

Crash Course: **Failure to heed early warnings, troubles of the past contributed to payroll system collapse**

*A report prepared for Senate Budget and
Fiscal Review Subcommittee No. 4,
Senator Richard Roth, Chair*

August 12, 2013



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Executive Summary

When state Controller John Chiang terminated the contract for a new state payroll system on Feb. 8, 2013, California was left with little to show for a project that burned through more than a quarter of a billion dollars over 10 years.

Unlike other big state computer failures, the 21st Century Project collapsed not once, but twice, despite multiple layers of oversight designed to spot trouble early and keep the complex and massive undertaking on track.

A review of hundreds of pages of documents and interviews with many of those involved show the project suffered from lapses in due diligence, a failure to resolve core issues raised early and often, chronic turnover in leadership and what may have been unrealistic expectations.

At the same time, the Senate Office of Oversight and Outcomes found a lack of candor at times with the Legislature about the project's difficulties. At some of its darkest moments, the State Controller's Office (SCO) delivered upbeat reports to legislators that only hinted of the turmoil churning within the project.

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System Error:

It will be difficult to determine, if anyone ever does, exactly what doomed the project, the largest payroll modernization in the nation. The system was designed to take over human resources and payroll responsibilities for 240,000 state employees. At the end, the project had nearly tripled in cost, to \$373 million, and was years behind schedule.

The expensive misadventure has once again left many wondering why – in a state that has given the world Google, Apple, Facebook and Twitter – California consistently struggles to modernize its own public computer systems.

responsibilities for 240,000 state employees. By the time the last contract was cancelled, the project had nearly tripled in cost, to \$373 million, and was years behind schedule.

Yet the software provider and prime contractor, SAP Public Services, Inc., argues that it is unfair to call the project's demise a failure. The global information technology company was pushing at the end to plow ahead – despite persistent errors with an initial live pilot – with a second, larger roll-out.

The Controller's Office and SAP blame each other for the project's collapse, with the dispute expected to be settled in court. As much as \$190 million may hang in the balance – up to \$135 million the state hopes to recover and \$55 million that SAP believes it is owed, according to the Legislative Analyst's Office.

The expensive misadventure has once again left many wondering why – in a state that has given the world Google, Apple, Facebook and Twitter – California consistently struggles to modernize its own public computer systems.

The Senate Office of Oversight and Outcomes was asked to examine not the technical details, but where the planning and management process may have failed. As such, this report compiles information gathered for an oversight hearing by Senate Budget and Fiscal Review Subcommittee 4, chaired by Sen. Richard Roth, D-Riverside.

While the state has had a number of high-profile IT failures, the 21st Century Project stands out because it has now skidded off the rails twice. Moreover, unlike some other failed projects, such as the digital consolidation of court records, overhauling the state's human resources and payroll computers is not optional. The existing, Vietnam War-era system is maintained and operated by a dwindling number of retirement-age specialists who still understand the outdated computer language. The original feasibility study warned the existing system needed to be replaced as soon as possible. That was more than 10 years ago.

The Controller's Office issues \$1.2 billion in payroll checks every month. Should the existing system crash, the Controller's staff said all of the necessary data is stored in a backup system that could reproduce the state's payroll. That has never happened, so it is unknown how disruptive it might be.

"I think everyone knows that at some point, that payroll system is going to blow up for good," warned Vince Brown, who was involved in the

early stages of the project as chief operating officer under former state Controller Steve Westly.

Conceived in the late 1990s, the 21st Century Project was launched in July 2003 with a feasibility study for a new payroll system for 294,000 state employees, which included the California State University workforce. The system, named MyCalPAYS, was expected to modernize and improve management of payroll and benefits administration while offering self-service access, much like the state's MyCalPERS system.

In April 2005, the Controller's Office signed a contract with SAP for off-the-shelf software that would be customized to meet the state's needs. A year later, the SCO hired BearingPoint Inc. to serve as the system integrator, the prime contractor. The \$132 million project was to be finished by June 2009.

Before work began, however, there were troubling reports about another SAP payroll system newly installed at the Los Angeles Community College District. In July 2005, just three months after the state purchased its SAP software, LACCD officials were publicly describing their transition to an SAP payroll system as "horrific."

Eighteen months later, in January 2007, the Los Angeles Unified School District experienced similar results when it transitioned to a new SAP payroll system. The fiasco paralyzed Los Angeles Unified for nearly a year as administrators scrambled to correct thousands of paychecks and stabilize the payroll.

At the time, the Controller's staff issued public assurances that they were aware of what had happened at the nation's largest community college district and second largest K-12 district, and would make sure the state's new payroll system would not suffer a similar fate. The SCO said it dispatched a team to review what happened in Los Angeles, but it's unclear how thorough that review was. When the Senate Oversight Office asked for documentation, the SCO could find no report or memo detailing the team's findings or recommendations.

While SAP enjoys a reputation as a global leader in payroll and human resources systems, IT specialists told the Senate Oversight Office that its off-the-shelf software was designed largely for private sector clients, whose payroll and HR systems are much different and much simpler than the state's, which has 160 departments and 21 different labor or bargaining units.

The Controller's project team noted that the state used a different system integrator – BearingPoint – than the Los Angeles Community College District and Los Angeles Unified. As the prime contractor, the system integrator does the hardest work, customizing the software as necessary to build the new system.

In October 2007, as Los Angeles Unified continued to grapple with its payroll, the Controller's Office served notice that its project also was in serious trouble. State attorneys sent a "cure notice" and breach of contract warning to BearingPoint. After an attempt to regroup and restart the project, BearingPoint was fired and the project was suspended in January 2009. BearingPoint later filed for bankruptcy.

The project was restarted in February 2010 with the SAP software and SAP under contract as the new system integrator. The estimated cost had more than doubled to \$305 million and the completion date was extended more than three years, to September 2012. The CSU system also had been dropped from the project, reducing the payroll by 18 percent, from 294,000 to 240,000 employees.

Eighteen months later, in August 2011, the Controller's Office issued another cure notice, this time to SAP, threatening to cancel the contract unless a number of issues were resolved. The biggest problem was a failure to complete data conversion, a process to enable the transfer of employee data from the legacy computers to the new system. Data conversion difficulties had dogged the project from the beginning.

In a telling response, SAP agreed to address the SCO's concerns, but noted: "As you are well aware, there is a disagreement between SAP and SCO as to the contractual responsibility for data conversion." Thus, more than eight years into the project, the state and its vendor were haggling over a core responsibility that should have been clearly assigned in the contract. The dispute was resolved during two months of confidential negotiations, after which the state agreed to pay an additional \$15 million to bring in a data conversion specialist.

Less than a year later, in October 2012, the SCO issued a second cure notice to SAP and both sides began bracing for a legal fight over who would pay for a project on the brink of collapse. When SAP issued a demand for mediation on Feb. 5, 2013, the SCO terminated the contract three days later.

The October 2012 cure notice revealed what looks to be another significant lapse in due diligence. Nine years into the project, the letter

questions whether SAP has the ability and experience to deliver such a large payroll conversion.

The sudden collapse of the project caught legislators, as well as some budget and policy analysts, by surprise. Some have since questioned whether the SCO was completely candid with the Legislature about the project's status.

The Senate Oversight Office found that in August 2011, SCO representatives told the Little Hoover Commission that the project was proceeding as planned and was in the midst of rigorous testing. What the project's leadership didn't tell the commission – which includes two legislators – was that the Controller's Office six days earlier had issued a cure notice threatening to cancel the project. Similarly, in its quarterly report to the Legislature a month later, the Controller's Office did not mention the August cure notice.

When the second cure notice was issued in October 2012, legislative analysts said they did not find out about the startling development until days or weeks later. One said he first learned of the cure notice “through the rumor mill.”

A review of independent oversight reports that tracked the project also shows that key issues – such as the state's payroll complexity, the need to prepare existing staff for the new system, project staff vacancies and data conversion difficulties – shadowed the project from the outset. Many of those same issues continued to be cited in oversight reports during the summer and fall of 2012 as the project foundered.

The failure to resolve major issues identified early on may reflect a lack of ownership and frequent turnover at the top of the project team. Controller John Chiang inherited the 21st Century Project from former Controller Steve Westly in 2007. Westly had inherited it from former Controller Kathleen Connell. If it is resurrected, it will likely be under a fourth controller. Term limits will force Chiang from the office after next year.

In addition, documents show that over the past decade the SCO's team had at least five different project directors and four different project managers. Over the final 18 months alone, it had three project directors and two project managers. The IT vendors, SAP and BearingPoint, also changed their project team leaders, although that is more difficult to track.

As a result of the many changes at the top, the independent overseers who raised concerns about payroll complexity, staff training, chronic vacancies, data conversion and other risks often were taking up those issues with an ever-changing audience – a new project director, or a new project manager, either of whom might be working for a new controller.

Finally, the independent oversight reports issued repeated warnings that the state was asking for more customization than perhaps it should from software sold as a an “off-the-shelf” product not designed to undergo extensive modification. One veteran state IT specialist said it’s not uncommon for IT vendors to promise more than they might be able to deliver in such modifications. But the Senate Oversight Office found broad agreement that the more a client attempts to modify commercial off-the-shelf software, the greater the degree of difficulty and likelihood of failure.

In the end, the project’s leadership also failed to heed repeated warnings throughout the final year about the adequacy of testing designed to identify and fix mistakes before the first payroll was issued on July 1, 2012.

“Lack of quality in testing may result in MyCalPAYS errors and ... in employees not receiving correct pay,” a March 2012 oversight report declared. The warning proved prescient.

(This report focuses on just one project and should not be construed to infer that any of the problems cited are similar or dissimilar to those experienced by other projects. In addition, the report refers frequently to the California Technology Agency, which existed until June 30, 2013, when it was reconfigured as the Department of Technology. Similarly, CTA officials interviewed or referenced for work done while employed by the former agency are identified by their CTA positions.)

Missteps and Lessons Not Learned

On Feb. 8, 2013, when state Controller John Chiang cancelled a contract to build a new computer system to take over the state's 240,000-employee payroll, he suspended a \$373 million project that has been in the works for more than a decade.

The State Controller's Office (SCO) had been planning the project since at least 1999, when it concluded the state's aging computer system needed to be replaced as soon as possible. Introduced in the early 1970s, the legacy system is based on dated computer language understood by a dwindling number of aging computer technicians.

At the end of a long planning process, the SCO signed a contract in April 2005 with SAP Public Services, Inc. for off-the-shelf software that would be customized to accommodate the state's needs. At the same time, the SCO began the search for a system integrator to modify and deploy the software.

SAP is a global leader in providing payroll and human resources software. But many of its clients are private sector firms with payroll systems that are simpler than those of government agencies. Few payrolls – public or private – are believed to be as complicated as California's, which maintains historic data for roughly 300,000 employees in 160 departments with 21 different labor or bargaining units.

The Controller's Office and SAP said several states – Maryland, North Carolina, Pennsylvania and South Carolina – have successfully converted to SAP systems. But the SCO's project team said recently that it was unsure whether any of those states have payrolls as complex as California's.

About the time the Controller was shopping for payroll software, several other public employers were experiencing major problems with new SAP systems. Three months after the state purchased SAP software, the Los Angeles Community College District – the nation's largest community college district – was sounding an alarm over its new SAP payroll system.

The district's July 2005 changeover to an SAP system was "horrific," according to the district's payroll manager.

Three months later, on Oct. 4, 2005, Los Angeles Unified School District signed a \$95 million contract for SAP payroll, financial management and procurement software to be modified and integrated by Deloitte Consulting.

On Oct. 6, 2005 – just two days after LA Unified signed its SAP-Deloitte contract – the Irish Health Service gave up on two SAP systems, one of which was to handle payroll and related systems for 120,000 employees, half the size of the state's payroll. The Irish Health Service's SAP payroll system had been expected to take three years and \$10.7 million to complete. It was scrapped 10 years and \$180 million later.

LA Unified, the nation's second largest school district with nearly 100,000 employees at the time, began using SAP software for payroll in January 2007. The results were disastrous, with thousands of employees receiving incorrect paychecks. It would take more than a year to stabilize Los Angeles Unified's payroll in what became an ongoing public spectacle that was not lost on the Controller's Office.

In February 2007, when asked about the pending conversion of the state's payroll to the same brand of software involved in the spectacular failures at LA Unified and the community colleges, state officials said they had dispatched a "lessons learned" team to Los Angeles to make sure they did not repeat mistakes made there.

"The State Controller's Office has definitely been paying attention to what's going on and is on top of this," an SCO spokesman said at the time.

Asked recently about the lessons learned from the Los Angeles experiences, Collin Wong-Martinusen, the controller's chief of staff, told the Senate Oversight Office that the SCO made two significant changes. It established a steering committee as a new layer of oversight and decided to phase in the SAP software, rather than deploying it in a single "big bang" introduction as Los Angeles Unified did.

But the Controller's Office could find no memos or reports that were prepared by its "lessons learned" team, either from its interaction with the community college district or Los Angeles Unified.

Two years after the SAP rollout at LA Unified, a civil grand jury had to resort to legal arm-twisting to persuade the district to give up pertinent

documents and other information about the fiasco. “Following several failed attempts over a five-month period and the threat of a subpoena, LAUSD produced the documents the (grand jury) determined to be useful and relevant,” the grand jury’s report said.

The grand jury report disclosed that the botched conversion to SAP software resulted in an overpayment of \$60 million to some 35,000 LA Unified employees. In late 2009, nearly three years after the conversion, approximately \$9 million of that overpayment still had not been collected from 2,400 employees, the grand jury found.

In its report, akin to a “lessons learned” analysis, the grand jury said that – despite assertions to the contrary – simulated parallel payroll runs could have been executed and compared to existing payroll. This might have been a lesson that could have averted the epic problems of the state’s first live payroll run.

A thorough review of the LA Unified experience also would have revealed that, despite the district spending an extra \$40 million to address and correct all of the payroll problems, a third and final phase of the SAP conversion was postponed indefinitely in May 2009. It was not completed until last month (July 2013). As a result, the district continued to bear the expense of operating and maintaining its legacy system for procurement activities, according to a December 2009 report prepared by the district’s inspector general.

Two months after the release of that inspector general’s report, the SCO signed a new contract with SAP to serve as the system integrator of its software for the state. The project’s original system integrator, BearingPoint, had been fired a year earlier.

Wong-Martinusen, the controller’s chief of staff, said that although SAP software was the common denominator in the troubled new systems at the community college district, LA Unified and the state, those projects used different system integrators, which served as the prime contractors.

When the state fired BearingPoint, the state did not have any problems with the software, Wong-Martinusen said. Regardless, he said, difficult transitions and failures are not uncommon in the IT industry.

“For any major IT vendor, you could easily find a dozen public or private failures,” he said.

As part of a pending assessment of the 21st Century Project, the state plans to reassess the software, to review why it was selected initially, whether it

can be modified to accommodate the state's complex payroll and whether it has been successfully customized for other states with similarly complex payroll systems.

Was the SCO's due diligence adequate?

Other excerpts gleaned from hundreds of pages of documents reviewed by the Senate Office of Oversight and Outcomes raise additional questions about how well the Controller's Office reviewed vendor proposals when it first embarked on the 21st Century Project in 2003, and again in 2009-10, when it sought to salvage the project after firing the first system integrator, BearingPoint.

When the SCO dismissed BearingPoint in January 2009, one of the key factors the state noted was the company's failure to develop accurate, reliable data conversion programs, scripts and computer instructions that would allow the new system to incorporate and use the historical data stored in the SCO's legacy computers.

"Data conversion is one of the most crucial aspects of a successful project," the Department of General Services wrote in a Dec. 3, 2008, letter that served as a notice of intent to terminate the BearingPoint contract.

Yet, three years later – eight years into the 10-year project – data conversion remained a major stumbling block and the new system integrator, SAP, was disputing who was responsible for it.

"As you are well aware, there is a disagreement between SAP and SCO as to contractual responsibility for data conversion," an SAP executive wrote in an Aug. 21, 2011 response to another cure notice, the second issued on the project.

The statement raises the question: Why, on a project of such magnitude and complexity, would a critical core task such as data conversion not be clearly assigned in the contract?

SAP and the SCO ultimately agreed to bring in a third party, BackOffice Associates, to do the data conversion. The state agreed to pick up the added \$15 million cost, although the payment is among those the state withheld when it cancelled the SAP contract.

Finally, in a third "cure notice," dated Oct. 25, 2012, the SCO raised questions about SAP's ability to deliver and the company's experience with such a large payroll conversion – approximately 240,000 state

employees. In May 2012, the cure notice reveals, the SCO asked the company “to identify an SAP client where 191,000 employees are successfully processed in a single payroll area using SAP software.”

Leadership turnover a problem from the outset

State Controller John Chiang inherited the 21st Century Project from a previous controller, Steve Westly, who also inherited it from a previous controller, Kathleen Connell. In all likelihood, Chiang – who is termed out next year – will hand off the remains of the project to his successor.

The SCO’s original project director and manager left shortly after the project was launched. Early oversight reports starting in 2006 also warned repeatedly about prolonged vacancies in top positions.

In addition, documents show the SCO had at least five different project directors and four different project managers over the course of the 10-year project. During the final 18 months alone, it had three different project directors and two project managers. The last project director took over on March 13, 2012, just three months before the June 11 “go-live” date. The vendors, SAP and BearingPoint, also changed leaders on their teams, although that is more difficult to track.

The independent project oversight consultant (IPOC) position, a key observer embedded with the project, turned over three times in the last, tumultuous year of the project. In addition, the SCO, the IPOCs and an independent verification and validation (IV&V) consultant all cited turnover at the top of the vendor’s team as a serious problem.

The constantly changing cast of leaders left few, if any, with real ownership or start-to-finish responsibility for the project. Most likely knew they would be gone before the project was finished or any other point where they could be held accountable.

Procurement process critical to successful project

As the Controller’s top staff reflected on the demise of the 21st Century Project, Chief Administrative Officer Jim Lombard suggested the new payroll system may have been doomed from the start.

“It comes back to procurement – not bringing the right vendor on board to do the job,” Lombard said.

The Controller’s Office never had many vendor choices at any stage of the project. Just two companies bid on the software contract in 2004. Only

one bid to be the first system integrator in 2005 and only three bid on the second system integrator contract in 2009.

Wong-Martinusen, Chiang's chief of staff, said the project has persuaded the Controller's Office that "we need to treat IT procurement differently than we treat procurement for other goods and services."

The existing system is "driven by a risk-adverse mentality" designed to protect the state from costly, time-consuming protests from bidders, Wong-Martinusen said. The rigid process was developed to insure that all bidders are treated equally. But it can also prevent the state from pressing a bidder for added information in critical areas, such as proposed plans and experience, Wong-Martinusen said.

After the initial system integrator failed, the state paid SAP and a second bidder, Accenture, \$500,000 each to demonstrate in a "bakeoff" how they would design a new system to take over the state's payroll. During that process, one of the Controller's consultants warned that SAP's data migration tool – a critical component in the modernization of a payroll system as large and complex as California's – appeared to be inadequate for the daunting project. But the state's procurement rules prevented the Controller's team from questioning SAP about the data migration tool, said Tony Davidson, the SCO's current project director.

When the Controller's Office issued its first "cure notice" to SAP in August 2011, threatening to cancel the contract, the step was taken because of the company's "inability to migrate data," according to an SCO document.

After the BearingPoint failure, the Controller's Office asked if it could try the successful strategy Caltrans has used on some projects – bonuses for early completion and financial penalties for delays. Attorneys at the Department of General Services concluded state law did not allow that for IT projects, SCO officials said. The state also has taken steps, including the repeal of a performance bond requirement, to foster increased interest and bidding on IT projects.

In response to a number of recent IT failures, the state last month transferred the responsibility for IT procurement, along with a small team of specialists, from General Services to the new Department of Technology.

Dirty data, few records to decipher original coding

The Controller issues paychecks for employees of 160 state departments. Most, if not all, of those departments have or have had the ability to enter their own employee data into the legacy system. This has resulted in an unusual amount of unreliable or “dirty” data, such as employee start and exit dates from different departments. (None of those interviewed for this report said faulty data contributed to paycheck errors. But a payroll comparison done for the project did discover that the legacy system was deducting too much from some employees’ paychecks for state disability insurance. An extra \$14 million had been collected from 100,000 employees dating back to 2005. The Controller’s Office has started refunding that money.)

The legacy system also contains applications, or code, that was developed as needed over the years with little record of how the code was written or what it says. That compounded the difficulty of converting the massive amount of historic data into a form that could be used by the new system.

“Everyone knew the data in the Controller’s system was bad ... fraught with errors fed in from all of the different departments,” said Vince Brown, CEO of the Alameda County Employees’ Retirement Association. Brown worked on the project as chief operating officer under former Controller Steve Westly.

Adequacy of testing

As early as December 2010, an independent oversight consultant embedded in the project began warning that testing had fallen behind schedule. A year later, both of the project’s independent oversight consultants (IPOC and IV&V) were raising concerns about delays and shortcuts taken in testing.

“We were concerned about not having enough test scripts to vet, because we knew our payroll is complex. ... We were concerned the test plan didn’t appear thorough enough,” said Mary Winkley, an assistant secretary with the California Technology Agency (CTA), which employed the oversight team.

The testing concerns raised in January 2012 were repeated every month for the balance of the year as the project team pushed toward the first live test on June 11. Because testing typically occurs near the end of a project, it is often something that gets condensed and shortchanged, Winkley and others said.

The independent oversight reports sounded increasingly urgent alarms about the state of testing as the project approached the June 11 “go-live” date. Three months out, an oversight report cautioned that a “lack of quality in testing may result in MyCalPAYS errors and ... in employees not receiving the correct pay.” A month out, an oversight report warned ominously: “The project has had quality challenges in documenting testing results, which makes it difficult to ascertain if testing actually occurred and the results of testing.”

In its October 2012 cure notice, the SCO flagged testing lapses as a key factor in the payroll errors experienced in Pilot 1.

“SAP failed to develop, plan and, critically, execute a comprehensive test program,” the SCO alleged. Among the testing lapses, the SCO cited a “failure to execute a complete payroll test” which led to “undetected configuration errors and contributed to paycheck errors.” The SCO’s letter stated that it had “informed SAP multiple times that its testing was inadequate.”

In its response, SAP maintained that Pilot 1 was a success, that most of the mistakes resulted from user errors by poorly prepared and overwhelmed SCO employees rather than system defects for which SAP was responsible.

As with data conversion, the Controller’s Office and SAP disagreed sharply about who was responsible for testing.

Did the state seek too much customization of the software?

The SCO’s project team has maintained that contracts for the 21st Century Project always required the new system to accommodate the state’s complex payroll practices. But the two system integrators both complained that the state was trying to replicate its legacy system with excessive customization of the SAP software.

The SCO’s project team said it worked with the state Department of Human Resources to simplify state practices when possible, but could not change many other practices, some of which are required by law or labor agreements. At the outset, and again when the project was restarted in 2010, SCO officials said, SAP assured the state that its software could handle or be customized to accommodate all of the state’s businesses practices.

In the final design of the new system, the Controller’s Office said SAP agreed that 283 customizations would be required. At project termination, 251 of those customizations were in operation, said Tony Davidson, the SCO’s current project director.

In written responses to questions from the Senate Oversight Office, SAP said the Controller’s customization of the base software “was extraordinarily high compared to other large SAP payroll systems.” During the course of the project, SAP said the Controller’s Office requested 359 changes, including 126 after the June 11 go-live date, to the base software or the original design.

“The 21st Century Project should have been an opportunity to correct the errors that had accumulated over decades of separately built, separately maintained ‘legacy’ payroll systems operated as a patchwork to serve hundreds of state agencies and departments,” SAP said in its responses to the Senate Oversight Office.

The independent oversight reports warned repeatedly that the state was asking for more customization than perhaps it should from the software. The Senate Oversight Office found broad agreement that the more a client attempts to modify commercial off-the-shelf software, the greater the degree of difficulty and likelihood of failure.

Institutional resistance

Big IT projects often run into serious trouble when existing payroll and human resources staff get involved, several veteran IT specialists told the Senate Oversight Office. Employees often do not want to change long-established practices and will insist they cannot do their work in the new way. In addition, the state often doesn’t have enough time or resources to properly train staff.

As an added disincentive to the rank and file, new IT systems often are expected to produce efficiencies, meaning fewer jobs. The 21st Century Project was no exception, promising staff reductions through attrition.

“If you can’t overcome that problem, if people don’t want to go to the new software, you can get into some very difficult situations,” said Teri Takai, chief information officer at the Department of Defense and the state’s CIO from 2007 to 2010. “That’s generally a big part of failures ... in industry or government.”

SAP’s response to the Controller’s cure notice alleged that state human resources personnel often refused to actively participate in SAP training

sessions. As evidence, SAP quoted an email from Lisa Dean, the Controller's workforce transition leader.

"General feel in the class is one of negativity and hostility ... One participant slept quite a bit ... One participant very frustrated, not willing to try and learn ... I'm at a loss for the lack of respect being shown in class," Dean's May 2012 email said.

No parallel payroll test

The SCO's team said it relied on assurances from SAP that three payroll comparison tests all but guaranteed that, "after accounting for known differences," the payroll would run within \$1 of the legacy system for most employees.

"We did expect problems, but nothing of the magnitude experienced when we turned it on," said Jim Lombard, the SCO's chief administrative officer.

It is expensive and labor intensive to run an actual parallel payroll test, which requires all of the staff time to do an actual payroll, the SCO team explained. But a parallel payroll test would have allowed the SCO and SAP to analyze mistakes and work to correct them in a calmer, clinical setting, without hundreds of angry SCO employees clamoring for immediate corrections.

A Decade of Challenges

Monthly reports prepared by independent oversight consultants show the 21st Century Project suffered from delays and challenges from the start, new problems that emerged immediately after it was resurrected in January 2010 and other serious issues that, in some cases, dragged on for months.

The independent project oversight consultants, or IPOCs, were employed by the California Technology Agency (and its predecessors). They were embedded in the project – with onsite work space and access to meetings and documents – and filed reports with the agency and the project team. It is important to note that issues cited in the reports were those that remained unresolved after informal discussions between the oversight consultants and the project team. The reports were known as IPORs, for Independent Project Oversight Reports.

The oversight consultants worked with a second, similar overseer known as the independent verification and validation (IV&V) consultant. The latter, employed by a private company under contract with the state, focused on technical issues, while the IPOCs largely reviewed management of the project.

The following summaries and excerpts from key IPOC reports show the 21st Century Project was plagued by known challenges identified at the outset and that continued, in some cases, for a decade. These basic, core problems included the state's payroll complexity, data conversion, staff vacancies, organizational change management (the process of teaching and selling the new system to existing staff), the absence of a quality assurance team, and an inability to stay on schedule:

- **July 2004.** Project's first independent project oversight report (IPOR) questions whether the state will be able to continue its semi-monthly pay schedule in the new system. The payroll schedule and complexity will remain an issue throughout the project.

(Eight years later, as the project is overwhelmed by errors in its first live pilot, an IPOR concludes “the payroll calendar complexity may create an unsustainable operations model.”)

- **August 2004.** Project’s second IPOR warns, in a telling prediction, that “failing to gain timely union agreement and acceptance of new payroll system changes could increase the scope of the project, require more time and extend the implementation schedule (and cost).”
- **October 2004.** Five months in, the project is already “several months” behind schedule.
- **July 2005.** New independent oversight consultant sounds an early warning about potential high risk the project faces in “organizational change,” the teaching and selling of the new system to often-resistant existing staff.

“A fully implemented 21st Century Project potentially impacts the business processes of every state entity, and the methods used by every state employee to record time and manage leave. Continuous communications with all project stakeholders will be crucial to project success,” IPOR says.

(Seven years later, as the project careens toward failure, an IPOR concludes the level of organizational change management and training had been “insufficient to prepare users for the new system.”)

- **December 2005.** Selection of a system integrator, to be the project’s prime contractor, has fallen up to nine months behind schedule. IPOR also notes “high risks” that:
 - The state may not be able to recruit required staff for the project.
 - “The state team may not be able to make timely decisions on project design due to a lack of knowledge or authority.”
- **August 2006** IPOR identifies a number of developing problems:
 - Unfilled State Controller’s Office (SCO) positions for the project “are of great concern.” Project business manager and technical manager positions are vacant.

- “With key decision makers not available, delays in the approval process are inevitable,” the report states. “Additionally, the project could venture down the wrong path for some time before it is noticed and course corrections are made.”
 - “Without the appropriate expertise available to review product deliverables, quality assurance will suffer.”
- Project delays are causing work to be rescheduled resulting in unknown long-term impacts.
- **November 2006** IPOR repeats many of the same warnings with added emphasis in some cases:
 - “Specific positions unfilled are of great concern ... both the SCO project business manager and technical manager positions remain vacant. The 21st Century Project will be at risk until these key positions are filled.”
 - Oversight team “remains very concerned with schedule management.”
 - “Poor quality assurance practices could result in delivery of a solution that does not satisfy all project requirements.”

“As with the project schedule, we have reported on these concerns repeatedly.”

(Seven years later, when the state cancels a second contract for the project, oversight reports were still warning “there is no quality assurance team.”)
- **March 2007** IPOR suggests project is in serious trouble:
 - Project is behind schedule and much of the work “continues to be completed later than planned.”
 - In an ominous forecast, report states that “because only a limited number of departments participated in blueprint workshops, critical requirements may not have been captured ... Missed requirements could result in incorrect data in the SAP system *which has the potential to prevent employees from being paid correctly* (emphasis added).”

Project “rebaselined” with increased budget, extended completion date

- **May 2008.** With the project far behind schedule, all involved agree to “rebaseline” it, increasing the cost to \$179 million and extending the completion date by a year, to June 2010.
- Seven months later, in **January 2009**, the state terminates the system integrator’s contract. Failure to develop accurate, reliable data conversion programs and scripts are a key factor. Data conversion problems would continue to haunt the project.

Second attempt to build 21st Century Project encounters immediate problems

- **February 2010.** The project restarts with SAP as the new system integrator. Scope has been narrowed by dropping the California State University’s 54,000 employees. Cost increases to \$305 million and completion date is pushed back another two years, to September 2012.
- **February 2010.** Oversight report for the first month since the restart warns the project already is experiencing challenges:
 - Three deliverables have been rejected and three others, including the project schedule and deployment strategy, have been delayed.
 - SAP submits change requests to address the late deliverables. In an early sign of conflict, the SCO rejects the change requests.
 - SAP prepares an informal “project recovery plan” to outline late deliverables and establish new due dates.
 - SAP has only 18 of 24 planned staff on site. “This staffing shortage is having an impact on completion of major deliverables,” report states.
- **March 2010** IPOR notes that, two months into the restarted project:
 - There still is no project schedule. The SCO submitted 505 comments outlining deficiencies in schedule submitted by SAP.

- SCO and SAP staff cannot move into the project work space until Aug. 1, six months after the project restart.
- **June 2010 IPOR** delivers blunt warnings about delays, shortcuts and “critical” vacancies:
 - Report flags a major flaw in the “Requirements Traceability Management Plan” (RTMP), a key document that “describes the process that will deliver the agreed upon scope” to meet project requirements. The RTMP “discusses tracking *project* requirements, not *business* requirements (emphasis added).

“Project requirements are at a higher level ... Business requirements are the lowest level of functionality that is required to be built.

“It is common and accepted best practice to separately identify and track each business requirement through development, unit and integration testing and back. That is not being done here (emphasis added).””
- **September and October 2010 IPORs** flag SCO vacancies in three “critical” project positions.
- **December 2010 IPOR** finds:
 - Project director has split project management between two people, blurring responsibility for some critical tasks, such as organizational change management (OCM), the teaching and selling of the new system to existing staff. The OCM process is essential to a smooth transition. Twice, the IPOR warns, the divided project leadership “may be a challenge for SCO to manage.”
 - SCO still has three “critical” vacancies.
- **January 2011 IPOR** discloses the SCO has requested significant changes to the system, “the total number and complexity” of which “is not known.” Report warns the late changes – to be detailed in a pending Change Request 34 – will delay the project and increase costs. Among the consequences, a completed test deliverable must be reopened and a new testing cycle developed.

- **February 2011 IPOR** outlines several major new concerns:

- For the first time since the project was restarted a year earlier with SAP as the system integrator, the oversight consultant sounds an alarm over the state of data conversion.

“Legacy data conversion has experienced significant delays and technical difficulties. ... Further delay will result in significant impact to testing cycles.”

- The project has moved into uncharted territory, with “no objective measurement” to gauge impacts that changes sought in Change Order 34, and the added testing required, will have on the project’s “critical path,” a sequence of activities that must be completed on time for the project to finish on schedule.
- Major departments – CalFire, the State Water Resources Control Board, Caltrans and, surprisingly, the California Technology Agency – are behind schedule and at “serious risk” of missing deadlines to develop interfaces to interact with the new system.
- The SCO still has three vacancies in “critical positions,” four years after Chiang took over the project.

- **March 2011 IPOR** reveals a significant shortcut taken as a result of the data conversion troubles:

- To prepare for a payroll comparison test, the project attempted to convert legacy payroll data for 22,000 records chosen to reflect populations of the Pilot 1 and Pilot 2 departments, as well as a representative sample of the remaining state employee population.

“This legacy data extraction, performed by the SCO, had limited success. ... As a result, the extraction resulted in about 5,800 records (26 percent of the planned 22,000 sample) being converted.” The SCO determined it was a “good enough” sample to proceed with Payroll Comparison Test 1.

“However,” the report warned, “it is anticipated that, of the 5,800 records, a significant number may drop out as the data conversion progresses.”

- **April 2011** IPOR reveals the project has been brought to its knees by data conversion challenges:
 - A data conversion deadline, already missed, is pushed back another two months.
 - For the first time, oversight consultant warns the project may be unable to meet planned Sept. 1, 2011 go-live date.
 - Eclipse Solutions, which analyzed the data conversion problems at the request of the California Technology Agency, issues a jarring assessment that cites “critical discrepancies”:
 - “These include, but are not limited to, inaccurate mappings, incomplete conversion cycles ... a lack of focus and priority ... lack of formal review and signoff for critical artifacts, lack of clear communications, a lack of collaboration, overloaded resources (project staff), and a lack of adequate management involvement.”
 - Project team starts developing another “project recovery plan.”
 - SCO still has not filled all of the “critical” project vacancies, with one remaining.

Controller suspends second attempt to complete the 21st Century Project

On Aug. 19, 2011, the SCO issued a “cure notice” to SAP, threatening to terminate the contract largely because of the inability to resolve the data conversion problems. SAP responded with a letter that declared: “As you are well aware, there is a disagreement between SAP and the SCO as to the contractual responsibility for data conversion.”

Two months of confidential negotiations produced a Nov. 17 settlement agreement to resolve most differences and continue the project with significantly higher state costs and a one-year schedule extension. Added expense included \$15 million for a specialized vendor to take over data conversion.

- **December 2011** IPOR, completed just one month after the mid-November restart, immediately sounds new concerns, including “significant” new test quality issues uncovered.

- **February 2012 IPOR** repeats the warning about testing and raises two more major issues:
 - It is unclear whether Payroll Comparison Test 2, to compare legacy payroll results to those produced by the new system, fully covers essential factors such as wage types and benefits. With fewer SCO employees than planned, “substantially less records (were) manually validated by expert end-users than planned.”
 - The project has stopped monitoring progress in “knowledge transfer,” the comprehensive preparation and training necessary to enable state workers to take over operation of the new system after launch.
- **March 2012 IPOR**, covering the three months since the November restart, notes the project continues to have difficulties “documenting testing results,” and further warns: “The project lacks quality assurance staff, which has had an adverse impact on ensuring quality in testing, coding and configuration.”

In a prescient admonition, the reports states: “Lack of quality in testing may result in MyCalPAYS errors and ... in employees not receiving correct pay.”

(From the outset, oversight consultants warned that the project had no formal quality assurance practices or quality assurance team.)

- **April 2012 IPOR** amplifies warnings about test quality and shortcuts, knowledge transfer and SCO staff vacancies, and adds a number of other “key concerns,” including:
 - Continued overlap of multiple test cycles is stretching project staff.
- **Second April 2012 IPOR**, prepared by a new independent oversight consultant, issues frank warnings about testing and training of SCO staff for the transition:
 - One phase of critical performance testing was unsuccessful and another could not even be attempted because of system limitations. “Given that the full performance testing had not been completed, the (oversight consultant) could not confirm that the current sizing of the system was sufficient for full deployment.”

(In other words, a little more than a month before the June 11 launch of Pilot 1, the oversight team couldn't say for sure that the system ultimately could handle the state's full payroll.)

- An employee survey “clearly shows most of the functional team members have not attended SAP training courses” on how to operate the new system. In addition, SCO project vacancies include the organizational change manager, a key position to guide often-resistant existing staff in the transition to the new system.
- **May 2012 IPOR**, prepared less than two weeks before the June 11 launch of Pilot 1, adds several new “key concerns” to those that had been repeated and left unresolved, in some cases, for months:
 - “The project team has made program-level decisions with regard to how many pay cycles may be run and whether they need to be closed out before the next is initiated. These business decisions mimic existing legacy functionality and allow flexibility ... but are not aligned to the way SAP is designed to operate and will create complexity and extra workload for operations *that could prove unsustainable (emphasis added).*”
 - “The project has had some quality challenges in documenting testing results, *which makes it difficult to ascertain if testing actually occurred and the results of the testing (emphasis added).*”
 - “It is unclear what the need and plan is for after-hours support during the first cycles of production runs.”
 - “The Pilot 1 back-out plan is incomplete and not well communicated. While the probability of the plan being executed is low, the impact of failure to restore is high.”

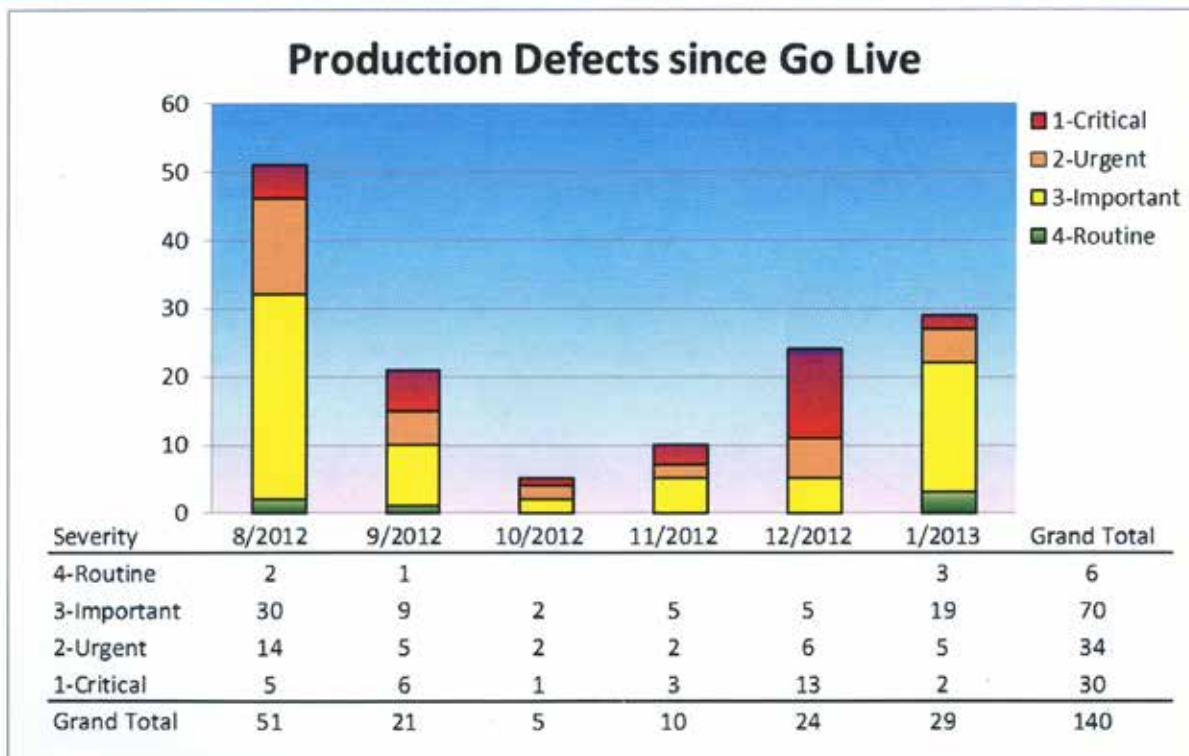
Pilot 1 errors doom project

A few weeks later, the Pilot 1 payroll to some 1,300 SCO employees – less than 1 percent of the workforce for which the system was designed – contained hundreds of errors in pay and deductions. The errors caused an internal uproar and proved so difficult to correct over eight months that the SCO suspended the live test and, on Feb. 8, terminated the contract with SAP. The termination came three days after the state received a demand from SAP to mediate differences over the causes and responsibility for the errors.

Immediately after the Pilot 1 launch, the independent oversight consultant raised issues that essentially repeated and confirmed warnings that had shadowed the project from the outset.

- **June 2012 IPOR** notes confusion between the SCO's human resources staff and HR staff at other state departments over the management of miscellaneous deductions.

Report warns bluntly: "If the payroll calendar and legacy operations are not simplified, the level of complexity may overwhelm MyCalPAYS and legacy operations staff."



Source: State Controller's Office, which noted that a defect may impact a single employee or all employees. The Controller's Office said the chart reflects a conservative view of system defects SAP was required to correct. SAP contends that most of the Pilot 1 problems resulted from user errors, committed by state employees.

- **July 2012 IPOR** restates testing concerns with the most revealing and pointed warning yet: “Decisions were made during the testing phase that (it) was impractical to test every possible paycheck scenario, so test scripts were not run for every possible scenario. It is unclear whether that decision may have missed detecting defects and/or missing functionality.”
- **August 2012 IPOR** portrays a project on life support and reveals previously unreported problems:
 - Pilot 2 postponed, and project team to re-examine *problems in most of the basic development areas* – organizational change management, schedule, testing, payroll/operations and user training (emphasis added).
 - “Organizational change management and training is insufficient to prepare users for the new system.”
 - “Payroll calendar complexity may create an unsustainable operations model as more waves are rolled out.”
 - “A relatively large number of new issues were added to the (issue) log this month. This is because a number of existing issues were being tracked outside of the issue log and not necessarily reflective of how many issues were actually opened this month.”

(The August IPOR was prepared by a new oversight consultant who had assumed the assignment in May, just before the Pilot 1 launch.)

Reports to Legislature Sugar-coated, Ignored Problems

After the payroll system's first collapse, Sen. Denise Ducheny – then chairwoman of the Joint Legislative Budget Committee – asked the Controller to give the Legislature regular updates on the 21st Century Project. In response, Controller John Chiang committed in a February 2010 letter to provide written quarterly reports, as well as “briefings to legislative staff at major project milestones and ad-hoc briefings at the request of the Legislature.” The first of those quarterly reports was submitted to the joint budget committee in April 2010.

Lawmakers wanted to more closely monitor the beleaguered project, which was overdue and over budget. But a review by the Senate Oversight Office found that the quarterly reports often lacked candor, sugar-coating some problems and ignoring others. This failure to be transparent compromised legislative oversight and stymied accountability.

That finding is based on a comparison of the legislative reports with documents prepared by others monitoring the project. Every month, the California Technology Agency issued a detailed Independent Project Oversight Report (IPOR) which ticked off performance measurements and potential problems in the 21st Century Project. These were paired with more technical memos from an Independent Verification and Validation (IV&V) team. Those monthly reports – along with others that documented problems – provide the basis for comparison.

Collin Wong-Martinusen, the Controller's chief of staff, also noted that project managers briefed staff from the Legislative Analyst's Office – 19 times in 2011 and 22 times in 2012. Many of these “touch points” were telephone conversations. It is impossible for the Senate Oversight Office to review these oral communications. The quarterly reports were the Controller's official updates to the Legislature and, as written documents, can be scrutinized.

Software giant SAP Public Services, Inc. took over as integrator of the 21st Century Project on Feb. 2, 2010. By January 2011, the California Technology Agency's independent overseer was expressing serious concerns about data conversion, calling it the project's top priority. This was not conveyed in the Controller's quarterly report to the Legislature, however. In the February 2011 report, Chiang wrote that the project has made "significant progress." The words data conversion were not mentioned in the 15 Vital Signs or the 5 Risk Profiles, two matrixes used to mark progress.

In the Controller's April 2011 report to the Legislature, data conversion is listed as a high priority issue, but it is characterized as largely contained: "SAP retained data management consulting firm, Utopia, to help expedite the process." The situation was described very differently by Robert Eich, the technology agency's independent oversight consultant, in his April report. Eich said a corrective action plan was being developed to allow the project to move forward in light of significant delays caused by data conversion. Meanwhile, he rated seven areas as facing high risk and said numerous contract deliverables were behind schedule.

Things were to worsen later that summer. On August 19, 2011, the State Controller's Office (SCO) sent a strongly worded "cure notice" to SAP, initiating termination for default procedures against the contractor. The main issue, again, was data conversion. The Controller accused SAP of breach of contract and lack of good faith. According to the notice, SAP leaders had failed to show up at high-level meetings to deal with the problems. The project was running far behind schedule – 24 deliverables were overdue. And, contrary to the April quarterly report to the Legislature, SAP had still not secured the services of a qualified data conversion vendor by June 1, 2011.

John Hiber, the Controller's project director, wrote this in the August cure notice: "While the SCO continues to work in good faith under the terms of the contract, to date SAP has not responded to the SCO's requests to resolve issues of SAP's failure to perform, and little progress has been made toward achieving the goals agreed upon during the June 27, 2011, meeting."

The slow pace of the negotiations was also a major concern for Eich, the oversight consultant. "The extensive timeline to finish the negotiations brings additional risk to the project," Eich wrote in his August 2011 report. He listed those risks: Significant additional costs. Staff retention. Loss of momentum. Damage to staff morale.

In the midst of all this, however, SCO staffers conveyed a rosy picture during a fact-finding hearing before the Little Hoover Commission, which includes members of the Legislature.

On August 25, 2011 – just six days after the cure notice was issued – the commission held a public hearing on information technology governance. A portion of the hearing focused on the progress of the 21st Century Project. Project Manager Laurye Gage testified for the Controller’s Office.

In written materials presented to the commission, Gage acknowledged that data conversion was more complex and labor intensive than originally anticipated. But she also wrote: “The Project has consistently been fully staffed on both the State and SAP teams.” This statement is contradicted by Eich’s and other oversight reports, which repeatedly identified staff vacancies as a serious and ongoing risk.

Nothing was reported to the commission about the cure notice or the rancorous relationship with vendor SAP. In fact, according to Gage, the relationship between the SCO and SAP was a positive: “Co-locating the state and contractor team, with counterparts jointly reporting status, combined with leadership example, has helped to forge a positive, results-oriented team culture.”

In a similar vein, the Controller’s quarterly report to the Legislature in September 2011 was positive overall. It did cite data conversion as a significant problem that would delay the project six to 12 months. But nothing was said about the cure notice or a lack of good faith on the part of the contractor. Instead, the report cites substantial progress.

Over the next six months, the SCO’s reports to the Legislature continued the upbeat theme. The April 2012 report, for example, said data conversion was working well and the project was on track for the first pilot: creating actual paychecks for 1,300 SCO employees beginning that June.

Each legislative report includes a scorecard of 15 Vital Signs, with a green, yellow or red box indicating the relative status of each. The colors are like traffic signals: go, caution, stop. In April 2012, this matrix showed no red boxes and just one yellow (Unresolved Issues, which was rated “late with no impact”). Other Vital Signs – like Team Effectiveness, Strategy Alignment, Vendor Viability and Technology Viability – glowed green, green, green. (See 3/31/12 Project Scorecard on pages 34 and 35, which was part of the April 2012 report to the Legislature)

The technology agency's independent observers were not so optimistic. On March 6, 2012, the agency's oversight report noted that the technology team was unable to verify some test results. It said the impact of inadequate tests could be profound: "Lack of quality in testing may result in MyCalPAYS errors and ... in employees not receiving the correct pay," wrote oversight consultant Eich.

A month later, in the April 30 report – the same date as the legislative report with all those green lights – oversight consultant Chi Emodi fired another warning shot. This time the issue was training: "The latest employee survey clearly shows that most of the functional team members have not attended the SAP Training courses. It is still not clear how and when the SCO payroll functional resources will receive knowledge transfer."

On June 11, 2012, the 21st Century Project hit its Waterloo. That was the start of Pilot 1, when the new payroll system was tested on SCO employees. When the actual paychecks rolled out on July 1, top SCO officials said in an interview, the number of mistakes left them "shocked and dismayed." Wong-Martinusen, the Controller's chief of staff, said, "We flipped it on and the number of errors were unsettling. SAP was as flabbergasted and surprised as we were."

The payroll was riddled with mistakes, despite years of work and hundreds of pages of risk identifiers, key concerns, top issues, project scorecards – and all those optimistic reports to the Legislature. Here's how the Legislative Analyst's Office described the problems:

"Incorrect paycheck deductions were made, payroll and pension wages were erroneously calculated, and medical benefits were denied for some employees and their dependents. In one case, employees that took vacation time during the first payroll cycle received compensation in addition to their base salary. Attempts to correct these errors created further problems in the following payroll cycle."

On Oct. 25, 2012, the Controller sent another cure notice to SAP – this one 37 pages long and bristling with accusations of breach of contract.

Some are specific: "SAP also failed to notify SCO that it was a best practice to enter employee time on a regular basis rather than once a month."

Some are broad: "SAP's breaches span the entire breadth of the Contract from the project planning and project implementation, to the execution of the plans, and finally to the result or output of the execution."

One might ask what happened to that positive, results-oriented team culture.

The October 2012 quarterly report to the Legislature mentioned the cure notice. It did not include a copy of it, however. And now all the risks are listed as “high” and the Vital Signs scorecard is dotted with red boxes. But “Team Effectiveness” still gets a green: highly effective.

The quarterly report’s cover letter, signed by Jim Lombard, SCO’s chief administrative officer, states that SAP has 30 days to correct the deficiencies. Lombard manages to find a positive note: “Notwithstanding the significant design and operational issues cited in the [cure] letter, the SCO still believes that the SAP software is the platform for payroll and personnel administration for the future.” He concludes: “SCO is working with SAP to resolve the issues and will keep the [Joint Legislative Budget Committee] informed of the outcome.”

On Feb. 8, 2013, the Controller’s Office announced that it was terminating the contract with SAP – a project that cost taxpayers more than a quarter of a billion dollars. On Feb. 12, Carlos Ramos, the head of the California Technology Agency, notified the Legislature that he was suspending the 21st Century Project.

After the contract was terminated, the tone of the SCO’s quarterly reports to the Legislature struck a different note. Instead of scorecards of Vital Signs, the May 2013 legislative report offers a post mortem titled “Contract Termination – Problems.”

Lombard also wrote the cover letter for the May report. “The SCO worked with SAP in good faith to go through the errors and ensure that SAP was addressing them,” Lombard said. “However, eight months of payroll runs have yet to produce any pay cycle without material errors and have instead exposed a system riddled with grave weaknesses.”

* * *

In its report on IT governance, the Little Hoover Commission made one comment that seems particularly instructive for the Legislature. The commission counseled the California Technology Agency to be wary of self-assessment by departments. The reason was simple: “Such self-rating is vulnerable to bias toward making projects appear more successful than they might be.”

Project Scorecard, as of 3/31/12

Vital Sign	Variance	Value	Your Score	Score Justification
1. Customer Buy-In	High Degree of Buy-In	0	0	
	Medium Degree of Buy-In	1		
	Low Degree of Buy-In	2		
2. Technology Viability	Strong Viability	0	0	
	Medium Viability	1		
	Weak Viability	2		
3. Status of the Critical Path (delay)	<5%	0	0	
	5% to 10%	2		
	>10%	4		
4. Cost-to-Date vs. Estimated Cost-to-Date (higher)	<5%	0	0	
	5% to 10%	2		
	>10%	4		
5. High-Probability, High-Impact Risks	0 to 3	0	0	046 Department Readiness
	4 to 6	1		
	>6	2		
6. Unresolved Issues (on time resolution)	On time	0	2	2012-016 A comprehensive reporting strategy has not been developed 2012-023 Operational Readiness Test expectations and planning 2012-040 Interface Test 3 late finish 2012-044 CalPERS Interface Readiness
	Late with no impact	2		
	Late impacting the critical path	3		
7. Sponsorship Commitment	Fully engaged	0	0	
	Partially engaged	2		
	Inadequate engagement	4		
8. Strategy Alignment	Strong alignment	0	0	
	Partial alignment	1		
	Weak or no alignment	2		

(From the Controller's April 30, 2012 Quarterly Report to the Legislature. Project Scorecard of Vital Signs showed 14 of 15 categories rated green, the highest possible. On June 11, 2012, the project would go live with its first payroll).

Project Scorecard, continued

Vital Sign	Variance	Value	Your Score	Score Justification
9. Value-to-Business	Strong	0	0	
	Medium	1		
	Weak	2		
10. Vendor Viability (provide rationale for the rating in the field following the scorecard)	Strong	0	0	
	Medium	1		
	Weak	2		
11. Milestone Hit Rate (rate of achievement as planned)	>90% on time	0	0	
	80-90% on time	1		
	<80% on time	2		
12. Deliverable Hit Rate (rate of production as planned)	>90% on time	0	0	
	80-90% on time	1		
	<80% on time	2		
13. Actual vs. Planned Resources	>90% assigned and available	0	0	State and SAP are adequately staffed on the project. The project is currently working to fill 2 critical State vacancies.
	80-90% assigned and available	2		
	<80% assigned and available	4		
14. Overtime Utilization (% of effort that is overtime)	<15%	0	0	
	15-25%	1		
	>25%	2		
15. Team Effectiveness	Highly Effective	0	0	
	Moderately Effective	1		
	Ineffective	2		
		Total	2	

Green = 0 - 8

Yellow = 9 - 19

Red = 20+

Source: March 2012 Report to Technology Agency

Project Timeline

July 2003 – State chief information officer approves feasibility study for nation’s largest payroll/human resources modernization.

May 2004 – Department of Finance approves feasibility study. Project begins with initial cost estimate of **\$132 million** and **mid-2009** completion date.

April 26, 2005 – Project contracts with SAP Public Services, Inc. for software, begins search for “integration vendor” to design, develop and deploy the software.

July 2005 – Los Angeles Community College District starts using new SAP payroll system. District officials describe transition as “horrific.”

June 2006 – Controller contracts with BearingPoint to serve as system integrator.

January 2007 – John Chiang sworn in as new state controller. Replaces Steve Westly.

January 2007 – Los Angeles Unified School District launches SAP payroll system. Thousands of paychecks are incorrect. Mistakes continue for months.

February 2007 – Amid firestorm of criticism over LA Unified’s SAP rollout, Controller’s Office vows state will not make similar mistakes.

Oct. 19, 2007 – State issues “cure notice” to BearingPoint, declaring the system integrator in breach of contract and threatening termination.

Oct. 26, 2007 – BearingPoint responds with letter blaming the Controller’s Office for the project’s troubles.

May 2008 – Controller, Department of General Services and BearingPoint agree to “rebaseline” the project, which is months behind schedule. Cost increases to **\$179 million**, completion date pushed back a year, to **June 2010**.

January 2009 – State terminates BearingPoint contract.

February 2010 – Project restarts with SAP as system integrator. California State University’s 54,000 employees removed from project. Cost increases to **\$305 million**, completion date pushed back two more years, to **September 2012**.

Spring 2011 – Data conversion difficulties and other serious implementation issues emerge.

May 18, 2011 – Controller initiates “problem escalation process” for SAP’s alleged failure to resolve “contractually material issues.”

Aug. 19, 2011 – Controller sends “cure notice” to SAP. Primary problem is stalled data conversion.

Aug. 21, 2011 – SAP cure notice response notes “disagreement between SAP and the SCO as to the contractual responsibility for data conversion.”

Aug. 25, 2011 – Little Hoover Commission oversight hearing includes progress report on 21st Century Project. No mention of Aug. 19 cure notice.

Sept. 1, 2011 – “Go live” date can’t be met and is pushed back to March 2012.

Sept. 7, 2011 – SCO and SAP enter into confidential negotiations to resolve differences outlined in the August cure notice and SAP’s response.

Nov. 17, 2011 – Confidential negotiations between SCO and SAP yield a 39-page settlement agreement to resolve most differences and continue project with significantly higher state costs.

March 2012 – SCO requests an additional \$179 million, raising the project’s cost to **\$373 million**. Completion date pushed back another year, to **September 2013**.

June 11, 2012 – First pilot goes live with Controller’s 1,300 employees. Payroll checks contain numerous errors.

Aug. 9, 2012 – Pilot 2, to incorporate another 15,000 state employees starting Sept. 1, is postponed indefinitely because of recurring errors in Pilot 1.

Oct. 25, 2012 – Controller sends “cure notice” to SAP, initiating contract termination. Notice states: “SAP’s breaches span the entire breadth of the contract from the project planning and project implementation, to the execution of the plans, and finally to the results.”

Nov. 30, 2012 – SAP response to cure notice states it “has not breached the contract in any material respect and cannot be terminated for default.”

Feb. 5, 2013 – SAP issues demand for mediation to resolve project disputes.

Feb. 8, 2013 – Controller terminates the contract with SAP. At the same time, CTA suspends the project.

References

Abdollah, Tami. “State to adopt pay system despite errors; Thousands of L.A. Unified and community college district workers did not receive checks or were paid the wrong amount, officials say.” *Los Angeles Times*. Feb. 19, 2007.

Alamo, Chas, fiscal and policy analyst, Legislative Analyst’s Office. Interviews. February 2013.

BearingPoint, Inc.:

- Letter notifying State Controller’s Office it is in material breach of the contract for the 21st Century Project. Oct. 26, 2007.
- Response to state’s termination of contract for 21st Century Project. Jan. 6, 2009.

Boghossian, Naush. “L.A. schools may sue software firm.” *Contra Costa Times*. Feb. 16, 2007.

Brandt, Steve. “District payroll glitch is teacher nightmare; It’s another black eye for Minneapolis schools.” *Star Tribune*. July 23, 2006.

Brown, Vincent, chief executive officer, Alameda County Employees Retirement Association. Interview. March 2013.

California State Auditor’s Updated Assessment of High-Risk Issues the State and Select State Agencies Face. Chapter 6, Providing Effective Oversight of the State’s Information Technology Projects. August 2011.

California Technology Agency:

- Letter from CTA Secretary Carlos Ramos to state Controller John Chiang suspending the 21st Century Project. Feb. 8, 2013.
- Letter from Secretary Ramos to Joint Legislative Budget Committee disclosing order to suspend 21st Century Project. Feb. 12, 2013.

Chaudhry, Shanda, assistant deputy director for legislation, California Technology Agency. Interview. February 2013.

Crowe, Lisa, division chief, Personnel/Payroll Services Division, State Controller's Office. Interviews. March, April, July, August 2013.

Cruz, Marvin, deputy chief information officer, Los Angeles Unified School District. Interview. March 2013.

Davidson, Tony, project director, 21st Century Project, State Controller's Office. Interviews. March, April, July, August 2013.

Davidson, Scott, SOMS project manager, California Department of Corrections and Rehabilitation, former independent oversight consultant on the 21st Century Project. Interviews. May, June 2013.

Department of General Services:

- Letter on behalf of the State Controller's Office notifying BearingPoint, Inc. that it is in breach of contract for the 21st Century Project. Oct. 19, 2007.
- Letter on behalf of the State Controller's Office initiating termination of BearingPoint contract. Dec. 3, 2008.

Johnson, Nels. "Fixing a fiscal fiasco: County software system still not working right." *Marin Independent Journal*. Feb. 22, 2009.

Kunkle, Fredrick. "Fairfax suspends work on computer system overhaul." *Washington Post*. April 20, 2012.

Legislative Analyst's Office:

- 2009-10 Budget Analysis Series: General Government, State Controller's 21st Century Project.
- Summary of LAO Findings and Recommendations on the 2013-14 Budget, State Controller's Office. Recommend pause on troubled payroll IT project and assessment of state IT oversight. March 6, 2013.
- Summary of LAO Findings and Recommendations on the 2013-14 Budget, State Controller's Office. Recommend assessment of IT project in addition to reconciliation and legal efforts. May 20, 2013.

Lewis, Anthony, general counsel, California Technology Agency.
Interview. February 2013.

Li, Erika, assistant principal budget manager, information technology operations and consulting, California Department of Finance, former analyst for information technology, Legislative Analyst's Office. Interview. March 2013.

Little Hoover Commission:

- Letter to the governor and Legislature. Sept. 27, 2011.
- Hearing on Information Technology Governance. Aug. 25, 2011.

Lombard, Jim, chief administrative officer, State Controller's Office.
Interviews. March, April, July 2013.

Los Angeles County Civil Grand Jury Report 2009-10. *Los Angeles Unified School District Payroll System Implementation: Where Are the Controls?*

Los Angeles Times. "Garbage in, garbage out; A software fiasco caused L.A. Unified's payroll debacle, but the district was programmed to fail." Unsigned editorial. Feb. 2, 2008.

Los Angeles Unified School District, Office of the Inspector General:

- Attestation Report. *Review of Internal Control Design: Enterprise Resource Planning Implementation. Release II – Human Resources/ Payroll Regular Payroll Processing*. July 18, 2006.
- Audit Report. *SAP Segregation of Duties*. Sept. 2, 2008.
- Audit Report. *Off-Cycle Payroll Processes*. Sept. 8, 2008.
- Audit Report. *Final Pay Calculation within the Payroll Services Branch*. Sept. 9, 2008.
- Audit Report. *SAP Application Security Review*. Dec. 10, 2009.
- Audit Report. *Focused SAP Configurable Controls Review Phase 1 – Blueprinting*. Dec. 3, 2012.

Martinez, Julio, director of legislative affairs, State Controller's Office.
Interviews. March, April, May, June 2013.

Megerian, Chris. “State payroll system near collapse; Costs have tripled for high-tech system, which is years late and unable to pass tests.” *Los Angeles Times*. Dec. 22, 2012.

Morales, Lourdes, fiscal and policy analyst for information technology, Legislative Analyst’s Office. Interview. February 2013.

Morgan, Jennifer, president, SAP Public Services. Testimony before the Subcommittee on Federal Financial Management, Government Information, Federal Services, and International Security, U.S. Senate Committee on Homeland Security and Government Affairs. May 24, 2012.

Ortiz, Jon. “Chiang cancels big software contract.” *Sacramento Bee*. Feb. 8, 2013.

Press-Telegram (Long Beach), “System Failure.” Unsigned editorial. June 22, 2008.

SAP Public Services, Inc.:

- Response to request for proposal for 21st Century Project. Aug. 28, 2009.
- Best and Final Offer in response to request for proposal for the 21st Century Project. Oct. 14, 2009.
- “Twenty First Century” SAP HCM Project Escalation – Management Summary. Aug. 17, 2012.
- SCO Pilot 1 Post Go-Live Project Review, Aug. 24, 2012.
- Response to Oct. 25, 2012 cure notice. Nov. 30, 2012.
- Demand for mediation of disputes involving the 21st Century Project. Feb. 5, 2013.
- Responses to questions from the Senate Office of Oversight and Outcomes. April 16, May 22 and Aug. 5, 2013.

Songini, Marc L. “Irish agency halts work on two SAP application projects.” *Computerworld*. Oct. 17, 2005.

State Controller's Office:

- 21st Century Project Feasibility Study Report. Revised April 27, 2004.
- Special Project Reports 1 through 5 for 21st Century Project. May 2004, March 2008, May 2009, December 2009 and February 2012. (SPRs must be submitted to the California Technology Agency when a project deviates by 10 percent or more from the most recently approved project budget or schedule.)
- Contract with SAP, plus amendments, to serve as system integrator on the 21st Century Project. Feb. 2, 2010.
- Formal cure notice initiating termination of contract with SAP Public Services. Aug. 19, 2011.
- Agreement and Settlement with SAP to modify 21st Century Project contract, bring in a data conversion specialist, extend the schedule and restart the project. Nov. 17, 2011.
- Formal cure notice initiating termination of contract with SAP Public Services. Oct. 25, 2012.
- Independent Project Oversight Reports, monthly from July 2004 through January 2013.
- Independent Verification and Validation Reports, monthly from January 2010 through August 2012.
- Quarterly Reports to the Legislature on the 21st Century Project. April 28, 2010 through May 9, 2013.
- 21st Century Project Steering Committee Status Reports, April 2009 through September 2012.
- Draft 21st Century Project Eight Point Recovery and Go Forward Plan. January 2013.
- Letter to SAP, terminating the contract for the 21st Century Project. Feb. 8, 2013.

Takai, Teresa, chief information officer, U.S. Department of Defense, former chief information officer, state of California. Interview. April 2013.

Wilmoth, Ken, director, ERP Business Focus, Eclipse Solutions.
Independent verification and validation (IV&V) consultant on the
21st Century Project. Interview. March 2013.

Winkley, Mary, assistant secretary, program & portfolio management,
California Technology Agency. Interviews. February, July, August 2013.

Wong-Martinusen, Collin, chief of staff, State Controller's Office.
Interviews. March, April, July 2013.

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