
MEMORANDUM

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To: Joint Legislative Committee on Information Management and Technology

From: Robert L. Cummings, Principal Legislative Analyst (IT)
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Date: February 5, 2016

Subject: PERS Technology Maintenance and Enhancement Project Request
LFO Analysis and Recommendations

Agency Request: The Oregon Public Employees Retirement System (PERS) has submitted a request to the Joint Committee on Ways and Means for an increase in the agency's Other Funds limitation of \$1,659,976 for the 2015-17 biennium, to address the following areas of the agency's benefit administration system (jClarety):

- \$ 203,229 - Batch Job Failures
- \$ 227,595 - Database Design
- \$ 728,185 - UI Redesign for Browser Compatibility
- \$ 274,738 - Replace Outdated Reporting Engine
- \$ 226,299 - Error Handling
- \$1,659,976 Total

The JClarety system architecture was designed over a decade ago. Over the years, the initial system design has not been able to take advantage of improvements in newer technology, resulting in limitations and inefficiencies that make the system inefficient in its processing, complex in its maintainability, and inflexible in its ability to be updated to meet prudent industry standards and best practices. The purpose of the agency's request is to deal with a wide-range of "technical debt" and associated needed system enhancements that were originally identified by PERS in the 2015 legislative session (Policy Option Package #104).

PERS requests that the Joint Committee on Ways and Means increase the agency's approved Other Funds expenditure limitation from \$93,871,154 to \$95,931,130 for the 2015-17 biennium. This increase would be allocated as IT Professional Services in the PERS Services and Supplies budget. If the requested implementation resources are approved, PERS plans on immediately having Hewlett-Packard (the "owner" of the jClarety product) address the five most critical "technical debt" issues identified above. The three remaining technical debt and enhancement issues will be addressed by existing internal PERS staff. If the funding is approved, all eight of the outstanding technical debt issues are targeted for completion by the end of the 2015-17 biennium. The complete modernization of the overarching existing Oregon Retirement Information Online Network (ORION) infrastructure could then be scheduled to start in 2017-19.

A. LFO Analysis

During the 2015 legislative session, PERS submitted POP #104 (HB 5034) - Technology Maintenance and Enhancements Project. There were two key components in this request: 1) "technical debt" - \$1,771,875 in Other Funds limitation; and 2) Oregon Public Service Retirement Plan (OPSRP) application system enhancements - \$1,509,375 in Other Funds limitation. The stated purpose of the policy option package was twofold. First, the system architecture for jClarety was becoming quite dated, and there was a strong need to upgrade and enhance the jClarety application system software architecture, to allow it to take advantage of new technology opportunities. The second purpose was to add some important basic membership support functions that were not addressed in the original jClarety implementation, which are now emerging as important needs as the retirement population served by PERS grows. A half-dozen or more key missing functionalities have been identified by PERS as needing to be added to the current jClarety application system's capabilities. Two of the more important missing automated functionalities include the inability to process divorce decrees utilizing "alternate payees," and the inability to handle administering "loss of membership," when non-vested members leave employment. Currently, these processes must be done manually, outside of jClarety. In addition, these missing functionalities also create the need for a shadow record-keeping process for any workflows outside of jClarety.

The 2015 LFO analysis of POP #104 agreed that the policy option package identified real problems and issues, but there were significant questions and concerns that LFO felt needed to be addressed first before investing an additional \$3,281,250 into the jClarety System. In addition, LFO had major concerns about PERS's contention that these additional funds were needed to allow the jClarety System's "lifespan" to be extended only until 2020. As such, LFO recommended that the additional funding requested by PERS not be approved (with the exception of any needed assessment funding), and that PERS be directed to have a private vendor conduct a "system health assessment" to determine the current state of the jClarety application system environment, including an assessment of the technical obsolescence, to help better determine the advisability of investing additional resources into a system whose architecture was ten, or more years old, and that apparently had a very short remaining usable "life-span." PERS was further directed to provide the "results" of the "system health assessment," and any go-forward recommendations during the 2016 session.

During the summer of 2015, LFO, the Office of the State Chief Information Officer (OSCIO), and PERS management met to discuss the "next steps" on POP #104 and the legislative instructions from the Joint Committee on Ways and Means Information Technology (JWIMT) Subcommittee. During this half-day meeting, PERS provided significant clarification of its original intent for POP #104, and made it very clear that despite what the original POP #104 had stated, the jClarety System was not only not near "end of life," but that it was currently being overhauled by Hewlett-Packard to include the most up-to-date service oriented architecture and technology. During the same meeting, Hewlett-Packard provided a presentation of the history of the jClarety product, its architectural underpinnings, and its plans for implementing a service oriented technology infrastructure for the product.

The bottom-line outcome from this half-day meeting was that legislative concerns about investing further in jClarety, expressed during the 2015 legislative session, and LFO's analysis and recommendations on POP #104, were apparently, no longer valid, as Hewlett-Packard was already in the process of bringing its product up to a current technological "state."

On December 8, 2015, PERS held an ORION Modernization Planning session. PERS information technology and business staff, and OSCIO oversight staff attended. During the meeting PERS identified eight major jClarety-related “technical debt” issues that needed to be resolved before any ORION-related modernization work could start. Of the eight issues, PERS identified a budget need of approximately \$1,600,000 to allow Hewlett-Packard to resolve the five most pressing issues. The remaining three issues would be addressed by existing PERS information technology staff. The final proposed overall goals from the meeting were, pending 2016 legislative funding approval, that the eight jClarety-related “technical debt” issues would be targeted for completion by the end of the 2015-17 biennium, and ORION Modernization would start in 2017-19.

After a LFO review of the above background information related to PERS’s 2015 POP #104 budget request, the corresponding 2015 LFO analysis and recommendations for POP #104, PERS actions taken during the 2015 legislative interim, and PERS’s recently received budget letter (January 22, 2016) to the Joint Committee on Ways and Means, LFO has identified the following key findings, questions, and concerns related to PERS’s latest request:

1. PERS responses to 2015 legislative instructions - In late summer 2015, PERS provided LFO and OSCIO with solid tangible evidence that jClarety was in the process of being architecturally modernized by Hewlett-Packard, and that the product was not at the end of its current “lifecycle” (as had been communicated in POP #104). As such, PERS did not go ahead and conduct an independent “system health assessment” of the viability of the jClarety software product as requested by the JWMIT Subcommittee during the 2015 legislative session. PERS also did not complete a formal “go-forward” modernization plan clearly documenting PERS’s plans and strategies for insuring the viability of the jClarety product. However, the OSCIO and LFO did receive a 20-page presentation from Hewlett-Packard on the history of its jClarety product architecture, and its plans for modernizing it over the next five years. It is not known how the Hewlett-Packard jClarety modernization plan integrates with the PERS overall architectural modernization plans for ORION.
2. Approved funding expenditures - the 2015 JWMIT Subcommittee’s legislative direction to PERS and recommendations to the Joint Committee on Ways and Means provided for the expenditure of a reasonable amount of “planning” and “assessment” funds for PERS to conduct a jClarety “system health assessment.” Because PERS has not done any work towards the “systems health assessment,” there have been no direct related expenditures related to this requested assessment. PERS however, did report that it had expended approximately \$32,000 on “database architecture and master data management” (which they report dealt directly with their plans for going ahead with modernizing the jClarety and ORION technology architectures).
3. PERS funding request - the 2016 PERS funding request of \$1,659,976 only covers approximately half of the PERS request in 2015 for POP #104. It focuses only on “technical debt,” and does not include a clear description of why funding for “systems enhancements” was not included. PERS has verbally communicated to LFO that it has decided to defer their funding requests for jClarety “systems enhancements” until after the “technical debt” issues are addressed.

B. LFO Recommendations

LFO recognizes the importance of the jClarety system to PERS and the need to keep jClarety both technologically and functionally current. It is obvious that the agency has given considerable thought to how they would like to keep both the overall ORION and jClarety technical environments technologically current, and be able to provide the powerful functional capabilities that their internal and external customers need. However, much of the details of these plans and strategies for maintaining a robust technical architecture still remains unclear, as LFO has not seen this needed modernization planning detail specified in any single document. It does not seem to be documented anywhere formally.

As such, given the questions and concerns identified above, LFO recommends incremental, conditional approval of the agency's request, assuming the funding and spending authority are made available to PERS by the Joint Committee on Ways and Means. Additionally, LFO recommends that a plan be developed to unschedule the expenditure limitation and that the Public Employees Retirement System be required to request the Department of Administrative Services (DAS), OSCIO and LFO approval, that a portion, or all of the remaining unscheduled expenditure limitation, be rescheduled for the agency to use once the following specific recommendations are completed. Specifically LFO recommends that PERS:

- Develop a detailed description of PERS's plans and strategies for modernizing its ORION and jClarety architectural assets, including a high-level timeline for upgrading jClarety's technical architectural (including technical debt). PERS should also clearly document how Hewlett-Packard's modernization plans for jClarety fit-into PERS overall plans for ORION Modernization.
- Clearly define the scope of work to be completed by Hewlett-Packard in addressing the five initial "technical debt" issues.
- Develop a solid project charter (including high-level schedule and budget) to provide a clear picture of the work to be completed by Hewlett-Packard related to jClarety "technical debt."
- Regularly report "project status" to the OSCIO and LFO on progress on dealing with the five priority "technical debt" issues.
- Regularly report "project status" to the OSCIO and LFO on progress on the remaining three lower priority "technical debt" issues.
- Produce a final post information review (PIR) and "lessons learned" report after all eight "technical debt" issues are addressed.

- Motion on the LFO recommendations

C. Final IT Subcommittee Action

Transmit the JLCIMT recommendations to the General Government Subcommittee of the Joint Committee on Ways and Means.