

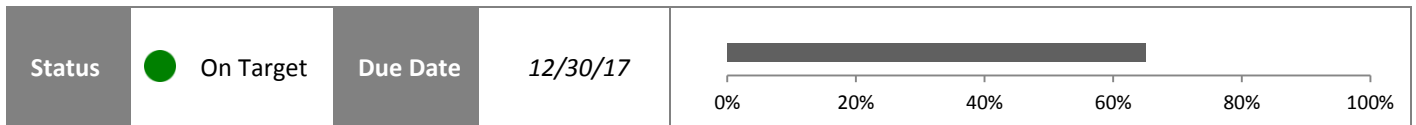
i Pension and Health (P&H) – my|CalPERS Functional Optimization

The my|CalPERS Functional Optimization Project is an effort to develop and implement prioritized functional optimization initiatives in support of the my|CalPERS platform and infrastructure environment. These optimizations are in addition to the existing maintenance and operation needs of the my|CalPERS system. A partner vendor will work collaboratively with key CalPERS staff in the definition, development, and delivery of these optimizations.

Business Benefits

- Establish a collaborative vendor partnership in order to deliver value in support of functional optimization initiatives for the my|CalPERS system and infrastructure environment
- Expedition and improvement of services to all CalPERS customers, internal and external
- Continuous progress, quality, and performance measurement of functional optimization activities against success goals

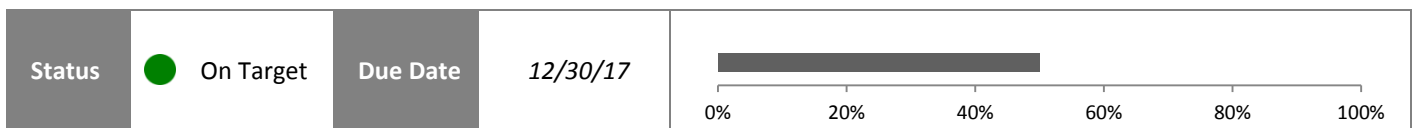
 **Business Optimization Update**



Major Accomplishments

- Enhanced Replacement Benefit Plan to add integrated tax reporting and annual processes; additionally expanded metrics to identify contribution and appointment gaps to reduce payment delays (implemented in Release 6.2).
- Completed preparations for optimizing calculations and internal operational workflow for Modification to Life Option Beneficiary (MOLOB) selections for members (target implementation is Release 6.3).
- Developed the capability to project employer accounts receivables to assist business partners in planning their contributions reserves (target implementation is Release 6.3).
- Created and tested Benefits Compensation Review Workflow to integrate processing operation steps in the program areas to form a virtual end-to-end service operation for members (target implementation is Release 6.3).

 **Technical Optimization Update**



Major Accomplishments

- Initiated a project to streamline report delivery in a timely and cost-effective manner. Additionally, identified opportunities to provide more immediate information to program area staff with each business transaction; on target for completion 12/31/16.
- Initiated Software Quality Assurance Management (SQAM) tool to evaluate the long-term sustainability and efficiency of the application; target completion is 03/31/17.
- Initiated an activity to eliminate the reliance on an expensive third party software component for managing business rules; expected completion date is 03/31/17.

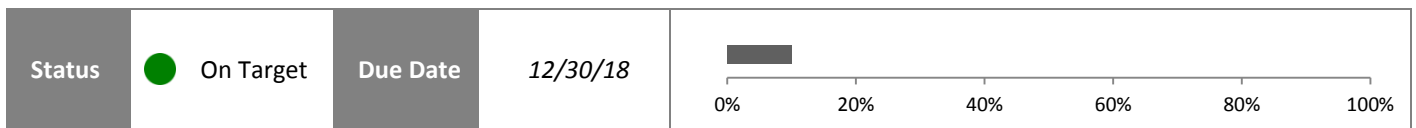
i Pension and Health (P&H) – Actuarial Valuation System Redesign & Enhance (AVSRE)

The redesign and enhancement of the Actuarial Valuation System (AVS) is intended to deliver a solution that supports the business operation of the Actuarial Office (ACTO) in ensuring the ability for CalPERS to meet its pension obligations. The existing system presents challenges in terms of support, functionality, and flexibility. Supportability is challenged by enterprise risk posed by having system knowledge being limited to a few key resources and consultants. Demand has increased for more retirement valuations with greater details and complexity. In addition, actuarial standards are constantly evolving along with the regulatory environment in which CalPERS operates. Hundreds of spreadsheets and other tools are required to deliver valuations, which combined with the time-intensive, complicated data extract and fix operations places strain upon available resources. A modern system that can replace the current aging AVS solution is necessary to meet the strategic objectives of CalPERS and sustain the business goals of CalPERS for years to come.

Business Benefits

- Reduces valuation processing times
- Adds functionality to the current AVS system and provides scalability to support future responsibilities of Actuarial Staff
- Improves identification and application of the correct assumptions, provisions, and decrements to valuations

 **AVSRE Update**



Major Accomplishments

- Approved Conceptual Data Model that serves as the initial blueprint in order to develop the actual database to be used.
- Approved High Level To-Be Process for Valuations that consolidates activities for Public Agency, State & Schools, Judges and Legislators, and the 1959 Survivor into a single valuation process, greatly reducing the complexity and providing an opportunity for improved system maintainability.
- Approved high level strategy approach. This document describes the approach, processes, and methodologies in developing the future AVSRE solution, including criteria for application selection.
- Received approval for high level approach document.

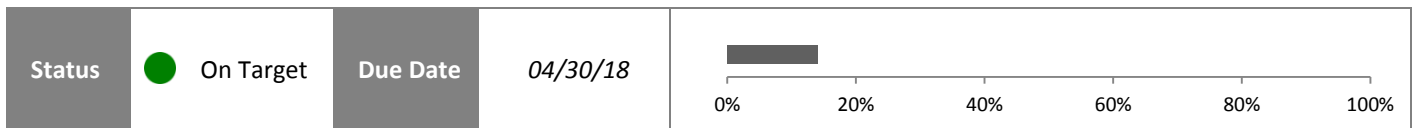
i Pension and Health (P&H) – Customer Education Center (CEC) Redesign

The Customer Education Center (CEC) Redesign Project will completely redesign the my|CalPERS sub application used by the Customer Service and Outreach Division (CSOD), which includes the Contact Center and Regional Offices, who provides a single point of contact to help with all employer and member business. The CSOD representatives and CalPERS members use the CEC application to register for Member and Employer education offerings such as; retirement and health benefits counseling along with retirement planning appointments. The Information Technology Branch will use internal CalPERS resources to redesign, build and replace the existing CEC application with a more efficient solution.

Business Benefits

- Streamlines appointment scheduling, class enrollment, and supports special education requests
- Provides a single interface for CSOD staff to service all CEC requests for members and employers
- Increases efficiency of CEC related call center contacts and responses to customer inquiries
- Increases the availability and accessibility of self-service educational information to educate members and employers
- Allows tracking of class enrollment, special education requests, and student demographics

 **CEC Redesign Update**



Major Accomplishments

- Completed all development activities for the CEC Administration Module (1 of 10).
- Performed a live system walkthrough of the Administration Module for Customer Service and Outreach Division (CSOD) and ITSB, demonstrating the administration pages (i.e. users, instructors, and facilities) functionality for users.
- Completed all development activities for the Customer Education Center (CEC) Courses Module 2 of 10.
- Coordinated a live system walkthrough of the CEC Courses Module for Information Technology Service Branch (ITSB) and the Customer Service and Outreach Division (CSOD). The ITSB core project team demonstrated the Course pages (i.e. Topics, Subjects, and Courses/Class Structures) functionality for CEC users highlighting how the new system will greatly improve user experience and provide much needed efficiencies.

Chief Information Officer Report

September - December 2016

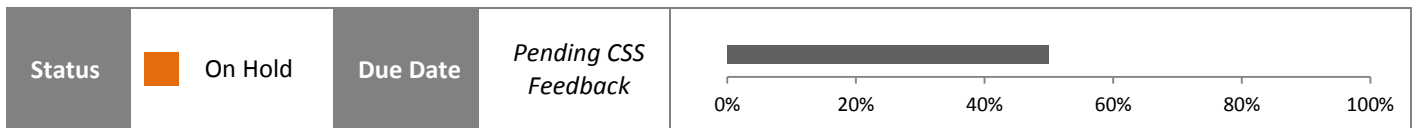
i Business Intelligence – Customer Service Measures (owned by Customer Service and Support Branch)

During the 2011-2012 Fiscal year, CalPERS successfully executed a project that built an enterprise Business Intelligence program. The BI Program responds to daily, operational requests supporting CalPERS business. In addition, the 2013-2015 Business Plan contains three business objectives that are specifically leveraging BI and are part of Strategic Goal B – Cultivate a high performing, risk intelligent and innovative organization.

Business Benefits

- Develops CSS (Customer Service Support) metrics to inform operational decisions
- Enhances reporting efficiencies by providing self-service data access

Customer Service Measures (owned by CSS)



Major Accomplishments

- Project on hold in September pending CSS realignment decisions; CSS requested a hold as business realignment could affect the path forward for CSS metric development.
- Implemented an automated, daily refresh of Customer Satisfaction Survey results using Business Intelligence integration services. This daily refresh introduces greater efficiencies by automating a previously manual data refresh process and ensures CSS access to the most up to date Survey data.
- Established a self-service report for the business to access Customer Satisfaction Survey Results using Business Intelligence reporting services. This self-service report provides CSS with efficient, convenient, anytime access to Survey data through a secure online portal.

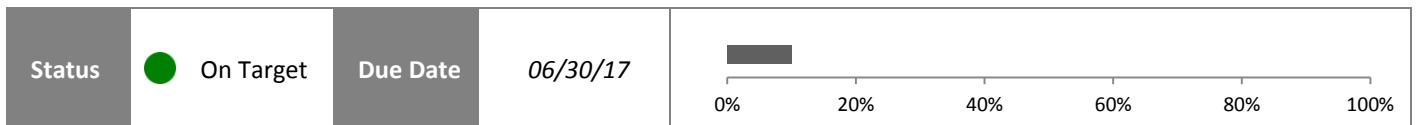
i Business Intelligence – Pension Data Mart (Formerly CAFR Data Mart)

The Comprehensive Annual Financial Report (CAFR) is a statutorily required annual report that shows CalPERS current financial standing. To complete the CAFR, FINO requests a variety of data sets from the BI team which must be run manually each year. The current manual process does not allow the business to consistently track data updates and methodology changes.

Business Benefits

- Creates a consistent, automated, and repeatable process for obtaining CAFR Data
- Creates data traceability which allows the business to track and describe year-to-year methodology changes
- Creates a snapshot of the data set that the business area can use for research and follow up questions
- Enhances reporting efficiencies by providing self-service data access to pension data that is currently difficult to retrieve

Pension Data Mart (Owned by FINO)



Major Accomplishments

- Continued ongoing development on the Data Mart that will eventually store the CAFR data/metrics.
- Performed testing of the pension measure and metric values and cross-referenced results with the FY 14/15 Comprehensive Annual Financial Report (CAFR).
- Demonstrated Business Intelligence Self-Service features to FINO Controller to provide a vision of the available product and features.

Chief Information Officer Report

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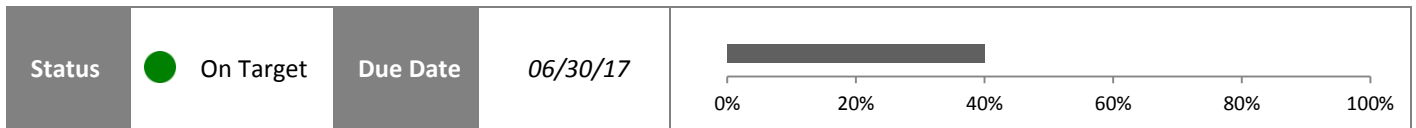
i Information Technology Services Branch – Infrastructure Modernization

The Infrastructure Modernization (IME) project’s objective is to replace the Oracle engineered hardware platform, which is no longer supported, reducing compatibility issues while achieving a goal of infrastructure consolidation and standardization. The IME project will adopt an open architecture that is currently supported, cost effective, and already in use at CalPERS.

Business Benefits

- Reduces hardware, software licensing, and administrative costs
- Reduces business risk and customer impact
- Improves service delivery

 **Infrastructure Modernization**



Major Accomplishments

- Tested repeatable migration procedures to ensure consistency moving from the old to the newly modernized hardware environment. The testing gives confidence for attaining quality requirements and will significantly reduce the cost of migration.
- Validated Business Intelligence (BI) requirements are compatible and the performance is acceptable on the modernized hardware environment.
- Completed Business Intelligence (BI) and PeopleSoft migration plan to define, prepare, integrate and coordinate project activities.

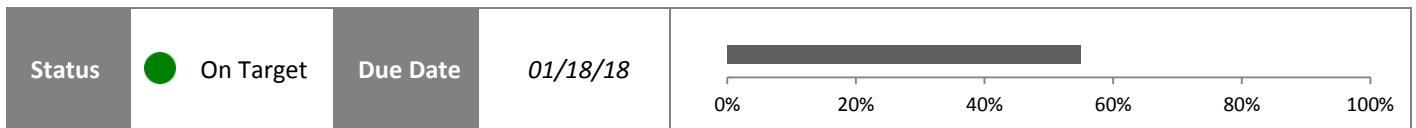
i Information Technology Services Branch – Windows 10 Upgrade

This effort is the planning, designing, testing, and implementation of Windows 10 Operating System for the enterprise. The Windows 7 operating system will reach end of life (EOL) March 2020. To ensure that CalPERS is prepared and to maximize the support cycle for the next operating system, Windows 10 will be rolled out in 2017. The implementation of the Windows 10 operating system will provide updated functionality and features, as well as enhanced security in order to keep CalPERS in pace with the latest technology and to ensure that CalPERS data continues to be protected.

Business Benefits

- Several security improvements including, threat resistance, information and identity protection, as well as tighter access control
- Reduced system downtimes and minimal business interruption
- Improved processing capability to support applications with greater demands as they are introduced into the environment
- Decreased application testing efforts and device-related desktop support issues

 **Windows 10 Upgrade**



Major Accomplishments

- Completed Phase 1 Deployment Plan and Schedule.
- Developed training and communication plans to inform CalPERS’ stakeholders of upcoming Windows 10 system upgrades.

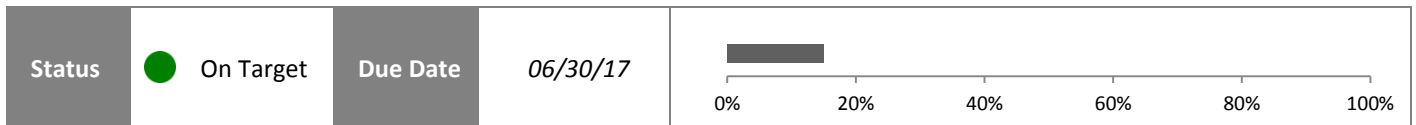
i Security Roadmap – Enterprise Identity System (EIS)

Wave 3 of the Security Roadmap Program (SRP) Enterprise Identity System (EIS) project series will establish an Enterprise IAM Program, implement a user access and provisioning solution, and align the technical architecture to support business needs while maturing the associated Identity and Access Management (IAM) governance and administration (IGA) policies and processes.

Business Benefits

- Reduces costs by centralizing IAM across the Enterprise
- Increases the efficacy of access certification and compliance efforts for risk management
- Reduces IAM system complexity and increases overall solution sustainability
- Increases accuracy of user access requests
- Improves timeliness of authorized access to systems and data
- Improves identity lifecycle workload and process efficiencies

✓ Enterprise Identity System (EIS)



Major Accomplishments

- Completed a charter for the establishment of a perpetual enterprise level program that will provide oversight for IAM initiatives and operational capabilities designed to protect privacy of information, control access to organizational assets, enable further policy, and auditing accountability.
- Created an implementation plan to re-engineer how we request access to protected informational assets. This effort will improve: accuracy of requests, process efficiencies, access accountability, and user experience.

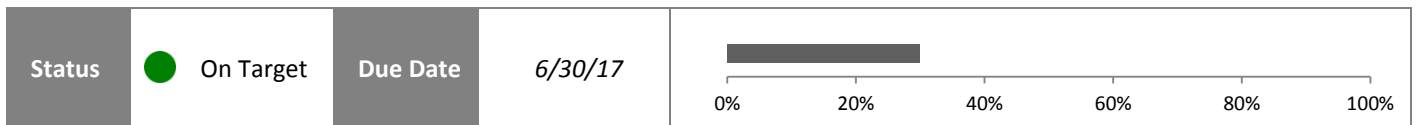
i Security Roadmap – my|CalPERS Database Encryption (DBE)

Assess and then implement a data protection encryption solution for the my|CalPERS database. The encryption initiative will introduce greater protections in the CalPERS information environment including increased security through encryption of sensitive data in the my|CalPERS database. This will mitigate risks identified by security assessments.

Business Benefits

- Protects sensitive member information through a data encryption solution
- Improves information security maturity
- Avoids costly litigation from breach or loss of data incidents

✓ my|CalPERS Database Encryption



Major Accomplishments

- Identified types of sensitive data and where it resides in our network that CalPERS must protect by law.
- Completed one Proof of Concept of a data encryption technology, allowing CalPERS to assess the technology based on our business needs.

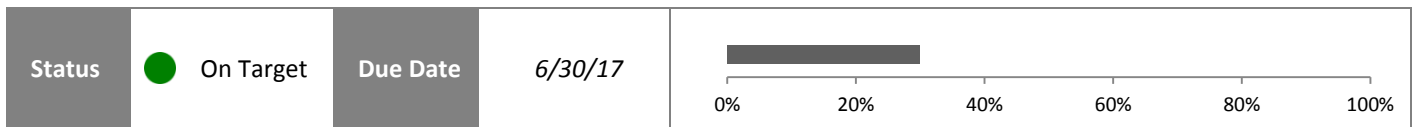
i Security Roadmap – Multi-Factor Authentication (MFA)

The Multi-Factor Authentication project will improve system access control and identity assurance across a wide range of systems. This project will provide an additional layer of validation through multi-factor authentication services, which require more than one verification method of identity before access is granted. In addition to supplying a password, additional verification methods may include a phone call, text message, or other verification.

Business Benefits

- Reduces the risk that unauthorized individuals access CalPERS information assets
- Improves compliance with new industry standards and practices
- Develops an architecture and integration approach that will enable future implementations of multi-factor authentication

 **Multi-Factor Authentication**



Major Accomplishments

- Demonstrated new security technology for smartphone and remote access for Office 365 to the Enterprise Architecture Review board and key stakeholders.
- Updated data center infrastructure in preparation of testing multi-factor authentication.
- Secured licenses for Microsoft Enterprise Management Suite, which increases protection of remote access to Outlook Web Mail (OWA).
- Prepared a synchronization plan with security effort for control of privileged user accounts that administer system access rights.