

Information Technology Project Request

**Feasibility Study Report
Executive Approval Transmittal**



Department Name

Commission on Teacher Credentialing

Project Title (maximum of 75 characters)

Credentialing Web Interface Project

Project Acronym

CWIP

Department Priority

1

Agency Priority

NA

APPROVAL SIGNATURES

I am submitting the attached Feasibility Study Report (FSR) in support of our request for the Department of Finance's approval to undertake this project.

I certify that the FSR was prepared in accordance with State Administrative Manual Sections 4920-4930.1 and that the proposed project is consistent with our information technology strategy as expressed in our current Agency Information Management Strategy (AIMS).

I have reviewed and agree with the information in the attached Feasibility Study Report.

Chief Information Officer

Darren Addington

Date Signed

7/15/08

Printed name: Darren Addington

Budget Officer

Crista Hill

Date Signed

7/15/08

Printed name: Crista Hill

Department Director

Dale Janssen

Date Signed

7-15-08

Printed name: Dale Janssen

Agency Secretary

Date Signed

Printed name:

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION B: PROJECT CONTACTS

1. Submittal Date	July 15, 2008
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2. Type of Document	FSR	SPR	PSP Only	Other:
	X			
Project Number	6360-0900-1			

3. Project Title	Credentialing Web Interface Project	Estimated Project Dates	
Project Acronym	CWIP	Start	End
		7/1/2009	6/30/2010

4. Submitting Department	Commission on Teacher Credentialing (Commission)
5. Reporting Agency	

6. Project Objectives
Retire the existing contracted custom means of performing self servicing credentialing activity via the web; provide all functionality the existing vendor is currently providing; provide public and stakeholders availability to current up-to-the-minute credential data in real time with a user friendly web interface that is fully integrated into the Commission's existing enterprise-wide credentialing Automation system; allow direct control over changes, updates, enhancements, and security by the Commission.

8. Major Milestones	Est Complete Date
FSR Approved by Control Agencies	1/10/2009
Budget Change Proposal Approved	1/10/2009
Software/Hardware Procured/Installed	9/1/2009
Integration Vendor Contract Signed	9/1/2009
System Designed	1/1/2010
System Developed	3/1/2010
System Tested	5/1/2010
User Acceptance Tested	6/1/2010
System Implemented	6/30/2010
PIER	6/30/2011
Key Deliverables	
Completed Pre-Project Workup	6/1/2009
Awarded System Integration Contract	9/1/2009
System Developed	2/28/2010
Testing of the System Completed	5/28/2010
Documentation and Training Complete	6/29/2010
System Implemented	6/30/2010

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION B: PROJECT CONTACTS**

7. Proposed Solution	Host the credentialing web interface in-house via a customer facing application consistent with the Commission's credentialing automation system environment and strategic direction, including data sharing and reuse of current Credentialing Automation System Enterprise (CASE) business logic, with web user views based on existing views.	
	Project #6360-09001	
	Doc. Type FSR	

Executive Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Agency Secretary	--	--						
Dept. Director	Dale	Janssen	916	322-6253				djanssen@ctc.ca.gov
Budget Officer	Crista	Hill	916	322-3459				chill@ctc.ca.gov
CIO	Darren	Addington	916	322-4359				daddington@ctc.ca.gov
Project Sponsor	Patty	Wohl	916	323-0794				pwohl@ctc.ca.gov

Direct Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Doc. prepared by	Darren	Addington	916	322-4359				daddington@ctc.ca.gov
Primary contact	Darren	Addington	916	322-4359				daddington@ctc.ca.gov
Project Manager	Sr. ISA	TBD	916					

INFORMATION TECHNOLOGY PROJECT SUMMARY
SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS

1.	What is the date of your current Operational Recovery Plan (ORP)?	Date	7/15/08	Project # 6360-09001		
2.	What is the date of your current Agency Information Management Strategy (AIMS)?	Date	2003-04 – The Current AIMS Plan is incorporated as part of the Department Strategic Plan			Doc. Type FSR
3.	For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.	Doc.	NA – See Strategic Plan References			
		Page #	14 -15 of FSR			

4.	Is the project reportable to control agencies?	Yes	No
		X	
	If YES, CHECK all that apply:		
X	a) The project involves a budget action.		
	b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.		
X	c) The estimated total development and acquisition cost exceeds the departmental cost threshold and the project does not meet the criteria of a desktop and mobile computing commodity expenditure (see SAM 4989 – 4989.3).		
	d) The project meets a condition previously imposed by Finance.		

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION D: BUDGET INFORMATION**

Project # 6360-09001	
Doc. Type FSR	

Budget Augmentation Required?										
	No									
	Yes	X	If YES, indicate fiscal year(s) and associated amount:							
			FY	2008/09	FY	09/10	FY	10/11	FY	
			\$0		\$892,068		\$0		\$0	

PROJECT COSTS

1.	Fiscal Year	2008/09	2009/10	2010/11			TOTAL
2.	One-Time Cost	8,172	824,968	0			\$833,140
3.	Continuing Costs	0	166,046	427,451			\$593,497
4.	TOTAL PROJECT BUDGET	\$8,172	\$991,014	\$427,451			\$1,426,637

SOURCES OF FUNDING

5.	General Fund						\$
6.	Redirection	8,172	98,068	427,451			\$533,691
7.	Reimbursements						\$
8.	Federal Funds						\$
9.	Special Funds (TCF 407)	0	892,946	0			\$892,946
10.	Grant Funds						\$
11.	Other Funds						\$
12.	PROJECT BUDGET	\$8,172	\$991,014	\$427,451			\$1,854,088

PROJECT FINANCIAL BENEFITS

13.	Cost Savings/Avoidances	\$0	\$0	\$86,501 *		\$0	\$86,501
14.	Revenue Increase	\$0	\$0	\$0		\$0	\$0

Note: The totals in Item 4 and Item 12 must have the same cost estimate.

* This cost savings of \$86,501 will be an ongoing cost savings.

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION F: RISK ASSESSMENT INFORMATION

Project # 6360-09001	
Doc. Type FSR	

RISK ASSESSMENT

	Yes	No
Has a Risk Management Plan been developed for this project?	X	

General Comment(s)
See FSR Section 7

3.0 BUSINESS CASE

3.1 Business Program Background

The licensing and credentialing functions of Commission on Teacher Credentialing (Commission) were operating marginally on outdated equipment that had reached its processing capacity. In addition, the hardware manufacturer no longer supported the technology platform (HP 3000) that housed the Credentialing Automation System (CAS). The CAS system did not meet the current functional or informational needs of the Commission's business units. The CAS system was developed in-house and did not integrate smoothly with external systems. It lacked a comprehensive, Web-enabled application/renewal submission function that would enhance the Commission's ability to serve customers efficiently and to provide remote access to data for Institutions of Higher Educations (IHEs), County Offices of Education (COEs), other education agencies, teachers, and public stakeholders.

In April 2000 the Commission approved a Budget Change Proposal (BCP) for the Teacher Credentialing Service Improvement Project (TCSIP). The BCP funding for this project was included in the 2000-01 budget with spending constraints conditioned upon approval of a Feasibility Study Report (FSR). The Commission used a business-based procurement process for this project as described in an Alternative Procurement Business Justification (APBJ).

The solution proposed in the FSR approved by the Department of Information Technology and the Department of Finance on June 19, 2001, implemented a turnkey Web-based application that allowed stakeholders to look up application/license processing status and to submit renewal applications and payments via the Web. The new system utilizes a standard toolset, Oracle database, and commercial off-the-shelf applications. Information access by stakeholders is via the Web.

The TCSIP was an e-government/e-business project to address Commission business opportunities through a three-phase approach. Phase 1 implementation was designed to permit credential holders, educators, universities and public Stakeholders to look up credentials held via the Web. Phase 2 expanded the Web functionality to include submission of credential renewals and payments on-line. Phases 1 and 2 were developed by ChoicePoint Governmental Services, Inc. (ChoicePoint), previously EzGov. The solution used the current version eForms Engine and Business Rules Engine available at that time.

Phase 3 replaced CAS, the Commission's legacy data systems and equipment, with the Credentialing Automation System Enterprise (CASE) to facilitate processing and reporting efficiencies to meet the objectives stated in the FSR. CASE was built on an Oracle database backend with a Siebel Customer Relationship Management (CRM) frontend. Phase 3 also included the expansion of web based service to include submission of applications recommended by Commission approved agencies such as IHE's. This web application was developed by ChoicePoint. The solution used the current version of eForms Engine available at that time.

Phase 1 was launched on schedule in October 2001, and Phase 2 was successfully implemented in July 2002. Phase 3 was implemented in February 2005.

Currently the web based credential lookup, credential renewal, approved agency credential recommend processes and a direct application process (added as an enhancement in 2006) are all hosted and maintained by ChoicePoint for the Commission. Credential data is sent nightly from the Commission to ChoicePoint and generally posted on the web in the afternoon of the next day. ChoicePoint makes changes and enhancements to the systems that are needed for the Commission. The Commission relies on ChoicePoint for security.

Customers and Users: Teachers, teacher candidates, colleges, universities, school districts, county offices of education, other educational agencies approved to submit recommendations, Commission employees, and anonymous public persons.

3.2 Business Problem-Opportunity

The existence of two separate solutions (CASE and ChoicePoint) has drawbacks. Changes in either solution can have unanticipated impacts on the other. Data integration between segregated systems is costly and time consuming. Data can be out of sync or inconsistent. There is no shared upgrade path. Maintenance of the ChoicePoint site is continually outsourced.

Credential data is sent nightly to ChoicePoint and posted on the web in the afternoon of the next day, which means the data being viewed on the web is at least day old. Due to outdated technology that will need to be updated and the service delivery available through ChoicePoint, minor changes to the system take several months and are costly, and the ongoing maintenance and hosting costs are anticipated to increase. As an example, the price quoted by ChoicePoint for a change requested by the Division of Professional Practices was nearly 30 percent of the cost for a full time staff position within the Commission that could fulfill such requests in-house. Changes to bring the ChoicePoint system into compliance with the new State of California web standard and templates could cost several hundred thousand dollars. The Commission must rely on a third party (ChoicePoint) for security rather than maintain direct security control.

3.3 Business Objectives

- Eliminate drawbacks of two separate existing systems, including unanticipated impacts of changes in either systems on the other, costly and time consuming data integration between the two systems, out of sync or inconsistent data, and lack of a shared upgrade path.
- Allow for the most current up-to-date data to be viewed on the web.
- Eliminate dependency on outdated technology that will need to be updated, and associated unnecessary time and cost constraints on system changes due to current vendor service delivery.
- Leverage time and cost efficiencies of a full-time staff position within the Commission that could fulfill system change requests in-house.
- Eliminate the need for continually outsourced maintenance of existing hosting site, avoid anticipated increases in ongoing maintenance and hosting costs, and avoid a potential cost of several hundred thousand dollars in changes necessary to bring the existing system into compliance with the new State of California web standard and templates.
- Maintain direct security control and eliminate unnecessary reliance on a third party for security.
- Allow for legislatively mandated changes to be implemented in timely manner.

- Simplify processes that are currently complicated due to having two separate systems. Some examples are not having to create and send data files back and forth to another system on a daily basis, and only supporting one set of tables and business logic for the system.
- The new system will be able to be user tailored, thus making the system more user friendly for our customers.
- Note that the new system will have no impact or interaction with the California Longitudinal Teacher Information Data Education System (CALTIDES)

3.4 Business Functional Requirements

1. Search for a Credential for a Public School Teacher

Allows an individual, such as parents to search, by name, and receive public credential information matching the search criteria.

2. Application Status and Documents Held

Allows individuals to view information pertaining to applications received by the Commission and documents issued by the Commission. The user must be able to select a document to view the details (such as subject, issue date, disciplinary actions, etc.) and can produce a printable unofficial version.

3. Renew Credential

A web application that lists any documents meeting mandatory online renewable criteria. The applicant selects a document, answers professional conduct questions, and completes a payment process.

4. Track Payment (Renewal Only)

Allows individuals to enter the transaction number they received after completing the “Renew Credential” application and view the status of a credit card payment such as “funds settled”. This also displays the renewed document associated with the payment. This service is provided through a third party vendor.

5. Recommended Applications

A. Approved Agencies. A web application that allows Commission authorized agencies to input credential information that supports a decision by the agency to recommend the granting of the credential for the applicant. Upon completion by the agency the applicant is notified. The applicant will need to complete the remainder of the application and provide payment.

B. Teacher or Candidate. A web application that allows an applicant to complete the application and payment for an application previously submitted by a Commission authorized agency.

6. Track Payment (Recommendation and Direct Applications)

Allows individuals to enter the transaction number they received after completing the “Recommend Credential” application or “Direct Applications” and view the status of a credit card payment such as “funds settled”. This service does not display any recommended document information associated with the payment. This service is provided through a third party vendor.

7. Direct Application (Non-Recommendations Only)

Allows individuals to submit an application to the Commission for issuance of a document that is neither renewable nor requires recommendation by or submission through a Commission authorized agency.

4.0 BASELINE ANALYSIS

4.1 Current Method

Each of the current online services are independent of each other. The following information describes tasks that must be repeated for each online service.

- Complex logic specific to the service is performed and maintained by ChoicePoint. This logic enforces required business rules.
- Complex logic for CASE specific to the service is performed and maintained by CTC. This logic also enforces business rules.

Below are steps used to perform changes to look up tables. CTC and ChoicePoint use separate sets of tables. In addition to repeating these steps for each online service, each of these steps are repeated for CTC and ChoicePoint.

- List of Values (LOV) information must be displayed for these separate services. Each of the services uses a separate set of tables. Each field corresponds to a LOV table. Each LOV table contains a list of codes and code descriptions applicable to that field. There are 37 tables with the number of columns ranging from 2 to 7 and the number of rows ranging from 100 – 5,000.
- To modify codes or descriptions in the tables Commission business staff initiates a request to the vendor. The vendor performs a “dump” of the data for each table and sends the raw table data to a secure web site. Commission staff pick up the raw data and manually oversee the conversion of the data into an excel document. The excel document is handed off to business staff. Business staff performs an extract from Siebel to obtain the most current data for that table. A manual comparison of the Siebel table against the vendor’s table occurs to identify and add missing data. Business staff then return the excel file to technical staff. Technical staff manually convert the excel file back to a raw data form and put it on an ftp for the vendor to pick up. The vendor picks up the raw data and loads it into a test system. Business staff logs into the test system and validate that the changes are or are not there.
- These steps are repeated until the desired results are achieved (given the level manual review and conversion there is a high degree of inaccuracy and, therefore, this process often occurs more than once before it is correct and ready for production.) Once the desired results are achieved the vendor moves the information into production during their next regularly scheduled maintenance, per the service level agreement.

1. Search for a Credential for a Public School Teacher

The Commission uses complex logic for creating a daily extract of data that reflect business requirements and criteria necessary to identify and display information pertaining to teacher persons and document information. Additional logic is applied to convert the data into a format agreed upon during a prior phase of TCSIP. This logic is complex and consists of conversion and creation of data necessary to properly display only information that deemed to be public information. ChoicePoint uses complex logic that loads, displays, and modifies the daily data file specific to business rules necessary in providing this service. The product eForms is used to apply business rules. The version of eForms used was current at the time of implementation and differs from versions used in other services.

2. Application Status and Documents Held

The Commission uses complex logic for creating a daily extract of data that reflect business requirements and criteria necessary to identify and display information pertaining to teacher persons, applications, and document information. Additional logic is applied to convert the data into a format agreed upon during a prior phase of TCSIP. This logic is complex and consists of conversion and creation of data necessary to properly display only those applications and documents that are valid. ChoicePoint uses complex logic that loads, displays, and modifies the daily data file specific to business rules necessary in providing this service. The product eForms is used to apply business rules. The version of eForms used was current at the time of implementation and differs from versions used in other services

3. Renew Credential

The Commission uses complex logic for creating a daily extract of data that reflect business requirements and criteria necessary to identify and display information pertaining to teacher persons, applications, and document information. Only documents that meet the online renewable business rules and criteria are included in this daily extract. It is mandatory that individuals use this online renewal service. Additional logic is applied to convert the data into a format agreed upon during a prior phase of TCSIP. This logic is complex and consists of conversion and creation of data necessary to properly display only those documents that are renewable online. ChoicePoint uses complex logic that loads, displays, and modifies the daily data file specific to business rules necessary in providing this service. The product eForms is used to apply business rules. The version of eFormes used was current at the time of implementation and differs from versions used in other services

The Commission picks up a daily file from a secure web site. The file contains a record of each completed renewal transaction. The record contains information or data related to the person, the document (credential information pertaining to the renewed document), and the payment. The data within each record undergoes an automated evaluation process. The evaluation process is complex logic that mimics the manual evaluation process. Logic includes having to determine “missing” data. This is data not included in the record yet required in the business rules and Siebel. Business rules include having to compare the inbound data to existing data contained in Siebel. As such, the complex logic and evaluation process take place outside of Siebel. Upon completion of the logic and data manipulation the data is entered into Siebel and now

reflect the results of the automated evaluation (meaning if all of the rules for granting the document have been met the automated process grants the document).

4. Track Payment (Renewal Only)

The Commission is unable to have any interaction with this information and can only view it like the end user.

5. Recommend Applications

CTC has designated staff that has administrative authority allowing them to log into the recommendation site and add, remove, or modify authorized agency users including assigning usernames and passwords. Currently there are approximately 616 approved agency users.

Currently recommended applications are not associated to documents already held by an individual forcing the authorized agency user to enter redundant information. For example, an individual may hold a preliminary multiple subjects teaching credential and the recommending agency is submitting a recommendation for a clear multiple subjects teaching credential. The end user must reenter all of the information contained in the preliminary in order to recommend and create the new clear document.

Currently applicants too perform redundant data entry. For example the applicant may already have accurate address and telephone information contained in CTC's CASE system; they must reenter all of the information in order to complete the recommended application process.

ChoicePoint uses complex logic that loads, displays, and modifies the daily data file specific to business rules necessary in providing this service. The product eForms is used to apply business rules. The version of eForms used was current at the time of implementation and differs from versions used in other services

The Commission picks up a daily file from a secure web site. The file contains a record of each completed recommendation transaction. The record contains information or data related to the person, the document (credential information pertaining to the recommended document), and the payment. The data within each record undergoes an automated evaluation process. The evaluation process is complex logic that mimics the manual evaluation process. Logic includes having to determine "missing" data. This is data not included in the record yet required in the business rules and Siebel. Business rules include having to compare the inbound data to existing data contained in Siebel. As such, the complex logic and evaluation process take place outside of Siebel. Upon completion of the logic and data manipulation the data is entered into Siebel and now reflect the results of the automated evaluation (meaning if all of the rules for granting the document have been met the automated process grants the document).

6. Track Payment (Recommendation Only)

The Commission is unable to have any interaction with this information and can only view it like the end user.

7. Direct Application (Non-Recommendations Only)

ChoicePoint uses complex logic that loads, displays, and modifies the daily data file specific to business rules necessary in providing this service. The product eForms is used to apply business rules. The version of eForms used was current at the time of implementation and differs from versions used in other services.

The Commission picks up a daily file from a secure web site. The file contains a record of each completed direct application transaction. The record contains information or data related to the person, the document title only (currently this is the only data available for selection), and the payment. The direct application process cannot constrain information presented to the individual because it is independent. Due to the lack of information available with the direct online application, the current system does not perform an automatic evaluation process. Direct applications must undergo the same manual evaluation currently performed by CTC staff for “paper based” applications.

4.2 Technical Environment

A high level diagram of the two systems that are being used for Phase 1, 2, and 3 of the TCSIP is shown in Figure 1, below.

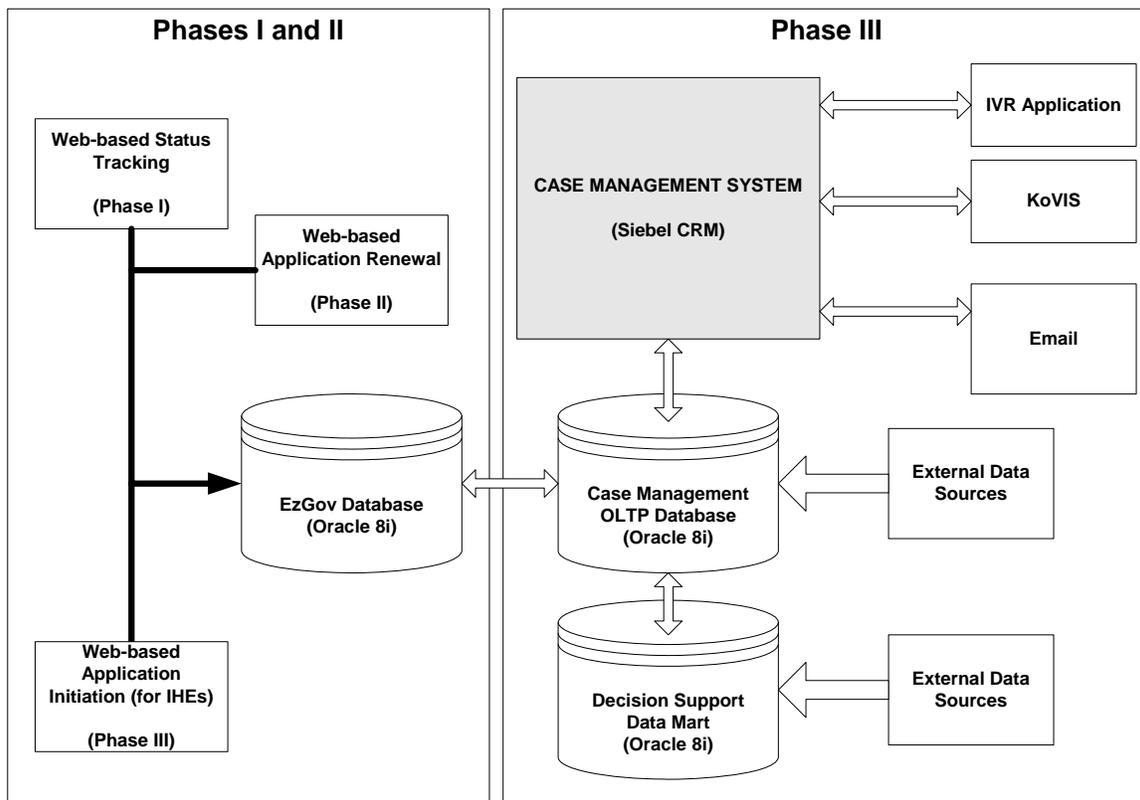


Figure 1 TCSIP Systems

A. CASE/Siebel

The CASE solution is based on Siebel software, which is a compiled commercial off-the-shelf (COTS) software package, equipped with a built-in software development toolkit (SDK) allowing customizations and extensions to the “vanilla” product.

Siebel utilizes an n-tiered architecture: client, gateway server, application server(s), and a database server. Clients access the Siebel application either as dedicated web clients or as mobile (disconnected) web clients. Dedicated clients do not have most of the application layers present on the local machine – instead, the application logic is retrieved as needed from the application server. The Siebel application server maintains numerous connections to the database and reviews the status of service requests and performs certain associated tasks.

B. ChoicePoint

All Web-based functionality is hosted by ChoicePoint in an ASP configuration. ChoicePoint’s FlexFoundation product suite is based on technologies complying with Java 2 Enterprise Edition (J2EE) standards.

The ChoicePoint components for Phases 1 and 1 are shown in Figure 2, below.

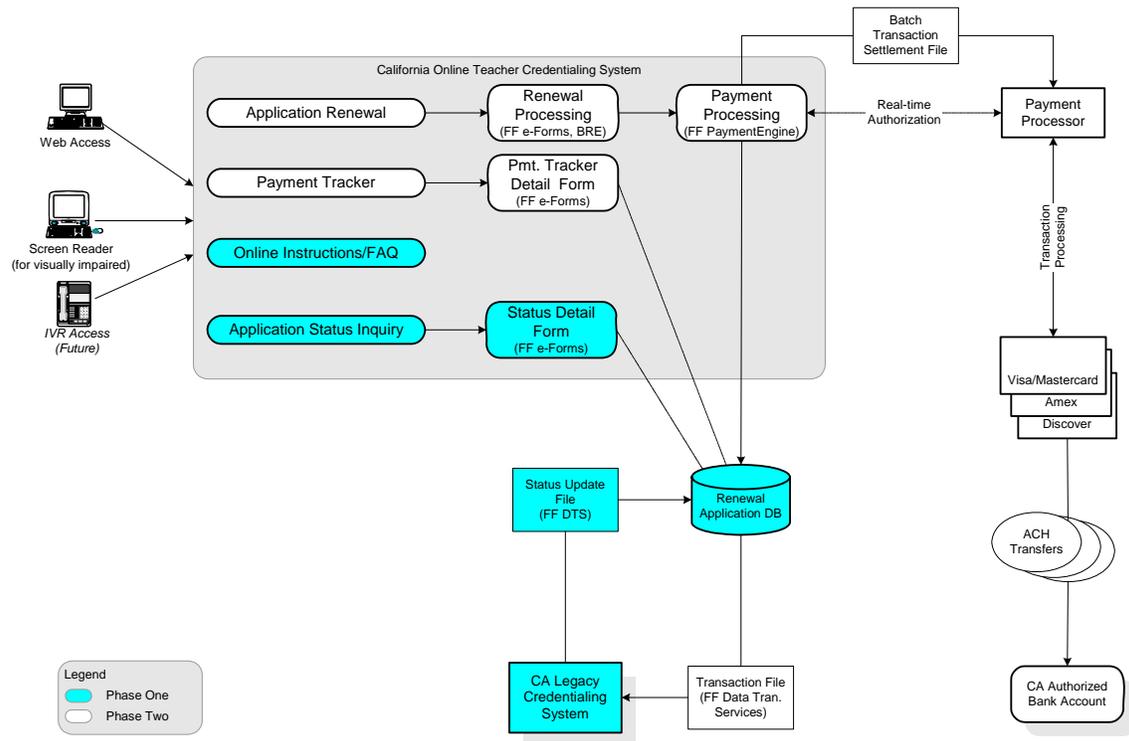


Figure 2 Components for Phase 1 and 2

4.2.1 Existing Infrastructure

A. CASE/Siebel

Siebel Logical Architecture

Siebel eBusiness architecture includes a core set of object definitions that are grouped into different layers depending on the object's function and characteristics. Additionally, there is a core set of HTML templates and style sheets that control the appearance of the user interface. Developers can modify object definitions and templates, or create new ones, to tailor Siebel applications to meet the organization's business requirements.

Siebel Web templates occupy the top layer of the architecture. Siebel object definitions are grouped into the middle three layers (logical user interface, business objects, and data objects). The physical relational database management system (RDBMS) database occupies the bottom layer. Developers modify Web templates and style sheets using a text editor or a raw code HTML editor. Developers modify Siebel object definitions using Siebel Tools.

Objects depend on objects defined in the layers below, but are insulated from each other. Changes to objects in one layer may require little or no changes to the layers below. For example, developers can control how data is presented by modifying objects in the user interface layer, without having to modify objects in the business logic layer. Likewise, developers can change the color and other style characteristics of the user interface by modifying Web templates and style sheets, without having to modify object definitions.

Physical User Interface Layer. This layer contains Siebel Web template files that control the style and structure of the user interface. Web templates consist of HTML tags and proprietary Siebel tags. Siebel tags are embedded within the HTML of template files and serve as placeholders for user interface objects defined in the repository, such as controls and applets. At runtime the Siebel Web Engine reads the tags, replaces them with interactive Web controls and values based on the UI object definitions, and renders the HTML that will be read by the user's browser.

Logical User Interface Layer. Object definitions in this layer are the visual representation of objects in the Business Objects Layer. They define the interface presented to the user at run-time, and allow users to manipulate data. Examples of user interface objects include applets, views, and controls, such as buttons and check boxes. User interface objects also define the information that associates objects in the repository with the Siebel Web templates.

Business Objects Layer. Object definitions in this layer describe individual business entities (such as Accounts, Contacts, or Activities) and the logical groupings and relationships among these entities. Business objects are based on data object definitions.

Data Objects Layer. Object definitions in this layer provide a logical representation of the underlying physical database. For example, object definitions such as table, column, and index describe the physical database. These object definitions are independent of the installed RDBMS.

DBMS. The third-party database management system manages the Data Objects Layer. It is not a part of the Siebel eBusiness Application. CTC uses an Oracle database as the backend database for CASE. Each layer of the Siebel object model contains several principal object types. Most of these object types contain child objects that further define the given object type.

Siebel Physical Architecture

Though there are many ways the Siebel production environment can be configured, Siebel recommends that the major components that make up that enterprise be distributed across multiple application servers to minimize contention for resources, increase scalability, and achieve higher system availability.

The middle-tier of the Siebel Enterprise is identified by the File System, Gateway Server, Siebel Enterprise Server, and corresponding Siebel Servers (Object Managers and Non-Object Managers). With the exception of the File System, every middle-tier component can be scaled to reside on its own physical system, or systems, as user demands increase along side possible server hardware limitations.

A Siebel deployment in its most basic form includes:

Entity	Description
Siebel clients	Includes Siebel Web Client, Dedicated Web Client, Wireless Client, Mobile Web Client, Handheld Client, and Siebel Tools Client.
Siebel Database Server and Siebel File System	Stores the data and physical files used by Siebel clients and Siebel Enterprise Server.
Siebel Enterprise Server	Includes the Siebel Servers, Enterprise Server, and Siebel Gateway. Collectively, these entities provide both batch mode and interactive services to and on behalf of Siebel clients. You may only install one Enterprise Server per machine.

This architecture is discussed in more detail in the Siebel Installation Guide for Windows.

The various hardware platforms that comprises the CASE production environment is illustrated in Figure 3, below.

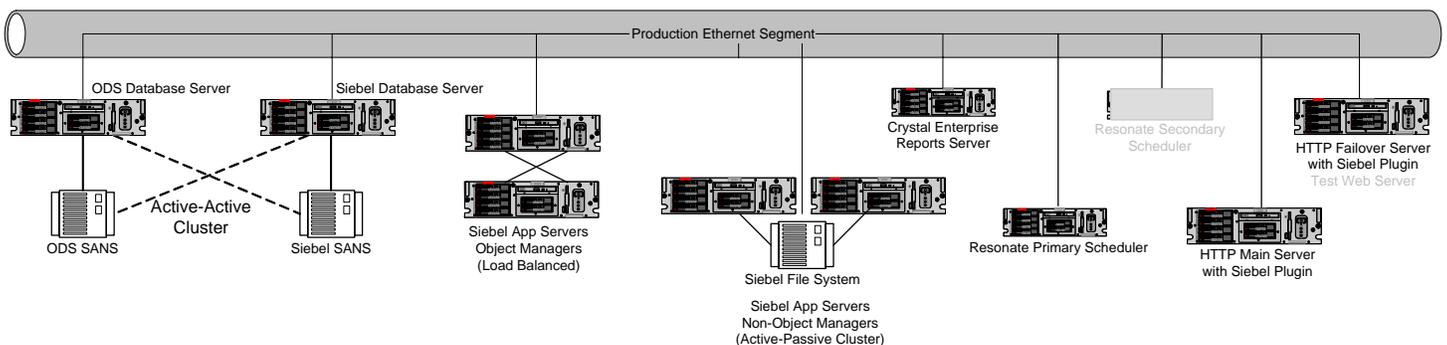


Figure 3 CASE Hardware Platform

B. ChoicePoint

1. Technologies comply with Java 2 Enterprise Edition (J2EE) standards for a scalable and portable platform across operating systems and hardware platforms.
2. Environmental and security controls. The Web component is hosted in an environmentally secure facility that keeps servers up and running 24 hours a day, 7 days a week. It utilizes EMC high availability storage configuration, RAID 1 (mirrored disk pairs) disk storage, and ISS Intrusion Detection. It uses Oracle databases and Oracle transaction commit and rollback mechanisms to ensure each transaction is atomic, consistent, isolated and durable.
3. Internet applicant self-service. The ChoicePoint *e-Forms Engine and Business Rules Engine* is used for development of electronic forms, field-level validation, and complex business logic required to display application status. Each Phase of TCSIP used the most current version of e-Forms that was available at that time, thus there are multiple versions of this product currently in production.

5.0 PROPOSED SOLUTION

5.1 Solution Description

The Commission is proposing to host the credentialing web interface in-house and to provide the public and stakeholders single point of entry availability to user tailored credential data in real time with a user friendly front end web interface fully integrated into the Commission's existing CASE system.

Exhibit 5-1, on the following page, is a sample of how the single point of entry facilitates functions available for a teacher to take based on his/her authentication when a matching record exists in CASE.

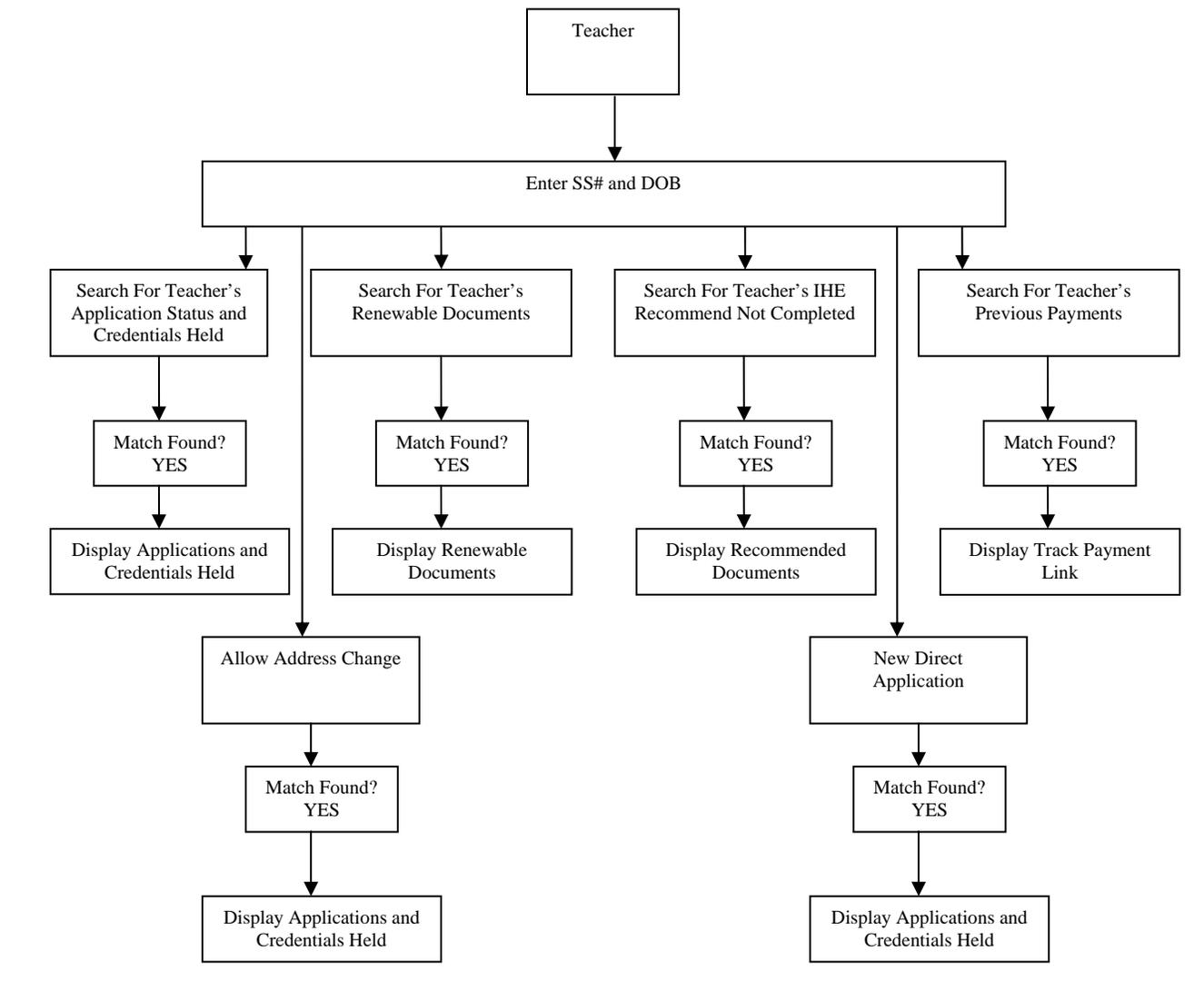


Exhibit 5-1 Single Point of Entry Availability

The solution in Exhibit 5-2, below, provides an integrated solution with the Commission's current environment utilizing one database and one set of business logic.

Siebel Self-Service Architecture

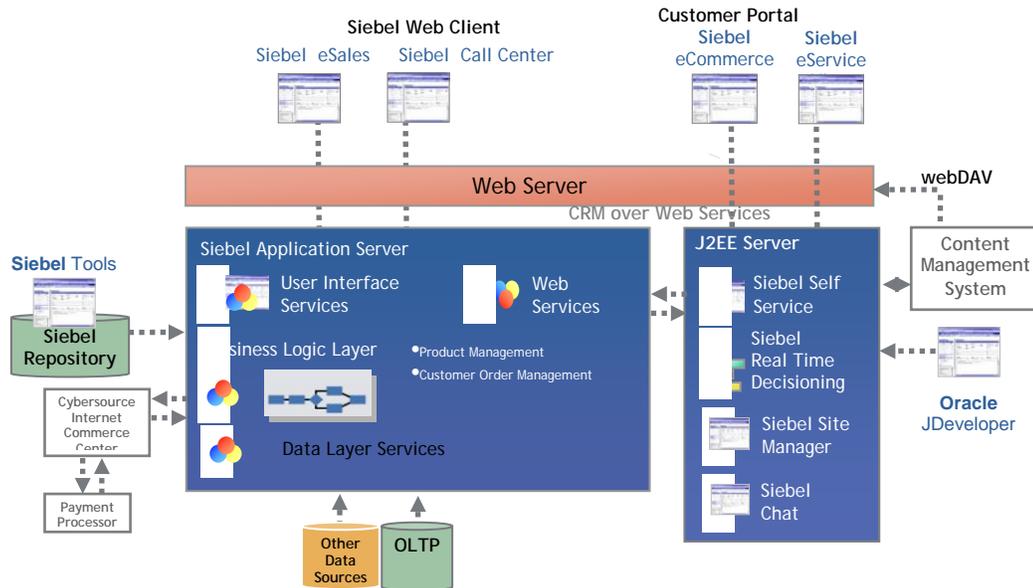


Exhibit 5-2 Siebel Self-Service Architecture

Description

- A customer facing Siebel application that operates on the same database as the call center application already used by Commission employees
- Siebel developers build views to be exposed to web users based on the same objects as the existing Siebel views
- Access to Siebel Data tailored specifically to the needs and authority assigned to individual users
- The eService application shares the same database already in place for the CASE application
- Updates made to the data in either application are immediately visible to users of the other application upon screen refresh

5.2 Rationale for Selection

The proposed solution will provide current, up-to-the-minute credential information and all of the functionality that ChoicePoint is currently providing. In addition, adding a position to support in-house service allows direct control over changes, updates, enhancements, and security by the Commission.

This solution facilitates integration of call center and web channels with a customer facing Siebel application that operates on the same database as the call center already

used by Commission employees. Siebel developers would build views to be exposed to web users based on the same objects as the existing Siebel views. Updates made to the data in either application are immediately visible to users of the other application.

Implementation of CWIP is projected to pay for itself within approximately 10 years.

Increasing User Adoption – A Customer-Centric Approach

Effective online self-service solutions start with the customer's point of view. The self-service platform should be a natural evolution of the company's service platform, and organize information and integrate relevant systems so that all the resources are collected in one place. This ensures that the online self-service solution will be the natural starting point for a customer's support needs and ensures that end users will actively adopt it and keep using it. This maximizes the benefits for the customer and the organization alike.

This proposed solution will help enable the Commission to meet the following strategic goals and objectives in the Commission's current Strategic Plan. The CWIP meets four of the Commission's six primary goals in the Strategic Plan.

Goal 1: Promote educational excellence through the preparation and certification of professional educators.

Objectives:

2. Grant credentials, certificates and permits as set out in regulation and statute
4. Conduct, monitor and evaluate the programs and systems the Commission operates to maintain quality and assure the systems alignment with each other and other state systems

How: This proposed system will allow the Commission to respond to new regulations and statutes quicker, more accurately and more cost effectively than the current system since there will only be one unified system as opposed to the current segmented system that requires changes to multiple systems.

Goal 3: Provide quality customer service

Objectives:

1. Provide services tailored to specifically defined customer needs and groups
2. Provide current and consistent information
3. Provide timely, accurate and responsive processing of credential applications, disciplinary cases.

How: Currently it is both difficult and expensive to tailor the solution to meet customers changing needs as the online services are independent of each other. Keeping the two systems in sync is difficult since it requires updating at least six different sets of tables with multiple versions of business logic that is maintained in two separate systems. The proposed integrated solution will be much easier to maintain since it is a COTS package that allows for a customized look and feel, and yet has the built in tools to simplify the process. One unified system will provide current, consistent, timely, accurate information in a real time mode, as opposed to the current one to two day delay between transactions and processing. This system uses the latest innovative technology of a CRM, web development, and database system.

Goal 4: Enhance working relationship with stakeholders

Objectives:

1. Maintain contacts with and respond respectfully to a diverse customer base
2. Collaborate with stakeholders to develop and implement Commission policies

How: The Commission's Internet website has become the Commission's primary form of communication with customers and stakeholders. This system will enhance their credentialing needs by providing easy user-tailored access to credential information and disciplinary actions, and ensure the information is accurate and up to date.

Goal 6: Maximize the effectiveness of the agency and its staff through the optimal use of technology, ongoing staff development and maintenance of a positive work environment

Objectives:

1. Use technologies to support both ongoing operations and innovations designed to increase efficiency
2. Communicate effectively to share information and increase productivity
3. Conduct periodic review of the efficiency of the day-to-day operation and financial accountability of the Commission

How: This system will increase the efficiency of the Commission as centralizing data eliminates inconsistent, out of sync displays of credential information.

The proposed solution will provide the following advantages over the existing system:

- A integrated upgrade path with the Commission's current CASE system.
- Facilitated sharing of data across customers, stakeholders, and Commission employees
- Ability to reuse business logic built for the call center to the web channel
- Leverage Siebel capabilities provided by recent releases, such as Haley's Rules Engine, and the Task based user interface
- Positioned to more easily take advantage of new functionality provided in future Siebel releases
- Simplified platform for using Siebel web services
- Allow trained business staff to actively participate in creating business logic featured in the many of the Siebel upgrade features that allow business users to use plain English tools for creating business rules (such as Haley's)
- Decrease dependency of consultants to provide services for the Commission
- Single database provides best possible data quality
- All maintenance can be performed by Siebel trained resources
- Future Siebel upgrades more easily performed
- Easier to leverage existing functionality already built for the CASE application
- Level of Effort is far less than a custom portal solution.

Siebel Security

Siebel Business Applications adhere to common security standards to facilitate the integration of its applications into the customer environment. Oracle (owner of Siebel) is not a vendor of specific security components; instead, Siebel Business Applications are designed so that customers can choose a security infrastructure that best suits their specific business needs.

Siebel Business Applications provide an open authentication architecture that integrates with a customer's selected authentication infrastructure. Oracle supports the strict standards of user and database authentication required for this application.

The components of Siebel security architecture include

- User authentication for secure system access
- End-to-end encryption for data confidentiality
- Authorization for appropriate data visibility
- Audit trail for data continuity
- Secure physical deployment to prevent intrusion
- Web browser security settings

Application Security Framework for Siebel eService allows the Commission to establish a secured application security framework, where we can decide which application functionality and data content will be for public access and which will be accessible to approved stakeholders. The application will authenticate registered users and control the data and functionality each authenticated user can access, to protect privacy and avoid conflicts.

The security framework for eService will include the following features:

- Anonymous Use – Allows limited use by nonregistered users
- Registration – Allows nonregistered users to register on the eService site
- Authentication – Stores and then authenticates password and user data of registered users
- Access Control – Controls user access to views and data

Utilizing Oracle and Siebel's security framework will ensure that all confidentiality of data and CTC and State security standards will be adhered too. This includes regulations in the State Administrative Manual (SAM) Chapter 5300 and the State Information Management Manual (SIMM).

Siebel Payment Processing

- Siebel offers out of the box components in eCommerce and eService to facilitate payment processing
- Siebel does not perform the actual authentication or processing of the payment. Integration to a third party is needed (such as Payment-Tech that is currently being utilized by ChoicePoint). This integration is facilitated by the availability of tables, views, business components, workflows, etc. created for payment processing
- In eCommerce, customers can check their billing history and make payments online through the 'My Account' link
- If payment is made by credit card, the credit card is validated. Validation consists of checking that the credit card number is valid (using the Mod 10 algorithm), that the expiration date is in the future, and that all required fields are completed. If the number is not valid, an error message appears and the payment process is restarted.

Summary

The proposed solution will help the Commission to meet many of its strategic goals and objectives and greatly improve customer service for and substantially improve the quality of credential data presented to stakeholders. The CWIP allows for data sharing and

reuse of current CASE business logic, with web user views based on existing in-house views.

5.3 Other Alternatives Considered

Utilizing the Department of Technology Services (DTS) for this project is not a feasible solution since it would not meet the goals and objectives of the Commission as stated above. The system needs to be highly integrated into the Commission’s existing CASE system that is fully supported by the Commission. DTS does not currently support any Siebel systems or have any expertise in supporting them. During the TCSIP, utilizing DTS for the Siebel CASE system was analyzed, and it was found to increase cost significantly and would require both the Commission and DTS staff to have expertise in Siebel products that the systems utilize.

Custom Web Portal Utilizing Siebel’s Web User Interface Dynamic Developer Kit (UIDDK) Interface Solution

Another system that was considered by the Commission is creating the Commission’s own custom web portal and utilizing Siebel web product called UIDDK to interface directly with the Commission’s current CASE system and database in a real time environment. Although this would accomplish most of the same goals as the proposed alternative it would also be much more difficult and costly to maintain and change in the future. This system is illustrated in Exhibit 5-3, below.

Siebel Web UI DDK – Architecture

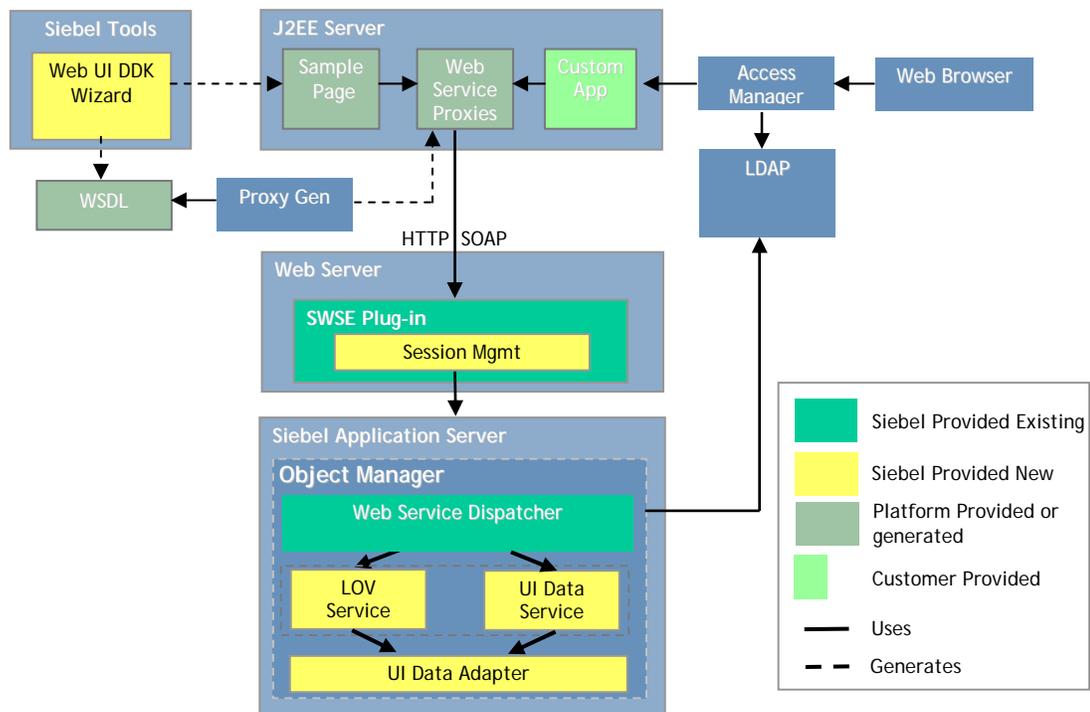


Exhibit 5-3 Siebel UIDDK Architecture

Description

- Utilities in Siebel Tools ‘kick start’ the creation of a custom portal by generating fully functional ‘sample’ J2EE artifacts (JSP Pages, Java classes, etc) for selected Siebel views
- The Java developer can import the generated JSPs into a Java Web development tool for customizations to the user interface
- Has access to Siebel Data
- Siebel Web Services are exposed which provide access to business components and business objects. Many are available out of the box and new ones can be created using the wizard.
- The custom web portal accesses the Siebel data in real time by leveraging these web services.
- The web services provide access to common data operations like query, insert and update

Pros

- Custom portal allows most flexibility in modification of appearance – although the latest version of Siebel eService provides almost the same level of flexibility
- Components are automatically generated to simplify integration between Siebel and the web site
- Site can be edited and maintained by J2EE skilled resources

Cons

- Developers are needed for both Siebel and J2EE components
- More difficult upgrade path
- Level of Effort
- Additional effort required to make any changes to the generated J2EE components

6.0 PROJECT MANAGEMENT PLAN

The Commission is committed to the success of the CWIP. To this end, the Commission has developed a project management plan that complies with Department of Finance’s (Finance’s) Information Technology Project Management Methodology as presented in the State Information Management Manual (SIMM). This project management plan will be used to determine the success of this project.

This project management plan is presented in the following sections:

- 6.1. Project Manager Qualifications
- 6.2. Project Management Methodology
- 6.3. Project Organization
- 6.4. Project Priorities
- 6.5. Project Plan
- 6.6. Project Monitoring
- 6.7. Project Quality
- 6.8. Change Management
- 6.9. Authorization Required.

6.1 Project Manager Qualifications

The Project Manager is the person responsible for the CWIP and must have the skills and knowledge to successfully lead the project effort through implementation. Specifically, the Project Director must provide leadership and direction over the project manager and must ensure the project manager sufficiently meets the following minimum qualifications:

- Previous experience and success in managing projects of similar size, scope, and complexity
- Previous experience and success in deploying project management concepts and techniques, including management of change, issues, risk, quality, schedule, deliverables, vendor, and budget
- Knowledge of organizational change management techniques and principles, including methods to reduce resistance to change and develop high-performing teams
- Ability to develop an environment of cooperation among other organizations in order to establish a process for sharing data
- Experience and knowledge of system design, development, and implementation
- Familiarity with the California State Administrative Manual (SAM) and SIMM
- Knowledge and understanding of the Commission's Strategic Plan
- Knowledge and understanding of data management guiding principles
- Ability to effectively communicate project status and issues to all levels of Commission management and the CWIP team
- Ability to develop, manage, and monitor detailed project schedules
- Experience and knowledge of developing, managing, and executing risk management plans
- Experience and knowledge of developing, managing, and executing quality management plans
- Experience and knowledge of managing and monitoring project budget and resources
- Previous experience in the state's procurement and reporting processes
- Pursuit of Project Management Professional (PMP) or equivalent certification.

6.2 Project Management Methodology

The CWIP's adopted Project Management Methodology (PMM) is based on guidelines in the SIMM, Section 200. The CWIP's PMM includes the recommended project management and risk management practices of the Department of Finance information technology project oversight framework. The PMM also reflects industry best practices and lessons learned.

The CWIP project manager will use Microsoft Project to develop the project schedule and to manage and track the progress of the project. The CWIP project manager will also be required to identify tasks and activities for inclusion in the project plan, as well as report status for each of their assigned tasks throughout the project.

6.3 Project Organization

The proposed CWIP project organization is illustrated in Exhibit 6-1, on the next page. The specific project roles and responsibilities of the various project participants are provided in Section 6.5.4.

6.4 Project Priorities

All projects have three components that must be managed: schedule, scope, and resources. Each of these three factors is interrelated. A change in one factor may result in a change in another factor.

For the CWIP implementation, the schedule is the most flexible aspect of this project and the easiest component to adjust. Project scope is constrained and has the least amount of flexibility as a result of the specific business needs and by the parameters set forth in the mission and goals for this project. However, there is limited flexibility regarding features or performance that might be added or omitted as the project evolves. Resources are the somewhat flexible aspect of this project and can be adjusted if necessary.

The relative importance of each factor, in terms used by the Department of Finance, is shown in Exhibit 6-1, below.

Schedule	Scope	Resources
Improved	Constrained	Accepted

Exhibit 6-1 Project Triple-Constraint Factors

These terms are those used by the Department of Finance in the instructions for preparing an FSR. These instructions provide the following definitions of the terms used above:

- “Constrained” means the factor cannot be changed
- “Accepted” means the factor is somewhat flexible to the project circumstance
- “Improved” means that the factor can be adjusted.

6.5 Project Plan

Project planning defines the project activities to be performed, end products to be delivered, and how the activities will be accomplished. The purpose of project planning is to define each major task, estimate the time and resources required, and provide a framework for management review and control. The project planning activities and goals include defining:

- Project scope
- Project assumptions
- Project phasing (i.e., approach)
- Project team roles and responsibilities
- Project schedule

The five subsections that follow provide an overview of each of these areas.

6.5.1 Project Scope

The project scope defines the business processes and systems that form the logical boundaries of the business areas directly included in the CWIP.

The CWIP would provide effective access and management of credentialing data from information systems maintained by the Commission.

This project will consist of those activities required to design, test, and implement a system that meets each of the functional requirements listed in Section 3.4 of this FSR. In addition, the project's scope includes training provided to those end-users directly impacted by the CWIP.

There will be a formal organization structure to manage access to and provision of data in the CWIP. The Commission will qualify requests for credentialing pursuant to state and federal privacy and confidentiality laws.

The CWIP will provide secure access to the data via an Internet browser and pre-defined or "canned" queries set up for end users.

6.5.2 Project Assumptions

Major project assumptions include:

- Funds will be available throughout the project's life
- The development, implementation, and maintenance phases of the CWIP will be funded through state funds provided annually in the State Budget Act
- Functional requirements will not substantially change during the project
- Higher priority issues will not impact the schedule or resource needs
- Executive sponsorship will continue through project completion.
- The Office of the CIO will review and approve the FSR by January 10, 2009.
- The Commission will utilize a traditional procurement approach to procure system integration services.
- Negotiations with vendors will result in a budget within 10% of the estimated budget in Section 8 of this FSR, and will result in an executed contract as scheduled
- Qualified Commission program and technical staff will be available to participate, as needed, in design, development, testing, and implementation of the proposed solution
- Commission program staff will 'take ownership' and 'buy into' the new system
- Subject matter experts from the Commission, and other organizations outside the Commission as needed, will be identified and available to participate in defining the requirements and participate in the design, development, and implementation of CWIP
- All new hardware and software required for the CWIP will comply with Commission technology standards approved at time of contract execution.

6.5.3 Project Phasing

Phasing the CWIP project is not an essential critical success factor due to the project's size and duration. However, if deemed applicable and appropriate by CTC and the system integration vendor, a phased approach based on functionality may be utilized during system development and implementation.

The CWIP will be executed in three stages. Exhibit 6-2, below, provides a summary of the CWIP project stages. Following Exhibit 6-2 is a description of each stage.

Stage	Stage Name/Summary	Estimated Start	Estimated End
Stage 1	Pre-Procurement Project Workup <ul style="list-style-type: none"> ▪ Development and Approval of Feasibility Study Report ▪ Development and Submission of Budget Change Proposal ▪ Refinement of Project Scope Details ▪ Confirmation of Needs Assessment ▪ Refinement of Business and Technical Requirements ▪ Definition of Major Project Execution Activities 	7/1/2008	6/1/2009
Stage 2	Vendor Procurements and Contract Approvals <ul style="list-style-type: none"> ▪ Development of Request for Proposal for System Integration Vendor Procurement ▪ RFP Review and Approval ▪ System Integration Vendor Evaluation and Selection ▪ System Integration Vendor Contract Approval 	6/1/2009	9/1/2009
Stage 3	System Development <ul style="list-style-type: none"> ▪ Project Start-up ▪ Systems Analysis and Confirmation (Gap Analysis) ▪ Systems Design ▪ Systems Development 	9/1/2009	2/28/2010
Stage 4	Testing of the System <ul style="list-style-type: none"> ▪ Unit testing ▪ Systems integration testing ▪ User acceptance testing 	3/1/10	5/28/10
Stage 5	Complete All Documentation	9/1/2009	5/28/2010
Stage 6	System Training <ul style="list-style-type: none"> ▪ Internal CTC Business Staff Training ▪ Internal CTC Technical Staff Training ▪ External End User Training 	5/31/10	6/29/10
Stage 7	System Implementation <ul style="list-style-type: none"> ▪ Initial Implementation ▪ Full Implementation 	6/30/2010	6/30/2010
Stage 8	Post Implementation Evaluation Review (PIER)	7/01/2010	6/30/2011

Exhibit 6-2 CWIP Project Stages

Stage 1: Pre-Procurement Project Workup

Pre-project feasibility and budget development activities occur in this stage. This stage involves pre-work and analysis required to refine project scope details. Staff will confirm the needs assessment and refine business and technical requirements for preparing and developing the request for proposal (RFP) for the systems integration vendor. Upon completion of this stage, the Commission will have refined the assessment of the current teacher credentialing system information needs and functions, and will have defined and

documented the major project execution activities. The CWIP formally begins as a project with system integration vendor procurement activities in Stage 2.

Stage 2: Vendor Procurement and Contract Approval

The CWIP formally begins as a project in this stage with confirmation of refined business and technical requirements in preparation for procurement of the systems integration vendor. This stage involves the development of a RFP for the system integration vendor, evaluation and selection of a system integration vendor, and development and submission of evaluation and selection summary documents for review and approval.

Stage 3: System Development and Implementation

Project start-up for actual product development occurs in this stage. This stage involves design, and development of the CWIP solution. The system integration vendor will confirm the functional and technical requirements, then design, and develop all components of the CWIP solution. This stage will require significant involvement from Commission end-users and appropriate stakeholders to determine the business rules and design the application menus, data entry screens and system interfaces.

Stage 4: Complete Testing of the System

All testing of the system occurs in this stage. This involves unit testing, systems integration testing and User acceptance testing (UAT). The system Integration vendor will develop unit and systems test scripts, perform testing and ensure that the system is ready for UAT. CTC staff will develop UAT test scripts and perform testing to ensure that system meets all business requirements as stated in the RFP.

Stage 5: Complete All Documentation

Documentation will be created throughout the project. The systems integration vendor will complete system documentation, user manuals, and technical and user training manuals for the CWIP system. CTC staff will review and confirm that all documentation is complete as stated in the RFP.

Stage 6: System Training

This stage consist of three different training internal CTC business staff training, internal CTC technical staff training and external end user web based training. The integration vendor will be responsible for training internal business and technical staff and providing web based training functionality for the end users. CTC staff will facilitate the web based training to the external end users.

Stage 7: System Implementation

This stage occurs the day after UAT and Training is complete, all links to the functionality of the system will be moved from ChoicePoint to the CWIP application.

Stage 8: Post Implementation Evaluation Review (PIER)

Within one year of implementation CTC will conduct PIER review and provide a full report.

Exhibit 6-3, below, identifies key deliverables from each project stage.

Stage	Stage Name	Key Deliverables
Stage 1	Pre-Procurement Project Workup	<ul style="list-style-type: none"> ▪ Development and Approval of Feasibility Study Report ▪ Development and Submission of Budget Change Proposal ▪ Refinement of Project Scope Details ▪ Confirmation of Needs Assessment ▪ Refinement of Business and Technical Requirements ▪ Definition of Major Project Execution Activities
Stage 2	Vendor Procurements and Contract Approvals	<ul style="list-style-type: none"> ▪ Development of Request for Proposal for System Integration Vendor Procurement ▪ RFP Review and Approval ▪ System Integration Vendor Evaluation and Selection ▪ System Integration Vendor Contract Approval
Stage 3	System Development	<ul style="list-style-type: none"> ▪ Complete the design and development of the system
Stage 4	Complete Testing of the System	<ul style="list-style-type: none"> ▪ Completion of all unit and systems integration tests and user acceptance testing
Stage 5	Complete All Documentation	<ul style="list-style-type: none"> ▪ Completes system documentation, user manuals, and technical and user training manuals
Stage 6	System Training	<ul style="list-style-type: none"> ▪ Integration Vendor Provide Internal CTC Business Staff Training ▪ Integration Vendor Provide Internal CTC Technical Staff Training ▪ Integration Vendor Provide Web Based Training functionality for External End User Training
Stage 7	System Implementation	<ul style="list-style-type: none"> ▪ Complete System Implementation
Stage 8	Post Implementation Evaluation Review (PIER)	<ul style="list-style-type: none"> ▪ CTC Provide a full report to the DOF and the OCIO

Exhibit 6-3 Project Stage Key Deliverables

6.5.4 Project Team Roles and Responsibilities

The major participants in the project will be the project sponsors, project director, project manager, and project team leads. A formal project structure provides participants with a clear understanding of the authority and responsibility necessary for successful accomplishment of project activities, and enables project team members to be held accountable for effective performance of their assignments.

Exhibit 6-4, on the following page, summarizes key CWIP project roles and responsibilities and the organization supplying the resource.

Credentialing Web Interface Project Organization

Project Role	Name	Organization	Title
Project Sponsor	Dale Janssen	CTC – Executive Office	Executive Director
Project Sponsor	Patty Wohl	CTC – CAW	Director, CAW
Project Director	Darren Addington	CTC – ETSS	Chief Information Officer
Project Manager	Senior Information Systems Analyst	CTC – ETSS	PM and Ongoing System Support
Contract Manager	Crista Hill	CTC – FBS	Chief of Administration
Functional Team – Technical PM	Andy Munguia	CTC – ETSS	Applications Unit Manager
Functional Team	Carlos Cisneros	CTC – ETSS	Data Base Administrator
Functional Team	Laura Lunetta	CTC – ETSS	Web Master
Functional Team	David Roberts	CTC – ETSS	Network Administrator
Functional Team	Nancy Passaretti	CTC – CAW	Business Knowledge Expert
Functional Team – Business PM	Susan Browning	CTC – CAW	Business Manager
Functional Team	Dan Gonzalez	CTC – DPP	Business Manager
Systems Development & Integration Team	Systems Integration Vendor	Unknown	Various
Subject Matter Experts	Certification Staff	CTC – CAW	Credential Analysts
Subject Matter Experts	Disciplinary Actions Analyst	CTC - DPP	Business Knowledge Expert
External Advisory Group	County Office of Education Representative	Unknown	To Be Determined
External Advisory Group	School District Representative	Unknown	To Be Determined
External Advisory Group	School District Induction Representative	Unknown	To Be Determined
External Advisory Group	California State Representative	Unknown	To Be Determined
External Advisory Group	University Representative	Unknown	To Be Determined
External Advisory Group	Assessor Agency Representative	Unknown	To Be Determined
External Advisory Group	Kindergarten - Twelve Teacher	Unknown	To Be Determined

Exhibit 6-4 CWIP Project Team Roles and Responsibilities

Roles and Responsibilities

1. Project Sponsors

- Serve as the key business decision-makers of the project
- Resolve significant issues and scope changes that cannot be resolved by the project manager
- Make the final decision on the vendors retained throughout the project
- Attend weekly and monthly project management team meetings.

2. Project Director

- Determines the solution design, development, and implementation meet the requirements
- Provides day-to-day direction and support to the Project Manager
- Provides direction and support to Independent Project Oversight Contractor
- Reviews and approves project deliverables
- Acts as the formal project contact for the Commission
- Assists in the coordination of work efforts that may impact the project
- Resolves significant project issues
- Attends weekly project management team meetings
- Communicates project status to Commission management and external stakeholders, as needed
- Conducts monthly project management team meetings.

3. Project Manager

- Coordinates and oversees day-to-day project activities
- Develops project management-related deliverables
- Reviews and approves all deliverable expectation documents (DEDs)
- Reviews all vendor project deliverables
- Maintains project work plan
- Institutes controls to determine adherence to the work plans and schedule
- Determines project is completed within budget and reviews vendor invoices
- Determines active and timely participation of Commission staff and subject matter experts for the life of the project
- Determines all problems, issues, and changes are recorded, maintained, and tracked in the project's tracking database
- Resolves and tracks project issues
- Assists in the resolution of significant issues related to project management, project communication, project staffing, and project scope
- Develops and executes the risk management plan to mitigate risks
- Manages and provides quality assurance
- Regularly communicates project status and provides updates to the project sponsors and project directors
- Plans, coordinates, and conducts weekly and monthly project management team meetings
- Develops weekly and monthly project status reports
- Establishes ground rules for project
- Serves as a liaison between vendors and internal/external stakeholders
- Participates in the final decision on the vendors retained throughout the project.

4. Contract Manager

- Participates in the procurement processes to secure systems development and integration services and project management services

- Maintains information on contracted costs vs. actual costs
- Maintains contract documentation
- Manages contract change requests and addendums
- Confirms that services are proceeding in accordance with any timelines in the contract
- Determines that products and/or services are in accordance with requirements within the contract and Commission standards
- Confirms that invoices reflect costs incurred to date in the performance of the agreement and that costs are within applicable restrictions
- Monitors the contract to make certain compliance with all contract provisions.

5. Functional Team

- Provides frank and candid input to business needs, assessments, evaluations, and the final solution
- Defines and participates in applicable detailed requirements sessions
- Identifies changes to existing policies and procedures
- Documents and provides training materials for end-user training.
- Works With System Integration Vendor
- Provides Curriculum and Instruction

6. System Development and Integration Team

- Designs and develops the environment, as defined by the requirements, business needs, and Commission information technology standards
- Conducts detailed requirements sessions with internal and external stakeholders
- Designs and develops system
- Conducts unit and systems integration tests
- Develops test scripts for user acceptance testing
- Oversees user acceptance testing
- Develops system documentation
- Determines technology architecture required for system interfaces
- Coordinates with representatives from other internal and external systems to which CWIP will interface
- Designs, tests, and documents system interfaces
- Develops user manuals, addresses user questions and issues (e.g., help desk)
- Develops user training materials and conducts user training sessions
- Develops technical staff training materials and conducts technical staff training sessions
- Develops systems documentation meeting department standards.

7. Subject Matter Experts

- Assist in the definition of business processes and business rules related to CWIP
- Assist in the identification of potential new policies and procedures
- Participate in interviews and working sessions with the project team
- Participate in user acceptance testing
- Participate in validating user documentation.

8. External Advisory Group

- Provides general guidance and input to the project
- Confirms and validates project goals and scope
- Confirms and validates CWIP requirements
- Attends and participates in advisory committee meetings.

6.5.5 Project Schedule

In subsection 6.5.3 (Project Phasing), the Commission provides the project schedule elements and project deliverables for the project's stages. The project schedule reflects the following:

- High level tasks include procurement, design, development/programming and/or software modification, installation, training for end users, and training for technical staff.
- The schedule allows for status reporting against which the CWIP project manager will monitor completion of tasks during the course of the project. The schedule provides the duration of critical tasks, major management decision points, and progress reporting milestones.
- Milestones reflect products and major events that are readily identified as completed or not completed on the specified due date.
- Milestones are spaced at reasonable intervals that allow management and control agency monitoring of the project's progress.

The Commission has a number of assumptions to prepare the project schedule, including the following:

- The time required from when the Commission submits the FSR for OCIO and DGS review to obtaining final approval from these agencies will be two-and-a-half months.
- The time required from when the Commission submits the System Integration Vendor RFP for control agency review to getting final approval from control agency will be one month.
- The time required from release of the RFP through selection of the systems integrator will be three months. This time frame will be influenced by a number of factors, including the number of vendors who submit proposals, and the number and type of questions that vendors submit.
- The time required from selection of the systems integrator to contract approval will be one month. The Commission will submit the selection to DGS, along with the evaluation and selection report.

6.6 Project Monitoring

Project monitoring is a critical activity in any project effort to continually assess and evaluate the project activity progress, issues management, risk management, scope control, project budget, and project resource management processes. The project director, project manager, and the project management team will have the primary responsibility to monitor project progress and the selected system integration vendor. The CWIP project manager will monitor this project utilizing structured project management processes and follow the guidelines as described in the Information Technology Project Oversight Framework to minimize the project risks associated with informal project management practices. Based on this project assessment as presented in Exhibit 6-5, on the following page, the CWIP produced a Project Criticality Rating value of 1.25, which gives the project a low risk rating.

The CWIP will utilize the following processes and approach for tracking and reporting on the status of project deliverables, project schedule, and project budget:

- Conduct Weekly Team Meetings. On a weekly basis, project status meetings will be held. These meetings will be conducted by the project manager and involve

contracted and non-contracted project team members. The major areas of discussion will include schedule and deliverable status, upcoming events (e.g., meetings, interviews, working sessions, etc.), issue log review, and other relevant project topics.

- Conduct Monthly Project Management Team Meetings. On a monthly basis, the CWIP project director and project sponsor will meet with the project manager to review the project. During these meetings, the project status, planned activities, outstanding issues, and project schedule will be discussed.
- Prepare and Distribute Weekly Status Report. Weekly, the project manager will develop and distribute a CWIP Project Status Report to the project director and project sponsor. This report represents the activities performed by all project team members during the previous week and includes information on accomplishments, activities in progress, upcoming activities, issues, and deliverable status.

Factor	Rating	Numeric Rating	Comments
1. Project Size Estimated one-time cost: \$833,140	Low	1	Estimated period from project approval to initial implementation is less than 24 months
2. Project Management Experience	Low	1	Will minimize risk by using a project director who has completed two or more like projects
3. Team Experience: Rating for team	Low	1	Two or more like projects completed by at least 90 percent of key staff
4. Project Type Hardware Existing hardware, new servers: Low Software New Version Release: Medium	Med	2	Highest of the two categories
Total		5	
Project Rating (Total/4)		1.25	Low

Exhibit 6-5 Project Criticality Assessment

6.7 Project Quality

In order to establish that the CWIP solution meets identified statutory goals, business objectives and requirements, and technical objectives and requirements, a quality assurance plan will be developed based on the Department’s Project Management Methodology (PMM), which aligns with the Department of Finance’s Statewide Information Management Manual (SIMM) project management methodology. This plan will establish that the CWIP project results meet the business and technical objectives. This will be accomplished through well-defined requirements that the project manager will track through assessment, validation, verification, and acceptance testing.

The CWIP project requires that every work product or deliverable satisfy the requirements and objectives with minimal errors and defects. In order to minimize the risk of receiving a work product or deliverable of poor quality, a Deliverable Expectations Document (DED) will be developed prior to the start of any major deliverable. The project will identify the following in the DED:

- Deliverable name
- Deliverable description
- Deliverable outline
- Deliverable due date
- Deliverable reviewers
- Deliverable sign-off sheet.

The project manager and project director are responsible for reviewing and approving each deliverable. The project manager will conduct walkthroughs of each deliverable, unless the project manager grants an exemption. The project manager and project director will complete a deliverable sign-off sheet upon receipt of a completed and approved deliverable. The vendor must attach this sign-off sheet to vendor invoices in order for the contract manager to process the invoice for payment.

6.8 Change Management

The project manager will follow a change control process that meets the requirements of the Commission's Project Management Methodology, which aligns with the Department of Finance's Statewide Information Management Manual IT project management methodology. The CWIP project manager and project directors will generate a baseline project plan. This baseline project plan will be adjusted and aligned with the system integration vendor's proposed project plan. The CWIP project management team will identify and manage subsequent proposed changes to the project scope, schedule, or resource requirements.

The Commission intends to keep change management as simple as possible. The following change management process will allow the CWIP project manager to determine appropriate actions if an emergency change request is submitted, but also permits deliberation and control over all requests for changes:

- The initiator must direct any proposed project changes to the CWIP project manager. The initiator must submit a change request that documents the proposed change's scope, reason, project budget impact, project schedule impact, and impact of not incorporating the change.
- The CWIP project manager will log all change requests and track progress through resolution.
- The CWIP project manager will perform the following duties related to project change issues:
 - Log and evaluate requests
 - Review all major requests with the program manager, and the contract monitor
 - Make the change, reject the change, or submit the change to the project sponsor and CWIP project director.
- If the change is submitted to the project sponsor and CWIP project director, they will recommend implementation or rejection of the change.

- If the recommendation is to implement the change, the project director and project manager will determine the timeframe and process for implementation and adjust project scope, resources, schedule, and vendor's contract as needed.
- Decisions made by the CWIP project sponsor, project director, and project manager are final.
- The CWIP project manager will send a notification of change decisions to the requestor and to other team members, as appropriate.

6.9 Authorization Required

The project requires approval from the CWIP project sponsor, project director, and Commission executive management. The project also requires approvals for project technical approach and expenditures (Finance) and procurement approach (DGS).

7.0 RISK MANAGEMENT PLAN

7.1 Risk Management Approach

The following process will be used throughout the TCSIP project to promote effective risk management:

1. **Identify Risks.** Risks may be identified: (1) through scheduled reviews at the beginning of each life cycle phase when the program management plan is reviewed, (2) through monthly risk management reviews, and/or (3) by any project participant at any time during the project. A person who identifies a risk outside of a formal review will document the risk briefly and provide this information to the project manager.
2. **Analyze Risks.** The project management team will analyze all identified risks. Analysis will include validating the risk; categorizing the potential impact as cost, schedule, and/or technical; assessing the degree of impact the risk would have on the project and the likelihood that the risk will occur; and identifying risk mitigation measures that might be applied.
3. **Implement Selected Mitigation Techniques.** At project manager's direction, selected risk mitigation techniques will be implemented. For example:
 - Risk Prevention** – Eliminate the source of risk via a design or engineering change
 - Impact Mitigation** – Minimize the impact of risk by preparing contingency plans
 - Risk Transfer** – Shift responsibility for the risk via an insurance policy
 - Risk Acceptance** – Cost of responding to the risk outweighs the benefits
4. **Monitor Risk.** The project manager will monitor each risk to assess the effectiveness of mitigation techniques and to determine whether further action is required.
5. **Track and Report Risk Status.** Project risks will be tracked in a risk management database from the time the risks are identified through resolution.

Initial Project Risks

Presented below is an initial set of project risks with mitigation strategies, including specific steps that will be taken to mitigate the risks.

Risk 1: Lack of a timely and effective issues resolution process. The project team will mitigate this risk by establishing a formal issue tracking and resolution process, and performing timely logging and prioritization of issues with CTC management.

Risk 2: System does not meet requirements as specified in the Statement of Work. The contractor team will mitigate this risk by decomposing all requirements specified in the Statement of Work to the level of detail necessary to support implementation, by reviewing with business users all requirements to fully understand them, and by maintaining a requirements traceability matrix that will show where all requirements are supported in the software.

Risk 3: Level of effort to complete system to meet all requirements is greater than time available before implementation deadline arrives. The project team will mitigate this risk by developing a project plan that realistically estimates the level of effort needed, and by closely tracking development progress against milestones.

Risk 4: Access to and retention of skilled workers, particularly in new information technologies. The contractor will undertake specific actions to mitigate this risk including: defining in advance skillsets required at each phase of the project; coordinating with Commission management to ensure necessary State staff are available; identifying and obtaining contractor staff with required information technology skills; and partnering with subcontractors as necessary to obtain staff with specific, hard-to-obtain skills.

Risk 5: Aggressive time frame for implementation. The contractor will mitigate this risk by basing timelines on previous experience and accessing the right people and resources at the right time. Specific action steps include using previous projects of similar size and complexity as guides when estimating time frames; planning in detail the resources that will be required at each point in the project, and ensuring resource availability when required; using experienced staff; and, leveraging expert resources wherever possible.

Risk 6: Continuity of project personnel throughout the life of the project. The project team will mitigate this risk by making the CWIP a project that people want to be involved with and ensuring continued executive-level support for the project. Specific action steps include setting reasonable, clearly defined expectations to facilitate project participation; continuing executive-level support for the CWIP as a priority program; and delivering real benefit to the user organizations so efforts made to provide staff are worthwhile.

Risk 7: Commission resources assigned to project have not dedicated enough time or do not have the right skills to effectively support project activities. The contractor will mitigate this risk by ensuring that Commission management knows project resource demands in advance, and that they recognize the value that those resources will bring to the Commission. Specific action steps include creating detailed estimates of future resource demands in advance; communicating resource demands to senior executives as early as possible; and ensuring that senior executives are given timely information on the impact that lack of resources will have on the project.

Risk 8: Contractor resources assigned to project have not dedicated enough time or do not have the right skills to effectively support project activities. The contractor will mitigate this risk by assigning appropriately skilled staff to all project team positions, and wherever possible, by assigning staff to the CWIP as their single full time responsibility.

Risk 9: User, agency, and stakeholder buy-in. The contractor's mitigation strategy is to develop and implement a transition management strategy. Specific action steps include identifying and cultivating senior executives who will act as project proponents and serve on a Steering Committee; regularly communicating with all staff affected by the new system; and providing effective training to raise staff's comfort level with the new system.

Risk 10: Alignment of business practices with system functionality. The project team will mitigate this risk by ensuring that system functionality is driven by the work people must do, not the other way round. Specific action steps include defining the desired functional requirements, developing business process workflows, translating functional requirements into system requirements, and ensuring that the ultimate users of the system are involved at every stage and thoroughly trained.

Risk 11: Incomplete definition of functional requirements. The project team will mitigate this risk by focusing on the true requirements that have to be met to make the system work and ensure everyone is involved at all stages to ensure buy-in and avoid scope creep. Specific action steps include rapid prototyping to validate assumption and requirements, conducting stringent formal reviews at key points, and utilizing flexible technology and design to accommodate potential change.

Contingency Planning

Contingency planning is a specific application of the risk management planning process. A contingency plan is a mechanism for addressing specific project risks and for determining in advance what the response will be if a risk stops being hypothetical and becomes an actual issue.

This contingency plan identifies four specific project issues that, if not effectively managed, could cause the implementation schedule to be missed. In each case, a set of possible actions is identified that singly or in combination could assist in minimizing the impact of the issue. We anticipate that with effective application of a formal risk management methodology none of the issues listed in Exhibit 7-1, on the following page, should become serious enough to impact project delivery.

Issue	Option(s)
1. System does not meet requirements as specified in the Statement of Work	<ul style="list-style-type: none"> ▪ Review requirements with users to ensure that scope and depth of requirements are fully understood ▪ Review requirements with development team and software vendor (if applicable) to ensure that any technical issues are fully understood ▪ Implement system on schedule but with reduced scope, assigning those components of system that currently do not meet requirements to a later release ▪ Delay implementation of system until all requirements can be met
2. Level of effort to complete system to meet all requirements is greater than that available before implementation deadline arrives	<ul style="list-style-type: none"> ▪ Prioritize requirements to understand which requirements are essential before system can be usefully implemented ▪ Increase number of staff assigned to project to decrease implementation timeframe (if practical) ▪ Implement system on schedule but with reduced scope, assigning those lower priority requirements to a later release ▪ Delay implementation of system until all requirements can be met
3. Commission resources assigned to project have not dedicated enough time or do not have the right skills to effectively support project activities	<ul style="list-style-type: none"> ▪ Prioritize Commission resource commitment to focus on participation of those Commission staff who are most critical to successful delivery of the system ▪ Implement system on schedule but with reduced scope, focusing implementation on those requirements where sufficient Commission resources are available (if practical) ▪ Delay implementation of system until necessary Commission resources are available
4. Contractor resources assigned to project have not dedicated enough time or do not have the right skills to effectively support project activities	<ul style="list-style-type: none"> ▪ Identify and obtain other resources from within contractor organization that can effectively fulfill project roles ▪ Identify and obtain resources from other companies that can effectively fulfill project roles

Exhibit 7-1 Contingency Plan

As the project progresses, the contractor team in partnership with Commission management will identify new risks that warrant specific contingency planning activities. The risk management process outlined above, when applied with discipline and rigor, provides an effective tool to prevent risks from becoming issues. Effective risk management is critical to ensuring that project implementation deadlines are met, that a quality system is delivered, and that none of the contingency options outlined above are required.

7.2 Risk Assessment Summary Report

1. Introduction

The risk Assessment Model measures risk in distinct areas. Below are the average scores based on the results from the questionnaire. Each area indicates the measured risk on a scale from 1 to 9, with 9 being the highest risk. Scores higher than 2.0 are at “Medium Risk” and scores higher than 3.0 are at “High Risk”.

2. Summary

Risk assessment levels are summarized in Exhibit 7-2, below.

Score	Risk Level	Risk Area
1.0	Low	Strategic Risk
1.0	Low	Financial Risk
1.0	Low	Project Management Risk
2.0	Medium	Technology Risk
2.0	Medium	Change Management/Operations Risk

Exhibit 7-2 Risk Assessment Summary

7.3 Risk Management Worksheet

Risk categories/events and associated preventive and contingency measures are shown in Exhibit 7-3, below.

Risk Category/Event	Loss Hours	Probability	Risk Hours	Preventive Risk Hours	Preventive Measures	Contingency Measures
Timely Issue Resolution					1, 2	29, 30
System fails to meet SOW requirements					3, 4, 5, 6	31, 32
Effort needed to complete system more than time available					7, 10	8, 9
Access and retention of skilled IT workers					10, 12, 19, 20, 21	13, 14, 15
CTC resources don't have enough time or skills to support project					7, 15, 19	20, 21
Maintain user, Commission, and stakeholder buy-in					18, 22, 24, 28	23, 33, 34
Align business practices with system functionality					25, 26,	27, 28
Cost increases					35, 36, 37	38, 39

Exhibit 7-3 Risk Management Worksheet

Suggested Preventive and Contingency Measures

1. Establish formal issue tracking and resolution process
2. Perform timely logging and prioritization of issues with Commission management

3. Contractor decomposes all requirements to detail necessary to support implementation
4. Contractor reviews with program users all requirements to fully understand
5. Contractor creates and maintains requirements traceability matrix to show where requirements are supported in the software
6. Prioritize requirements to understand which requirements are essential before system can be usefully implemented
7. Increase number of staff assigned to project to decrease implementation timeframe (if practical)
8. Implement system on schedule but with reduced scope, assigning those lower priority requirements to a later release
9. Delay implementation of system until all requirements can be met
10. Prioritize Commission resource commitment to focus on participation of those Commission staff who are most critical to successful delivery of the system
11. Implement system on schedule but with reduced scope, focusing implementation on those requirements where sufficient Commission resources are available (if practical)
12. Delay implementation of system until necessary Commission resources are available
13. Identify and obtain other resources from within contractor organization that can effectively fulfill project roles
14. Identify and obtain resources from other companies that can effectively fulfill project roles
15. Provide appropriate training
16. Install temporary hardware
17. Purchase additional equipment
18. Hold regular meetings with contractor team, Commission project management team and stakeholders
19. Define in advance skillsets required at each project phase
20. Identify and obtain contractor staff with necessary IT skills
21. Partner with subcontractor(s) to obtain staff with hard-to-obtain skills
22. Commission management informed of project resource demands in advance
23. Identify and cultivate senior executives to act as project proponents
24. Communicate regularly with all staff
25. Define in detail functional requirements
26. Develop business process workflows
27. Translate functional requirements into system requirements
28. Involve ultimate users of the system at every stage
29. Escalate issues to higher level management for resolution
30. Work with arbitrator or another State agency to resolve issues
31. Work with users to ensure scope and depth of requirements are fully understood
32. Review requirements with development team and software vendor
33. Implement a transition management strategy
34. Project team brainstorm to rekindle user, Commission and stakeholder interest
35. Define cost and schedule targets
36. Measure cost and schedule variance
37. Report potential variance problems to senior management as early as possible
38. Reprioritize requirements for possible elimination or inclusion in future

EXISTING SYSTEM/BASELINE COST WORKSHEET

Department: Commission on Teacher Credentialing

All costs to be shown in whole (unrounded) dollars.

Date Prepared: 7

Project: Credentialing Web Interface Project

	FY 2008/09		FY 2009/10		FY 2010/11		FY N/A		SUBTO	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	A
Continuing Information										
Technology Costs										
Staff (salaries & benefits)	0.1	10,105	0.1	10,105	0.1	10,105			0.3	3
Hardware Lease/Maintenance		76,274		76,274		76,274				22
Software Maintenance/Licenses		76,274		76,274		76,274				22
Contract Services (System Enhancements)		100,000		100,000		100,000				30
Data Center Services		0		0		0				
Agency Facilities		0		0		0				
Other (Credit Card Fees, and OE&E)		251,300		251,300		251,300				75
Total IT Costs	0.1	513,952	0.1	513,952	0.1	513,952	0.0	0	0.3	1,54
Continuing Program Costs:										
Staff	0.1	8,507	0.1	8,507	0.1	8,507			0.3	2
Other (OE&E)		1,300		1,300		1,300				
Total Program Costs	0.1	9,807	0.1	9,807	0.1	9,807	0.0	0	0.3	2
TOTAL EXISTING SYSTEM COSTS	0.2	523,758	0.2	523,758	0.2	523,758	0.0	0	0.6	1,57

PROPOSED ALTERNATIVE: Siebel eCustomer Solution

Date Prepared: 7/10/08

Department: Commission on Teacher Credentialing
Project: Credentialing Web Interface Project

All Costs Should be shown in whole (unrounded) dollars.

	FY 2008/09		FY 2009/10		FY 2010/11		FY N/A		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs										
Staff (Salaries & Benefits)	0.1	7,089	1.0	85,068	0.0	0			1.1	92,157
Hardware Purchase		0		51,900		0				51,900
Software Purchase/License		0		105,000		0				105,000
Telecommunications		0		0		0				0
Contract Services										0
Software Customization		0		570,000		0				570,000
Project Management		0		0		0				0
Project Oversight		0		0		0				0
IV&V Services		0		0		0				0
Other Contract Services		0		0		0				0
TOTAL Contract Services		0		570,000		0				570,000
Data Center Services		0		0		0				0
Agency Facilities		0		0		0				0
Other (OE&E)		1,083		13,000		0				14,083
Total One-time IT Costs	0.1	8,172	1.0	824,968	0.0	0	0.0	0	1.1	833,140
Continuing IT Project Costs										
Staff (Salaries & Benefits)	0.0	0	1.0	101,046	1.1	111,151			2.1	212,197
Hardware Lease/Maintenance		0		28,900		28,900				57,800
Software Maintenance/Licenses		0		23,100		23,100				46,200
Telecommunications		0		0		0				0
Contract Services		0		0		0				0
Data Center Services		0		0		0				0
Agency Facilities		0		0		0				0
Other (Credit Card Fees, OE&E)		0		13,000		264,300				277,300
Total Continuing IT Costs	0.0	0	1.0	166,046	1.1	427,451	0.0	0	2.1	593,497
Total Project Costs	0.1	8,172	2.0	991,014	1.1	427,451	0.0	0	3.2	1,426,637
Continuing Existing Costs										
Information Technology Staff	0.1	10,105	0.1	10,105	0.0	0			0.2	20,209
Other IT Costs (hosting & Credit Card Fees, OE&E)		453,847		453,847		0				907,694
Total Continuing Existing IT Costs	0.1	463,952	0.1	463,952	0.0	0	0.0	0	0.2	927,903
Program Staff	0.1	8,507	0.1	8,507	0.1	8,507			0.3	25,520
Other Program Costs (OE&E)		1,300		1,300		1,300				3,900
Total Continuing Existing Program Costs	0.1	9,807	0.1	9,807	0.1	9,807	0.0	0	0.3	29,420
Total Continuing Existing Costs	0.2	473,758	0.2	473,758	0.1	9,807	0.0	0	0.5	957,324
TOTAL ALTERNATIVE COSTS	0.3	481,931	2.2	1,464,772	1.2	437,257	0.0	0	3.7	2,383,961
INCREASED REVENUES		0		0		0				0

Note: Other IT Costs (hosting & Credit Card Fees) 08/09 - \$453,847 = \$152,547 for Hosting & Maint. of the existing system + \$50,000 for enhancements + \$250,000 for Credit Card Proc. Fees + \$1,300 OE&E

Note: Other IT Costs (hosting & Credit Card Fees) 09/10 - \$453,847 = \$152,547 for Hosting & Maint. of the existing system + \$50,000 for enhancements + \$250,000 for Credit Card Proc. Fees + \$1,300 OE&E

Note: Other IT Project Costs 10/11 - 264,300 = \$250,000 for Credit Card Processing Fees + \$14,300 OE&E

Note: Software Purchase/License - Includes the purchase of Oracle's Siebel eService, eCommerce and eSales COTS software packages

Note: Hardware Purchase - Includes a web server, and three application servers (for the Development, Test, and Production environments)

ALTERNATIVE #1: Utilizing Department of Technology Services Costs Not Available

Date Prepared: 7/1

Department: Commission on Teacher Credentialing
 Project: Credentialing Web Interface Project

All Costs Should be shown in whole (unrounded) dollars.

	FY 2008/09		FY 2009/10		FY 2010/11		FY N/A		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	AI
One-Time IT Project Costs										
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Hardware Purchase		0		0		0		0		
Software Purchase/License		0		0		0		0		
Telecommunications		0		0		0		0		
Contract Services										
Software Customization		0		0		0		0		
Project Management		0		0		0		0		
Project Oversight		0		0		0		0		
IV&V Services		0		0		0		0		
Other Contract Services		0		0		0		0		
TOTAL Contract Services		0		0		0		0		
Data Center Services		0		0		0		0		
Agency Facilities		0		0		0		0		
Other		0		0		0		0		
Total One-time IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Continuing IT Project Costs										
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Hardware Lease/Maintenance		0		0		0		0		
Software Maintenance/Licenses		0		0		0		0		
Telecommunications		0		0		0		0		
Contract Services		0		0		0		0		
Data Center Services		0		0		0		0		
Agency Facilities		0		0		0		0		
Other		0		0		0		0		
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Total Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Continuing Existing Costs										
Information Technology Staff	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Other IT Costs		0		0		0		0		
Total Continuing Existing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Program Staff	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Other Program Costs		0		0		0		0		
Total Continuing Existing Program Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
Total Continuing Existing Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
TOTAL ALTERNATIVE COSTS	0.0	0	0.0	0	0.0	0	0.0	0	0.0	
INCREASED REVENUES		0		0		0		0		

ALTERNATIVE #2: User Interface Dynamic Developer Kit (UDDK)

Date Prepared: 7/10/08

Department: Commission on Teacher Credentialing
Project: Credentialing Web Interface Project

All Costs Should be shown in whole (unrounded) dollars.

	FY 2008/09		FY 2009/10		FY 2010/11		FY N/A		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs										
Staff (Salaries & Benefits)	0.1	7,089	1.0	85,068	0.0	0			1.1	92,157
Hardware Purchase		0		51,900		0				51,900
Software Purchase/License		0		20,000		0				20,000
Telecommunications		0		0		0				0
Contract Services										0
Software Customization		0		1,140,000		0				1,140,000
Project Management		0		0		0				0
Project Oversight		0		0		0				0
IV&V Services		0		0		0				0
Other Contract Services		0		0		0				0
TOTAL Contract Services		0		1,140,000		0				1,140,000
Data Center Services		0		0		0				0
Agency Facilities		0		0		0				0
Other		1,083		13,000		0				14,083
Total One-time IT Costs	0.1	8,172	1.0	1,309,968	0.0	0	0.0	0	1.1	1,318,140
Continuing IT Project Costs										
Staff (Salaries & Benefits)	0.0	0	2.0	202,092	2.1	212,197			4.1	414,289
Hardware Lease/Maintenance		0		28,900		28,900				57,800
Software Maintenance/Licenses		0		4,400		4,400				8,800
Telecommunications		0		0		0				0
Contract Services		0		0		0				0
Data Center Services		0		0		0				0
Agency Facilities		0		0		0				0
Other (Credit Card Fees, OE&E)		0		26,000		277,300				303,300
Total Continuing IT Costs	0.0	0	2.0	261,392	2.1	522,797	0.0	0	4.1	784,189
Total Project Costs	0.1	8,172	3.0	1,571,360	2.1	522,797	0.0	0	5.2	2,102,329
Continuing Existing Costs										
Information Technology Staff	0.1	10,105	0.1	10,105	0.0	0			0.2	20,209
Other IT Costs		453,847		453,847		0				907,694
Total Continuing Existing IT Costs	0.1	463,952	0.1	463,952	0.0	0	0.0	0	0.2	927,903
Program Staff	0.1	8,507	0.1	8,507	0.1	8,507			0.3	25,520
Other Program Costs		1,300		1,300		1,300				3,900
Total Continuing Existing Program Costs	0.1	9,807	0.1	9,807	0.1	9,807	0.0	0	0.3	29,420
Total Continuing Existing Costs	0.2	473,758	0.2	473,758	0.1	9,807	0.0	0	0.5	957,324
TOTAL ALTERNATIVE COSTS	0.3	481,931	3.2	2,045,118	2.2	532,603	0.0	0	5.7	3,059,653
INCREASED REVENUES		0		0		0				0

Note: Other IT Costs (hosting & Credit Card Fees) 08/09 - \$453,847 = \$152,547 for Hosting & Maint. of the existing system + \$50,000 for enhancements + \$250,000 for Credit Card Proc. Fees + \$1,300 OE&E

Note: Other IT Costs (hosting & Credit Card Fees) 09/10 - \$453,847 = \$152,547 for Hosting & Maint. of the existing system + \$50,000 for enhancements + \$250,000 for Credit Card Proc. Fees + \$1,300 OE&E

Note: Other IT Project Costs 10/11 - 277,300 = \$250,000 for Credit Card Processing Fees + \$27,300 OE&E

Note: Software Purchase/License - Includes the purchase of Oracle's Siebel UDDK toolset

Note: Hardware Purchase - Includes a web server, and three application servers (for the Development, Test, and Production environments)

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 7/10/08

Department: Commission on Teacher Credentialing
 Project: Credentialing Web Interface Project

All costs to be shown in whole (unrounded) dollars.

	FY 2008/09		FY 2009/10		FY 2010/11		FY N/A		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM										
Total IT Costs	0.1	513,952	0.1	513,952	0.1	513,952	0.0	0	0.3	1,541,855
Total Program Costs	0.1	9,807	0.1	9,807	0.1	9,807	0.0	0	0.3	29,420
Total Existing System Costs	0.2	523,758	0.2	523,758	0.2	523,758	0.0	0	0.6	1,571,275

PROPOSED ALTERNATIVE	Siebel eCustomer Solution									
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts		
Total Project Costs	0.1	8,172	2.0	991,014	1.1	427,451	0.0	0	3.2	1,426,637
Total Cont. Exist. Costs	0.2	473,758	0.2	473,758	0.1	9,807	0.0	0	0.5	957,324
Total Alternative Costs	0.3	481,931	2.2	1,464,772	1.2	437,257	0.0	0	3.7	2,383,961
COST SAVINGS/AVOIDANCES	(0.1)	41,828	(2.0)	(941,014)	(1.0)	86,501	0.0	0	(3.1)	(812,685)
Increased Revenues		0		0		0		0		0
Net (Cost) or Benefit	(0.1)	41,828	(2.0)	(941,014)	(1.0)	86,501	0.0	0	(3.1)	(812,685)
Cum. Net (Cost) or Benefit	(0.1)	41,828	(2.1)	(899,186)	(3.1)	(812,685)	(3.1)	(812,685)		

ALTERNATIVE #1	Utilizing Department of Technology Services Costs Not Available									
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts		
Total Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Cont. Exist. Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Alternative Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
COST SAVINGS/AVOIDANCES	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Increased Revenues		0		0		0		0		0
Net (Cost) or Benefit	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Cum. Net (Cost) or Benefit	0.0	0	0.0	0	0.0	0	0.0	0		

ALTERNATIVE #2	User Interface Dynamic Developer Kit (UIDDK)									
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts		
Total Project Costs	0.1	8,172	3.0	1,571,360	2.1	522,797	0.0	0	5.2	2,102,329
Total Cont. Exist. Costs	0.2	473,758	0.2	473,758	0.1	9,807	0.0	0	0.5	957,324
Total Alternative Costs	0.3	481,931	3.2	2,045,118	2.2	532,603	0.0	0	5.7	3,059,653
COST SAVINGS/AVOIDANCES	(0.1)	41,828	(3.0)	(1,521,360)	(2.0)	(8,845)	0.0	0	(5.1)	(1,488,377)
Increased Revenues		0		0		0		0		0
Net (Cost) or Benefit	(0.1)	41,828	(3.0)	(1,521,360)	(2.0)	(8,845)	0.0	0	(5.1)	(1,488,377)
Cum. Net (Cost) or Benefit	(0.1)	41,828	(3.1)	(1,479,532)	(5.1)	(1,488,377)	(5.1)	(1,488,377)		

PROJECT FUNDING PLAN

Department: Commission on Teacher Credentialing

All Costs to be in whole (unrounded) dollars

Date Prepared: 7/10/08

Project: Credentialing Web Interface Project

	FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	0.1	8,172	2.0	991,014	1.1	427,451	1.1	427,451	4.3	1,854,088
RESOURCES TO BE REDIRECTED										
Staff	0.1	8,172	1.0	98,068	0.1	10,105	0.1	10,105	1.3	126,450
Funds:										
Existing System		0		0		417,346		417,346		834,692
Other Fund Sources		0		479,946		0		0		479,946
TOTAL REDIRECTED RESOURCES	0.1	8,172	1.0	578,014	0.1	427,451	0.1	427,451	1.3	1,441,088
ADDITIONAL PROJECT FUNDING NEEDED										
One-Time Project Costs	0.0	0	0.0	413,000	0.0	0	0.0	0	0.0	413,000
Continuing Project Costs	0.0	0	1.0	0	1.0	0	1.0	0	3.0	0
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	0.0	0	1.0	413,000	1.0	0	1.0	0	3.0	413,000
TOTAL PROJECT FUNDING	0.1	8,172	2.0	991,014	1.1	427,451	1.1	427,451	4.3	1,854,088
Difference: Funding - Costs	0.0	(0)	0.0	0	0.0	0	0.0	0	0.0	0

Total Estimated Cost Savings	0.0	0	0.0	0	0.0	86,501	0.0	86,501	0.0	173,002
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