EL DORADO COUNTY 2015-2016 GRAND JURY REPORT

FENIX, ICARUS NAUGHT

CASE 15-05 · JUNE 9, 2016

Public Release

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FENIX[1] is El Dorado County's Fiscal Enterprise and Information Exchange project. The project is the county's installation and implementation of Tyler Technologies Munis financial solution, an Enterprise Resource Planning (ERP[2]) system intended to replace several county systems that execute on different computer platforms including the county's IBM mainframe.

During the three years since the project began in 2013, FENIX has been and continues to be the subject of much misinformation and speculation. It is not yet functional and it is still unknown when it will be operational.

The grand jury endeavored to determine the current status of the project, its projected operational date, the basis for misinformation and speculation, and any facets of its definition and subsequent execution that could be improved. Finally, is there something to be learned from the entire project that might improve other projects?

BACKGROUND

The FENIX project replaces software systems purchased between 1989 and 1992 at a combined software licensing cost of $1.7 million. They were customized extensively by El Dorado County Information Technologies (IT) staff to support county work processes. Unfortunately, the customization ultimately precluded the application of further vendor updates or new releases without incurring exorbitant expense and risk. In short, twenty-five years is several generations in technology, and the county's systems had become out of date to the extent they could no longer be repaired easily. Continued ad hoc repairs would only delay the inevitable need for a systemic fix, and delay would only increase the cost. In addition, vendors sold these systems to other vendors that may have offered competing products. These changes and updates, made modernization even more perilous.

[1] Although FENIX is a locally devised project name, it has become a ubiquitous moniker for the El Dorado County installation and implementation of Tyler Technologies Munis financial solution.

[2] Enterprise Resource Planning (ERP) is a category of business management software, typically a suite of integrated applications, that collect, store, manage and interpret data from several business activities including product planning, purchase, manufacturing or service delivery. It provides an integrated view of processes using common databases, often in real-time.

El Dorado County's technology environment was evaluated in 2007 as part of an Information Technologies (IT) strategic planning process. A driving factor for that evaluation was that the IBM mainframe, the foundation environment for a majority of the county's systems, was coming to end of life.[3] The evaluation identified the benefits, risks, and related costs of various options, including retaining the status quo for the mainframe hardware and software systems. The county researched numerous vendors, including its existing vendors. Information from other California counties was compiled, including the processes and resources used during system replacement project planning and overall satisfaction with the results. Based upon that feedback, IT management recommended to the board of supervisors (BOS) to contract with an independent consultant to develop a roadmap for replacement of those aging systems.

But, management support and budget was not available. No further action was taken until 2010 when the Chief Administrative Officer directed IT to research replacing the county's financial, human resources and payroll systems, specifically looking at an enterprise resource planning (ERP) system. The 2007 research was revisited and updated. ERP system project implementation best practices, documentation and lessons learned were obtained from other California counties. The board of supervisors authorized the release of a request for proposal (RFP) that closed May 21, 2012 with 11 vendors submitting proposals.

In March 2013, the BOS awarded the RFP to Tyler Technologies of Yarmouth, Maine and authorized the chair to execute an agreement with Tyler for a not-to-exceed amount of $2,613,377. The total ERP project budget was approved with a not-to-exceed amount of $5.6 million.

METHODOLOGY

The grand jury reviewed:

- County ERP system RFP
- County ERP system functional requirements
- County contract with Tyler Technologies
- Vendor project documentation
- County project documentation
- BOS project status updates
- Marin County 2012/2013 grand jury report *Marin's Software Saga Continues – But Is There MERIT In ATOM*
- Marin County contract with Tyler Technologies

The grand jury interviewed:

- Fenix project staff
- County elected officials

[3] End of life occurs when it is no longer economically feasible to continue using the current mainframe hardware and attendant software. It should be replaced, possibly with a newer model, to realize possible cost savings and advantages of newer technologies. The county's mainframe systems have typically encountered end of life every five years.

REQUEST FOR PROPOSAL PROCESS AND VENDOR SELECTION

A request for proposal (RFP) outlines the scope, services and requirements that must be met by potential vendors interested in providing those services. The county's RFP for the Enterprise Resource Planning system included a 78 page functional requirements document itemizing approximately 2000 requirements in 17 categories.

The RFP defined four levels for evaluation of responding vendors:

1) Procurement Requirements Assessment
2) Detailed Proposal Assessment
3) Demonstrations
4) Implementation Firm Interviews and Discovery Sessions.

Criteria defined under level 2, Detailed Proposal Assessment, Public Sector Experience and References, states "Vendors who have proven experience at public sector sites similar in scope, size and complexity to the County will provide higher confidence to County evaluators."

The county's selection committee moved SunGard and Tyler Technologies to the final phase. SunGard had experience in over a dozen California counties. Tyler's Munis had been installed in one California county, Mendocino. Tyler was selected and awarded a contract. It was unclear based on documents provided, why Tyler was ultimately selected.

BUDGET

The county board of supervisors approved a $5.6 million project budget that authorized $2.6 million in vendor expenses and $3 million for county expenses.

Tyler's expenses included $874,360 for software licensing, $78,120 for hardware, and $1.66 million for services such as project management, consulting, data conversion, training, and travel.

The county portion of the budget was extremely vague. County expenses included $158,900 for hardware and software, and $2.83 million for additional resources such as limited term and contracted employees, stipends, other project costs. The largest portion, $2.83 million, was not adequately broken down in subcategories. Typically, this information is included in the project plan and, well drafted budgets generally identify costs for staff labor, materials procurement, ongoing operating costs, other direct costs such as travel or training and a contingency amount for the unknown. The county's Chief Technology Officer told the BOS that it was recognized that the Tyler system did not have a California presence, and, as a result, the project budget was front-loaded.[4]

As of November 2015, it was reported to the BOS that of the $5.6 million project budget, $2.5 million had been spent, leaving a balance of $3.1 million. It is unknown how much of this was Tyler's and how much was the county's.

[4] Distribute or allocate unevenly, with the greater proportion at the beginning of an enterprise or process.

The budget related documentation that the grand jury received was at the transactional detail level with no categorization of type of expense i.e. software license, hardware, maintenance, services, or modifications. It was impossible to validate the information reported. The county does not have a project budget tracking document. This ongoing failure to manage the budget by expense category is of grave concern.

The only budget reconciliation report available was provided by Tyler, dated May 29, 2015 showing that the county was running out of contracted consulting days. It can be assumed that additional dollars will have to be allocated for those services, but the overall budget impact is unknown at this time.

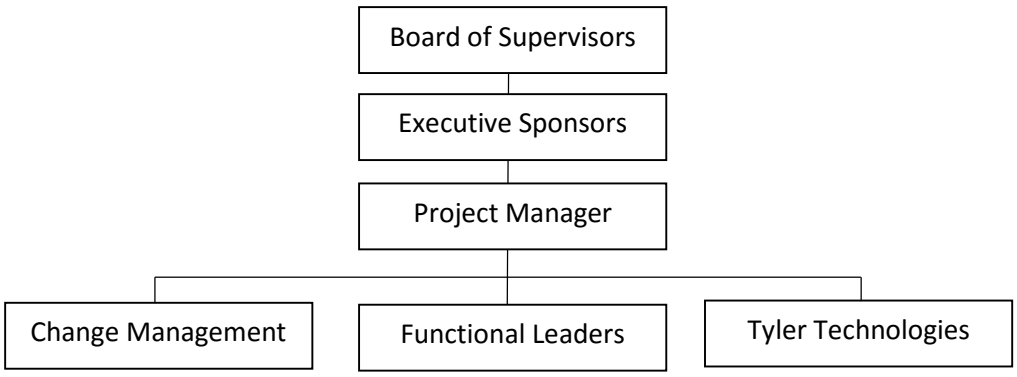
CONTRACT

The contract between the county and Tyler appears to be a very straightforward, boilerplate[5] contract. It includes standard language outlining general terms and conditions such as indemnification, governing law, confidentiality, payment terms, severability, contract administration responsibilities, etc. The agreement terms outlined in the contract include software licensing, maintenance, professional services and third party products. The contract attachments include Tyler's response to the county's RFP and documents describing the vendor's services and supporting processes. Other than the county's standard agreement language, the contract does not include any county specific requirements.

It is unusual in a project this size, both in investment and complexity, for the contract to not include county specific requirements and terms. At the very least, those functions that were identified in the RFP as not being supported should have been included with committed costs and delivery dates.

PROJECT STRUCTURE

The Project Charter submitted to the BOS in September of 2013 defined this project structure.



[5] Boilerplate refers to the standardized, formal language in a contract or legal document.

Executive sponsors are the Chief Administrative Officer, the District Attorney/Chief Technology Officer, and the Auditor/Controller. Their role is to champion the project, provide strategic direction, obtain funding, review expenses, and facilitate timely decisions.

The Assistant IT Director was appointed project manager. That role establishes the overall direction of the project, including standard project management activities of planning, status reporting and management controls such as issue, change, risk, and quality. It should be noted that the IT director's position has been vacant for the majority of the FENIX project, placing the assistant director in an untenable situation serving as both project manager and de-facto IT director.

Change management was identified as part of the project structure but without a designated resource or role. The change management process and supporting procedure was later defined in the project charter as a function of project management.

Functional leaders are the subject matter experts responsible for the coordination of activities specific to their areas of expertise. Those activities include module set-up, workflow analysis, identification of interface requirements, user acceptance testing and training.

Tyler Technologies' role includes successful implementation of the ERP system including participation in project management, system set-up, business process review/analysis assistance, issue identification/resolution and training.

Although not identified above, the current project organization now includes a project leader, who is an employee of IT, directly reporting to the project manager. The project leader works closely with the functional leaders and Tyler Technologies to facilitate assigned project activities.

PROJECT LEADERSHIP

A critical factor in support of project management and the overall success of a project is senior management involvement. Unfortunately, the FENIX project's executive sponsors have not met in over a year. The grand jury learned that this was due to lack of attendance by a primary stakeholder. In the 36 months since the project began, the BOS has received a total of eight project status reports. Since March of 2015, the BOS has only received one update. It has been over six months since that update and the BOS has not requested, or received, a project status. This lack of involvement by the BOS may be attributed to various factors. They do not fully understand the risk and complexities of an ERP implementation project. They see their role as policy makers, leaving the project management and oversight responsibilities to senior management. In either case, the end result has put the project at risk.

PROJECT MANAGEMENT

Project management[6] is the key for success of any complex project, such as the implementation of an ERP system. There are various successful project management methodologies. Regardless of the methodology employed, careful consideration must be given to the overall project objectives, timeline, and cost, as well as the roles and responsibilities of all participants and stakeholders. Inadequate project management plays a major role in most failed projects.

The county contracted with Tyler to provide *part-time* project management services *in support of* the county assigned project manager. Tyler's documentation included a complete project plan including scope, resources, timeline, plans for change management, quality management, risk management, communication, and training. In addition, there was other typical supporting project documentation such as calendars, site plans, report plans, budget reconciliation, meeting agendas, minutes, and status reports.

The only project management document the county has is the project charter. The county does not have a project plan. The county does not have a detailed project timeline. The county does not have plans for issue management, quality management, risk management, or training. The county's communication plan, included in the project charter, consisted of the following statement: "An updated project plan will be made available for view to all interested parties throughout the County." The grand jury was told that the county did not develop these project management documents, because the vendor was providing them.

Tyler developed the project management documentation. The county does not recognize that it doesn't include the detail necessary to support the county's project management responsibilities. The county's reliance on the vendor's project plan is indicative of a lack of project management experience and under estimating the complexities of managing an ERP project.

IMPLEMENTATION TIMELINE

The original FENIX project implementation plan had four phases:

1) Financials
2) Human resources and payroll
3) Work orders, inventory, fixed assets and fleet management
4) Business license

As part of the contract between Tyler and the County, the parties agreed on go-live[7] dates for phase 1 as 3/1/2015 and phase 2 as 10/1/2015. The go-live dates for phases 3 and 4 were to be determined.

[6] Project management is the application of knowledge, skills, tools and techniques to project activities to meet the project requirements.

[7] Date at which productive use of the software begins.

On July 22, 2014 the BOS was presented with a project status report stating that the go-live dates were being moved to 10/3/2015 for phase 1 and 1/1/2016 for phase 2. The justification for this delay was twofold. First, the county's budget preparation process, occurring March through August, required county staff support leaving no resources for FENIX. Second, time would be needed by both Tyler and the county to develop and test the required system modifications before going live.

By December of 2014 the project had been assigned status red, meaning "probable that the project will NOT be delivered with acceptable quality without changes to schedule, budget, resources, and/or scope." This status was attributed to the number of financial system modifications required to accomplish the Phase 1 October 2015 go-live date.

On March 24, 2015, the project manager reported to the BOS that neither phase 1 or 2 would go-live in 2015. The project time line would be adjusted after the project team returned from a summit with Tyler in June to discuss approaches for obtaining the required system modifications.

As of June 1, 2016, none of the phases have "gone live". Indeed, the county has not had an updated, confirmed project implementation timeline in over fifteen months.

MODIFICATIONS

It is common during ERP implementation projects to seek customization of the new ERP system in an attempt to make it function like the system it is replacing or to meet the organization's existing operating practices. While there can be gains in terms of user convenience from such efforts, customization is time consuming and expensive.

Tyler's software license contract does not allow customers to modify their software. Modifications requested by Tyler's customers must adhere to Tyler's business plan. If approved, they become an integrated part of Munis, available to all Tyler customers as part of normal system updates covered under maintenance agreements.

It is not surprising that the county would require system modifications based upon their history of unique work processes and Tyler's limited experience with California counties. But, given the significant drawbacks of customization, the goal should have been to keep the number of modifications to a minimum. That could have been accomplished in two ways. First, by completing a detailed business process analysis and developing comprehensive functional system requirements early in project planning, prior to system selection. Second, adapting work processes to the system as a part of testing and implementation.

By November of 2015, the county had identified over 100 required system modifications. Twenty-one of those modifications have been delivered for which the county paid $105,000. The remaining 82 modifications have been quoted at just over $612,000. The BOS was informed only that the county and Tyler had identified three options to obtain the remaining modifications. Detailed information regarding the cost or project impact of each option was not provided in that update.

The grand jury later learned that two of the options being considered would cost the county close to $1.8 million. The additional $1.2 million was attributed to the additional resources and effort required by Tyler to complete development in time to meet the project go-live dates. The third option would not require the county to pay the additional $1.2 million, but would extend the project go-live dates.

County chose the third option, saving $1.2 million but extending the project go-live dates; these delays also have significant, but not as easily ascertainable, costs. Since the grand jury had been made aware that the project executive sponsors no longer meet, it is unclear who made the choice or what factors contributed to the decision. In the interviews conducted, there was no mention of any alternative, risk or cost benefit analysis being completed. There has been no BOS update providing this information.

DATA CONVERSIONS AND INTERFACES

The importance of data conversions and interfaces can't be ignored in any ERP implementation project. Both are processes whereby data is moved from one system to another. Data conversion is usually a one-time event. Data is extracted from the current system then cleansed and reformatted before installing it into a new system. By contrast, a data interface is repetitive, used whenever needed. For example, the county periodically sends employment information to various state agencies.

The county contract with Tyler identified 33 conversions at a cost close to $120,000. The chart of accounts and project conversions were completed by October 2014. Budget/actual, vendor, invoice and customer conversions were active. Yet, all conversions were placed on hold by January 2015.

The county contract with Tyler does not include interfaces. The only reference to them is in the Tyler scope plan — "the county will be trained on the interface options throughout the system". The grand jury was not provided with documentation identifying county required interfaces; the project impact is unknown.

CURRENT STATUS

Over the past six months, the county and Tyler have been working to amend the FENIX project contract to address the county's changes, primarily related to required system modifications. Finally, on June 7, 2016, the proposed contract amendment was presented to and approved by the board of supervisors. This amendment commits the county to pay Tyler an additional $791,700, bringing the total contract not-to-exceed amount to $3,405,077. It also establishes new go-live dates for the project. The go-live date for phase 1 and phase 4, including financials, work orders, inventory, fixed assets and fleet management, is planned for October 2017. Phase 2 and phase 3, including human resources, payroll and business license are planned to go-live in January 2018.

MARIN COUNTY

There is a general misconception that El Dorado County is benefiting from Marin County activities. Marin is also implementing Tyler Technology's Munis ERP solution, project name ATOM, Administrative Technologies of Marin. Their project has been the subject of conversation in various FENIX project forums; it is appropriate to include a brief overview and status of the ATOM project.

Marin's Tyler ERP implementation followed an earlier project that failed. That failure provided Marin with valuable insight into current efforts. Part of the original planning in preparation for the recent project included an 18 month focused business process redesign effort that identified several opportunities to reduce the scope of expected system modifications, data conversions and software modules implemented. The redesign effort resulted in a 500 page functional requirements document. By comparison, El Dorado County's functional requirements document was only 78 pages.

Marin has a $14 million project budget which includes approximately $8 million being paid to Tyler for software licensing, including a third party payroll timekeeping system and a treasury management system, and full time project management services. The remaining $6 million for county expenses includes $4.5 million for dedicated project staffing, $300,000 for equipment and expenses, $250,000 for quality assurance, and a $1 million contingency.

Marin's project plan and supporting budget defines two separate projects. The first, finance, kicked off in February 2015 and is on track to go-live in July 2016. The second project, human resources and payroll, kicked off in January of 2016, with an expected go-live date of July 2017.

Marin's 249-page contract with Tyler included a 100-page statement of work and detailed requirements for over $132,000 in conversions and close to $500,000 in interfaces and system modifications. Again by comparison, El Dorado County's contract was 69 pages, with no county specific requirements.

El Dorado County has not realized any notable benefits from Marin's project. The county may realize benefits for future system implementation projects by including Marin's project information in a lessons learned analysis.

FINDINGS

F1. County leadership has underestimated the complexities and risk of an ERP system implementation project.

F2. The county's ERP system functional requirements were inadequate.

F3. The county's contract with Tyler was poorly conceived and lacked critical county specific terms and conditions. Specifically, it did not account for significant customization.

F4. The county does not have a FENIX project plan, which would include a detailed timeline and supporting plans for resource, budget, change, quality, and risk management.

F5. The county's portion of the budget was too vague to be easily managed and cost contained.

F6. The county's project leadership and project management is lacking and therefore ineffective.

F7. The project was delayed because the county did not allocate full time staffing for the project.

F8. County leadership failed to adequately consider costs, complexity and time delays caused by extensive customization.

F9. The FENIX project is experiencing many of the industry recognized reasons for failure including lack of senior management involvement, poor requirements, inexperienced project manager, and lack of resources. If they can be overcome, the project, like its namesake, may rise up and succeed.

RECOMMENDATIONS

R1. The county should hire an experienced senior level project manager, reporting to the CAO, to manage the remainder of the FENIX project including all county system implementation projects.

R2. The BOS should establish an objective advisory resource to ensure it has all the relevant information needed to oversee the FENIX project and other system implementation projects.

R3. The county should contract for an independent evaluation of the FENIX project, immediately and at the end of the project, to determine lessons learned.

R4. The BOS should encourage the project executive sponsors to meet regularly and provide monthly updates to the board.

DISCLAIMER

This grand jury includes two members who are former employees of the El Dorado County Information Technologies Department. Both members left IT more than three years ago. Penal code §916.2 requires that grand jurors who worked for an agency less than three years previously recuse themselves. Both members stated they had no conflict which would preclude them from participation, and the grand jury concurred.

REQUEST FOR RESPONSES

Responses to both findings and recommendations in this report are required by law in accordance with California Penal Code §933 and §933.05 from the El Dorado County Board of Supervisors before September 14, 2016.

Address responses to:

The Honorable Suzanne N. Kingsbury
Presiding Judge of the El Dorado County Superior Court
1354 Johnson Blvd.
South Lake Tahoe, CA 96150

The Presiding Judge of the El Dorado County Superior Court additionally requests that responses be sent electronically as a *Word* or *PDF* file to facilitate the economical and timely distribution of such responses. Please email responses to El Dorado County Grand Jury reports to courtadmin@eldoradocourt.org.

Reports issued by the Grand Jury do not identify individuals interviewed. Penal Code section 929 requires that reports of the Grand Jury not contain the name of any person or facts leading to the identity of any person who provides information to the Grand Jury.