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FCMAT/CSIS
2019-20 Annual Report
SACS System Replacement (SSR) Project

Version 1.0
June 12, 2020



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Revision History

Name	Date	Reason for Changes	Version
Denise Harris	5-10-19	Initial draft	.01
Denise Harris	5-21-20	Updated report with Project Team comments	.02
Denise Harris	6-12-20	Submittal to CDE	1.0

Approval History

Approved By	Title	Version	Date Approved
Amy Fong	Chief Operations Officer Fiscal Crisis & Management Assistance Team/ California School Information Services Kern County Superintendent of Schools	1.0	
Elizabeth Dearstyne	Director School Fiscal Services Division California Department of Education	1.0	

1 Introduction

1.1 Background and Purpose of the Annual Report

The California Department of Education (CDE) maintains and operates the Standardized Account Code Structure (SACS) software to fulfill its K-12 financial oversight needs, including statutory requirements for local educational agencies (LEAs) to report budgets, interim, and annual financial reports. The SACS software provides other functionality unique to budget and interim reporting such as cash flow projections and financial forecasts. The SACS software is comprised of four separate components in the reporting and reviewing of financial data, transmission of data to the CDE, and the maintenance of the data quality validation rules. The LEA-facing portion of the SACS software was initially developed and exists currently as a standalone software that LEAs download, install, and run locally. In January 2010, the CDE submitted its Feasibility Study Report (FSR) to implement a centralized web-based system accessible remotely by LEAs throughout California, allowing all stakeholders to access the solution from their existing environments without the local need for any new or additional hardware or software.

The Budget Act of 2016 appropriated Prop 98 funding for the CDE to initiate the procurement of a replacement SACS system. In July 2016, the CDE requested letters of interest and the Kern County Superintendent of Schools (KCSOS), the administrative agent for the Fiscal Crisis and Management Assistance Team (FCMAT)/California School Information Services (CSIS), responded to that request. FCMAT/CSIS spent much of 2017 developing and working on a proposal for the replacement of the SACS system. In June 2018, the CDE selected FCMAT/CSIS to develop the SACS System Replacement. The primary objective of the multi-year SACS System Replacement project is to create a web-based application customized to the K-12 financial reporting workflow that eliminates the use of unsupported and obsolete technologies. FCMAT/CSIS began work in June 2018 with the onboarding of business analysts, project management, and independent oversight staff.

The *Annual Report* summarizes the work performed by FCMAT/CSIS to design, document, develop, and test the SACS System Replacement (SSR) solution during fiscal year 2019-20. This annual report describes the SSR project activities completed by FCMAT/CSIS during the year; reports the budgeted and estimated actual expenses; and discusses project adjustments and opportunities for the 2020-21 year.

1.2 Document Conventions

The first approved version of the document will be numbered 1.0. Minor revisions (that is, format, spelling, or clarification) will retain the major version number and increment the revision number to the right of the decimal (for example 1.0, 1.1, 1.2...).

1.3 Approval Authority

The CSIS Chief Operations Officer shall approve this *Annual Report* on behalf of FCMAT/CSIS before submitting it to the CDE. The Director (or designee) of the School Fiscal Services Division shall approve this *Annual Report* on behalf of the CDE.

1.4 Approvals

FCMAT/CSIS 2019-20 Annual Report SACS System Replacement (SSR) Project

Version 1.0

June 12, 2020

Amy Fong, Chief Operations Officer

Elizabeth Dearstyne, Director

Fiscal Crisis & Management Assistance Team/
California School Information Services
Kern County Superintendent of Schools

School Fiscal Services Division
California Department of Education

 6/12/20

Signature/Date

Signature/Date

2 Planned Work for FY 2019-20

The June 1, 2018 SACS System Replacement Final Proposal, Version 2 describes the requirements for the major deliverable documents for FY 2019-20, including: an updated Project Management Plan, an updated Project Work Plan, Solution Test Plan, User Outreach Plan, Configuration Management Document, and User Training Plan.

The major work planned in the 2019-20 *Statement of Work* included the following deliverables:

- Updated Project Management Plan
- Updated Project Work Plan
- Solution Test Plan – Deliverable 5 (DEL 5)
- User Outreach Plan – Deliverable 6 (DEL 6)
- Configuration Management Document – Deliverable 7 (DEL 7)
- User Training Plan – Deliverable 8 (DEL 8)
- All 2019-20 tasks within the Project Work Plan

The CDE and FCMAT/CSIS worked together to identify and clarify expectations for each deliverable. FCMAT/CSIS submitted and CDE approved a deliverable expectation document for Del 5 through DEL 8. All FY 2019-20 deliverables were submitted by FCMAT/CSIS and approved as scheduled by the CDE.

2.1 FCMAT/CSIS Major Work Activities

The major work for FCMAT/CSIS in FY 2019-20 to support these project expectations included:

- Working in a trusting and collaborative manner with the CDE and the independent oversight consultants to ensure the SSR project is being developed to meet the needs of stakeholders.
- Designing, documenting, and building a system that will meet the requirements of the SSR proposal.
- Monitoring the SSR project to ensure that the project remains within scope, adheres to the delivery timeline, and does not exceed cost estimates.
- Implementing agile software methodology for requirements management, software development and automated testing processes to ensure quality outcomes in an efficient manner.
- Providing effective management, office support, and technology services to FCMAT/CSIS SSR project staff.

2.2 FCMAT/CSIS Progress Reports

As established in the Memorandum of Understanding (MOU), the CDE receives progress reports about the SSR project periodically. These include reports from FCMAT/CSIS, the Independent Project Oversight Consultant (IPOC), and the Independent Verification and Validation (IV&V) consultant. The reports describe the status and progress achieved towards the project milestones identified in the planning and management documents, any serious difficulties encountered during the project, and any remedial

action necessary or recommended. The format of such reports was mutually agreed upon by the CDE and FCMAT/CSIS.

Throughout FY 2018-19, independent project oversight (IPO) consultants and the independent verification and validation (IV&V) consultant completed monthly and quarterly assessments of the SSR project. IPO monitors project management processes and project progress toward achieving the agreed upon baseline goals for the project. IV&V monitors the product itself, including numerous artifacts in the following areas: requirements management, design, build and unit test, system test, user acceptance testing (UAT), and technical architecture. The independent oversight consultants continued their work in 2019-20, and CDE and FCMAT/CSIS met regularly to discuss their feedback with them, work through any project challenges, and implement agreed upon solutions.

3 Summary of Work for FY 2019-20

FCMAT/CSIS' understanding of the CDE's requirements is crucial for successful SSR project completion. When the CDE and FCMAT/CSIS planned SSR project work for FY 2019-20, both agencies agreed the major focus for the year would be finalizing scope through requirements refinement meetings as needed, system development and testing, user outreach, and formulating a training plan.

The onset of the world-wide coronavirus (COVID-19) pandemic was an unprecedented phenomenon that introduced stringent restrictions intended to preserve public health and safety in California. On March 19, 2020, the California State Public Health Officer ordered all individuals living in the state of California to stay home. The SSR project team, consistent with this directive, shifted to working remotely. Even so, there was no negative impact to the work accomplished by CDE and FCMAT/CSIS in the project scope, schedule, quality, or costs during FY 2019-20.

3.1 Project Management Plan

In December 2019, the CDE approved the updated FCMAT/CSIS project management plans tailored to meet the specific needs of the SSR Project (Deliverable 1). The SSR Project Management Plan (PMP) was developed consistent with the Department of Technology, California Project Management Office, California Project Management Framework (CA-PMF) and best practices detailed in the Project Management Institute's Project Management Body of Knowledge (PMBOK). The PMP includes subsidiary management plans associated with specific aspects of the SSR project, for example, project schedule management, communications management, and scope management. The SSR team developed standalone project management plans consistent with anticipated level of effort for the project and to match the SSR project needs. These standalone plans include:

- Requirements Management
- Quality Management
- Risk Management
- Issue Management

3.2 Project Work Plan

The SSR Project Work Plan defined the scope of work and an estimated timeline for the completion of work scheduled during FY 2019-20. The CDE approved an updated Project Work Plan in August 2019 as an update to Deliverable 2. After the CDE approved the Project Work Plan, the SSR team held working sessions to continue definition of more detailed project tasks. As a first step, the team reviewed and refined the work breakdown structure (WBS) to divide deliverables and project work into manageable components. Using agile software development methodology, activities were identified, grouped by category or work type, and an estimated timeframe established. The SSR team then decided upon a logical sequence based on dependencies between tasks, providing sufficient interaction and coordination for opportunities to solicit input from CDE to ensure timely work completion.

The team completed all work planned for FY 2019-20. Below are major work categories, their percent complete, along with baseline start and finish dates.

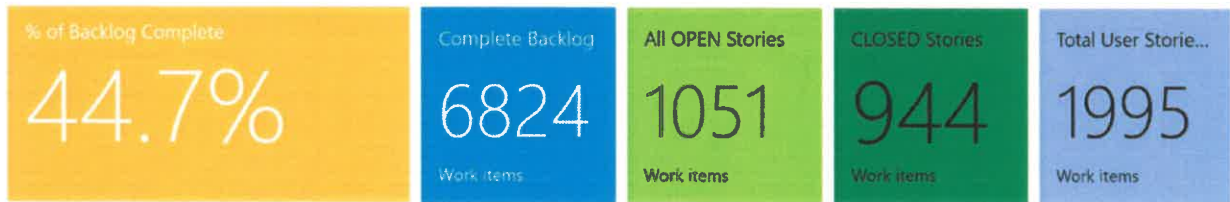
Task Name	% Complete	Baseline Start	Baseline Finish
Annual MOU Meeting	100%	NA	NA
Annual SOW Update - FY 2020-21	97%	Mon 3/16/20	Mon 6/1/20
Year 2 Annual Report	45%	Fri 5/1/20	Tue 6/30/20
Draft Annual Report	90%	Fri 5/1/20	Thu 6/11/20
FY 2019-20 Document Updates	35%	Mon 9/16/19	Fri 3/27/20
Technical Architecture Document*	99%	Mon 9/16/19	Fri 12/13/19
Project Management Plans (PMP)*	77%	Mon 1/6/20	Fri 3/27/20
FY 2019-20 Year 2 Deliverables	93%	Fri 11/2/18	Wed 6/10/20
Solution Test Plan - DEL-5	100%	Fri 11/2/18	Tue 7/23/19
User Outreach Plan - DEL-6	100%	Wed 6/5/19	Tue 10/15/19
Configuration Management Document - DEL-7	100%	Wed 6/5/19	Wed 2/26/20
User Training Plan - DEL-8*	100%	Thu 2/6/20	Wed 6/10/20
FY 2019-20 Sprints	88%	Wed 6/26/19	Tue 6/16/20
Sprint #10	100%	Wed 6/26/19	Tue 7/16/19
Sprint #11	100%	Wed 7/17/19	Tue 8/6/19
Sprint #12	100%	Wed 8/7/19	Tue 8/27/19
Sprint #13	100%	Wed 8/28/19	Tue 9/17/19
Sprint #14	100%	Wed 9/18/19	Tue 10/8/19
Sprint #15	100%	Wed 10/9/19	Tue 10/29/19
Sprint #16	100%	Wed 10/30/19	Tue 11/19/19
Sprint #17	100%	Wed 11/20/19	Tue 12/17/19
Sprint #18	100%	Wed 12/18/19	Tue 1/21/20
Sprint #19	100%	Wed 1/22/20	Tue 2/11/20
Sprint #20	100%	Wed 2/12/20	Tue 3/3/20
Sprint #21	100%	Wed 3/4/20	Tue 3/24/20
Sprint #22	100%	Wed 3/25/20	Tue 4/14/20
Sprint #23	100%	Wed 4/15/20	Tue 5/5/20

Task Name	% Complete	Baseline Start	Baseline Finish
Sprint #24	100%	Wed 5/6/20	Tue 5/26/20
Sprint #25	25%	Wed 5/27/20	Tue 6/16/20
FY 2019-20 IPOR Reports - Monthly	85%	Wed 8/7/19	Wed 6/17/20
FY 2019-20 - Quarterly	69%	Mon 10/7/19	Mon 4/27/20
FY 2019-20 IV&V Reports	85%	Thu 8/1/19	Mon 6/15/20

*Pending CDE review and approval. Upon CDE approval, these tasks will be 100% complete.

3.2.1 SSR Project DevOps Dashboard

The SSR Project uses Microsoft DevOps for application development lifecycle management as software features and components are designed, built, tested, and deployed. One feature of this tool is the DevOps Dashboard which provides a snapshot of project work, also known as the product backlog. The dashboard below focuses on the project’s total backlog of software development work in the form of user stories.



As of the June 12, 2020, approximately 45% of the backlog work has been completed. The SSR project backlog includes:

- 6,824 work items including user stories and business rules
- 1,051 open user stories, including stories with status of new, active, or resolved
- 944 closed user stories, including completed stories that have been developed and tested
- 1,995 total user stories

A user story is an informational, natural language description of one or more features of a software system, written from the perspective of a user of a system. User stories transition through several statuses within the project. When a user story is created, the status is “new.” The most direct path for a user story is new, active, resolved, and closed. User stories also can be removed. Below is a full list of statuses:

- Active: user story currently being developed and tested
- Closed: user story developed and tested
- Open: user story already groomed or ready to be groomed
- Resolved: user story ready to be tested
- Removed: user combined with another user story for test and development efficiency

These indicators are used to monitor the relative progress in software development. Open user stories represent the volume of work remaining on the project. As the SSR project team completes more of the application software, more user stories are closed.

3.2.2 SACS Application Environments

As articulated in the SSR Proposal, the development, test, and staging environments for the SSR solution are hosted in a virtual environment within the FCMAT/CSIS data center. Each environment is built using the latest general release of VMware vSphere technology for virtualization.

Ongoing updates to the underlying software technologies used to build the SACS application meant that the SACS team needed a new strategy to prevent those updates from constantly breaking the software as it was being developed. To better control the introduction of those underlying software updates to the development environment, the team implemented a sandboxing strategy. During 2019-20 the DevOps team updated the pre-sandbox (used for large changes like OS updates), sandbox (used for development and integration testing), and test environments. Updates to the environments included updating the server operating systems to the latest versions, updating the Kubernetes version, and updating all the images used for the microservices. In this manner, all technology components utilize the most current operating system versions and .NET versions available. In FY 2019-20, the team completed the following work:

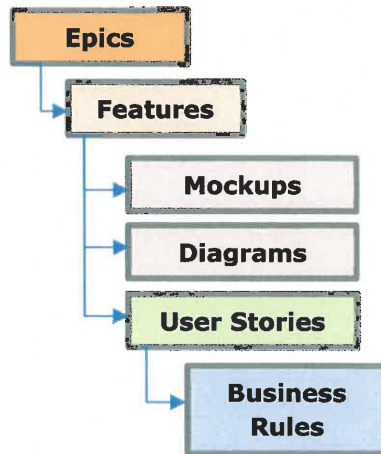
- Updated .NET versions to use .NET CORE 3.1 to stay current with Microsoft releases in all environments.
- Added support for Redis caching in the deployment infrastructure to allow distributed in-memory caching to the application. Redis deployment leverages a high availability deployment with redundancy.
- Re-tooled the Azure DevOps pipelines to optimize the build, testing, and deployment of all environments.
- Added CPU and memory monitoring for all environments to track the usage of resources over time and added notifications to FCMAT/CSIS operations staff.
- Rebuilt the development environment to use the latest versions of all software and operating system.
- Updated the test environment with a high availability topology so that it would be more resilient and better support test configurations needed for production deployments.

Future environments will be built and brought online as scheduled in the Project Work Plan, including:

- Staging Environment. The Staging Environment will be accessible by CDE-authorized users to beta test new features prior to implementing them in the Production Environment.
- Production Environment. The system's production architecture will follow an n-tier design consisting of separate layers for web tier/presentation layer, application tier/app services API, and persistence tier/database.

3.2.3 Requirements

The SSR Proposal included approximately 300 requirements. Throughout much of FY 2019-20, the project's business analysts (BAs) worked diligently to continue vetting business requirements with the CDE subject matter experts (SMEs) to ensure intended scope was completely decomposed into a backlog of actionable work items for developers and testers. The relationship among the backlog of work items can be best represented by the following diagram:



The following key metrics quantify requirements efforts:

- 6,580 – total number of items in the backlog, including epics, features, diagrams, mockups, user stories, and business rules created from the joint application design (JAD) and requirement refinement sessions
- 1,956 – total number of user stories in the backlog; user stories are the actionable work items assigned to developers during a sprint and the foundation of requirements traceability
- 4,900 – total number of business rule (BR) work items in the backlog; Every user story is broken down into measurable BRs and vetted with the CDE SMEs
- 100 – total number of forms that required reverse engineering to validate requirements. BAs read and analyzed Video Title Set (VTS) source code files to determine undocumented business rules
 - 703 – total number of form user stories representing the outcome of the reverse engineering effort
- 251 – total number of validations that required reverse engineering to validate requirements. BAs read and analyzed Video Title Set (VTS) source code files to determine undocumented business rules
 - 132 – total number of Input Form Checks (IFCs)
 - 119 – total number of Technical Review Checks (TRCs)
- 37 – total number of states created for new workflow process of entities promoting, approving, and publishing datasets across various reporting periods

- 12 – total number of queues designed to give various entities custom views based on custom business rules surrounding security roles and workflow states
- 614 – total number of BRs created and analyzed to ensure consistency with new complex workflow and queue management functionality

3.3.1 Requirements Traceability Matrix

The ability for project sponsors and stakeholders to track requirements is known as traceability. Using the California Department of Technology Requirements Traceability Matrix as a guideline, the BAs created a Requirements Traceability Matrix (RTM) to track SSR requirements from beginning to end. The BAs actively maintain the matrix to ensure the system satisfies the specified requirements.

The completed SSR Project RTM is a deliverable of the SSR project and will be finalized as scheduled in the SSR Workplan when the software is complete.

3.3.2 Completed Requirement Packets

FCMAT/CSIS grouped together requirements within a functional area of the system as a requirement packet. This organization enables the CDE to review and approve sets of requirements, business rules, diagrams, and mock-ups for the SSR system in context. In 2018-19, four requirement packets were completed:

- Application Security Packet
- Minimum End-To-End Functionality (Skeleton)
- Data Submission and Workflow Packets (Packets 1- 3)
- Forms

In 2019-20, the BAs have completed analysis on and submitted to the CDE 24 forms for review. As of the date of early June 2020, additional requirement packets, including four (4) forms are completed, but awaiting discussion with the CDE. Seventy-two (72) forms are in process for analysis and submission to the CDE.

Once analysis is completed, an estimated 20,000 business rules will have been added to the SSR Project backlog, specifically for forms development and testing.

3.3 SSR Solution Test Plan (DEL-5)

In October 2019, the CDE approved the Solution Test Plan. This document describes the testing strategy, the in-sprint testing process, system environments, tools, staffing, and quality control standards.

The project team continued to leverage the automated testing infrastructure implemented during the first year of the project to continuously test and verify the quality of the SSR system. The strategy of using automated testing to address the testing needs of the project focused on the complexity of the

financial data and the number of business rules that are applied. Automated testing, software that is developed alongside the software solution, has allowed for improved efficiency and accuracy over manual testing.

The SSR project team continued to create system tests before writing functional software code. In the SSR project, test cases are behavior driven (BD), as defined in the user stories and business rules. The system test cases are written in Gherkin syntax and implemented using Specflow, Selenium, API, and SQL as automated tests. The established testing model supports full traceability to the parent business rules, user stories, and features by using tools like SpecSync. System tests are one hundred percent automated. The full test suite continued to run nightly and in subsets as integration tests during each code check-in event. All test runs have been recorded in the Microsoft Azure portal where the SSR project lives.

During FY 2019-20, the number of tests in SSR test suite grew dramatically. The number of automated test cases to date, covering new functionality such as security, dashboard, import, queue, forms, audit, printing, and accessibility increased from approximately 130 to 2,811 test cases fully automated, a twenty-fold increase.

Each night, the SSR quality assurance team (QA) runs a regression test to ensure new development code is compatible with existing software. In the example below, 2,834 test cases* were executed and 61.75% passed. Test failures help identify issues that need to be fixed before the software is promoted to a downstream environment. Total test runtime is approximately 4 hours. Because the sequential execution of the full test suite takes more than 24 hours, the SACS team implemented a solution to reduce the run time. Using XUnit, Selenium, and Specflow's dependency injection, the project team executes a configurable number of tests in parallel. The following screenshot depicts results of an SSR regression test:



* Note: The total number of executed tests (2,834) may exceed the total number of unduplicated tests (2,811) because of function overlaps.

3.4 SSR User Outreach Plan (DEL-6)

In October 2019, the CDE approved the User Outreach Plan. This Plan seeks to build a bridge between end-users and the SSR project team during development and implementation. The plan encompasses the actions the project will take to involve, engage, and educate end users about the new SACS web-based system. Communicating with SSR project stakeholders provides an opportunity to build trust and to facilitate more positive attitudes towards the new SSR system.

The SSR User Outreach Plan articulates outreach goals, strategies, and tactics for engaging all users of the SACS financial reporting system. It includes a listing of specific stakeholder events at which the CDE with support from FCMAT/CSIS plans to present an overview of the SSR system. It describes, additionally, how the team will measure success using metrics for desired outcome and benchmarks to measure outreach impact.

3.4.1 User Outreach Goals

The SSR project user outreach goals are to:

- Establish end-user trust and confidence in the new SACS System
- Promote understanding and awareness of the new SACS System to targeted audiences
- Establish interdependent connections between LEAs and the SSR project team

3.4.2 User Outreach Strategies

The project will use a variety of outreach strategies and tactics to reach all users of the SACS financial reporting system, including:

- Special events, conferences, or other meetings to help galvanize end-users around the new SACS system to build trust and credibility. During FY 2019-20, FCMAT/CSIS and the CDE shared SSR project information and collected and responded to user questions during multiple events. Please see section 3.4.4 User Outreach Events for metrics.
- Email campaigns to help reach stakeholders quickly; messages may be tailored to a variety of end-users.
- Project web page that provides timely information and updates regarding project status, including FAQs.

The project team will be planning email campaigns and a project web page. Due to potential changes to the project schedule resulting in an extension of the system go-live date, the project team is holding off on these two activities until a resolution is reached and the project schedule is re-baselined.

3.4.3 User Outreach Partners

Early in the project, FCMAT/CSIS and the CDE established an LEA End User Group (User Group). Throughout FY 2019-20, User Group meetings were held when practicable to discuss various items related to the SSR project. User Group participants included representatives from county offices of education (COEs), school districts, charter schools, and various members of the SSR project team. As early adopters, the User Group shared thoughts about business needs when the project team requested clarification or presented them with alternative solutions to a problem being evaluated for implementation. As an added benefit to the project, User Group members share project news with their colleagues. The SSR project team will continue to collaborate with the User Group throughout the remainder of the project. A better understanding of user needs through collaboration, moreover, may be used to inform training content.

In addition to the User Group, the SSR project team planned to engage the following partners, each representing a subset of the SACS financial reporting system users. These partners will serve to provide a forum for the SSR project team to deliver project information to users via conferences, standing meetings, and other outreach methods, including those that observe social distancing practices.

- **California Association of School Business Officials (CASBO)**
 - Serves all user types statewide, many of whom utilize SACS software
 - Promotes professional development in all facets of the school business industry. Serves as the state member of the National Association of School Business Officials. CASBO is the organization that issues the Chief Business Official certificate. This entity hosts several large conferences during the year as well as workshops on specific topics. Local workshops are also facilitated by region.
- **California County Superintendents Educational Services Association (CCSESA)**
 - **Business and Administration Steering Committee**
 - Serves county office of education administration positions such as Assistant/Associate/Deputy Superintendent. BASC members use SACS not only for their own county office budgets but also to perform fiscal oversight for districts and charter schools. BASC is also the “parent” committee for the COFS and ESSCO subcommittees.
 - Monitors and discusses legislation and current events/issues that will affect school business administration statewide. BASC hosts two main conferences during the year.
 - **County Office Finance Sub Committee (COFS)**
 - Uses SACS software to prepare COE budgets. Subcommittee of BASC. Consists of COE internal business staff.
 - **External Services Sub Committee (ESSCO)**
 - Uses SACS software to perform the fiscal oversight function for the county superintendent. Subcommittee of BASC. Consists of COE external business staff.
- **Standardized Account Code System (SACS) Forum**
 - Hosts forum discussions that include the accounting structure used statewide as well as the SACS financial reporting software. Attendees include school district and COE business staff, auditors, public interest groups, and private consultants.
- **California Charter School Association (CCSA)**

- Serves all charter school users, some of whom in the past may not have used SACS as an interface to report their financial information.
- Supports charter school organizations. CCSA hosts two conferences during the year.
- **School Services of California (SSC)**
 - Provides advocacy and support to all SACS user types. Posts “fiscal report” service to all who subscribe. Hosts budget conferences multiple times per year for a statewide audience.

3.4.4 User Outreach Events

Several metrics were captured for each User Outreach event, including:

- Number of attendees
- Participant involvement
- Number of questions asked
- Follow up emails
- User interest in participating in End User Testing

The table below lists user outreach events that included an SSR breakout session or scheduled time for the project team to present a project summary and status.

Event	Event Date	Number of Attendees (approx.)	Questions Asked	Follow Up Emails	User interest in End User Testing
CASBO Symposium	November 2019	100	25	2	1
ESSCO	November 2019	40	6	1	0
CCSESA CBO Conference	February 2020	50	15	3	0
BASC	March 2020	35	10	2	0
QSS Conference	March 2020	20	9	0	1

3.5 SSR Configuration Management Document (DEL-7)

In February 2020, the CDE approved the Configuration Management Document. This document describes practices for Project Configuration Management (PCM) processes, tools, and activities. Specified project items are managed during the life of a project with the goal of establishing visibility, coordination, and control of individual items as well as integration between planning, implementation, and change management. Configuration Management (CM) helps to ensure the project’s product is properly planned and documented.

Specified items are referred to as Configuration Items (CIs). A configuration item may be described as hardware, software, or documentation which satisfies an end-use function and whose requirements are specific and designated for separate configuration management. A configuration document defines and designates how specific items of a project will be managed to ensure appropriate controls are in place to support the continuity of a product or service.

For the purpose of establishing a configuration management (CM) process for the life of the SSR project The SSR Project Configuration Management Document describes the following:

- Project and product configuration items,
- Configuration tools, including document management and source code management, and
- Configuration activities, such as verification, audits, and reporting.

FCMAT/CSIS is responsible for configuration management during the life of the project. Configuration management responsibilities transition to the CDE at System Acceptance (DEL-14).

3.6 SSR User Training Plan (DEL-8)

In June 2020, the CDE is scheduled to approve the User Training Plan. This document describes the overall goals, learning objectives, and activities that will be performed to develop, conduct, control, and evaluate instructions provided to end users, operators, administrators, and support staff who will use, operate, and/or otherwise support the SACS solution. The User Training Plan provides a description of training methodology, roles and responsibilities, training materials, and training resources. The User Training Plan includes a short description for each training course. Due to uncertainties arising from COVID-19 and the potential availability of LEAs to participate in training, a training calendar will be appended to the plan at System Readiness.

SSR training materials for instructors and students will be online or in digital format and used to disseminate instruction about the SACS solution to the target audiences. FCMAT/CSIS will develop the initial version of SACS training materials. As articulated in the SSR Proposal, after System Acceptance, the CDE will be responsible for updating and maintaining SACS application training materials.

4 Budgeted and Actual Expenses for FY 2019-20

The SSR project's one-time costs include all personnel related costs to develop and deliver the custom-designed software and one year of warranty, as well as the hardware and software specific to the development and delivery of the SSR solution. During the approximately 3 years of developing the SSR solution, data center hosting, cloud storage for disaster recovery (DR), and software licenses are treated as one-time costs. The total fixed price of the project is \$11,478,457. The payment schedule for the deliverables includes a 10% withhold for the project, payable at system acceptance (Deliverable 14). See Appendix A for the multi-year deliverable and payment schedule for the current year.

The SSR project was initiated in fiscal year 2018-19 through the annual state appropriation of \$3,616,000 based on costs estimated at the time the SSR proposal was developed (fiscal year 2017-18). Project cost estimates in the SSR proposal were developed in compliance with analogous estimates, bottom-up estimation, and expert judgment methods, using the best information available at the time. These cost estimates and the method for how they were derived were provided to the CDE and accepted through the SSR Project proposal process.

In the initial 2018-19 budget, a contribution of \$314,249 was anticipated to cover the difference between the state appropriation and budgeted costs. However, the contribution was not necessary as some expenses were deferred during the first quarter, such as expenses for the usability engineer, developers, and testing staff as business analysts performed requirements analysis required prior to initiating software development activities. This staged approach resulted in a more efficient utilization of human resources. Procurement of operational equipment, hardware and software used by these individuals also shifted accordingly. The approved project workplans for 2018-19 and 2019-20 reflected this approach. The CDE approved the restructured and revised 2018-19 Project Work Plan in October 2018, and the 2019-20 Project Work Plan in August 2019. In 2019-20, the staffing plan retained this conservative approach.

The initial 2019-20 budget reflected the Proposal’s assumptions and expenses, including:

Cost Item	2019-20 (Year 2)
Custom-Designed Software Costs	\$3,885,101
Hardware/Software Costs	\$206,525
Data Center Hosting Costs	\$34,020
Cloud Storage Costs	\$6,300
Software Licenses	\$16,800
2019-20 (Year 2) Total Cost	\$4,148,746

Appendix B includes the FY 2019-20 budgeted and actual expenses for the fiscal year. As the prior year was closing and the project was looking ahead to increase staffing, the initial budget contemplated a contribution to offset additional staff along with their related facilities and technology costs. Appendix B, however, shows an initial budget with the assumption of zero contributions and actual carryover instead. With the restructuring of the work in 2018-19, an actual amount of \$1,186,636 carried over into the 2019-20, the second year of the project.

The emergence of COVID-19 brought new conditions to project operations and a reassessment of planned work and planned expenditures. Travel was immediately curtailed. Technology was pushed to the cloud where possible to facilitate uninterrupted forward progress toward achieving project deliverables. With the state and LEAs conducting business under the “new normal”, the prospect for increasing engagement with LEAs on workplan activities as they navigated pandemic-related challenges became dim. As a result, the project deferred 2019-20 expenditures where the work product was directly related to LEA use or participation, for example, procurement of additional equipment and services for additional environments, creation of the user manual, and convening user group activities.

At this point in the project, the most significant expense is staffing. Several shifts decreased and increased the month to month staffing expense, while keeping the overall expenditure within the 2019-20 budgeted expenses. While the staffing plan continued to conserve resources through ongoing analysis of project needs and deliverables, there were also unexpected challenges. The two lead developers who joined the project in 2018-19 converted to full-time staff in July and October, respectively. In July, the project suffered from staffing changes, as an automated QA consultant left for

better medical benefits elsewhere; another automated QA consultant returned to her home country to take care of her father's estate; and a third consultant moved on to a more lucrative opportunity. This left the project with one QA resource. While the Proposal originally included only three QA resources, a fourth had been added due to the complexity of the SSR data scenarios and business rules. This addition of the fourth QA aligned better with the two development teams. By August, the QA staffing levels returned to the original resource plan of three staff. The fourth QA joined the project in December.

One of the BAs on the project announced her retirement, scheduled for December. To prevent loss of project knowledge and to mitigate against a potential decrease in productivity in requirements analysis, an additional resource was added. The new BA joined the project in late October, providing more than 8 weeks of overlap and a successful transition. While the staffing plan had scheduled the BA resource to extend through March 2020, as requirements refinement sessions continued late into June 2020 BA resources continued to be needed, and this BA remained on the project. In addition, this BA has flexibility and skills that can be applied in other areas. Instead of acquiring a technical writer to prepare the user manual, the BA resource will continue into the third year of the project to develop online user documentation.

As an additional mitigation against the risk of losing a developer due to the aggressive market conditions we saw with our QAs, an additional developer was hired mid-February 2020. This developer increased the overall bandwidth of the development team and increased its development velocity, the rate at which functionality is completed.

The final new resource, an instructional designer, was hired at the end of March 2020, at the latest possible moment to meet the first milestone of the Training Plan deliverable in April.

Additional savings include a small reduction in the Assistant Project Sponsor's FTE, a contribution from FCMAT/CSIS for the 0.5 FTE FCMAT/CSIS SME, and the elimination of the technical writer from the 2019-20 staffing plan. The deferrals in technology and other expenses noted above in response to COVID-19 and the overall net effect of shifts in staffing levels, including the timing of the changes, resulted in an estimated ending balance of \$917,000.

5 Work planned for FY 2020-21

The extenuating circumstances presented by COVID-19 will be weighed as FCMAT/CSIS and CDE plan work for 2020-21 and beyond. The near-term effect of the pandemic was minimal to the project team and its schedule; SSR team members transitioned to telework seamlessly. Telework was not available to all LEAs, and many struggled with connectivity and technology resources to support district operations and district staff working away from their physical offices. As the project progresses, tasks that include interaction with end users grows. Planning needs be responsive and adaptive to reflect adjustments in how work is conducted more widely during the pandemic.

While the state is currently undergoing a gradual reopening of the economy and worksites, a resurgence of COVID-19 may cause our end users to fall back into telework status. The availability of LEA end users

to engage in project activities, such as user outreach, user acceptance testing, and training, as well as assisting CDE in its system acceptance activities, may impact the workplan. Given that the new SACS web based technologies are a significant advancement over the current 20-year old SACS system, without a COVID-19 end date in site, it is unknown when LEA resources might be available to absorb the technological transition.

The CDE and FCMAT/CSIS have created several draft documents that reflect the project's response to COVID-19, essentially the assumption of a 1-year delay:

- A revised draft MOU that reflects the COVID 19 response plus the inclusion of a multi-year Maintenance and Operations component.
- A revised 2020-21 SOW that reflects the COVID 19 response.
- A revised 2020-21 Workplan reflects the COVID 19 response.
- A draft Budget proposal for CDE to obtain additional resources to support project needs.

From early planning in the proposal phase, through long term-planning, and other leadership meetings with the CDE, FCMAT/CSIS understands that the CDE's overarching goals for 2020-21 are the timely completion of the following:

- Updated Memorandum of Understanding (MOU) to include a proposed change to the estimated project completion date and addition of Maintenance and Operations responsibilities
- Statement of Work (SOW)
- Updated Project Management Plan
- Updated Project Work Plan, with revisions for COVID-19 contingencies
- System Technical Guide – Deliverable 9 (DEL 9)
- System Readiness – Deliverable 10 (DEL 10)
- Knowledge Transfer Plan – Deliverable 11 (DEL 11)
- Requirements Traceability Matrix (RTM) – Deliverable 12 (DEL 12) , with revisions for COVID-19 contingencies
- System Go-Live – Deliverable 13 (DEL 13), with revisions for COVID-19 contingencies
- System Acceptance – Deliverable 14 (DEL 14), with revisions for COVID-19 contingencies
- All 2020-21 tasks within the Project Work Plan

FCMAT/CSIS Major Work Activities in Support of Project Expectations

The major work for FCMAT/CSIS in 2020-21 to support these project expectations include:

- Maintain a working relationship between the FCMAT/CSIS and CDE teams, as well as the independent consultants to ensure the SSR project is being developed to meet the needs of stakeholders.
- Continue designing and documenting a system that will meet the requirements of the SSR solution.

- Continue monitoring the SSR project's development to ensure that the project remains within scope, adheres to the delivery timeline, and does not exceed cost estimates.
- Continue implementing automated testing and refining requirement/software development/testing processes to ensure quality outcomes in an efficient manner.
- Continue providing effective management, office support, and technology services to FCMAT/CSIS staff.

With the assistance of the independent project oversight consultants and independent verification and validation consultant in managing and monitoring project risks, adjustments to the above planned work will be documented in an MOU and Statement of Work.

6 Conclusion

FCMAT/CSIS completed a significant amount of SSR project work in 2019-20. Appendix E provides metrics of work items by quarter. The project team completed requirements analysis, prints during which a sizeable number of forms, workflow, and technical review check functionality was developed and tested, and the training plan. The work FCMAT/CSIS accomplished in 2019-20 removes a considerable amount of technical risk for upcoming software development in 2020-21, including development of the multi-year processing capability to address the business need agreed to during the 2019-20 fiscal year. The CDE and FCMAT/CSIS continue to enjoy a close and supportive working relationship as partners on the SSR project and will continue to work collaboratively in 2020-21.

Appendix A – Deliverables and Payment Schedule for FY 2019-20

A-1 - Deliverable Cost

2019-2020	Deliverable ID	Deliverable Name	Percent Cost of Total One-Time Costs	Percent of Payment per Deliverable	Amount of Payment per Deliverable
	DEL-5	Solution Test Plan	5.00%	4.5%	\$516,531
	DEL-6	Customer Outreach Plan	10.00%	9.0%	\$1,033,061
	DEL-7	Configuration Management Document	10.00%	9.0%	\$1,033,061
	DEL-8	User Training Plan	10.00%	9.0%	\$1,033,061
Total Deliverable Cost					\$3,615,714

A-2 – Payment Schedule

2019-2020	Payment Schedule	Payment Date	Payment Amount
	1st Quarter	August 30, 2019	\$903,929
	2nd Quarter	October 1, 2019	\$903,929
	3rd Quarter	January 1, 2020	\$903,929
	4th Quarter	April 1, 2020	\$903,929
Total Payment			\$3,615,714

A-3 – Withhold Amount – Payable at System Acceptance

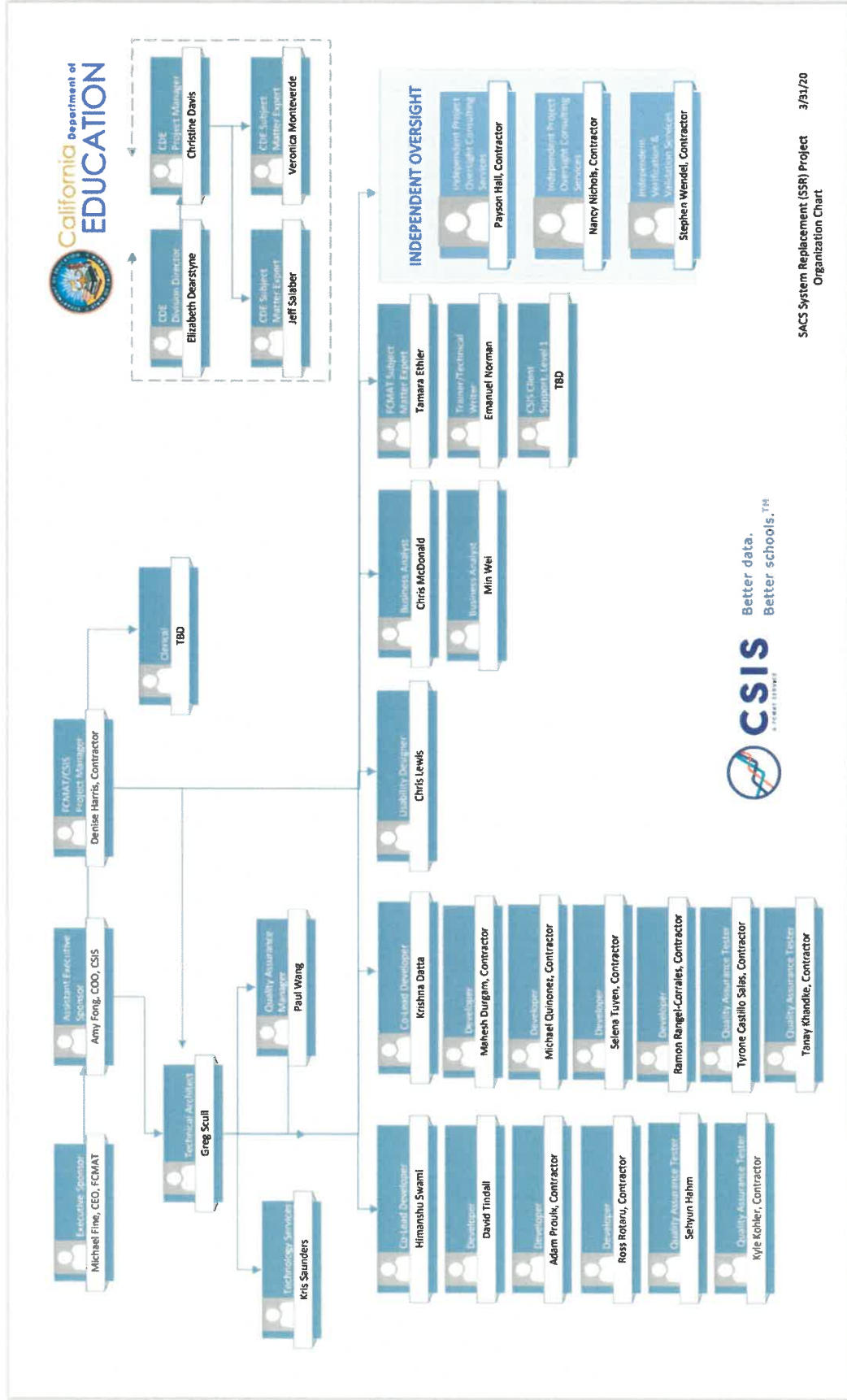
2019-2020	Deliverable ID	Deliverable Name	Percent Cost of Total One-Time Costs	Percent of Payment per Deliverable	Withhold Amount
	DEL-5	Solution Test Plan	.5%	5%	\$57,392
	DEL-6	Customer Outreach Plan	1.0%	10%	\$114,785
	DEL-7	Configuration Management Document	1.0%	10%	\$114,785
	DEL-8	User Training Plan	1.0%	10%	\$114,785

Appendix B – Budgeted and Actual Expenses for FY 2019-20

	FY 2018-19 Actuals	FY 2019-20 Beg. Budget	FY 2019-20 Est. Actuals*
REVENUES			
Beg. Balance - Prior Yr. Carryover	0	1,186,636	1,186,636
Current Year Appropriation	3,616,000	3,616,000	3,616,000
TOTAL REVENUES	3,616,000	4,802,636	4,802,636
EXPENDITURES			
Classified Salaries	458,699	857,026	689,569
Employee Benefits	161,505	323,025	263,323
Supplies & Non-Cap. Equip.	65,914	129,900	31,757
Services, Other Operating Exp.	1,546,996	3,236,363	2,645,640
Travel & Conference (5200)	6,438	20,000	2,991
Rents, Leases, & Repairs (5600)	108,511	112,282	111,911
Direct Costs (5710)	(479,718)	(27,056)	33,490
Professional/Consultant Services	2,975,785	3,111,837	2,497,248
Consulting Services (5800)	1,632,316	2,524,393	2,468,692
Software Licenses (5800.41)	76,338	165,125	28,556
Job Postings (5800.42)	0	5,000	0
Hardware Maintenance (5800.45)	0	6,800	0
Hold for Unexpected Expenses (5800.99)	0	417,319	0
Communications	0	19,300	0
Capital Outlay	0	0	0
Switches & Routers	0	0	0
Server Refresh	0	0	0
Indirect Costs	180,800	240,132	240,132
Debt Service	15,450	16,190	15,358
Storage Area Network	15,450	16,190	15,358
TOTAL EXPENDITURES	2,429,364	4,802,636	3,885,779
Ending Balance	1,186,636	0	916,856

*projected as of 6/1/20

Appendix C – SSR Project Organizational Chart for FY 2019-20





Appendix D – Open Change Requests as of June 2020

There are currently no open change requests.

Appendix E – Work Item Metrics for FY 2019-20

As reported through independent oversight (IV&V), count of work items by quarter:

Work Item	Quarter 1 Q1 Jul - Sep	Quarter 2 Q2 Oct – Dec	Quarter 3 Q3 Jan – Mar	Quarter 4 Q4 Apr - Jun
Requirements (actual)	295	293	293	293
User Stories (approximate)	1,300	2,100	2,000	2,100
Business Rules (approximate)	3,200	4,700	4,800	4,900
Test Cases (approximate)	718	1,300	3,400	3,600

The data in the table above represent total activity, i.e., open and closed user stories measured at the end of each quarter during FY 2019-20. At the end of Q1, for example, open and closed user stories was approximately 1,300. At the end of Q4, in comparison, the count of open and closed user stories was approximately 2,100. After a sudden increase in the count of open and closed user stories between Q1 and Q2, activity remained relatively stable at approximately 2,100 work items.

The count of business rules stabilized as the project team has finalized requirements. During Q4, all user stories and business rules were submitted to the CDE for review and approval. Upon CDE approval of the user stories and business rules, the project team will have a shared and detailed understanding of the CDE's business needs which will drive development for FY 2020-21.

The count of test cases continues to increase when more test automation code is developed. The QA team writes an average of 100 new test cases per sprint. Sometimes test case work items become obsolete or duplicated when the automation code is being changed.

Appendix F – Glossary of Terms

Term	Description
Agile	Agile software development calls for keeping code simple, testing often, and delivering small, functional bits of the application as soon as they are ready. The focus is to build a succession of parts, rather than delivering one large application at the end of the project.
Backlog	SSR project backlog work items types include epics, features, user stories, business rules, and tasks traceable to requirements. The backlog is used to plan, prioritize, and organize SSR project work.
Business Rule	Defines some aspect or constraint of the SSR system intended to assert business structure or to control the behavior of the system.
CDE	California Department of Education.
CDT	California Department of Technology (formerly Office of Technology Services and Department of Technology Services – DTS); data center for State and local government agencies. Source for technology project templates.
COE	County Office of Education. Functionally, could also go by “county superintendent of schools” or “county department of education.”
CSAM	California School Accounting Manual. Section 300 includes an overview of the standardized account code structure (SACS), explains the SACS account string, and defines each of the seven components or field codes, relevant to the SACS system software.
CSIS	California School Information Services.
Data Entry Screen	A screen used for the purpose of entering data that is then stored in the database, and which then may be used to populate forms or reports.
Data Set	The complete set of GL and supplemental data that a reporting entity will import or key enter into the system and work with until it is ready for submission to its reviewing agency. The data set is in a preliminary stage and considered the “working” version of the reporting entity’s data, not yet ready for submission to its reviewing agency. A reporting entity may have more than one version of its data set, may work with multiple data sets simultaneously, and may share or provide access to others, including CDE or its reviewing agency, to assist with troubleshooting, prior to the data set becoming a submission.
Data Type	The identifying characteristics of a set of financial data submitted by a reporting entity to its reviewing agency. Valid types include “Budget,” “Estimated Actuals,” “Unaudited Actuals,” “Original Budget,” “Board Approved Operating Budget,” “Actuals to Date,” and “Projected Year Totals.”
DB	Database.
DBMS	Database Management System.

Term	Description
DED	Deliverable Expectation Document.
DSD	Deliverable Submission Document.
Entity	The specific agencies involved with statutory financial reporting requirements. Example entities include individual LEAs, Charter Schools, COEs, JPAs, the State Board of Education, and CDE.
Entity Type	The categorization of an entity based on its function. Example entity types include: "School District," "County Office of Education," "Charter School," and "Joint Powers Agency."
Entity Subtype	A classification of entities within a specific type. Example entity subtypes include: "District Charter School," "County Charter School," "State Board Charter School," "Statewide Benefit Charter School," "All Charter District," and "Common Administration District."
eTransfer/eTran	eTransfer component of SACS System used by COEs to electronically certify and transmit LEA year-end UA financial data to CDE.
Exceptions	Reporting entity data that are flagged by a TRC as being anomalous. There are three levels of severity for an exception: fatal, warning, or informational, each of which requires its own level of response from the reporting entity.
FAIS	CDE's Office of Financial Accountability and Information Services; responsible for the SACS program, the collection, review, and dissemination of LEA financial data.
FASD	CDE's Fiscal & Administrative Services Division.
FCMAT	Fiscal Crisis & Management Assistance Team assists and provides guidance to local educational agencies in the areas of business and financial management practices.
Feature	A piece of functionality that delivers business value to a client.
Form	A simulated document on a screen that is used to capture data. In most cases, when Forms are printed, they look the same in print as they do on the screen.
Formal Submission/Formal Submission Data Set	A submission data set that is submitted to CDE for review to satisfy statutory reporting requirements. A reporting entity may only have one formal submission in review with CDE at any given time.
Format/Reporting Format	The structure of the data a reporting entity submits to CDE for review, either the SACS format or the Alternative format. All traditional LEAs must report in the SACS format. Charter schools reporting separately from their authorizing LEA may report in either the Alternative format or the SACS format.
FY	Fiscal Year.
GAAP	Generally Accepted Accounting Principles.

Term	Description
GASB	Governmental Accounting Standards Board.
G/L Data	General Ledger data from the LEA's local financial system that is imported or key entered into the new system and is the primary component of the LEA's data set.
Graphical User Interface (GUI)	A system's front-end interface that uses windows, icons, images, and menus, rather than textual commands for user interaction.
Historical Versions	Archiving a selected version of the full business functionality of the entire SSR at a given point in time such that when it is accessed it performs exactly as it did when the version was current.
ICR	Indirect Cost Rate.
IFC	Internal Form Check, a form of validation of LEA-entered financial data. Some IFCs may trigger warning or fatal TRC exceptions that need to be explained or cleared before CDE will accept the submission, unless the LEA is given rare pre-authorization to deviate.
IT	Information Technology.
ITIL	Information Technology Infrastructure Library.
JPA	Joint Powers Agency.
Kanban	A visual tool that communicates a large amount of project information about a development team.
KCSOS	Kern County Superintendent of Schools.
LAN	Local Area Network.
LEA	Local Educational Agency, such as school districts, county offices of education, joint powers agencies, and charter schools.
OTech	Office of Technology Services (currently California Department of Technology; formerly Department of Technology Services – DTS); data center for State and local government agencies.
Phase	A portion of the business life cycle during which specific workflow steps and business checks will occur. Examples include: Import, G/L.
PMBOK	Project Management Body of Knowledge.
PMI	Project Management Institute.
PMO	CDE's Project Management Office.
PMP	Project Management Plan.
Report	A system output using data from the database. Reports can be output to screen, file, or printer and may show data in a variety of layouts.
Reporting Period	A defined point in the annual reporting cycle. Valid values include: "Budget, July 1," "Unaudited Actuals," "First Interim," "Second Interim," "End of Year Projection ("Third Interim")."
RFP	Request for Proposal.

Term	Description
SACS	Standardized Account Code Structure, a standardized structure for the chart of accounts that is used statewide to collect, store, and report on LEA financial data. The structure includes seven distinct fields or dimensions: fund, resource, project year, instructional goal, function, object, and school. Details of this structure are in CSAM Procedure 301, referenced in Appendix G Project Library.
SACS Format	The format in which traditional LEAs must report their financial data. One of the two optional formats in which charter schools may report their financial data. Data reported in the SACS Format is data that follows the standardized account code structure (SACS).
SACS Maintenance	One of the four components of the SACS System. The component used for maintaining the validation tables and some business rules.
SACS Query	Also known as SACS Resource Code Query. A CDE Web site used by LEAs and CDE program staff to obtain program and accounting information and guidance. It receives output from the SACS Maintenance component.
SACS Software	One of the four components of the SACS System; the primary component used by LEAs to enter and work with their G/L and supplemental data prior to submission to their reviewing agency. Also used by CDE with the Workflow component to review LEA submissions, to troubleshoot, and to assist LEAs.
SACS System	The four current components that collectively support the collection, review, and dissemination of LEA financial data: SACS Software, SACS Maintenance, SACS eTransfer, and SACS Workflow.
SACS System Replacement (SSR)	Used in the SOW to refer to the future system until a permanent name is determined.
SAM	State Administrative Manual.
SARC	School Accountability Report Card.
SBE	State Board of Education.
Screen	Any viewable interface between the system and a user. A screen may be used to display information only (e.g., viewing query results or a report on the screen); may solicit input (e.g., system menus), may execute a function (e.g., run TRC or import) or may be for the purpose of maintaining system data (e.g., entering UA data or updating validation tables).
SDLC	System Development Life Cycle.
SELPA	Special Education Local Plan Area.
Severity of Check	Categorization of a check applied to a data set. Severity values are "Fatal," "Warning," "Informational," and "None."
SFSD	CDE's School Fiscal Services Division.
SIT	System Integration Testing.
SLO	Service Level Objective.

Term	Description
SME	Subject Matter Expert.
SOP	Standard Operating Procedure
SOW	Statement of Work.
SPR	Special Project Report.
SSL	Secure Socket Layer.
SSPI/SPI	[State] Superintendent of Public Instruction.
Submission Data Set; Submission; Submission Data; Data Submission	A reporting entity's completed data set, consisting of G/L data, supplemental data, and TRC results and explanations, submitted by the reporting entity to its reviewing agency to satisfy statutory reporting requirements. A submission data set may be for Budget, UA, or Interim reporting periods.
Submit; Submitted	A reporting entity's Budget, UA, or Interim reporting period submission data set that has been sent to its reviewing agency to satisfy statutory reporting requirements. This begins the first step of the workflow process.
Supplemental Data	Data that is not G/L data, but which is a required part of the submission data set. Most supplemental data are key entered after the G/L data has been imported or entered into the system. Examples include Average Daily Attendance, counts of buses operated and pupils transported, and TRC Log and TRC explanations for exceptions.
Successful/Successfully	"Successfully developed," "successfully implemented," and "successfully managed" are all defined to mean that the system is in production and is being utilized by the users as the system of record.
System Architecture	The structure of a system, where <i>system</i> architecture represents a collection of components that accomplish a set of functions. System architecture is focused on organizing components to support specific functionality.
Traditional LEAs	School districts, county offices of education, and certain JPAs. There are approximately 1,100 in the State, a stable number, and their reporting requirements are relatively stable. Does not include charter schools.
TFS	Microsoft Team Foundation Server.
Technical Review Checks (TRCs)	The tests against which a reporting entity's data is run to validate it against the current set of business rules, to assist the LEA in reviewing its data and determining whether the data set would be acceptable for CDE review or not. Most are hard coded into the current SACS System and either pass or return exceptions (Fatal, Warning, or Informational). Examples of resulting outputs are the TRC report and the TRC log.
TRC Log	The output of a TRC on a reporting entity's submission data set. The log identifies each check that was run, its severity, key field values, and the results of the check.
TRC Report	The results of the TRC run against a specific data set, which may be displayed on screen and printed. The TRC Report includes explanations entered by the user.

Term	Description
TRC Status	The assessment of whether a reporting entity's data set is ready for CDE review after all relevant TRCs have been run against the data. The TRC status will be either acceptable or not acceptable for CDE review.
TRC	See Technical Review Checks.
TSD	CDE's Technology Services Division.
UA	Unaudited Actual (in reference to financial reports). The year-end unaudited actual reporting period data that FAIS collects from reporting entities. To meet statutory timelines, FAIS collected unaudited, rather than audited, data.
UAT	User Acceptance Testing: the last phase of the software testing process, which directly involves SSR users.
UI	User Interface.
URL	Uniform Resource Locator.
User-configured/configurable	Used in the context of business rules, "user-configurable" and "user-configured" refers to the ability for an authorized user to use a GUI to define and modify data values upon which business rules are based, and have the system behavior change when the values change, rather than having to make permanent changes in program code.
User Story	An informational, natural language description of one or more features of the SSR system written from the perspective of the end user.
Validation Tables	Tables that identify valid SACS codes and combinations used in G/L data, along with date ranges that define validity.
WAN	Wide Area Network.
Warning Exceptions	A failed business check that is categorized with "Warning" severity. Warning TRC exceptions require agency response.
Work Item	A category used to describe a single unit of work.
Work Item Types	A WIT is a descriptive label for work items. The SSR project uses WITs to include user story and business rule.