Royalty Accounting and Revenue Processing System (RAPS) Certification

INITIATION
APRIL 25, 2018

RAPS MANAGEMENT TEAM:
GEORGE ROSENBAUM, EXECUTIVE SPONSOR

TONY HOFFMAN, CIO
CATHY PLUMMER, PM
Agency Mission

The State Land Office (SLO) generates and optimizes revenue from state trust lands to support public education and other beneficiary institutions. SLO produces revenue by leasing lands for grazing, agriculture, commercial use, renewable energy, oil and gas drilling, mining, and other surface and subsurface activities.

SLO’s mission is to be a responsive and technologically advanced agency. SLO achieves its mission through its core values:

- Accountability
- Innovation
- Teamwork
- Courteous, positive, and consistent customer Service
- The most efficient and appropriate use of technology

– SLO Strategic Plan FY2017-FY2020
Project Justification

• SLO’s oil and gas royalty collection and distribution functions are critical to state revenue and economy.
• The legacy royalty system (ONGARD) is old, outdated and inflexible.
• ONGARD was originally designed for vertical drilling; horizontal drilling is the current standard.
• ONGARD cannot interface with GIS applications or other data.
• ONGARD is a labor intensive system requiring continuous data corrections.
• Desired expansion of audit support too difficult on existing platform.
Phased Approach

The RAPS project will modernize the system platform, and refactor the code base to a current language:

PHASE I

- Rewrite the mainframe COBOL into a modern language, e.g., C# or Java.
- Employ an iterative approach, performing incremental code analysis, utilizing online/batch refactoring by module, and repeating the steps as required.
- Validate data migration and value for each module following the refactoring process.
- Parallel test with the mainframe, reducing the risk of impact to SLO business operations and industry.
- Ensure knowledge transfer with process and tools to provide sustainability by SLO staff.
**Phased Approach**

The RAPS project will modernize the system platform, and refactor the code base to a current language:

**PHASE 2**

- Concurrently address business process improvement, application modernization, and software modernization as budget and schedule allow.
- Incorporate business rule changes and high priority change requests into final refactoring effort.
- Support interoperability with other SLO applications and external data.
Project Stakeholders and Governance

Stakeholders:
• NM State Land Trust Beneficiaries
• Oil and gas industry
• SLO Royalty, Oil and Gas, Accounting, and Information Technology Divisions
• Citizens of New Mexico

Executive Steering Committee:
• SLO Deputy Commissioner, Chair
• Executive Director, IT and Royalty Mgt Division
• Chief Information Officer
• Director, Royalty Mgt Division
• Asst Commissioner, Oil, Gas, Minerals Division
• Asst Commissioner, Administrative Services
Timeline:

Royalty Administration and Processing System (RAPS)

7/1/2018 - 8/30/2018
PLANNING
Allocate resources, define current state, business rules, secure IV&V contract

9/1/2018 - 10/30/2018
PLANNING:
Architecture & design, define Future State Architecture, PMP

11/1/2018 - 10/30/2019
IMPLEMENTING:
Refactor code by module test, deploy, training, operationalization

11/1/2019 - 6/30/2020
CLOSING
Transition to operations Final IV&V report Documentation Lessons Learned

8/1/2018 - 6/30/2020
IV&V

4/25/2018 - 6/30/2018
INITIATING
BPA, system - data analysis, secure contract w Vendor

11/1/2018 - 3/31/2020
PLANNING
IMPLEMENTATION
Phase 2
Royalty Application

7/18/2016 - 6/30/2017
INITIATING
Royalty System Procurement Support

7/18/2016 - 6/30/2018
INITIATING
Contract PM services
<table>
<thead>
<tr>
<th>Risk Title</th>
<th>Description</th>
<th>Probability</th>
<th>Impact</th>
<th>Response</th>
<th>Mitigation Strategy</th>
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</thead>
<tbody>
<tr>
<td>Schedule</td>
<td>Project delays due to extended contract approval process.</td>
<td>Med</td>
<td>High</td>
<td>Initiation of the project is time sensitive.</td>
<td>Coordinate efforts with contract approving agencies, involve SLO General Counsel early in the contract review process.</td>
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<tr>
<td>Architecture</td>
<td>SLO’s existing technical architecture must support the new system implementation.</td>
<td>Low</td>
<td>High</td>
<td>Project will engage in visioning with stakeholders, and produce future state and sizing documentation early in Phase 1 to confirm architectural requirements.</td>
<td>Assess architectural options in early planning phase, requirements and gap analysis to ensure funding is adequate to address necessary infrastructure and application modifications.</td>
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<tr>
<td>Code conversion</td>
<td>The “black box” code produced from Phase 1 may not adequately replicate ONGARD system functionality.</td>
<td>Low</td>
<td>High</td>
<td>Cutover data functionality is guaranteed by the vendor to match 100% current PROD code and functionality.</td>
<td>Validate to prove legacy system functionality, in modules, starting with foundational modules first. Repeat steps with each module and parallel test to legacy system.</td>
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<tr>
<td>Resources and Sustainability</td>
<td>Knowledge, skills and abilities of SLO IT team not sufficient to collaborate on development and deployment or maintain the modernized system.</td>
<td>High</td>
<td>High</td>
<td>Phase 1 code conversion will be incremental and provide opportunities for training SLO IT team on tools and process.</td>
<td>Cross train SLO IT resources in the knowledge transfer process to diversify the risk.</td>
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# Budget and Major Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>FY17 &amp; Prior</th>
<th>FY18</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21 &amp; After</th>
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<tbody>
<tr>
<td><strong>Consulting</strong></td>
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<tr>
<td>Prior Certification, RFP development, and Project Mgt</td>
<td>$130,826</td>
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<tr>
<td><strong>IV&amp;V</strong></td>
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<tr>
<td>IV&amp;V</td>
<td></td>
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<td>$125,000</td>
<td>$125,000</td>
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<tr>
<td><strong>RAPS platform modernization vendor</strong></td>
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<td></td>
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<tr>
<td>ONGARD platform conversion, sizing, architecture &amp; design, code migration, testing, deployment, training, documentation</td>
<td></td>
<td>$3,321,643</td>
<td></td>
<td>$4,378,357</td>
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<td><strong>Additional Professional Services</strong></td>
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<tr>
<td>Phase 2 RAPS app business analysis, app development, integration, testing, deployment, training, documentation</td>
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<td>$800,000</td>
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<td>$800,000</td>
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<td><strong>Hardware</strong></td>
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<td>Equipment to support new operational environment</td>
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<td></td>
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<td>$90,000.00</td>
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<td><strong>Software</strong></td>
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<tr>
<td>Software to support new operational environment</td>
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<td></td>
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<td>$86,139</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>$130,826</td>
<td>$143,036</td>
<td>$3,846,643</td>
<td>$5,879,496</td>
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SLO Accomplishments

- Secured funding to complete final stage of ONGARD replacement!
- Successfully decommissioned the TRD-severance portion of ONGARD.
- Reduced lines of code to ~ 1.3 Million, cutting conversion costs.
- Maintaining royalty + leasing accounting functions in ONGARD.
- Evaluated code and produced diagnostic analysis and observations. Interfaces and third party products deemed to be convertible or compatible to new code in a post-conversion environment.
- Performed due diligence on feasibility of using proprietary conversion engine to verify the methodology and contractor’s ability to deliver as promised. Past performance over the last 20 years indicates a high degree of success with this technology and related processes.
Questions?

New Mexico State Land Office