

Chief Information Officer Report

December 2016 - January 2017

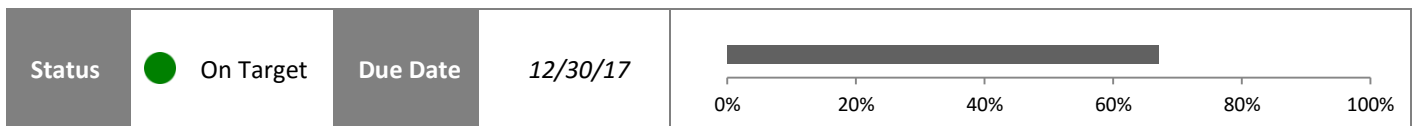
i Pension and Health (P&H) – my|CalPERS Functional Optimization

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

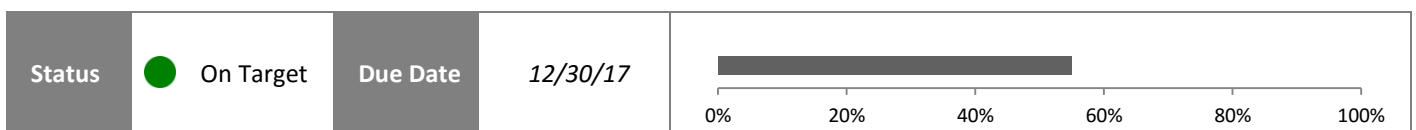
 **Business Optimization Update**



Major Accomplishments

- Launched employer accounts receivable projections to assist business partners in planning their contributions reserves (implemented in Release 6.3). This provides the employer with important self-service functionality to perform participant data clean-up activities.
- Expanded Benefits Compensation Review Workflow to include processing operation steps to notify complementary program areas of completed compensation review. This automates a series of tasks that had previously been very manual and inconsistent (implemented in Release 6.3).
- Enhanced calculations and internal operational workflow for Modification to Life Option Beneficiary (MOLOB) selections for members (implemented in Releases 6.3 and 6.4). This provides the ability to perform the recalculation of benefit options when needed due to a life event.
- Introduced Replacement Benefit Plan (RBP) Administration Fee allocation capability for employers and RBP participants (implemented in Release 6.4).

 **Technical Optimization Update**



Major Accomplishments

- Completed 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.
- Continued efforts to reduce reliance on expensive third party software components through the deprecation of an inefficient and unnecessarily complex integrated business rules engine. This solution is being phased out in phases, the most recent phase completing in Release 6.4.
- Established my|CalPERS code quality baseline measurements for Software Quality Assurance Management (SQAM) effort. This will allow the evaluation of the long-term sustainability and efficiency of the application.

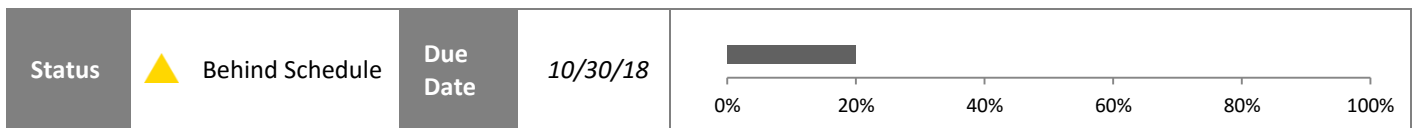
i Pension and Health (P&H) – Actuarial Valuation System Redesign & Enhance (AVSRE)

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

- Completed a detailed internal Proof of Concept activity to identify the most appropriate development language for the system. Java was selected as the future core application technology.

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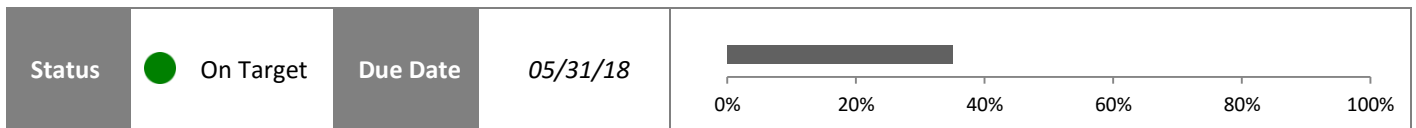
i Pension and Health (P&H) – Customer Education Center (CEC) Redesign

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

- Held kickoff meeting for the CEC Events module group #5, which includes: CalPERS Benefits Education Events (CBEE) Pre/Onsite Registration & Check-in, Member Self-Service CalPERS Benefits Education Events (MSS-CBEE) Pre-Registration, External Participant CBEE Pre-Registration, and Benefit Fairs.
- Finalized change controls documentation for CEC Groups 1 – 3. These changes are based on feedback from the Joint Application Design (JAD) sessions, module walkthroughs, and internal IT sessions.

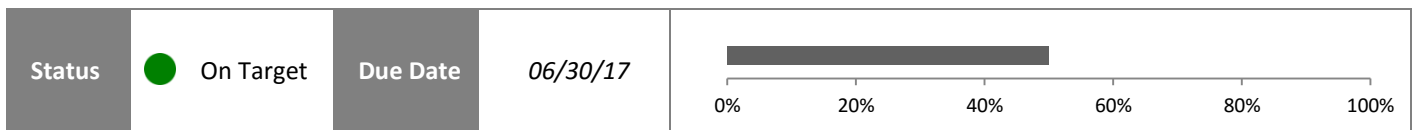
i Information Technology Services Branch – Infrastructure Modernization

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

- Completed full regression testing by program area staff for PeopleSoft on the new platform.
- Migrated one Production Business Intelligence database group.

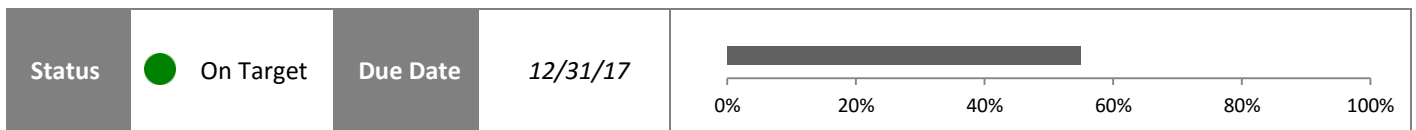
i Information Technology Services Branch – Windows 10 Upgrade

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

- Informed all CalPERS staff of the upcoming Windows 10 upgrade coming in mid-February.
- Completed Proof of Concept, including the Enterprise Desktop Support Services Pilot and Early Adopters which allowed for users to test Windows 10 in their unique environments to vet potential issues before production.
- Finalized deployment schedule which specifies when users will receive the Windows 10 upgrade.

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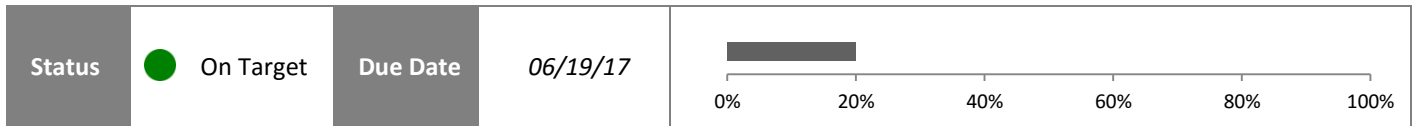
i Security Roadmap – Enterprise Identity System (EIS)

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 all business analysis sessions with key stakeholders from across the enterprise on Identity and Access Management (IAM) risk based business drivers and prioritized the IAM capability initiatives necessary to close IAM risk gaps.
- Completed the ‘IAM Strategic Initiative Roadmap’ for acceptance by the Enterprise Program Steering Committee (EPC); this roadmap outlines the progression of capabilities necessary to address IAM risk based business drivers.
- Completed six of 30 business analysis sessions on the system access request workflows being migrated from the existing User Access Request System (UARS) to the ServiceNow enterprise request tool.
- Selected Oracle Identity Manager (OIM) product as the Identity Management tool, which will save time and money since CalPERS already owns the licensing for the product.

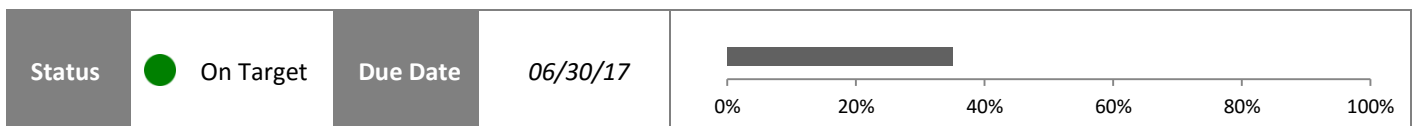
i Security Roadmap – my|CalPERS Database Encryption (DBE)

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

- Updated Data Center infrastructure in preparation of the Database Encryption (DBE) proof of concepts.
- Identified the two preferred encryption methods which will achieve the encryption level as required by law.

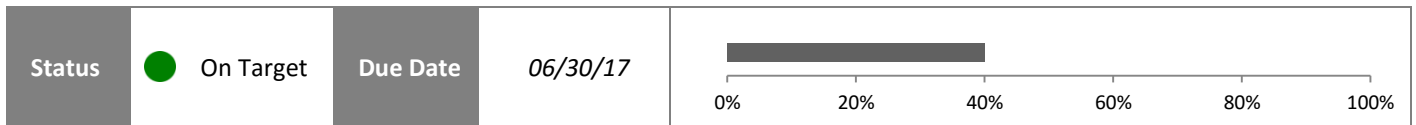
i Security Roadmap – Multi-Factor Authentication (MFA)

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

- Identified a cloud-only based security solution for smartphone and remote access for Office 365 and completed required settings to support this technology.
- Piloted cloud-based Multi-Factor Authentication (MFA) technology on a select group of users to vet potential issues prior to implementation.
- Secured licenses for Microsoft Enterprise Management Suite, which increases protection of remote access to Outlook Web Mail (OWA).