Must possess a minimum of three (3) years experience of project oversight or comparable experience providing oversight services for projects that are \$2 million or larger in size.
- Must have experience in providing independent oversight services on information technology projects.
- Must have at least one (1) completed oversight project that specifically included verification and validation of deliverables, risk management, and report development.
- Must have experience in development, production, and alternative procurement Request for Proposal (RFP) documentation and procedures that includes required RFP sections; evaluation and selection plans; facilitation of vendor conferences; and contract review and evaluation.
- Must have experience in the development of business, technical, and administrative requirements.

- Must have experience in the use of traceability matrices for monitoring project success.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

1.0.c. Senior Business Analyst: Functions at the expert level under the general direction of an oversight project manager, performing project oversight related services pertaining to the project analysis of the operations of a functional unit with the purpose of developing an automated systems solution. May participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years of application development or maintenance experience working on data processing related projects; at least three (3) years of said experience must have been as a participant in the independent oversight process.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have experience in the development of business, technical, and administrative requirements for a project.
- Must have experience in the use of traceability matrices for monitoring project success.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.

- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

1.0.d. Business Analyst: Functions at the journey level under the general direction of an oversight project manager or technical lead, performing project oversight related services pertaining to the project analysis of the operations of a functional unit with the purpose of developing an automated systems solution. May participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years of application development or maintenance experience working on data processing related projects; at least one (1) year of said experience must have been as a participant in the independent oversight process.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have experience in the development of business, technical, and administrative requirements for a project.
- Must have experience in the use of traceability matrices for monitoring project success.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

1.0.e. Senior Systems Analyst: Functions at the expert level under the general direction of an oversight project manager performing project oversight related services pertaining to the project design and functional specifications as it relates to user requirements. May participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience working on data processing related projects; at least three (3) years of said experience must have been in system analysis and design; and at least one (1) year of said experience must have been as a participant in the project oversight process.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have experience in the development of business, technical, and administrative requirements for a project.
- Must have experience in the use of traceability matrices for monitoring project success.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

1.0.f. Systems Analyst: Functions at the journey level under the general direction of an oversight project manager or technical lead, performing project oversight related services pertaining to the project design and functional specifications as it relates to user requirements. May participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in system analysis and design; and at least one (1) year of said experience must have been as a participant in the project oversight process.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have experience in the development of business, technical, and administrative requirements for a project.
- Must have experience in the use of traceability matrices for monitoring project success.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

1.0.g. Senior Programmer: Functions at the expert level under the general direction of an oversight project manager or technical leader. Can act in a lead capacity on projects where there is no project manager or technical lead; or can work independently as a high level technical specialist. Performs project oversight related services pertaining to the design of the programming logic and the

functionality of programs for achieving the desired project deliverables.

- Must have a minimum of five (5) years experience in electronic data processing systems study, design, and programming; at least three (3) years of said experience shall have included responsibility on projects \$10 million or larger in size analyzing operational methods and developing computer programs to meet desired results; at least two (2) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have experience in providing independent oversight on information technology projects.
- Must have a proven track record in assisting organizations in bringing large projects in on schedule and within budget and scope.
- Must have demonstrated a proven methodology for providing services.
- Must have knowledge of electronic computer programming; electronic data processing equipment and its capabilities; principles and techniques of studying work processes for new or revised electronic computer applications; principles of designing methods of processing data; technical report writing; statistical methods.
- Must have the ability to write complex programs and develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions.
- Must have the ability to apply creative thinking in the design and development of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

1.0.h. Programmer: Functions at the journey level working under the general direction of an oversight project manager, technical lead, or programmer lead, performing project oversight services pertaining to the design of the programming logic and the functionality of programs for achieving the desired project deliverables. May participate with other programmer analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in electronic data processing systems study, design, and programming; at least one (1) year of said experience shall have included responsibility on a project basis for analyzing operational methods and developing computer programs to meet desired results.
- Must possess a minimum of two (2) years experience of oversight or comparable experience providing oversight services for projects \$5 million or larger in size.
- Must have experience in providing independent oversight on information technology projects.
- Must have knowledge of electronic computer programming; electronic data processing equipment and its capabilities; principles and techniques of studying work processes for new or revised electronic computer applications; principles of designing methods of processing data; technical report writing; statistical methods.
- Must have the ability to write complex programs and develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions.
- Must have the ability to apply creative thinking in the design and development of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

1.0.i. Instructor: Responsible for developing and presenting training on applications and systems resulting from application development projects to CalPERS staff as necessary at the direction of a project leader or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

2.0 Project Management Services

Project Management Services is providing the responsibility for and management of CalPERS information technology projects. Projects will be managed by following the CalPERS Enterprise Project Management Framework Process and by employing best practices based on Project Management Institute's PMBOK® Guide, IEEE standards, and/or the Information Technology Infrastructure Library (ITIL).

Specifically the Project Management Services vendor may perform the following activities on behalf of CalPERS:

- Manage a project on behalf of CalPERS
- Manage a contract on behalf of CalPERS
- Actively support the CalPERS Project Manager

- Conduct facilitation and recording services
- Prepare monthly and ad-hoc reports
- Conduct special assessments, analysis, and report preparation as required
- Manage the project management processes, such as:
 - Project Integration Management
 - Project Scope Management
 - Project Time Management
 - Project Cost Management
 - Project Quality Management
 - Project Human Resource Management
 - Project Communications Management
 - Project Risk Management
 - Project Procurement Management
- Prepare presentations for senior management
- Prepare Project Plans/Feasibility Study Reports (FSR)
- Manage any or all aspects of the system development life cycle such as:
 - Managing development of user requirements
 - Managing the development process
 - Managing the test process
 - Overseeing and managing systems implementations
- Evaluate contractor deliverables
- Prepare Statements of Work (SOW)
- Prepare Request for Proposals (RFP)

2.0.a. Senior Project Manager: The Senior Project Manager functions as a project manager and has full management responsibility for the successful completion or oversight of projects with a budget of \$10 million or greater. The Senior Project Manager manages the project team, providing direction to CalPERS technical and program staff as well as outside consultants. The Senior Project Manager

may represent CalPERS before the public, Board of Administration, and numerous statewide organizations in matters related to the work of the project. The Senior Project Manager reports to the CalPERS Project Sponsor.

- Must have a minimum of six (6) years of broad and extensive project experience; at least three (3) years of said experience must have been directly managing large projects defined as having at least a \$10 million budget, at least 13 months in duration, and have at least 25 project staff.
- Must have project management experience initiating, planning, executing, controlling, and/or closing processes within the last six years.
- Must have experience in development, production, and alternative procurement Request for Proposal (RFP) documentation and procedures that includes required RFP sections, evaluation and selection plans, facilitation of vendor conferences, and contract review and evaluation.
- Must possess a Project Management Professional (PMP) or equivalent certification.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must have the ability to establish and maintain cooperative working relationships and to use inter-disciplinary teams effectively in conducting the project.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

2.0.b. Project Manager: The Project Manager functions as a project manager and has full management responsibility for the successful completion of projects with a budget of between \$500,000 and \$10 million. The Project Manager manages the project team, providing direction to CalPERS technical and program staff as well as outside consultants. The Project Manager may represent CalPERS before the public, Board of Administration, and numerous statewide organizations in matters related to the work of the project. The Project Manager reports to the CalPERS Project Sponsor.

- Must have a minimum of four (4) years of broad and extensive project experience; at least three (3) years of said experience must have been directly managing projects defined as having at least a \$2 million budget, at least 12 months in duration, and have at least 5 project staff.
- Must have project management experience initiating, planning, executing, controlling, and/or closing processes within the last six years.
- Must have experience in development, production, and alternative procurement Request for Proposal (RFP) documentation and procedures that includes required RFP sections; evaluation and selection plans; facilitation of vendor conferences; and contract review and evaluation.
- Must possess a Project Management Professional (PMP) or equivalent certification.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must have the ability to establish and maintain cooperative working relationships and to use inter-disciplinary teams effectively in conducting the project.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms

including informal updates, formal presentations, business case documents, and other analytical and technical documents.

2.0.c. Senior Technical Specialist/Lead: Functions at the expert level under the general direction of the project manager, as the lead of a project team on projects with budgets of more than \$500,000, or independently as a high level technician performing analytical work in the management of projects.

- Must possess a minimum of five (5) years project management team experience or comparable experience providing management services for projects \$2 million or larger in size; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have participated in at least three (3) successfully completed projects.
- Must have experience in development, production, and alternative procurement Request for Proposal (RFP) documentation and procedures that includes required RFP sections; evaluation and selection plans; facilitation of vendor conferences; and contract review and evaluation.
- Must have experience in the development of business, technical, and administrative requirements.
- Must have experience in the development and administration of traceability matrices.
- Must possess a Project Management Professional (PMP) or equivalent certification.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.

- Must have the ability to establish and maintain cooperative working relationships and to use inter-disciplinary teams effectively in conducting the project.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

2.0.d. Technical Specialist: Functions at the journey level under the general direction of the project manager or senior technician, performing progressively responsible analytical work on a project management team, and may participate with other analysts on projects of a complex nature or broad scope.

- Must possess a minimum of three (3) years project management team experience or comparable experience providing project management services.
- Must have participated in at least two (2) successfully completed projects.
- Must have experience in the development of business, technical, and administrative requirements.
- Must have experience in the use of traceability matrices for monitoring project success.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business

case documents, and other analytical and technical documents.

2.0.e. Senior Business Analyst: Functions at the expert level performing highly complex analysis pertaining to the Lines of Business with the purpose of developing solutions that may be either technical, business/operational, or service oriented and leads other analysts on projects of the most complex nature or broad scope.

- Must have a minimum of five (5) years of business analysis experience working on data processing or business related projects; at least three (3) years of experience must have been in a Lead capacity with a high level of responsibility on a project.
- Must have participated in at least two (2) or more successfully completed projects
- Must have experience in the management and development of business, technical, and administrative requirements for a project.
- Must have experience in the facilitation, development, and use of capturing requirements and development of traceability matrices in support of project success.
- Must possess a strong understanding of information technology fundamentals, project management fundamentals, and systems development life cycle.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to the most complex problems, develop and evaluation alternatives.
- Must have the ability to establish and maintain strong cooperative working relationships and to use inter-disciplinary teams effectively in managing project tasks and activities under the direction of the Project Manager.
- Must be able to work independently or in teams.
- Must communicate effectively both verbally and in writing with a variety of audience types using different

communication channels including informal updates, formal presentations, formal status reports, business case documents, and other analytical and technical documents.

2.0.f. Business Analyst: Functions at the journey level under the general direction of the Project Manager, Project Lead or Senior Business Analyst, performing analytical services pertaining to the Lines of Business with the purpose of developing solutions that may be either technical, business/operational, or service oriented on projects.

- Must have a minimum of two (2) years of business analysis experience working on data processing or business related projects; at least one (1) year of said experience must have been as a participant in a managed project.
- Must have experience in the development of business, technical, and administrative requirements for a project.
- Must have experience in the development of business and systems requirements and the use of traceability matrices in the support of project success.
- Must have an understanding of information technology fundamentals, project management fundamentals, and the system development life cycle.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of effective and efficient methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must be able to work independently or in teams.
- Must communicate effectively both verbally and in writing with a variety of audience types using different communication channels including informal updates, formal presentations, formal status reports, business case documents, and other analytical and technical documents.

2.0.g. Senior Systems Analyst: Functions at the expert level performing highly complex systems analysis pertaining to technical projects with the purpose of developing solutions that may be either technical, business/operational, or service orientated and leads other systems analysts on projects of the most complex nature or broad scope.

- Must have a minimum of five (5) years of systems analysis experience working on data processing or business related projects; at least three (3) years of experience must have been in a Lead capacity with a high level of responsibility on a project.
- Must have participated in at least two (2) or more successfully completed projects
- Must have experience in the management and development of business, technical, and administrative requirements for a project.
- Must have experience in the facilitation, development, and use of capturing requirements and development of traceability matrices in support of project success.
- Must possess a strong understanding of information technology fundamentals, project management fundamentals, systems architecture, and systems development life cycle.
- Must have the ability to reason logically and creatively and use a variety of technical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to the most complex problems, develop and evaluation alternatives.
- Must have the ability to establish and maintain strong cooperative working relationships and to use inter-disciplinary teams, including technical teams, effectively in managing project tasks and activities under the direction of the Project Manager.
- Must communicate effectively both verbally and in writing with a variety of audience types using different communication channels including informal updates, formal presentations, formal status reports, business case documents, and other analytical and technical documents.

2.0.h. Systems Analyst: Functions at the journey level under the general direction of the Project Manager, Project Lead or Senior Systems Analyst performing systems analysis services pertaining to project design and functional specifications as it relates to technical requirements, and may participate with other analysts on projects.

- Must have a minimum of two (2) years of systems analysis experience working on data processing or business related projects; and at least one (1) year of experience must have been as a participant in a managed project.
- Must have experience in the development of business, technical, and administrative requirements for a project.
- Must have experience in the development of business and systems requirements and the use of traceability matrices in support of project success.
- Must have an understanding of information technology fundamentals, project management fundamentals, systems architecture, and the system development life cycle.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of effective and efficient methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must be able to work independently or in teams.
- Must communicate effectively both verbally and in writing with a variety of audience types using different communication channels including informal updates, formal presentations, formal status reports, business case documents, and other analytical and technical documents.

2.0.i. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.

- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

3.0 Architecture

Provide services in the design and development of protocols and interfaces for interaction between various programs and/or systems for future flexibility and expandability. The CalPERS environment can be divided in two general areas: enterprise and application architecture. The enterprise architects develop and maintain a blueprint that defines the structure and operation of the CalPERS IT environment with the intent to determine how current and future objectives can be most effectively achieved. The application architects define the interactions among the processes and standards used by the organization.

3.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in the design and development of architecture strategy, oversees the implementation of technical infrastructure and technology, and provides the architectural direction and guidance to enterprise systems, and may act in a lead capacity or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience performing architecture quality assurance for complex projects and initiatives; performing enterprise applications integration (EAI); defining and developing shared services architectures; designing and developing component architectures; and/or defining enterprise technology architectures; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.

- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

3.0.b. Technical Specialist: Functions at the journey level under the general direction of a technical lead or senior technician, performing analytical work in the design and development of architecture strategy, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience performing architecture quality assurance for complex projects and initiatives; performing enterprise applications integration (EAI); defining and developing shared services architectures; designing and developing component architectures; and/or defining enterprise technology architectures.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

3.0.c. Business Analyst: Functions at the journey level, performing a variety of tasks pertaining to the planning, analysis, design, development, maintenance, and use of CalPERS Enterprise Architecture with a focus in the Business Architecture domain.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of

said experience must have been in application development or maintenance.

- Must have experience and/or skills in leading enterprise level analysis activities including strategy analysis and alignment, documenting the current and target state business architecture, performing gap analysis, and developing roadmaps and/or transformation plans that provide guidance for achieving the desired future state.
- Must have experience and/or skills required to convert high-level strategy and information assets of the organization into a holistic, integrated set of business models including experience and/or skills in developing the following :
 - Contextual business models
 - Functional hierarchy model
 - End-to-end process models
 - Business use case model
 - Semantic models
- Must have working knowledge of leading enterprise architecture frameworks and methodologies and experience in developing and implementing processes for establishing and maturing areas within the enterprise business architecture domain.
- Must have experience in defining and documenting enterprise level business requirements including the business need, required capabilities, and solution scope
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

3.0.d. Systems Analyst: Functions at the journey level under the general direction of a project manager or technical lead, designing and modifying systems by turning user requirements into a set of functional specifications. The Systems Analyst performs a variety of tasks including the analysis, development, installation, implementation, procurement, or support of specific electronic information processing systems, multifunction automated office systems, microcomputer systems, and/or teleprocessing networks, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in system analysis and design.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

3.0.e. Senior Programmer: Functions at the expert level under the general direction of the project manager or technical leader. Can act in a lead capacity on complex projects, or can work independently or on a team as a high level technical specialist. Designs the logic for and writes the lines of codes of a computer program.

- Must have a minimum of five (5) years experience in electronic data processing systems study, design, and programming; at least three (3) years of said experience shall have included responsibility on a project basis for analyzing operational methods and developing computer programs to meet desired results; at least two (2) years of

said experience must have been at a high level both technically and in measure of responsibility.

- Must have knowledge of electronic computer programming; electronic data processing equipment and its capabilities; principles and techniques of studying work processes for new or revised electronic computer applications; principles of designing methods of processing data; technical report writing; statistical methods.
- Must have the ability to write complex programs and develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions.
- Must have the ability to apply creative thinking in the design and development of methods of processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

3.0.f. Programmer: Functions at the journey level working under the general direction of a project manager, technical lead, or programmer lead, designing the logic for and writing the lines of codes of a computer program, and may participate with other programmer analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in electronic data processing systems study, design, and programming; at least one (1) year of said experience shall have included responsibility on a project basis for analyzing operational methods and developing computer programs to meet desired results.
- Must have knowledge of electronic computer programming; electronic data processing equipment and its capabilities; principles and techniques of studying work processes for new or revised electronic computer applications; principles of

designing methods of processing data; technical report writing; statistical methods.

- Must have the ability to write complex programs and develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design and development of methods of processing data.
- Must have the ability to apply creative thinking in the design and development of methods of processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

3.0.g. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

4.0 Data Services

Provide services in the logical design of data models, and the development and maintenance of data architecture, data dictionaries, and meta-data. Provide services that ensure data integrity through data conversions, data audits, and data fixes. Provide services for the development and distribution of operational and management reports. Provide services for the development and implementation of Business Intelligence solutions including strategies and dimensional data models.

4.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing a variety of tasks pertaining to the analysis, design, development, testing, and implementation of data conversions, including data audits and data fixes to ensure data integrity; analysis, design, classification and maintenance of data relationships, including the development of logical data models; and the development and maintenance of data architecture, data dictionaries, and metadata, and may act in a lead capacity on complex projects or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience in the following areas: SQL and PL/SQL; data modeling CASE tools; relational and/or dimensional data modeling; data conversions, reports, data audits and data fixes; at least three (3) years of said experience must have been on a project(s) with a budget of at least \$15 million.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms

including informal updates, formal presentations, business case documents, and other analytical and technical documents.

4.0.b. Technical Specialist: Functions at the journey level under the general direction of a technical lead or senior technician, performing a variety of tasks pertaining to the analysis, design, development, testing, and implementation of data conversions; including data audits and data fixes to ensure data integrity, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in the following areas: SQL and PL/SQL; data modeling CASE tools; relational and/or dimensional data modeling; data conversions, data audits and data fixes.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

4.0.c. Business Analyst: Functions at the journey level under the general direction of a project manager or technical leader performing a variety of tasks pertaining to the analysis, development, installation, implementation, procurement, or support of specified electronic information processing systems, multifunction automated office systems, microcomputer systems, or teleprocessing networks in analyzing the operations of a functional unit with the purpose of developing an automated systems solution, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of

said experience must have been in application development or maintenance.

- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

4.0.d. Systems Analyst: Functions at the journey level under the general direction of a project manager or technical lead designing and modifying systems by turning user requirements into a set of functional specifications. The Systems Analyst performs a variety of tasks including the analysis, development, installation, implementation, procurement, or support of specific electronic information processing systems, multifunction automated office systems, microcomputer systems, and/or teleprocessing networks, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in system analysis and design.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

4.0.e. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

5.0 Application Development

Provide services in application specific development, maintenance, and/or support.

5.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing high level analytical work in systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to application development. May

act in a lead capacity on complex projects or may participate with other analysts on projects of a complex nature or broad scope.

- Must possess a minimum of five (5) years experience in project work in specified area(s) of knowledge; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

5.0.b. Technical Specialist: Functions at the journey level under the direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to application development, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in specified area(s) of knowledge.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.

- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

5.0.c Business Analyst: Functions at the journey level, performing a variety of tasks pertaining to the analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to application development.

- Must have a minimum of three (3) years experience developing and /or supporting web application development systems/projects; at least one (1) year of said experience must have been in application development or maintenance.
- Must have a minimum of three (3) years experience facilitating Joint Application Development (JAD) sessions.
- Must have a minimum of three (3) years experience in defining, documenting and maintaining business/functional requirements.
- Must have a minimum of three (3) years experience in defining, documenting and maintaining use cases.
- Must have prior experience developing and maintaining a Requirements Traceability Matrix.
- Must be able to perform business analysis of identifying business needs and determining solutions to business problems by analyzing data and situations, identifying and solving problems, reason logically, drawing valid conclusions, and developing effective solutions.
- Must have experience performing and/or coordinating system, regression and customer acceptance testing.

- Must have experience creating and maintaining testing documentation artifacts, i.e. test plans, test scripts, test cases along with the execution of scripts.
- Must have the ability to work with existing methodologies when defined, or to assist with creating procedures and best practices as needed.
- Must have the ability to manage multiple competing priorities.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical document artifacts.

5.0.d. Senior Systems Analyst: Functions at the expert level under the general direction of a project manager or technical leader, designing and modifying systems by turning user requirements into a set of functional specifications. The Senior Systems Analyst performs a variety of tasks including the analysis, development, installation, implementation, procurement, or support of specific electronic information processing systems, multifunction automated office systems, microcomputer systems, and/or teleprocessing networks. Can act in a lead capacity on complex projects, or can work independently or on a team as a high level technical specialist.

- Must have a minimum of five (5) years experience working on data processing related projects; at least three (3) years of said experience must have been in system analysis and design.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.

- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

5.0.e. Systems Analyst: Functions at the journey level under the general direction of a project manager or technical lead, designing and modifying systems by turning user requirements into a set of functional specifications. The Systems Analyst performs a variety of tasks including the analysis, development, installation, implementation, procurement, or support of specific electronic information processing systems, multifunction automated office systems, microcomputer systems, and/or teleprocessing networks, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in system analysis and design.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

5.0.f. Senior Programmer: Functions at the expert level under the general direction of the project manager or technical leader, designing the logic for and writing lines of code of a computer program. Can act in a lead capacity on complex projects, or can

work independently or on a team as a high level technical specialist.

- Must have a minimum of five (5) years experience in electronic data processing systems study, design, and programming; at least three (3) years of said experience shall have included responsibility on a project basis for analyzing operational methods and developing computer programs to meet desired results, at least two (2) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have knowledge of electronic computer programming; electronic data processing equipment and its capabilities; principles and techniques of studying work processes for new or revised electronic computer applications; principles of designing methods of processing data; technical report writing; statistical methods.
- Must have the ability to write complex programs and develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions.
- Must have the ability to apply creative thinking in the design and development of methods of processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

5.0.g. Programmer: Functions at the journey level working under the general direction of a project manager, technical lead, or programmer lead, designing the logic for and writing the lines of codes of a computer program, and may participate with other programmer analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in electronic data processing systems study, design, and programming; at least one (1) year of said experience shall

have included responsibility on a project basis for analyzing operational methods and developing computer programs to meet desired results.

- Must have knowledge of electronic computer programming; electronic data processing equipment and its capabilities; principles and techniques of studying work processes for new or revised electronic computer applications; principles of designing methods of processing data; technical report writing; statistical methods.
- Must have the ability to write complex programs and develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions.
- Must have the ability to apply creative thinking in the design and development of methods of processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

5.0.h. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of the project leader or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.

- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

6.0 Data Base Administration

Provide services in the physical design and management of the database, including the installation and support of database management systems in an enterprise environment.

6.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in the physical design and management of the CalPERS databases. May act in a lead capacity on complex projects or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience as a Data Base Administrator (DBA); at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must be a certified professional DBA.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have the ability to reason logically and creatively, and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

6.0.b. Technical Specialist: Functions at the journey level under the general direction of a technical lead or senior technician, performing analytical work in the physical design and management of the CalPERS databases, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience as a DBA.
- Must have the ability to reason logically and creatively, and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

6.0.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.

- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.0 Systems Support

Provide services in ongoing system specific maintenance, and/or support for CalPERS data center assets. The contract classifications in this vertical are separated into sub-verticals by specific technical specialties. This vertical is divided into ten (10) separate sub-verticals based on areas of technical expertise.

Sub-Verticals

7.1 Data Network

7.1.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the CalPERS data network infrastructure, or may act in a lead capacity on complex projects or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience with Local Area Network (LAN) and Wide Area Network (WAN) infrastructure equipment in the areas of (but not limited to) implementing industry standards and best practices, architectural design, protocol analysis, Virtual LAN (VLAN) configuration, subnetting, Virtual Private Network (VPN) design, Quality of Service (QoS), dynamic routing, and switch configuration; at least three (3) years of said

experience must have been at a high level both technically and in measure of responsibility.

- Must have a demonstrable (provide references) knowledge of enterprise implementations of LAN equipment.
- Must have a minimum of five (5) years experience with one or more infrastructure monitoring/management software.
- Must have appropriate certification with vendor equipment and software.
- Must have appropriate certification with firewall software.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.1.b. Technical Specialist: Functions at the journey level under the general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the CalPERS data network software infrastructure, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (3) years experience with Local Area Network (LAN) and Wide Area Network (WAN) infrastructure equipment in the areas

of (but not limited to) implementing industry standards and best practices, architectural design, protocol analysis, Virtual LAN (VLAN) configuration, subnetting, Virtual Private Network (VPN) design, Quality of Service (QoS), dynamic routing, and switch configuration; at least two (2) years of said experience must have been at a high level both technically and in measure of responsibility.

- Must have demonstrable (provide references) knowledge of enterprise implementations of LAN equipment.
- Must have a minimum of three (3) years experience with one or more infrastructure monitoring/management software.
- Must have appropriate certification with vendor equipment and software.
- Must have appropriate certification with firewall software.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.1.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.2 Telecommunications

7.2.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support of telephony infrastructure, and may act in a lead capacity on complex projects or may participate with other analysts on projects of a complex nature or broad scope.

- Must have for a minimum of five (5) years experience performing telephony systems installations and/or performing operation/maintenance work; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have a minimum of three (3) years experience in the support of voicemail and/or unified messaging systems of at least 2,500 voice mailboxes.

- Must have a minimum of five (5) years experience in evaluating, engineering, installing, and maintaining complex voice systems.
- Must have a minimum of five (5) years experience in understanding and designing current emerging technologies, including operation status and issues surrounding new technologies and products, and their impact on the enterprise integration, technologies, and services.
- Must have telecommunications systems/ network installations implementation projects of at least 1500 user stations for a minimum of three (3) separate paying customers.
- Must have knowledge of telephony related building infrastructure and Public Switched Telephone Network (PSTN) carrier-based services, infrastructure and routing designs.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.2.b. Technical Specialist: Functions at the journey level under the general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support of telephony infrastructure, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in evaluating, engineering, installing, and maintaining complex voice systems.
- Must have a minimum of three (3) years experience in understanding and designing current emerging technologies, including operation status and issues surrounding new technologies and products, and their

impact on the enterprise integration, technologies, and services.

- Must have telecommunications systems/ network installations/ implementation projects of at least 1500 user stations.
- Must have knowledge of telephony related building infrastructure and PSTN carrier-based services, infrastructure and routing designs.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.2.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.3 Content Management

7.3.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the CalPERS Content Management systems, and may act in a lead capacity on complex projects or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience with Content Management systems in an HP-UX, Linux or Windows environment; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have a minimum of five (5) years experience with a broad range of Content Management components related to the capture, management storage, preservation and delivery of unstructured content.
- Must have demonstrable experience with Content Management software installation, upgrades and administration.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.3.b. Technical Specialist: Functions at the journey level under general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and

technical support duties pertaining to the CalPERS Content Management systems, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience with Content Management systems in an HP-UX, Linux or Windows environment.
- Must have a minimum of three (3) years experience with a broad range of Content Management components related to the capture, management, storage, preservation and delivery of unstructured content.
- Must have demonstrable experience with Content Management software installation, upgrades and administration.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.3.c. Business Analyst: Functions at the journey level under the general direction of a project manager or technical leader, performing a variety of tasks pertaining to the analysis, development, installation, implementation, procurement, or support of specified electronic information processing systems, multifunction automated office systems, microcomputer systems, or teleprocessing networks in analyzing the operations of a functional unit with the purpose of developing an automated systems solution, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in application development or maintenance.

- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.3.d. Systems Analyst: Functions at the journey level under the general direction of a project manager or technical lead, designing and modifying systems by turning user requirements into a set of functional specifications. The Systems Analyst performs a variety of tasks including the analysis, development, installation, implementation, procurement, or support of specific electronic information processing systems, multifunction automated office systems, microcomputer systems, and/or teleprocessing networks, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in system analysis and design.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal

presentations, business case documents, and other analytical and technical documents.

7.3.e. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.4 Wintel Platform

7.4.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of Wintel-based servers within the CalPERS infrastructure. May act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience with appropriate architecture; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have certification in appropriate operating system support.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.4.b. Technical Specialist: Functions at the journey level under general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of Wintel-based servers within the CalPERS infrastructure, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience with appropriate architecture.
- Must have certification in appropriate operating system support.

- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.4.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.5 Unix/Linux Platform

7.5.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of Unix/Linux-based servers within the CalPERS infrastructure. May act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience with appropriate architecture; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have certification in operating system support.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.5.b. Technical Specialist: Functions at the journey level under general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of Unix/Linux-based servers within the CalPERS infrastructure, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience with appropriate hardware architecture.
- Must have experience with Unix and/or Linux operating system support.
- Must have certification in operating system support.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.5.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and

discretion in the form, content, and method of presenting the subject material.

- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.6 Mainframe

7.6.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of the mainframe computers within the CalPERS infrastructure, and may act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years in support of IBM z/OS Operating Systems; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have demonstrated ability to install IBM and third party software using both SMP/E and non-SMP/E installation and testing.
- Must be able to apply software maintenance for both IBM and third party vendors.
- Must have a solid, working knowledge of IBM I/O, processing and communications hardware.

- Must have working knowledge of disk, application reporting, performance/tuning reporting and tape management administration tools.
- Must have a minimum of five (5) years experience in support, installation and maintenance of VTAM and NETVIEW communication software products.
- Must have a minimum of five (5) years in support of IBM CICS software.
- Must have working knowledge of scripting (CLIST/REXX) and programming (HLASM/COBOL) languages.
- Must have a minimum of five (5) years experience with file recovery as basic as single file and as complex as disaster recovery scenarios.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.6.b. Technical Specialist: Functions at the journey level under general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of the mainframe computers within the

CalPERS infrastructure, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years in support of IBM z/OS Operating Systems.
- Must have demonstrated ability to install IBM and third party software using both SMP/E and non-SMP/E installation and testing.
- Must be able to apply software maintenance for both IBM and third party vendors.
- Must have a solid, working knowledge of IBM I/O, processing and communications hardware.
- Must have working knowledge of disk, application reporting, performance/tuning reporting and tape management administration tools.
- Must have a minimum of three (3) years experience in support, installation and maintenance of VTAM and NETVIEW communication software products.
- Must have a minimum of three (3) years in support of IBM CICS software.
- Must have working knowledge of REXX language.
- Must have a minimum of three (3) years experience with file recovery as basic as single file and as complex as disaster recovery scenarios.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal

presentations, business case documents, and other analytical and technical documents.

7.6.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.7 Data Backup Management

7.7.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of backup systems within the CalPERS infrastructure, and may act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience managing data backup and restore supporting SAN storage components; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have proficiency and experience in data backup and restore architecture and process.
- Must have proficiency using current storage technologies such as de-duplication, virtual tape, compression and encryption.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.7.b. Technical Specialist: Functions at the journey level under general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of the backup systems within the CalPERS infrastructure, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience managing TSM Server EE, and IBM AIX O/S, including maintenance, migration, upgrades,

configuration, and administration of the supporting SAN storage components; at least two (2) years of said experience must have been at a high level both technically and in measure of responsibility.

- Must have proficiency and experience in data backup and restore architecture and process.
- Must have proficiency using current storage technologies such as de-duplication, virtual tape, compression and encryption.
- Must have significant experience with tape libraries, media management, Disaster Recovery, data replication, high availability and fault tolerance.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.7.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.

- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.8 Storage Management

7.8.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of storage management and backup systems within the CalPERS infrastructure, and may act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience with the enterprise storage disk arrays including maintenance, configuration, and administration of Brocade SAN switches and SAN architecture as well as advanced understanding of Fiber Channel (FC) technology; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have proficiency with monitoring and management for SAN infrastructure.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.

- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.8.b. Technical Specialist: Functions at the journey level under general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of the storage management systems within the CalPERS infrastructure, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience with enterprise storage disk arrays including maintenance, configuration, and administration of Brocade SAN switches and SAN architecture as well as advanced understanding of Fiber Channel (FC) technology.
- Must have proficiency with monitoring and management for SAN infrastructure.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.8.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.9 Application Servers

7.9.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of server-based applications, and may act in a lead capacity on complex projects, work independently as a

high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience as an Application Server Administrator in an enterprise environment; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must be a certified professional (if available for a specific application server).
- Must have in-depth knowledge of multi-tier application architecture and components (for example Web server, database, LDAP, communication protocols, Java, XML).
- Must have in-depth knowledge of application security (for example https, key pair encryption, authentication/authorization).
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.9.b. Technical Specialist: Functions at the journey level under general direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of server-based applications, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience as an Application Server Administrator.
- Must have knowledge of multi-tier application architecture and components (for example Web server, database, LDAP, communication protocols, Java, XML).
- Must have knowledge of application security (for example https, key pair encryption, authentication/authorization).
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.9.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support

the training effort; develop and maintain a master calendar of events.

- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

7.10 Desktop Services

7.10.a. Senior Technical Specialist/Lead: Functions at the expert level performing installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of CalPERS infrastructure, and may act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience with multiple desktop and laptop PC hardware; at least three (3) years of said experience must have been at a high level, both technically and in measure of responsibility.
- Must have a minimum of five (5) years experience with Microsoft Operating System.
- Must have a minimum of five (5) years experience with a variety of desktop productivity applications and tools.
- Knowledge, understanding and experience with client automation tools may be required.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide

creative thinking related to complex problems, develop and evaluate alternatives.

- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.
- Must have a minimum of five (5) years experience in Customer Service.
- Must be able to communicate effectively with technical and non-technical staff.

7.10.b. Technical Specialist: Functions at the journey level performing installation, implementation, procurement, and technical support duties pertaining to the support and maintenance of the CalPERS infrastructure, and may act in a lead capacity on complex projects, work independently as a high level technician, or may participate with others on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience with multiple desktop and laptop PC hardware; at least one (1) year of said experience must have been at a high level, both technically and in measure of responsibility.
- Must have a minimum of three (3) years experience with Microsoft Operating System.
- Must have a minimum of three (3) years experience with a variety of desktop productivity applications and tools.
- Knowledge, understanding and experience with client automation tools may be required.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action;

analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.

- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.
- Must have a minimum of three (3) years experience in Customer Service.

7.10.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

8.0 Release Management/Quality Assurance/Configuration Management

Provide services in baseline and release management; change and version control; system document management; and requirements definition and testing activities.

8.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytic oversight and governance activities to control and manage the areas of product release, quality assurance, and configuration management for changes to and development of software products in the CalPERS production environment, and may act in a lead capacity on complex projects or may participate with other analysts on projects of a complex nature or broad scope.

- Must possess a minimum of five (5) years experience in project work, monitoring and controlling product baselines and the processes supporting release, and testing of software applications including change and version control; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have experience building and managing project plans.
- Must have strong experience in the analysis, design, development, installation, implementation, procurement, and/or technical support duties within specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks.
- Must be able to analyze data and situations; identify and solve problems; reason logically and draw valid conclusions; develop effective solutions; apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal

presentations, business case documents, and other analytical and technical documents.

8.0.b. Technical Specialist: Functions at the journey level under the general direction of a technical lead or senior technician, performing analytical work in providing services to assure quality and accuracy in changes to and development of application software and its related documentation in the CalPERS system, and may participate with other analysts on projects of a complex nature or broad scope.

- Must possess a minimum of three (3) years experience in project work monitoring and controlling product baselines and the processes supporting release, and testing of software applications including change and version control.
- Must have experience building project plans.
- Must have experience in the analysis, design, development, installation, implementation, procurement, and/or technical support duties within specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks.
- Must be able to analyze data and situations; identify and solve problems; reason logically and draw valid conclusions; develop effective solutions; apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

8.0.c. Senior Business Analyst/Lead: Functions at the expert level performing analytic oversight and governance activities related to review of system requirements documentation, development of test plans, creation of test cases, and the execution and validation of

complex tests. May act in a lead capacity or participate with other analysts on systems studies of a complex nature or a broad scope.

- Must have a minimum of five (5) years of experience in software testing or change & release management. At least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have experience building and managing project plans.
- Must have experience leading test development & execution efforts.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

8.0.d. Business Analyst: Functions at the journey level under the general direction of a technical lead performing analysis of system requirements documentation, development of test plans, creation of test cases, and the execution and validation of complex tests, and may participate with other analysts on systems studies of a complex nature or a broad scope.

- Must have a minimum of two (2) years of experience working on data processing related projects; at least one (1) year of said experience must have been in application development, maintenance, or software testing.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.

- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

8.0.e. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

9.0 Technical Writing

Provide services developing, updating, and/or maintaining technical documents (program specs, system documentation, standards, procedure manuals, conversion of existing documentation) and user manuals.

9.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work to develop technical documents in systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks, and may act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience in project work in technical writing to include: development of business requirements, technical requirements, detailed analysis and design documents; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have a minimum of five (5) years experience in project work in facilitating requirements, analysis and design, and JAD sessions.
- Must have the ability to work with end-users and IT staff to analyze issues and draw valid conclusions.
- Must have knowledge and/or experience in the system development life cycle.
- Must have experience in the analysis, design, development, installation, implementation, and/or technical support duties within specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks.
- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

9.0.b. Technical Specialist: Functions at the journey level under the general direction of a technical lead or project manager, performing analytical work to develop technical documents in systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in project work in technical writing to include: development of business requirements, technical requirements, detailed analysis and design documents.
- Must have a minimum of three (3) years experience in project work in facilitating requirements, analysis and design, and JAD sessions.
- Must have the ability to work with end-users and IT staff to analyze issues and draw valid conclusions.
- Must have knowledge and/or experience in the system development life cycle.
- Must have experience in the analysis, design, development, installation, implementation, and/or technical support duties within specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks.
- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

9.0.c. Systems Analyst: Functions at the journey level working under general direction of a project manager or technical lead developing technical documents pertaining to the design and modification of

systems by turning user requirements into a set of functional specifications and creating the technical documents to support the analysis, and may participate with other analysts on projects of complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in systems analysis and design.
- Must have a minimum of two (2) years experience in technical writing to include: development of business requirements, technical requirements, detailed analysis and design documents.
- Must have knowledge and/or experience in the system development life cycle.
- Must have expertise in facilitating requirements, analysis and design, JAD sessions.
- Must have the ability to work with end-users and IT staff to analyze issues and draw valid conclusions.
- Must possess an IT career certification that acknowledges skills and competency in the area of specialization.
- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions; develop effective solutions; apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

9.0.d. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

10.0 Disaster Recovery

Provide services in disaster recovery planning involving analysis of business processes and continuity needs so that the effects of a disaster will be minimized, and the organization will be able to either continue business or quickly resume mission-critical functions; may also include a significant focus on disaster prevention.

10.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to disaster recovery in connection with specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks. May act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of seven (7) years experience in project work in disaster recovery; at least five (5) years of

said experience must have been at a high level both technically and in measure of responsibility.

- Must have a strong background in project management with an extensive knowledge of large scale data center architectures and technologies, network diagramming, and documentation tools.
- Must have the ability to interpret technical statements from subject matter experts and convey key concepts using project management, network diagramming, and documentation tools.
- Must be well organized and an effective writer.
- Must possess a certification in business continuity planning (ABCP or CBCP) and a strong working knowledge of LDRPS or related software.
- Must have experience in the analysis, design, development, installation, implementation, and/or technical support duties within specified data processing systems, latest data backup/restore/recovery technology trends, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks.
- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

10.0.b. Technical Specialist: Functions at the journey level under the direction of a technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to disaster recovery in connection with specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks, and may

participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience in project work in disaster recovery.
- Must have a strong background in project management with an extensive knowledge of large scale data center architectures and technologies, network diagramming, and documentation tools.
- Must have the ability to interpret technical statements from subject matter experts and convey key concepts using project management, network diagramming, and documentation tools.
- Must be well organized and an effective writer.
- Must possess a certification in business continuity planning (ABCP or CBCP) and a strong working knowledge of LDRPS or related software.
- Must have experience in the analysis, design, development, installation, implementation, and/or technical support duties within specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks.
- Must have knowledge of new technology trends for data backup/restore/recover and vendors offering these services.
- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

10.0.c. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

11.0 Management Support Services

Under the general direction of CalPERS Senior Management Staff, provide services on special projects as needed. Such projects may include but are not limited to: conducting studies, making assessments and recommendations for long and short-term strategic planning; gathering business requirements and conducting analyses; conducting diagnostic reviews; writing tactical plans, Feasibility Study Reports (FSR), and Post Implementation Evaluation Reports (PIER).

11.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks. May act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must possess a minimum of five (5) years experience in project work in the specified area(s) of knowledge; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have experience in the analysis, design, development, installation, implementation, procurement, and/or technical support duties within specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks.
- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions; develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

11.0.b. Technical Specialist: Functions at the journey level under the general direction of a project manager, technical lead or senior technician, performing analytical work in systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to specified data processing systems, multifunction office automation systems, microcomputer systems, and/or teleprocessing networks, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in the specified area(s) of knowledge.
- Must have experience in the analysis, design, development, installation, implementation, procurement, and/or technical support duties within specified data processing systems,

multifunction office automation systems, microcomputer systems, and/or teleprocessing networks.

- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions; develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

11.0.c. Senior Business Analyst: Functions at the expert level performing a variety of tasks pertaining to the analysis, development, installation, implementation, procurement, or support of specified electronic information processing systems, multifunction automated office systems, microcomputer systems, or teleprocessing networks in analyzing the operations of a functional unit with the purpose of developing an automated systems solution, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years of experience working on data processing related projects; at least three (3) years of said experience must have been in application development or maintenance.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

11.0.d. Business Analyst: Functions at the journey level under the general direction of a project manager or technical leader performing a variety of tasks pertaining to the analysis, development, installation, implementation, procurement, or support of specified electronic information processing systems, multifunction automated office systems, microcomputer systems, or teleprocessing networks in analyzing the operations of a functional unit with the purpose of developing an automated systems solution, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years of experience working on data processing related projects; at least one (1) year of said experience must have been in application development or maintenance.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

11.0.e. Senior Systems Analyst: Functions at the expert level designing and modifying systems by turning user requirements into a set of functional specifications. The Senior Systems Analyst performs a variety of tasks including the analysis, development, installation, implementation, procurement, or support of specific electronic information processing systems, multifunction automated office systems, microcomputer systems,

and/or teleprocessing networks, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years experience working on data processing related projects; at least three (3) years of said experience must have been in system analysis and design.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

11.0.f. Systems Analyst: Functions at the journey level under the general direction of a project manager or technical lead designing and modifying systems by turning user requirements into a set of functional specifications. The Systems Analyst performs a variety of tasks including the analysis, development, installation, implementation, procurement, or support of specific electronic information processing systems, multifunction automated office systems, microcomputer systems, and/or teleprocessing networks, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in system analysis and design.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.

- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

11.0.g. Senior Programmer: Functions at the expert level under the general direction of the project manager or technical leader. Can act in a lead capacity on complex projects, or can work independently or on a team as a high level technical specialist. Designs the logic for and writes the lines of codes of a computer program.

- Must have a minimum of five (5) years experience in electronic data processing systems study, design, and programming; at least three (3) years of said experience shall have included responsibility on a project basis for analyzing operational methods and developing computer programs to meet desired results; at least two (2) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have knowledge of electronic computer programming; electronic data processing equipment and its capabilities; principles and techniques of studying work processes for new or revised electronic computer applications; principles of designing methods of processing data; technical report writing; statistical methods.
- Must have the ability to write complex programs and develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions.
- Must have the ability to apply creative thinking in the design and development of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business

case documents, and other analytical and technical documents.

11.0.h. Programmer: Functions at the journey level working under the general direction of a project manager, technical lead, or programmer lead, designing the logic for and writing the lines of codes of a computer program, and may participate with other programmer analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in electronic data processing systems study, design, and programming; at least one (1) year of said experience shall have included responsibility on a project basis for analyzing operational methods and developing computer programs to meet desired results.
- Must have knowledge of electronic computer programming; electronic data processing equipment and its capabilities; principles and techniques of studying work processes for new or revised electronic computer applications; principles of designing methods of processing data; technical report writing; statistical methods.
- Must have the ability to write complex programs and develop detailed program specifications; analyze data and situations, reason logically and creatively, identify problems, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design and development of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

11.0.i. Instructor: Responsible for developing and presenting training on applications and systems resulting from application development projects to CalPERS staff as necessary at the direction of a project leader or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

12.0 Business Process Re-engineering

Provide services in the study and redesign of business processes and their associated systems and organizational structures to achieve a dramatic improvement in business performance. Assist in the examination and change of the components of business: strategy, processes, technology, organization, and culture.

Specifically, the BPR vendor may perform the following activities on behalf of CalPERS:

- Establish or improve process performance metrics
- Process analysis
- Business process reengineering and design
- Operational analysis and performance modeling
- Process management
- Provide general, specialized and custom business training and curriculum development

12.0.a. Senior Technical Specialist/Lead: Functions at the expert level performing analytical work in process analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to the re-engineering or redesign of a business process with the intent of improving business performance. May act in a lead capacity on complex projects, work independently as a high level technician, or may participate with other analysts on projects of a complex nature or broad scope.

- Must possess a minimum of five (5) years experience in project work in the BPR arena; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must have experience in the analysis, design, development, and implementation of business processes and organization models.
- Must have experience in gathering and documenting business requirements for automated systems.
- Must have to ability to plan, organize, and lead a project.
- Must be able to analyze data and situations (including statistical and financial analysis), identify and solve business problems, reason logically, and draw valid conclusions.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

12.0.b. Technical Specialist: Functions at the journey level under the general direction of a project manager, technical lead, or senior technician, performing progressively responsible analytical work in process analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to the re-engineering or redesign of a business process with the intent of improving business performance, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience on business process analysis and design projects.
- Must be able to analyze data and situations (including statistical and financial analysis), identify and solve business problems, reason logically, and draw valid conclusions.
- Must be able to design and develop effective and efficient business solutions and apply creative thinking in the design of business processes and process performance measures.
- Must be able to gather and document business requirements for automated systems, and conduct testing against documented requirements.
- Must have the ability to identify and resolve business process issues utilizing process design principles, organization models, and technology enablers.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

12.0.c. Business Analyst: Functions at the journey level under the general direction of a project manager or technical leader, performing a variety of tasks pertaining to the analysis, development, installation, implementation, procurement, or support of specified electronic information processing systems, multifunction automated office systems, microcomputer systems, or teleprocessing networks in analyzing the operations of a functional unit with the purpose of developing an automated systems solution, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years experience working on data processing related projects; at least one (1) year of said experience must have been in application development or maintenance.

- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

12.0.d. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

13.0 IT Security

Provide services to ensure the confidentiality, integrity, availability of the CalPERS IT environment and resources. This may include, but is not limited to the CalPERS infrastructure, network, systems and applications.

13.0.a. Project Manager: The Project Manager functions as a project manager and has full management responsibility for the successful completion of projects. The Project Manager manages the project team, providing direction to CalPERS technical and program staff as well as outside consultants. The Project Manager may provide presentations to CalPERS management in matters related to the work of the project.

- Must have a minimum of five (5) years of experience managing IT projects.
- Must have project management experience initiating, planning, executing, controlling, and/or closing processes within the last six years.
- Must possess a Project Management Professional (PMP) or equivalent certification.
- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must have the ability to reason logically and creatively and use a variety of analytical and research techniques to solve complex problems; analyze situations and propose an effective course of action; analyze data; identify the need for and provide creative thinking related to complex problems, develop and evaluate alternatives.
- Must have the ability to establish and maintain cooperative working relationships and to use inter-disciplinary teams effectively in conducting the project.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

13.0.b. Senior Technical Specialist/Lead: Functions at the expert level performing analytical or technical work in support of IT security at CalPERS. May act independently, in a lead capacity on complex projects or may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of ten (10) years experience in technical application of information security, a minimum of five (5) years experience in specified area(s) of knowledge and those five (5) years of said experience must have been at a high level both technically and in measure of responsibility.
- Must possess a Certified Information Systems Security Professional (CISSP), SANS Global Information Assurance Certification (GIAC) or equivalent certification, or have extensive, multifaceted, high level technical information security experience to substantiate an expert level skill set.
- Must have demonstrated experience working in information security for Fortune 50 financial services corporations as well as large state agencies (2 of each).
- Must have the ability to reason logically and creatively, and use a variety of analytical and research techniques or tools to address complex security related problems; analyze situations and propose an effective course of action; analyze data; develop and evaluate alternatives using an appropriate risk assessment methodology and process.
- Must be able to identify the need for and apply creative thinking in the development and implementation of IT security solutions.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.
- Must have current knowledge of IT security best practices and tools for specified area(s).

13.0.c. Technical Specialist: Functions at the journey level under the general direction of a technical lead or senior technician, performing a variety of tasks of analytical or technical tasks pertaining IT security. May participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of four (4) years experience in IT security, a minimum of one (1) year experience in specified area(s) of knowledge.

- Must possess a Certified Information Systems Security Professional (CISSP), SANS Global Information Assurance Certification (GIAC) or equivalent certification, or have extensive, multifaceted, high level technical information security experience to substantiate an expert level skill set.
- Must have demonstrated experience working in information security for Fortune 50 financial services corporations as well as large state agencies (2 of each).
- Must have the ability to reason logically and creatively, and use a variety of analytical and research techniques to solve complex security related problems; analyze situations and propose an effective course of action; analyze data; develop and evaluate alternatives using an appropriate risk assessment methodology and process.
- Must be able to identify the need for and apply creative thinking in the development and implementation of IT security solutions.
- Must be able to establish and maintain cooperative working relationships with others.
- Must have current knowledge of IT security best practices in specified area(s).
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

13.0.d. Systems Analyst: Functions at the journey level under the general direction of the project manager or technical lead, performing services pertaining to the analysis of the operations of a functional unit with the purpose of developing and/or ensuring confidentiality, integrity, availability and appropriate auditing in an automated systems solution. May participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience working on data processing related projects; at least one (1) year of said experience must have been in system analysis and design.
- Must have experience in the development of business, technical, and administrative and security requirements for a project.

- Must have understanding of information technology fundamentals, architecture, and the system development life cycle.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of secure methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

13.0.e. Instructor: Responsible for developing and presenting training to CalPERS staff as necessary under the direction of a program manager or technical lead.

- Must be able to manage tasks related to consulting, planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Must have the ability to select and manage technical training assistants, and organize facilities to support the training effort; develop and maintain a master calendar of events.
- Must be able to communicate effectively with technical and non-technical staff.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

14.0 Training Services

Training Services is providing CalPERS with our information technology and management development training needs. Class size would be

determined by CalPERS need. Specifically the training vendor may conduct training in topics such as:

- Business Engineering
- Industry Standards and Practices
- Emerging Technologies
- IT Strategic Planning
- Hardware
- Software
- Project Management
- Customer Service
- Management Skill Development
- Coaching and Mentoring
- IT Procurement

14.0.a Instructor: Responsible for developing and presenting training on applications and systems to CalPERS staff as necessary at the direction of a project leader or technical lead.

- Must have a minimum of three (3) years of training experience.
- Must be able to manage tasks related to planning, organizing, scheduling, and conducting training.
- Must be able to provide consultation and manuscripts, present instruction, and coordinate the construction or preparation of training aids and materials, using good judgment and discretion in the form, content, and method of presenting the subject material.
- Ability to manage and organize facilities to support the training effort.
- **Must be able to establish and maintain cooperative working** relationships with others.
- Provide end of training report and assessments.
- Must communicate effectively both verbally and in writing with a variety of audience types, both technical and no-technical, using different mechanisms including formal presentations, business case documents, and other analytical and technical documents.

15.0 Business Transformation/Transition

Information Technology projects almost always involve risks that are not directly related to the technical solution. Process enhancements being introduced and the readiness of the organization and its people to

understand and accept these changes are one of the most significant risks. Technical and process changes that are introduced without due diligence to the organizational changes required to support the initiative run a high risk of resistance from the workforce.

- Organization Design (model)

Provide services in creating an organization model. Describe the people-oriented characteristics that need to be in place for an organization to achieve its goals and maximize the probability of desired outcomes.

Each of the dimensions of the CalPERS organization model must be considered:

- Organization Structure
- Culture
- Performance Management
- Leadership Skill Sets
- Communication
- Governance
- Recruiting, Retention and Succession Strategies
- Staff Roles, Responsibilities and Skill Sets

- Transition Management

Process, technology, organization, and the people must transition in a coordinated manner to achieve our business objectives. Provide services in identifying the broad range of issues that are critical to the success of the organization, providing information and clarity on operational and administrative issues as decisions are made. Maintain communication with employees, CalPERS Execs, ITSB leadership, unions, and other stakeholders.

- Process Development and Refinement

Provide services in the study and redesign of IT or business processes and their associated systems to achieve a dramatic improvement in business performance. Assist in the examination and change of the components of business, strategy, processes, technology, organization, and culture.

Specifically, the Business Transformation/Transition vendor may perform the following activities on behalf of CalPERS:

- Develop transition approach/strategy
- Develop enterprise transition plan
- Transition plan implementation
- Conduct change readiness assessments

- Develop road map to transition an organizational entity from its current “as is” state to “soon to be” state
- Determining which IT or business assets, systems, processes, skills are needed to complete a successful transition
- Communication strategy, plan, materials, and execution
- Conceptual organization design
- Define roles, duty statements, governance models, and reporting structures based on best practice organization design principles

15.0.a. Senior Organization Design Specialist: Functions at the expert level performing analytical organization design work. May act in a lead capacity on organization design efforts.

- Must have a minimum five (5) years experience in IT or business organization design & development, two (2) years consultancy experience desired
- Develop road map to transition an organizational entity from its current “as is” state to “soon to be” state
- Ability to determine the IT or business organizational “to be” state
- Ability to perform conceptual and detailed organization design
- Ability to define roles, duty statements, governance models, and reporting structures based on best practice organization design principles
- Analytical minded with strong problem solving skills
- Proficient in communication and persuasion skills
- Must have the ability to establish and maintain cooperative working relationships

15.0.b. Senior Transition Management Specialist: Functions at the expert level performing transition management activities. May act in a lead capacity on transition management activities.

- Must have a minimum five (5) years experience in large organizational transition activities two (2) years consultancy desired

- Must have experience developing a transition approach/strategy
- Must have experience developing an enterprise transition plan
- Must have experience implementing a transition effort
- Must have experience conducting a change readiness assessment
- Communication strategy, plan, materials, and execution
- Analytical minded with strong problem solving skills
- Proficient in communication and persuasion skills
- Must have the ability to establish and maintain cooperative working relationships

15.0.c. Senior Technical Specialist/Lead (Process Design/Development): Functions at the expert level performing analytical work in process analysis, design, development, installation, implementation, procurement and technical support duties pertaining to the re-engineering or redesign of an IT or business process with the intent of improving service and/or service delivery. May act in a lead capacity on process analysis, design, development, installation, and process implementation projects.

- Must have a minimum of five (5) years experience in IT or business process design & development, two (2) years consultancy experience desired
- Must have a minimum of five (5) years design and implementation experience with excellent command of ITIL and ITSM framework
- Analytical minded with strong problem solving skills
- Proficient in communication and persuasion skills
- Must have the ability to establish and maintain cooperative working relationships

16.0 Specialized IT Support Services for Investment Systems/Business

ITSB directly supports the technology and business processing automation needs of CalPERS' Investment operations. We provide a dedicated focus on the fusion of information technology strategies and activities with CalPERS' Investment Offices' business objectives and service needs. This function is critical to Investments ability to effectively use technology to support and improve the administration and operations of the CalPERS' Investment program areas.

We are seeking qualified IT staff augmentation with specific Investment System/Business experience to perform the following types of work:

- Conducting functional and technical analysis and research of investment processes from Front Office to Back Office and across all asset classes
- Making assessments and recommendations for long and short-term strategic planning to include the following areas:
 - Investment System Architecture Design and Implementation
 - Investment Specific Data Management Approaches and Solutions
 - Operational Risk Management Planning
 - Workflow STP re-engineering
 - Business Process Optimization
 - Systems and Applications Outsourcing
 - Integration and use of EAI/ETL systems for investment processes
 - Incorporation of investment industry file and format standards in accordance with current best practices
- Providing services in investment system application specific development, maintenance, or support.
- Conducting diagnostic reviews; writing tactical plans, Feasibility Study Reports (FSR), and Post Implementation Evaluation Reports (PIER).

16.0.a.Chief Investment Systems Technology Strategist: Functions at the planning/advisory level and has overall responsibility for advising CalPERS on the use of IT services associated with the Investment Office.

Responsible for developing, recommending, and delivering information technology strategies that will enable the achievement of current and future Investment program area needs and business objectives. The position has strategic advisory responsibility for Investment's technology use related to:

- Technology Strategies

- Application Development and Maintenance
- Investment Data Strategy and Management
- Investment Technology Architecture
- Desktop/Tools Support
- Investment Business Process Automation
- INVO Commercial Off-The-Shelf (COTS) Software Systems Support

Because of the diversity of the technologies used or planned to be used, it is imperative that the position have in-depth technology knowledge, Investment business-domain knowledge, and provide strong leadership, insight, and direction in the recommendation and establishment of IT-enabled business solutions, IT strategies, practices, and processes that will improve the Investment Offices' operational performance.

- Must possess strong technical, management, and leadership skills in the areas of technology architecture, system development, IT governance, IT operations, customer service management, and project management.
- Must possess a minimum of five (5) years using investment-industry technologies and practices.
- Must possess a minimum of five (5) years experience in developing and leading creative and innovative business solutions utilizing a variety of technologies and methods.
- Must possess a minimum of five (5) years experience in managing medium/large scale IT projects, IT procurements and contract negotiations.
- Thorough knowledge of the principles of IT governance and project management.
- Experience in technology architecture and business process automation.
- Experience in strategic and tactical planning methodologies.
- Knowledge of the principles and practices used in managing organizational change.
- Experience in the principles and practices used in providing effective customer service.

- Must be able to plan, organize, analyze, and lead the work of multi-disciplinary professionals and administrative staff.
- Must be able to analyze and formulate IT and administrative policies, organizations, procedures, and practices.
- Must be able to analyze complex problems and recommend effective courses of action; and prepare and review reports.
- Understanding of nationwide trends, technology and program innovations in the investment industry.
- Techniques of organizing and motivating groups, and personnel management techniques and supervision.
- Technology program development and evaluation.
- Must be able to obtain support from top level executives/management and advise them on a broad range of IT matters.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

16.0.b.Investment Systems Senior Technical Specialist/Lead:

Functions at the expert level performing analytical work in investment systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to specified investment processing systems and/or related software. Ability to work independently as a high level technician, or may participate with other technicians on projects of a complex nature or broad scope.

- Must possess a minimum of five (5) years experience in project work in the specified area(s) of knowledge; at least three (3) years of said experience must have been at a high level both technically and in measure of responsibility.

- Must have experience in the analysis, design, development, installation, implementation, procurement, and/or technical support duties within specified investment processing systems and/or related software packages
- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions; develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

16.0.c. Investment Systems Technical Specialist: Functions at the journey level under the general direction of a project manager, technical lead or senior technician, performing analytical work in investment systems analysis, design, development, installation, implementation, procurement, or technical support duties pertaining to specified investment processing systems an/or related software. May participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of three (3) years experience in the specified area(s) of knowledge.
- Must have experience in the analysis, design, development, installation, implementation, procurement, and/or technical support duties within specified investment processing systems and/or related software packages.
- Must be able to analyze data and situations, identify and solve problems, reason logically and draw valid conclusions; develop effective solutions.

- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to monitor and resolve problems with information processing system hardware, software, and processes.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

16.0.d.Investment Systems Senior Business Analyst: Functions at the expert level performing a variety of tasks pertaining to specified investment processing systems and/or related software in analyzing the operations of a functional unit with the purpose of developing an automated systems solution, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of five (5) years of experience working on investment system related projects; at least three (3) years of said experience must have been in systems analysis.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

16.0.e.Investment Systems Business Analyst: Functions at the journey level under the general direction of a project manager or technical leader performing a variety of tasks pertaining specified investment processing systems and/or related software in analyzing the

operations of a functional unit with the purpose of developing an automated systems solution, and may participate with other analysts on projects of a complex nature or broad scope.

- Must have a minimum of two (2) years of experience working on investment system related projects; at least one (1) year of said experience must have been in application development or maintenance.
- Must be able to analyze data and situations, identify and solve problems, reason logically, draw valid conclusions, and develop effective solutions.
- Must be able to apply creative thinking in the design of methods for processing data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

16.0.f. Business Account Representative: Functions at the journey level under the general direction of a project manager or technical leader working with each line of business, answering questions, removing barriers, and providing support related to technology services. Monitors information technology service performance and serves as the point person to help resolve any related issues. Works to understand the Investment business and current information technology investments, anticipates business needs, and identifies ways technology can help solve business problems and create new opportunities. Applies industry knowledge to help identify existing, as well as emerging, technologies to enhance business performance.

- Must have a minimum of two (2) years of experience working on investment system related projects.
- Must have at least one (1) year of said experience must have been in application development or maintenance.
- Must be able to establish and maintain cooperative working relationships with others.

- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

16.0. g. Quantitative Developer: Functions at the expert level under the general direction of Senior Investment Office staff to assist in the development and implementation of quantitative models, analytics, and tools necessary to support investment strategies. Can act in a lead capacity on complex investment related projects, or can work independently or on a team as a high level technical specialist.

- Must have a minimum of five (5) years experience supporting the design and development of analytical models, tools, or programs used for investment purposes.
- Must have knowledge of the languages and applications used in quantitative development.
- Must have the ability to implement technology solutions for complex business problems. The problems could be mathematical in nature requiring an understanding of linear algebra, probability and statistics.
- Must have the ability to apply creative thinking in the design and development of methods for processing investment related data.
- Must be able to establish and maintain cooperative working relationships with others.
- Must have the ability to express quantitative and technical information in a simple and intuitive manner to a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

17.0 User Experience (UX) Design, Strategy and Research

ITSB manages the user experience design, strategy, and research of all CalPERS web sites and applications with focus on developing highly usable web interactions for CalPERS members, business partners, internal staff and other stakeholders.

The UX Vendor may perform the following types of work:

- Advise CalPERS regarding overall user experience strategy and institutionalizing a user experience methodology at CalPERS
- Conduct in-depth user research and provide recommendations based on analysis
- Provide knowledge transfer and training to User Experience Design Services Unit
- Provide user experience design, information architecture and interaction design services
- Provide accessibility design consultation to ensure compliance with Americans with Disabilities Act (ADA) Section 508 guidelines
- Interface with graphic designers for implementing visual design layer of designs.
- Provide technical project management assistance.

17.0.a.User Experience Strategist: Functions at the expert level acting as client-facing lead on user experience strategies. The Strategist will advise CalPERS regarding user experience methodology and long term strategy for institutionalization at CalPERS by:

- Researching and identifying target audience segments through interviews and contextual observation
- Performing expert reviews of CalPERS user experience design artifacts and products
- Aligning business goals with user needs and expectations through prioritization of user tasks, interface design features and functional requirements
- Creating the vision for user experience and associated UI framework and assets on new products; follow through with the communication, processes and tactics to implement the vision
- Leading rapid iterative prototyping work with varying fidelity/presentation tools

- Demonstrating a command of design methods, tools, communication and presentation skills
- Identifying optimization opportunities through research and analytics data

The following minimum qualifications are required:

- Must possess an undergraduate degree in human computer interaction, cognitive science, information science, or web design
- Must have a minimum three (3) years of experience as an information architect, interaction designer, experience designer, or similar role
- Must have a minimum three (3) years of experience managing design teams, with a track record of building successful design teams
- Must possess expertise in user-centered design and usability best practices
- Must have strong attention to detail, clarity and persuasiveness in verbal and written communications
- Must be able to executive presentation and negotiation skills at a large organization
- Must have passion for design innovation through emerging channels and technologies
- Must possess a portfolio of work demonstrating competency in essential functions
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

17.0.b.User Experience Researcher: Functions at the expert level. The UX Researcher will design and conduct surveys, focus groups, and usability tests for all products by:

- Providing analysis and recommendations to improve the online experience for users
- Communicating user trends through analysis and research
- Collaborating with the user experience team to understand the end-user requirements in all phases of new products or services, including research and development, concept definition, design, implementation, and evaluation.
- Evaluating and understanding current users' experience with CalPERS products and services and identifying meaningful new opportunities for improvements and/or new technology development
- Developing and executing user research plans, user experience mockups and prototypes
- Conducting site visits, contextual inquiries, and remote usability tests, surveys and/or other research to identify, understand and prioritize user needs and workflows, and prioritize and promote design recommendations based on research findings
- Communicating research findings to CalPERS staff
- Providing support to the user experience team with regard to new trends in user experience methods, tools and technology, as well as disruptive design concepts and ideas. Monitor new trends in user experience methods and technology.
- Independently developing solutions using technical background and skills; demonstrating breadth as well as depth in problem solving.

The following minimum qualifications are required:

- Must possess a Bachelor's degree in Computer Science, Computer Engineering, or related discipline with an

emphasis/focus on human-computer interaction, interaction design, cognitive science, visual design or related field

- Must have a minimum of 3 years of experience in user-centered design and research methods or web design
- Must possess in-depth understanding of the theories and principles of user-centered design
- Must have experience leading cross-functional teams
- Must have effective facilitation skills
- Experience in user experience design for mobile devices is desired
- Experience in developing Natural User Interfaces (NUI), such as touch and gesture interactions is desired
- Strong analytical skills
- Must be able to effectively communicate technical data and results.
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

17.0.c. User Experience Designer: Functions at the expert level. UX Designer will design solutions that meet user needs and elicit user requirements through interviews and user-centered research by:

- Defining information architecture and navigation
- Creating wireframes, site maps, process maps, feature lists, mockups, working prototypes and other artifacts to describe the intended user experience
- Working with customers to understand their business models and goals and help define strategy, content, and features for design of the product

- Working with the CalPERS user experience design team to create compelling, highly-usable experiences for multiple communication channels including web, mobile, iPad, and IVR.
- Researching interaction design and technology trends

The following minimum qualifications are required:

- Must have a minimum 3 years of user experience design experience for software and web applications which leverage emergent technologies
- Must have experience designing interaction solutions for web and mobile
- Must demonstrate exceptional design skills, production value and attention to detail
- Must have the ability to create user flows, wireframes, and visual designs
- Must have strong working knowledge of Photoshop, Illustrator, InDesign, Fireworks, and associated design tools
- Must have experience with user interface design patterns and standard user centered design methodologies
- Must have strong written and verbal communication skills
- Must have an understanding of common software project management practices
- Must have an understanding of common software development practices
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business case documents, and other analytical and technical documents.

17.0.d.Interaction Designer: Functions at the expert level. The Interaction Designer will design Web-based products that are attractive, intuitive, and easy to use by:

- Experience with designing for all form factors: desktop, mobile, and tablet, as well as touch and gestural interactions
- Working closely with CalPERS staff from requirements and early-stage concepts through product launches
- Contributing to visual design, interaction design, develop wireframes and prototypes, participating in usability testing, and brainstorming with customers, user experience team, and developers
- Contributing to the overall organization product strategy

The following minimum qualifications are required:

- BA/BS in Design (or related field) desired
- Must have a minimum three (3) years job experience as an Interaction Designer
- Must possess a strong portfolio that demonstrates visual and interaction design skills
- Must have experience designing Web applications for desktop, mobile, and tablet devices
- Must have the ability to think strategically to help shape future products
- Must have strong interpersonal skills and the ability to communicate effectively
- Must have experience with ADA Section 508 and accessibility standards
- Must be able to establish and maintain cooperative working relationships with others.
- Must communicate effectively both verbally and in writing with a variety of audience types using different mechanisms including informal updates, formal presentations, business

case documents, and other analytical and technical documents.

V. BIDDER'S CONFERENCE (OPTIONAL)

CalPERS will conduct a Bidder's conference to include all interested parties on **June 4, 2012 at 10:00 a.m. PST** at the following location:

California Public Employees' Retirement System (CalPERS)
400 P Street, LPN Auditorium
Sacramento, CA 95814

An Agenda will be provided at the Bidder's conference. Questions for the conference must be submitted no later than as specified in the Schedule of Events. Bidder's Conference Questions should be submitted via electronic mail to:

ossd_contractsadmin@calpers.ca.gov

Please reference RFP No. 2011-6339 in the subject line.

Any questions asked at the Bidder's conference are not binding and are subject to clarification. The final answer to all questions will be issued in an addendum.

VI. NOTICE OF INTENT TO PARTICIPATE (OPTIONAL)

Proposers who have received this RFP are asked to state their intention to participate by the date specified in the Schedule of Events. A sample Notice of Intent to Participate is included as Attachment L. The Notice of Intent to Participate is an optional requirement, to be used to manage the solicitation review process.

The Notice of Intent to Participate should be submitted via electronic mail to:

ossd_contractsadmin@calpers.ca.gov

Please reference RFP No. 2011-6339 in the subject line.

VII. PROPOSAL REQUIREMENTS

Proposals must describe the Proposer's qualifications and expertise in the format outlined in the RFP. A Proposal will not be considered complete unless it contains all of the items described below. The forms are posted to the CalPERS

website for Proposers to download. Proposers are not to alter the forms other than by providing the required information.

A. Technical Proposal

1. Cover Letter

A cover letter, which will be considered an integral part of the Proposal, must be signed by an individual who is authorized to bind the Proposer contractually. The cover letter must state the individual is so authorized and must identify the title or position that the individual holds in the Proposer's firm. An unsigned cover letter shall cause the Proposal to be rejected. The letter must contain all of the following:

- a. A statement to the effect that the Proposal is a firm and irrevocable offer good for 180 days.
- b. A statement expressing the Proposer's willingness to perform the services as described in this RFP.
- c. A statement expressing the Proposer's availability of staff and other required resources for performing all services and providing all deliverables as described in this RFP.

2. Proposal/Proposer Certification Sheet

Proposers must complete and return the Proposal/Proposer Certification Sheet, Attachment A. This form must be signed by an individual who is authorized to bind the Proposer contractually. Failure to do so may cause the Proposal to be disqualified.

3. Statement of Qualifications and Minimum Qualifications Certification

Proposers must complete and return one Statement of Qualifications and Minimum Qualifications Certification, Attachment B, for each vertical or sub-vertical for which a bid has been submitted, certifying that the Proposer satisfies all minimum qualifications and requirements. This certification must be signed by an individual who is authorized to bind the Proposer contractually. Failure to do so may cause the Proposal to be disqualified.

4. California Taxpayer and Shareholder Protection Act Declaration

Proposers must complete and return the California Taxpayer and Shareholder Protection Act Declaration, Attachment C. This form

must be signed by an individual who is authorized to make the declaration on behalf of the Proposer. Failure to do so may cause the Proposal to be disqualified.

5. Darfur Contracting Act Declaration

Proposers must complete and return the Darfur Contracting Act Declaration, Attachment D. This form must be signed by an individual who is authorized to make the declaration on behalf of the Proposer.

6. Client Reference and Contractor History

A minimum of three (3) Client Reference and Contractor History forms (Attachment E) must be returned **for each classification bid per vertical**. Proposers are responsible for contacting current or previous clients who can provide references for the Proposer's company where the project is complete, or has been substantially completed. References must be based on the experience of the company and not individual employees. However, since managing company owners represent their company, Proposers' managing owners at the time of proposal submission may submit references based on their own previous work experience. "Managing owners" include sole proprietors, general partners, managing limited liability members, or for corporations, officers and directors.

Clients **must** use the Client Reference and Contractor History form. One Client Reference and Contractor History form may be used by the same client for multiple classifications within the same vertical as long as the client evaluator can certify all classifications being proposed. Only one (1) vertical/sub-vertical per form. Two (2) separate people giving references for the same project will count as one (1) reference. Each project used for reference must be a separate and distinct project and a project may only be the subject of one reference.

Proposers must submit a minimum of three (3) to a maximum of five (5) Client Reference and Contractor History Forms for each vertical or sub-vertical proposed. Each form will be scored individually and by the number of forms submitted. Scoring for the Client Reference and Contractor History form is described in detail in Section IX, Evaluation Process, Subsection B, Technical Proposal Evaluation.

Proposers must include the completed Client Reference and Contractor History forms with their response to the RFP. Failure to

do so will deem the Proposal unresponsive for those classification(s) being bid where the minimum has not been met.

7. Proposal Questionnaire

Proposers must submit responses and documentation as requested on the Proposal Questionnaire, Attachment F. The information requested must be provided in the prescribed format. Responses that deviate materially from the prescribed format may lead to the rejection of the Proposal.

8. Disabled Veteran Business Enterprise Contract Participation

In accordance with Public Contract Code section 10115, et. seq., and California Military and Veterans Code section 999, et. seq., every Proposer must comply with the Disabled Veteran Business Enterprise (DVBE) contract participation requirements.

This solicitation requires a minimum 3% DVBE participation percentage (goal).

California Certified MicroBusinesses are exempt from the 3% DVBE participation percentage (goal). Certified MicroBusiness vendors currently in the pool will be allowed to bid on existing and/or new verticals, which may result in a new contract.

Attachment G contains information and instructions with which each Proposer must comply in order to achieve the participation goal. All Proposers must complete and return the exhibits and the documentation required in Attachment G with their Proposal. Failure to do so may result in rejection of the Proposal.

Final determination of a Proposer's DVBE participation shall be at the sole discretion of CalPERS.

9. Subcontractors

Proposers must complete and return the List of Proposed Subcontractors, Attachment H. All subcontractors are subject to final approval by CalPERS.

10. Required Attachments Certification Checklist

Proposers must complete and return the Required Attachments Certification Checklist, Attachment I.

11. Joint Venture Submittals

In general, a joint venture is an association of two or more persons or companies to carry on a commercial enterprise as co-owners. As applied to this RFP, a joint venture is a partnership between the persons or companies formed for the purpose of submitting a Proposal and of performing the contract if a contract is awarded to the joint venture. If a Proposal is submitted by a joint venture, the Proposal must include the joint venture agreement and supporting documentation required by CalPERS Joint Venture Policy, Exhibit 2.

The Proposal must include copies of the forms listed below signed by **each** venturer. The forms may be photocopied, but shall not be retyped or modified in any manner.

- a. Cover Letter;
- b. Statement of Qualifications and Minimum Qualifications Certification, Attachment B;
- c. Proposal/Proposer Certification Sheet, Attachment A;
- d. California Taxpayer and Shareholder Protection Act Declaration, Attachment C; and
- e. Darfur Contracting Act Declaration, Attachment D
- f. Contract-Related Disclosure Form, Attachment J.

12. Preference Programs

The State of California (State) established the following preference programs to encourage participation in state contracting by various segments of the business community and to stimulate business and employment in geographic areas determined to be economically distressed. CalPERS may contact certified Small Businesses with information regarding current or upcoming solicitations for the purpose of implementing and supporting the state programs.

a. Small Business Preference

A five (5) percent bid preference is available to a certified small business firm. The Small Business preference will be applied to those Proposers declaring their eligibility on the Proposal/Proposer Certification Sheet, Attachment A

Information regarding this preference program may be obtained at www.pd.dgs.ca.gov/smbus/default.htm.

This preference is also available to a non-small business claiming twenty-five (25) percent California-certified small business subcontractor participation. The non-small business preference will be applied to those Proposers declaring their eligibility on the List of Proposed Subcontractors, Attachment H.

b. Target Area Contract Preference Act

Information regarding this preference program may be obtained at www.pd.dgs.ca.gov/disputes/default.htm. Proposers seeking to obtain a Target Area Contract Preference Act (TACPA) preference must complete and submit the Target Area Contract Preference Act Preference Request, STD. 830, with the Proposal. This form is available to download at the link provided above.

c. Enterprise Zone Act

Information regarding this preference program may be obtained at www.pd.dgs.ca.gov/disputes/default.htm. Proposers seeking to obtain a Enterprise Zone Act (EZA) preference must complete and submit the Enterprise Zone Act Preference Request, STD. 831, with the Proposal. This form is available to download at the link provided above.

d. Local Agency Military Base Recovery Area Act

Information regarding this preference program may be obtained at www.pd.dgs.ca.gov/disputes/default.htm. Proposers seeking to obtain a Local Agency Military Base Recovery Area Act (LAMBRA) preference must complete and submit the Local Agency Military Base Recovery Area Act Preference Request, STD. 832, with the Proposal. This form is available to download at the link provided above.

13. Disabled Veteran Business Enterprise Program Incentive

In accordance with Section 999.5(a) of the Military and Veterans code, an incentive will be given to responsive and responsible Proposers who commit to DVBE participation as outlined below. Information regarding this preference program may be obtained at <http://www.pd.dgs.ca.gov/smbus/default.htm>. CalPERS may contact certified DVBE Businesses with information regarding

current or upcoming solicitations for the purpose of implementing and supporting the state program.

Attachment G contains information and instructions with which each Proposer must comply in order to achieve the participation incentive. **All Proposers must complete and return the exhibits and the documentation required in Attachment G with their Proposal in order to be eligible to receive the DVBE incentive.**

The DVBE Program Incentive will be applied to the total points possible at the conclusion of the evaluation process to responsive and responsible Proposers, and cannot be used to achieve any minimum point requirements.

Final determination of a Proposer's DVBE participation shall be at the sole discretion of CalPERS.

<u>Confirmed DVBE Participation of:</u>	<u>DVBE Incentive</u>
5% or Over	5%
4% to 4.99%	4%
3.01% to 3.99%	3%

14. CalPERS Contract-Related Disclosure Form

Proposers must complete and return the CalPERS Contract-Related Disclosure Form, Attachment J, Pursuant to title 2, California Code of Regulations section 559.1. This form must be signed by an individual who is authorized to bind the Proposer contractually.

B. Fee Proposal

In addition to the Technical Proposal, Proposer must submit a Fee Proposal in the format prescribed in Attachment K. Failure to do so may cause the Proposal to be disqualified.

VIII. SUBMISSION OF PROPOSALS

- A. Proposals must be submitted as set forth below. Each Proposal must include two parts: (1) the Technical Proposal, and (2) the Fee Proposal.

1. The Technical Proposal

Submit a total of four (4) copies of the Technical Proposal in a hard copy format. Submit two (2) copies on compact disc (CD) in Microsoft Word format.

- One CD must contain a complete Technical Proposal labeled, “**Master Copy**”, the Technical Proposal includes the cover letter, attachments, and all other required documentation, **except** the Fee Proposal.
 - One CD must contain a complete technical proposal labeled, “**Reproduction Copy**”. No proprietary information should be included on this CD. The Technical Proposal includes the cover letter, attachments, and all other required documentation, **except** the Fee Proposal.
- a. Two (2) copies of the Technical Proposal must be **unbound**, (i.e., no binder covers, comb bindings, etc.) and submitted as follows:
- (i) One unbound copy containing original signatures must be marked “**Master Copy**”, and
 - (ii) The second unbound copy must be marked “**Copy for Reproduction.**” All pages containing proprietary information should be removed and a cover sheet must be included which provides:
 - 1. the firm’s name;
 - 2. total number of pages; and
 - 3. identification of all pages removed due to proprietary information.
- b. The remaining two (2) copies must be **bound** and organized in a manner to facilitate ease of review by evaluators.

2. Fee Proposal

Submit two (2) hard copies and one (1) CD labeled Fee Proposal, Attachment K, in a separate, sealed envelope in the Proposal package. Clearly label the envelope as “**FEE PROPOSAL FOR RFP NO. 2011-6339, submitted by (YOUR COMPANY NAME).**”

- B. The Proposal package(s) must be sealed and clearly marked on the outside as **“RESPONSE TO REQUEST FOR PROPOSAL NO. 2011-6339, DO NOT OPEN.”**

Failure to clearly identify the Proposal on the outside of the package may result in the rejection of the Proposal. CalPERS is not responsible for receipt of any Proposal that is improperly labeled and accepts no responsibility for lost and/or late delivery of Proposals.

- C. The Proposal package must be received no later than as specified in the Schedule of Events in Room W1570 addressed as follows:

U.S. Mail: Contracts Officer
California Public Employees' Retirement System
P.O. Box 942702
Sacramento, CA 94229-2702

Personal Delivery or Commercial Delivery Services:
Contracts Officer
California Public Employees' Retirement System
Lincoln Plaza West
400 Q Street, Room W1570
Sacramento, CA 95811

All Proposal packages will be date and time-stamped upon receipt in Room W1570. Proposals received in Room W1570 after the final filing date and time will not be considered.

U.S. Mail: Proposal packages delivered via the United States Postal Service WILL NOT be delivered directly to the street address. Instead, it will be processed as bulk mail and held at a local post office for CalPERS to pick up.

Please allow sufficient time for the mailing/delivery processes mentioned above to ensure that the Proposal package will arrive in Room W1570 by the final filing date and time.

- D. Prior to the final filing date, a Proposer may withdraw a Proposal already submitted to CalPERS in order to correct, modify, or complete it. The Proposal may be withdrawn by written notification to CalPERS Contracts Officer, signed by an authorized agent. The Proposal may be resubmitted thereafter, but will not be accepted after the final filing date and time.
- E. Upon submission, all Proposals become the property of CalPERS and will be regarded as public records and may be subject to public review to the extent provided in the California Public Records Act (Government Code section 6250 et. seq.) If the Proposer seeks to exempt certain pages or items from public inspection, Proposer should clearly mark them as

“PROPRIETARY INFORMATION.” CalPERS will use reasonable efforts to exempt such pages or items from public disclosure, but makes no representations or warranties that such efforts will be successful. **Please note that the entire Proposal cannot be identified as proprietary information.**

- F. Except as specifically requested by CalPERS, submission of a Proposal or any portion thereof via facsimile transmission, electronic, or magnetic media is not allowed. CalPERS will not accept or consider any Proposal material submitted in this manner.
- G. CalPERS may reject all Proposals if, based on its exclusive discretion, the Proposals do not meet CalPERS need.
- H. Only one Proposal from an individual, firm, partnership, corporation or combination thereof, will be considered. Multiple Proposals submitted by a Proposer under more than one name will be cause for rejection of all Proposals submitted by the Proposer.

IX. EVALUATION PROCESS

All Proposals received on or before the final filing date and time as specified in the Schedule of Events will be evaluated as outlined below. CalPERS may request clarifications from Proposers at any phase of the evaluation process for the purpose of clarifying ambiguities in the information presented in the Proposal. Section X, General Information, provides the detailed clarification process.

CalPERS, in the exercise of its exclusive discretion, may permit the Proposer to correct any error, omission, deviation, or other defect (see Section X, General Information). Alternatively, CalPERS may waive such error, omission, deviation, or other defect. However, such waiver shall in no way modify the RFP documents or excuse the Proposer from full compliance with the RFP requirements.

A. Preliminary Review

The Technical Proposal will be reviewed to determine completeness of required documentation and compliance with DVBE requirements as prescribed in Section VII.A.8, (Proposal Requirements). CalPERS staff will use the Required Attachments Certification Checklist, Attachment I, submitted by the Proposer to confirm receipt of all required documents. CalPERS may reject any or all Proposals that fail to meet these requirements.

B. Technical Proposal Evaluation

Upon satisfactory preliminary review, the Technical Proposal will be reviewed to determine the Proposer's ability to meet the minimum qualifications for the verticals and classifications bid.

Each team member will independently evaluate the Proposer's Technical Proposal, using the Proposal Evaluation Sheet, Exhibit 3. A minimum score of 49 points on the technical evaluation is required in order to continue into the Fee Proposal evaluation. The Statement of Qualifications and Minimum Qualifications Certification (Attachment B), signed by an authorized agent of the Proposer, will serve as the Proposer's affidavit that the Proposer can provide the services.

The Proposal will be scored at the classification level. Each classification will be scored independently of the others. It is possible that a Proposer could be successful in one classification within a vertical but disqualified in another. Disqualification at the classification level will not disqualify the Proposer from participating in other classification categories.

The Client Reference and Contractor History forms will be used to award points to the Technical Proposal. There is a minimum requirement of three (3) signed Client Reference and Contractor History forms for each classification bid within a vertical. One Client Reference form may be utilized by the same client for multiple classifications within the same vertical as long as the client evaluator can certify all classifications being proposed. Failure to provide the minimum will cause the Proposal to be rejected for that classification. Any or all of the clients submitting references on behalf of the Proposer may, at the discretion of CalPERS, be contacted to verify the information. In addition, CalPERS reserves the right to contact additional customers/clients of the Proposer to obtain additional references at the time procurement documents are issued.

There are two areas of scoring the Technical Proposal for a maximum of 70 points possible as described below. Points will be awarded to each classification proposed as follows:

Number of Client Reference and Contractor History Forms Submitted	Awarded Points
3 Forms	5 Points
4 Forms	8 Points
5 Forms	10 Points

The Proposer will also receive points based on the **customer satisfaction** rating received on the Client Reference and Contractor History forms. The three highest rated forms submitted for the classification will be scored for a possible maximum of 60 points (i.e., three references returned with a rating of 10). Each of the three client reference forms within each classification will be scored as follows:

Customer Service Rating Score on Client Reference and Contractor History Form	Awarded Points
No Score Provided	0 Points
Score of 1 to 7	5 Points
Score of 8	10 Points
Score of 9	15 Points
Score of 10	20 Points

C. Fee Proposal Evaluation

Proposers who meet the minimum requirements and score a minimum of 49 points on the technical evaluation will continue in the evaluation process and will have their Fee Proposal opened. The Fee Proposal evaluations will be conducted by classification. Separate scores for each classification bid will be awarded.

The fee proposal for each classification will be scored on the hourly rates bid for Year 2. The Proposer with the lowest bid for each classification will receive the maximum score of 30 points. All other Fee Proposals for that classification will be rated proportionately as follows:

$$\frac{\text{Lowest Classification Total Amount}}{\text{Proposer's Classification Total Amount}} \times \text{Possible Points (30)} = \text{Score}$$

D. Award of Contract

1. Contract awards will be made to all Proposers who have met all of the requirements and reached a cumulative score of at least 70 points per classification per vertical. It is possible for Proposers to be awarded a single classification within a vertical if that is the only classification that the Proposer meets the minimum requirements and score requirements. A zero dollar contract will be awarded by CalPERS. The award of this contract does not make any guarantees as to how many, if any, actual awards of Statements of Work and Purchase Orders might be made during the term of the Spring-Fed Pool. **There will be no negotiation as to any of the contract language – all terms and conditions must be agreed to as set forth in the Proposed Contract, Exhibit 5.**

2. All Proposers will be notified of the outcome of the RFP process. Notice of CalPERS intent to award to the selected Proposers will be posted in CalPERS Contracts Management Section and at www.calpers.ca.gov for five (5) State business days before the award of contract is made.

X. GENERAL INFORMATION

A. eBusiness Alerts

CalPERS eBusiness Partners registered for this RFP will receive an eBusiness Alert notification with links to the latest documents and information posted on the CalPERS website. This service is an optional communications tool and the eBusiness Partner takes full and independent responsibility for compliance with any notices, policies, procedures, documents, or requirements set forth by the content in this RFP. CalPERS eBusiness Partners are encouraged to access the CalPERS website routinely. CalPERS assumes no responsibility for any failure of the eBusiness Alert tool to provide notification of the respective website changes.

B. Errors and Omissions

If a Proposer discovers any ambiguity, conflict, discrepancy, omission or other error in this RFP, the Proposer should immediately notify CalPERS of such error in writing and request clarification or modification of the document. This notification must be submitted pursuant to the procedures described in Section X.C., "Questions Regarding the RFP."

Modifications will be made by addenda issued pursuant to Section X, E., "Addenda." If a Proposer fails to notify CalPERS of a known error prior to the final dates of submission, or an error that reasonably should have been known, the Proposer will assume the risk of proposing. If awarded the contract, the Proposer will not be entitled to additional compensation or time by reason of the error or its later correction.

C. Questions Regarding the RFP

1. Proposers requiring clarification of the intent and content of this RFP may request clarification only by submitting questions via electronic mail to:

ossd_contractsadmin@calpers.ca.gov.

Please reference RFP No. 2011-6339 in the subject line.

To ensure a response, questions must be received by the date and time specified in the Schedule of Events. Responses to questions received by this date will be posted to the CalPERS website, without identifying the source of the query, on or before the date specified in the Schedule of Events.

2. Questions regarding the competitive proposal procedure only (i.e., questions dealing with format, packaging, DVBE, etc.) may be submitted via electronic mail to:

ossd_contractsadmin@calpers.ca.gov.

Please reference RFP No. 2011-6339 in the subject line.

Responses will be directed to the respective Proposer only. CalPERS will use reasonable efforts to respond to questions in a timely manner.

D. CalPERS Restricted Contact Policy

Respondents must comply with Government Code section 20153, as it exists and as amended by the Legislature and implemented by the Board of Administration from time to time, concerning restricted contact policies. A copy of the existing code section is attached as Exhibit 4.

E. Addenda

CalPERS may modify any part of the RFP, prior to the date Proposals are due, by issuance of one or more addenda. Addenda issued after the final filing date may occur to correct a discrepancy, omission or other such typographical error within the RFP; however, the modification(s) will not have a material effect on the previously submitted Proposals. Addenda will be numbered consecutively and posted to the CalPERS website.

F. Clarifications

CalPERS may request clarifications from Proposers at any phase of the evaluation process for the purpose of clarifying ambiguities in the information presented in the Proposal. CalPERS will advise the Proposers in writing of the documentation required and the time line for submission. Failure to submit the required documentation by the date and time indicated may cause CalPERS to deem the proposal nonresponsive.

If deemed necessary by CalPERS, at its sole discretion, the following omitted and/or additional information may be collected by mail, facsimile, or other method:

1. Signed copies of any form submitted without a signature. This provision does not apply to unsigned Cover Letter. (see Section VII.A.1.)
2. Data or documentation omitted from any submitted attachment or form.
3. Information and material needed to clarify or confirm certifications or claims made by a Proposer.
4. Information or material needed to correct or remedy an immaterial defect in the Proposal.

Other than information requested by CalPERS, no Proposer will be allowed to alter the Proposal or add new information after the final filing date.

G. Protest Procedures

1. Any Proposer may file a protest against the awarding of the contract. A Notice of Protest must be filed during the five (5) State business days that CalPERS intent to award notice is posted. Within five (5) calendar days after filing the Notice of Protest, the protesting Proposer shall file with CalPERS a Statement of Grounds for Protest, which will contain a full and complete written statement specifying the grounds for the protest and the facts on which they are based. Protests are limited to the following grounds:
 - a. CalPERS failed to follow the procedures stated in the RFP.
 - b. CalPERS failed to apply correctly the standards for reviewing the format requirements or failed to evaluate the Proposals as specified in the RFP.
 - c. CalPERS failed to follow evaluation and rating methods as specified in the RFP.
 - d. CalPERS proposes to award contract to other than the Proposer(s) receiving the highest rating(s) and satisfactorily meeting all requirements of the final contract negotiations.
 - e. Any applicant or Proposer that has been disqualified under the Restricted Contact Policy of the California Government

Code as implemented by the Board of Administration will have the right to protest this decision, in accordance with the aforementioned protest procedures.

2. The Notice of Protest and Statement of Grounds for Protest shall be signed by an authorized individual and submitted via electronic mail to:

ossd_contractsadmin@calpers.ca.gov

Please reference RFP No. 2011-6339 in the subject line.

3. Once a Notice of Protest has been filed, the contract may not be awarded for protested service verticals(s) until either the protest is withdrawn or CalPERS has decided the matter. If no Statement of Grounds for Protest is filed, the Notice of Protest will be deemed withdrawn.
4. Following the receipt of a Statement of Grounds for Protest, CalPERS General Counsel will determine whether the protest is to be resolved by written submission of material or decided by a Board-appointed "Protest Review Committee." Parties will be provided the applicable protest procedures and schedule. The decision of the General Counsel and/or Committee shall be final and all parties will be notified of the decision.
5. There is no basis for protest if all Proposals are rejected based on the best interests of CalPERS.

H. Other Criteria

1. Right to Reject Any or All Proposals

The policy of CalPERS is to solicit Proposals with a bona fide intention to award a contract. This policy will not affect CalPERS right to reject any or all Proposals or to cancel the solicitation at any time.

2. Proposer's Costs

All costs for developing Proposals and attending interviews at CalPERS headquarters are entirely the responsibility of the Proposer and shall not be chargeable to CalPERS.

3. Review of Proposals Subsequent to Contract Award

Written or oral Proposal evaluation debriefings will not be given to unsuccessful Proposers. However, all Proposals which are

retained by CalPERS as a permanent record, shall be made available for public inspection.

4. Subcontracting Subsequent to Contract Award

If, at any time during the term of the contract, CalPERS or the Contractor require the previously unanticipated expertise of a specialist(s) to provide services contemplated in this RFP, upon agreement by both parties and under the direction of the Contractor, a subcontractor(s) relationship may be established at CalPERS expense and the fee negotiated at the time the subcontracting relationship is established.

5. Conflict of Interest

Compliance is required with California Public Contract Code Sections 10410 and 10411 relating to employment of current and former state employees.

6. Corporate Qualifications To Do Business In California

Proposers who are either foreign or domestic corporations must be in good standing and must be qualified to do business in California currently and during the term of the contract.

7. Follow-On Contracts

No person, firm, or subsidiary thereof or their officers or directors, who has been awarded a consulting services contract, or a contract which includes a consulting component, may submit a proposal or be awarded a contract for the provision of service, delivery of goods or supplies, or any other related action that is required, suggested, or otherwise deemed to be an outgrowth of advice or recommendations submitted pursuant to the consulting service contract.

8. Execution of Contract

The contract will be executed on the CalPERS Standard Agreement, Form STD. 213. If the contract is awarded to a joint venture, all venturers will be required to sign the contract. Exhibit 5 sets forth non-negotiable CalPERS minimum contract provisions.

9. News Releases

News releases pertaining to the award resulting from this RFP shall not be made without prior written approval from CalPERS Chief Executive Officer or her designee.