

Chief Information Officer Report

January - March 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**



<b>Status</b>	 On Target	<b>Due Date</b>	<del>12/30/17</del> 06/30/18*	<b>Major Impact:</b>
				<b>Strategy for Resolution:</b>
<p>0%      20%      40%      60%      80%      100%</p>				

\* The end date of the Functional Optimization Project was extended until June 30, 2018 as reported in the FY 16-17 Annual Budget review. Due to various delays initiating the project, the six-month extension was needed to complete the authorized and budgeted scope. This extension did not result in any additional costs.

**Major Accomplishments:**

- Expanded Replacement Benefit Plan (RBP) payee reconciliation services for employers and RBP participants with the creation of Fiscal Payee Detail reporting (implemented in Release 6.5).
- Completed production implementation of enhanced calculations and internal operational workflow for Modification to Life Option Beneficiary (MOLOB) selections for members (implemented in Release 6.5). This provides the ability to perform the recalculation of benefit options when needed due to a life event.
- Provided increased transparency of Service Credit Purchase (SCP) calculations to assist internal operational efficiency through verification of member history (implemented in Release 6.5).

 **Technical Optimization Update**

<b>Status</b>	 On Target	<b>Due Date</b>	<del>12/30/17</del> 06/30/18**	<b>Major Impact:</b>
				<b>Strategy for Resolution:</b>
<p>0%      20%      40%      60%      80%      100%</p>				

\*\*see above

**Major Accomplishments**

- Negotiated a no-cost expansion of my|CalPERS code quality baseline measurements proof of concept (POC) for Software Quality Assurance Management (SQAM). This expansion allows a more thorough evaluation of the long-term sustainability and efficiency of the application through greater in-depth analysis of code quality.
- Completed testing of my|CalPERS performance improvements by removal of disabled table index keys (targeted for Release 6.6 on 4/22/2017).
- Continued efforts to streamline weekly and monthly Benefit Roll processes for warrant generation. Developed corrections and test plans for removal of known historical defects (targeted for Release 6.6 on 4/22/2017).

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**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**

<b>Status</b>	 On Target*	<b>Due Date</b>	10/30/18	<b>Major Impact:</b> N/A  <b>Strategy for Resolution:</b> N/A
				
0%      20%      40%      60%      80%      100%				

\*The previous status on the February report was Behind Schedule, and the current status is now On Target. Consensus was reached to fund and hire three Java developer consultants eliminating the previous resource risk. It is anticipated that the project will deliver on time despite the delayed start that resulted from proof of concepts running longer than expected and the later than anticipated core technology decision. The project schedule is being monitored closely.

**Major Accomplishments**

- Completed an evaluation of the existing AVS annuity calculator tool to identify modifications and enhancements which will streamline and shorten future valuation processing times for ACTO team members.
- Created an additional set of valuation test cases, for each possible valuation scenario, to ensure accuracy of the annuity calculator tool.

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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**

<b>Status</b>	Warning	<b>Due Date</b>	05/31/18
<p>0%      20%      40%      60%      80%      100%</p>			
		<p><b>Major Impact:</b> Challenges in the application of Software Development Life Cycle (SDLC) processes resulted in a 45-day plus delay in the project schedule.</p> <p><b>Strategy for Resolution:</b> Modified SDLC documentation requirements are being piloted currently in order to recover the lost time and in addition, collaboration among the team is being improved. At the pilot's completion (March 31, 2017), a reevaluation will be made to determine if the time was recovered and any impacts to the project's end date.</p>	

**Major Accomplishments**

- Completed development of administrative functionality that will allow Customer Service and Outreach Division (CSOD) Call Center and Regional Office team members and trainers to establish courses on the new system.
- Completed the screen design that will provide a method for participants to enroll in CEC courses online.
- Updated the data repository that will house CEC class and participant information.

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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**

<b>Status</b>	 Warning	<b>Due Date</b>	06/30/17
			
		<p><b>Major Impact:</b> There have been delays with project activities related to user access of the databases after they are migrated to secure locations. Upcoming scope will be impacted by these issues, and could introduce delays to the schedule.</p> <p><b>Strategy for Resolution:</b> A mitigation plan is in development and will be piloted for execution within the next few weeks. If successfully executed, there will not be any delays to the project schedule.</p>	

**Major Accomplishments**

- Completed PeopleSoft production migration.
- Migrated four of 11 Business Intelligence (BI) databases.



**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**

<b>Status</b>	 On Target	<b>Due Date</b>	12/31/17
			
		<p><b>Major Impact:</b> None</p> <p><b>Strategy for Resolution:</b> None</p>	

**Major Accomplishments**

- Continued enterprise rollout of Windows 10 and completed 750+.
- Completed Phase 2 of Office 2016 rollout planning.
- Began Phase 2 early adopter planning to pilot the Phase 2 Windows 10 image along with Office 2016.

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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)**

<b>Status</b>	<span style="color: green;">●</span> On Target	<b>Due Date</b>	06/30/17	<b>Major Impact:</b> None  <b>Strategy for Resolution:</b> None
<p>0%      20%      40%      60%      80%      100%</p>				

**Major Accomplishments**

- Completed the Identity Management (IdM) Logical and Physical Architecture Specifications allowing the project to share and vet the underlying technical solution design.
- Created five design patterns that will form the basis for the connected system integration that will take place when the Identity Life Cycle (on-boarding/off-boarding staff) is implemented.
- Presented the IdM Architecture Specification (Conceptual, Logical, and Physical) to ITSB Architecture Review Board (ARB) for review and approval.
- Completed 17 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.
- Created the request form in ServiceNow, along with user experience validation, to be used as a common, user friendly user interface for all access requests.

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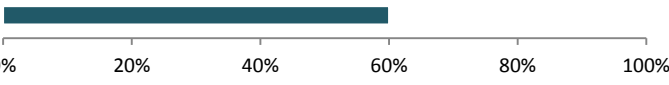
**i Security Roadmap – my|CalPERS Database Encryption (DBE)**

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**

<b>Status</b>	 On Target	<b>Due Date</b>	06/30/17	<b>Major Impact:</b> None
				<b>Strategy for Resolution:</b> None

**Major Accomplishments**

- Completed final assessment of Pure Storage native encryption at rest capabilities. Selected this technology as initial encryption solution.
- Completed comparison analysis of Oracle and Vormetric encryption at rest technologies for future enhancement of encryption if necessary.



**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**

<b>Status</b>	 Warning	<b>Due Date</b>	06/30/17	<b>Major Impact:</b> Original scope of project included implementing multi-factor authentication for all server administration access. Scope is reduced to implementing these controls for database administrators, and piloting these controls for Linux and Windows administrators.
				<b>Strategy for Resolution:</b> Full implementation for Linux and Windows admins will occur immediately after the pilot concludes in June 2017 and complete by December 2017.

**Major Accomplishments**

- Defined Multi Factor Authentication (MFA) use cases for on/offsite laptop and smartphone access of Office 365 services such as Outlook webmail.
- Partnered with Microsoft Support to reengineer our MFA solution and facilitate testing of our use cases.