

# ITERATIVE PROJECT REPORT FOR PROGRAMS & MULTI-YEAR PHASED PROJECTS

Submitted to Large Project Oversight on 03/05/2020

## GENERAL INFORMATION

**Project Name:** North Dakota Secretary of State File 2.0 Project (SOS File 2.0)

**Projects-Phases in this Report:** Phases 1-5, Campaign Finance Phase, Business Process Modeling Project, Central Indexing System Phase, FirstStop Project Phase 1, FirstStop Sub-Program

**Agency Name:** State of North Dakota, Office of the Secretary of State

**Project Sponsor:** Alvin A. Jaeger, Secretary of State

**Project Manager:** Aaron C. Kielhack

## PROJECT DESCRIPTION

The North Dakota Office of the Secretary of State (SOS) File 2.0 Project seeks to acquire and implement software systems to replace Campaign Finance, the Central Indexing System on the mainframe, and Business Services (Business Registration, Business Information, Licensing, and Notary), and administration processes on the AS400.

The replacement system, a custom-build by the Software Development division of the North Dakota Information Technology Department (ITD) was to be a web-based solution that would allow State personnel to manage the filing process as well as allow public users to file documents and make inquiries regarding filed documents. There were five phases that consisted of Business Services (Phases 1 and 2: Business Registration, Business Information, Licensing, and Notary), a Central Indexing System (Phase 3), Campaign Finance (Phase 4), and miscellaneous systems (Phase 5).

Campaign Finance (CF) or Phase 4 began in January 2014, when the File 2.0 Executive Steering Committee (ESC) decided to implement a CF solution from BPro, Inc. (procured through a 095 Work Order) to meet a North Dakota Century Code deadline of May 1, 2014. BPro and the State successfully implemented Campaign Finance on schedule.

Central Indexing System (CIS) or Phase 3 began in the fourth quarter of 2014, when a procurement for a Commercial off the Shelf (COTS) replacement system completed with the selection of PCC Technology Group (PCC) LLC, as the vendor. SOS received approval from the State Legislature to amend a State mandated deadline for CIS electronic filings from August 1, 2015 to August 1, 2016. The CIS phase began on February 3, 2015, the new system went into production on December 2, 2015, and was officially live on March 1, 2016 after the completion of the State mandated ninety-day certification period.

A new project, Business Process Modeling (BPM) for SOS's Licensing, Notary and Business Registration system and other business processes began in the fourth quarter of 2014, at the same time, the ESC voted to pause Phases 1 and 2 of the ITD development. The procurement for the phase completed in the second quarter of 2015 with Major Oak Consulting, a Verint Company (Major Oak) being selected and a contract was signed in April 2015. The execution phase started on May 6, 2015 and ended on September 3, 2015 when Major Oak delivered their final report and recommendation for the File 2.0 project's next steps. Major Oak recommended replacing the legacy business services system with a COTS solution from a vendor having significant relevant experience. The ESC accepted the recommendation, authorized a new procurement to start, and canceled the paused ITD development.

The planning phase for FirstStop (FSBLS), formerly known as the Business and Licensing System project began in the fourth quarter of 2015 following the completion of the BPM phase with the start of a procurement process to select a Business Services COTS solution. The FSBLS procurement completed in the third quarter of 2016 with the selection of Tecuity, Inc.'s SOS Enterprise solution along with their consulting services. The State and Tecuity signed a contract in August 2016. Planning and Analysis with Tecuity began on September 12, 2016, with the project kickoff meeting held onsite with SOS, Tecuity, and ITD in attendance. Gap analysis and other planning activities occurred during Q4 2016 until March 22, 2017,

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when the ESC approved the finalized FSBLs Project Plan and Schedule. The baselined schedule currently has a go-live date for production for Thursday, May 4, 2018. The FSBLs project will include detailed requirements, data conversion-migration, configuration, testing, training, and deployment of the solution that will replace the business registration, business information, licensing, and notary along with accounting/administration legacy applications on the AS400. During Q4 2017, SOS decided to name the new application and project First Stop. At the end of Q1 2018, the First Stop system is expected to go live during the summer of 2018 (June – August) as project team continued to refine the configuration and testing. During Q2 2018, the project team worked through the remaining configurations and testing of FirstStop modules for business registration, information, trademarks along with contractors (part of licensing). FirstStop now has estimated go live date for the week of October 15, 2018. The remaining modules including lobbyists (part of licensing) and notary are estimated to go live in production before the end of Q4 2018.

Due to underestimating the work effort and duration for FirstStop, the application did not go live during Q4 2018. Instead, the project team determined that the modules ready for production should be split from the rest of the application. At the same time, Tecuity requested payment for their work on the framework and modules ready for production. In order to provide payments to Tecuity, the ESC voted to split the project into two phases and amend the contract. The project contract was amended with an updated Scope of Work and compensation table with costs divided up between the phases. Phase 1 consisted of the modules for business registration, information, trademarks along with contractors (part of licensing) and Lobbyists. These modules went live in production on January 14, 2019 along with the FirstStop application framework for the SOS staff (back office) and the public (online portal).

Due unexpected support requirements for the live system, the SOS and Tecuity project team members were unable to focus their attention to Phase 2 planning in Q1 2019. As such, a corrective action plan was created during Q2 2019 for the FirstStop project and its phases in order to bring it back under control. The plan put Phase 1 in closeout (behind schedule and under budget), transferred funding for the remaining modules/functionality which were placed under a new Sub-Program of the File 2.0 Program. The remaining funding that was not allocated to the Sub-Program was returned to SOS. The remaining functionality will be divided into separate projects (notary, miscellaneous filings, service of process, data requests, apostilles-authentications and copy requests).

## **Background**

Since 2004, two separate projects attempted unsuccessfully to replace the Business Services system on the AS400, the Campaign Finance system, along with a replacement for the mainframe based Central Indexing System (CIS). During the fourth quarter of 2010, ITD created an estimate for replacing SOS's legacy systems. SOS received an allocation for the 2011-2013 biennium that was in line with the ITD estimate. Thus, a third project known as File 2.0 came into existence for having a new custom-built system replace the existing Business Services (Business Registration, Business Information, Licensing, and Notary) for staff and public users, the Central Indexing System, Campaign Finance, and additional processes such as Century Code updates, Oaths of Office and Combative Sports.

After an extended analysis and requirements phase, the execution phase began on May 4, 2012. From May 2012 through November 2014, the project team worked through design, development and testing for the first two phases. Due to the considerable amount of redesign and rework along with extra testing in the attempt to complete the first two phases, the project went over budget and behind in schedule. In January 2014, the File 2.0 Executive Steering Committee (ESC) decided to halt Information Technology Department's (ITD) work on the Campaign Finance phase, and instead implement a solution from BPro, Inc. to meet a North Dakota Century Code deadline of May 1, 2014.

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After three months of re-planning by the project team, the File 2.0 project was formally re-baselined on March 31, 2014. The new baseline consisted of two Business Services phases and the Campaign Finance phase. ITD provided SOS a temporary loan from the Bank of North Dakota to cover the additional costs for the ongoing efforts to complete Phases 1 and 2 (later repaid by SOS from a 2015-2017 appropriation).

In the second quarter of 2014, the ESC decided that given how much COTS solutions had matured since the start of the File 2.0 project, that one should replace the current mainframe-based CIS instead of having ITD build a CIS system. The ESC also decided to place all ITD's work related to the two Business Services phases on hold until further notice as it was determined that the limited funding and SOS resources available were needed for the CIS phase. Meeting the mandated deadline of August 1, 2015, for electronic filing was also in question at the time.

A separate procurement initiated in the fourth quarter of 2014 for Business Process Modeling (BPM) on SOS's Business Services system and other processes. After the completion of the BPM phase in third quarter of 2015, an additional procurement began for a COTS system, later known as FirstStop (FSBLS), to replace the AS400 Business Services system. The File 2.0 project began using the Iterative Project Report in Q3 2016 to provide quarterly reporting on the new FSBLS project to Large Project Oversight. The format allows FSBLS to report budget and schedule actuals, along with variance separately from the previous project or phases of File 2.0. The iterative reporting provides a more accurate status and variance for FSBLS, while still maintaining the history of the overall File 2.0 project.

## BUSINESS NEEDS AND PROBLEMS

North Dakota's Secretary of State (SOS) seeks to acquire and implement software systems to replace the mainframe Central Indexing System and the business services system on the AS400, which is for business registration, business information, licensing, notary, and administration processes.

## PROJECT FORMAT

**Project Start Date:** 03/22/2017 for FSBLS

**Budget Allocation at Time of Initial Start Date:** \$3,050,000

**How Many Phases Expected at Time of Initial Start Date:** One

**Phased Approach Description:** FSBLS is the final project for File 2.0. The project description-background section of this report contains information on the previous File 2.0 phases and projects.

**Estimated End Date for All Phases Known at Time of Initial Start Date:** Expectations are that FSBLS will go-live on 05/04/2018 and a final closeout date of 09/14/2018.

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## PROJECT ROAD MAP

The project road map shows the high-level plan or vision for the project’s phases. It also offers a picture of the lifespan for all the effort needed for achieving the business objectives.

Project or Phase	Title	Scope Statement	Estimated Duration (months)	Estimated Budget
Phases 1-5	Custom Build (ITD)	CANCELED: The scope is to analyze the business needs of the SOS, e.g., operations supporting central indexing, accounting, licensing, business registration, campaign finance, public documents, combative sports, and all other areas of the SOS office except for election administration. Implement software systems to replace the mainframe Central Indexing System, the AS400 for accounting and business services, and the WebSphere program for campaign finance.	30 Months	\$3,468,428
CF Phase	Campaign Finance (BPro)	COMPLETED: BPro will implement an online solution for campaign finance reporting as required by state law.	3 Months	\$56,000
BPM Project	Business Process Modeling (Major Oak)	COMPLETED: Review, analyze, and document the businesses of SOS except for election administration, campaign finance, and Central Indexing using standard methodologies and tools for business process modeling, analysis, and research and business strategy. Major Oak will direct, facilitate, develop and document business process models of SOS, as well as document core business requirements for a future system, and analyze requirements and other information to provide strategic recommendations regarding a build vs. buy decision point.	4 Months	\$400,000
CIS Phase	Central Indexing System (PCC)	COMPLETED: The scope of the CIS phase is to analyze the business needs of the SOS, e.g., operations supporting central indexing and implement the Cenuity solution from PCC to replace the mainframe Central Indexing System. The new system will be a web-based/ browser neutral application that will enable the banking and lending communities to conduct their Central Indexing related work such as (but not limited to) filing and amending liens and conducting searches. Additionally, PCC will provide training to the SOS staff on the new operating system processes.	10 Months*	\$870,733

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Project or Phase	Title	Scope Statement	Estimated Duration (months)	Estimated Budget
FSBLS Project	FirstStop (Business and Licensing System) (Tecuity)	COMPLETED: Phase One of the FirstStop Project delivered detailed requirements, configuration, data conversion-migration, testing, training, and deployment for the replacement of the legacy business registration, business information, licensing, notary and administration/accounting legacy applications.	23 Months	\$3,050,000
FirstStop Sub-Program	FirstStop – Remaining Functionality	In Planning and Execution: FirstStop SubProgram Enhancement AR Project (CR #8)	1 Month	\$31,051
		FirstStop SubProgram Data Requests (Lists) Project	1.5 Months	\$19,527
		FirstStop SubProgram Miscellaneous Filings Project	TBD	\$34,328
		FirstStop SubProgram Notary/ Apostilles- Authentications Project	4 Months	\$98,231
		FirstStop SubProgram Service of Process Project	TBD	\$19,527
		FirstStop SubProgram Copy Requests Project	TBD	\$155,313

**Notes:** \* The Central Indexing System (CIS) had a seven-month execution phase schedule, when the phase was completed, CIS entered a ninety-day certification period and once that was complete, the system went live in production on March 1, 2016.

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## PROJECT BASELINES

The baselines below are for only those projects or phases that are out of planning. At the completion of a project or phase, a new planning effort will occur to baseline the next project/phase along with the recording of any known actual finish dates and costs for completed projects/phases. The project team will continue to submit the iterative project report with the new information until the completion of the File 2.0.

Project- Phase	Status	Baseline Start Date	Baseline End Date	Baseline Budget	Actual Finish Date	Schedule Variance	Actual Cost	Cost Variance
Phases 1-5	Canceled	05/04/2012	10/03/2014	\$3,468,428	11/06/2014	3% Behind Schedule	\$4,001,232	15% Over Budget
CF	Completed	02/01/2014	05/01/2014	\$56,000	05/01/2014	On Schedule	\$60,665	8% Over Budget
BPM	Completed	05/06/2015	09/04/2015	\$400,000	09/04/2015	On Schedule	\$400,000	On Budget
CIS	Completed	02/03/2015	11/11/2015	\$870,733	12/01/2015	8.7% Behind Schedule	\$888,390	2% Over Budget
FS Phase 1	Completed	03/22/2017	09/14/2018	\$3,050,000	01/14/2019	13.4% Behind Schedule	\$1,121,742	26% Under Budget
<b>FS Sub-Program</b>								
FS Enhancement AR	Completed	08/26/2019	09/23/2019	\$31,051	09/23/2019	On Schedule	\$30,933	5% Under Budget
FS Data Requests (Lists)	Completed	10/03/2019	11/18/2019	\$19,527	11/13/2019	3% Ahead of Schedule	\$15,912	6% Under Budget
FS Miscellaneous Filings	Initiation			\$34,328				
FS Notary/ Apostilles- Authentications	Execution	12/16/2019	04/17/2020	\$98,231	TBD	On Schedule	TBD	On Budget
FS Service of Process	Initiation			\$19,527				
FS Copy Requests	Initiation			\$155,313				

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## OBJECTIVES

Phase	Business Objective	Measurement Description	Met/ Not Met	Measurement Outcome
Phases 1-5	Replace all SOS systems (excluding ND Voices)	100% of the SOS business units' systems are replaced with the ITD custom built system, and the AS400 and Mainframe based systems are retired	Not Met	Phases 1-5 were paused on 11/06/14 and subsequently canceled on 09/14/2015 by the File 2.0 ESC
CF Phase	Online Campaign Finance Reporting	Campaign finance reporting is 100% online by 05/01/2014	Met	System went live before the mandated (NDCC) deadline
BPM Project	Process modeling (current/future state) and future systems strategy with recommendation deliverables (seven total)	SOS/ESC acceptance of all seven deliverables for BPM including final report/recommendation	Met	Vendor delivered all seven deliverables including final report/recommendation
CIS Phase	Replace mainframe Central Indexing System with online COTS solution for all CIS filings	All CIS filings are completed 100% online with minimal assistance from SOS staff after system go live	Met	All CIS filings are now filed online using the new system
FS Project (Phase 1)	Replace legacy Business Services (Business Registration, Business Information, Licensing and Notary) system and administrative processes	All Phase 1 FirstStop deliverables completed as per acceptance criteria and acceptance process as described in the amended Contract and Scope of Work	Met	Implemented Business Registration, Business Information, Licensing for Contractors and Lobbyists
FS Sub-Program	Replace legacy services for Notary, Data Requests, Misc. Filings, Apostilles- Authentications, Service	All Phase 2 FirstStop deliverables completed as per acceptance criteria and acceptance process as described in the amended Contract and Scope of Work		

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## POST-IMPLEMENTATION REPORT

Post-Implementation Reports occur after each project or phase is completed. A “PIR” is a process that utilizes surveys and meetings to determine what happened in the project/phase. The PIR also identifies actions for improvements going forward. Typical PIR findings include, “What did we do well?” “What did we learn?” “What should we do differently next time?”

Phase	Lesson learned, success story, idea for next time, etc.
Phases 1-5	<p>Success Stories:</p> <ol style="list-style-type: none"> <li>1. Co-location of development team with the agency.</li> <li>2. Closer interaction between the team led to quicker decisions and answers to questions.</li> <li>3. White boarding during Phase 2A worked well.</li> <li>4. Continued to adjust/adapt to changes during the project, as flexibility is important with a large project.</li> </ol> <p>Lessons Learned:</p> <ol style="list-style-type: none"> <li>1. Need to the research/requirements or Business Process Modeling (BPM) first - request that funding in one session - once that is complete, then request separate funding in the next session for the project that may come out of the BPM.</li> <li>2. Difficult to do a large project over a long period.</li> <li>3. For a project this large- a custom build should probably be the last option selected for a system this complex.</li> <li>4. Need to have one Technical Lead or “Tech Lead” assigned to the project team- not a BA type or a ITD Team Leader, but someone who is just as technical as the developers- they would decide who works on which area, ensures that unit testing is happening properly. They would be involved with the project as soon as the Requirements gathering is completed and Analysis is underway.</li> <li>5. Involve ITD QA team at the beginning of the project during the Analysis phase – test planning typically starts then – they usually work closely with the BA types at this point and with the Agency to understand their business processes.</li> <li>6. Use Cases should be created during the Requirements/Analysis Phase, especially since this system requires user interaction for both the back office and public facing portions.</li> <li>7. Consider using/hiring actual technical designers/architects for the technical Design phases instead of using BA types. Design needs to include not only the User Interface, but also the database as well.</li> </ol>
CF Phase	<p>Success Stories:</p> <ol style="list-style-type: none"> <li>1. Deployment steps went well; the ITD Database Administrator was very helpful.</li> <li>2. The application was implemented on schedule as required by ND state law.</li> </ol> <p>Lessons Learned:</p> <ol style="list-style-type: none"> <li>3. The weekly status meetings held by the ITD Project Manager for SOS, BPro and ITD should have been replicated earlier in the phase as weekly meetings between BPro and SOS to review design and develop as it would have led to less “all-nighters” at the end of the phase.</li> <li>4. Timeframe was very tight for the phase.</li> <li>5. SOS always thinks in A-Z flow, whereas sometimes “N” then “C” need to be designed/developed first – for example, the Home Page was the first component, but it really needed the other components such as Registration to work properly.</li> </ol>



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	<ol style="list-style-type: none"> <li>For LDAP it was difficult to be connected to the right resources at ITD, wasn't clear that it was a web service.</li> </ol>
BPM Project	<p>Success Stories:</p> <ol style="list-style-type: none"> <li>The office was able to implement some "quick wins" that were identified that helped our office run more efficiently.</li> <li>The organization has been able to reduce its backlog through the implementation of a backlog mini-project suggested by the vendor.</li> <li>The immediate opportunities resulted in enhanced productivity and diminished backlog! This was not anticipated when the project was initiated.</li> <li>It provided the SOS office and the Executive Steering with a "fresh" look from the outside and provided clear direction going forward. The citizens will benefit greatly.</li> <li>The BPM process is a valuable tool to evaluate office needs as a whole and to evaluate the needs of our office for a new computer system going forward. The analysis and data provided for our "future state" will assist greatly in the steps going forward.</li> <li>It was a worthwhile project and very cost effective.</li> </ol> <p>Lessons Learned:</p> <ol style="list-style-type: none"> <li>The project was very successful. If I had to have one lesson learned it would be to make sure the vendor has a clear understanding of how much detail is needed in the BPM process and that the vendor knows why each of the deliverables are necessary.</li> </ol>
CIS Phase	<p>Success Stories:</p> <ol style="list-style-type: none"> <li>The product successfully allows all central indexing filings to be completed electronically.</li> </ol> <p>Lessons Learned:</p> <ol style="list-style-type: none"> <li>Clearly define roles of project managers.</li> <li>Implement a solid communication plan.</li> <li>Have clearly defined deliverables.</li> <li>Have a clearly defined issue process - when to escalate issues and to whom.</li> <li>Have clearly defined post implementation issue resolution process.</li> <li>Have a better tracking mechanism for problem logs and issues.</li> <li>Our vendor's project manager did not seem to understand his role and was not active in ensuring issues were addressed. Even today, he is very distant when we are dealing with issues.</li> </ol>
FS Project Phase 1	<p>Success Stories:</p> <ol style="list-style-type: none"> <li>FirstStop launched in Q1 2019 with most of the major functionality in place</li> <li>Wizards allow SOS staff to create online filings for public users instead of relying on developers</li> <li>Tecuity team quick to respond to questions and concerns of SOS</li> <li>Decision to divide up project allowed for go live to happen sooner than later</li> </ol> <p>Lessons Learned:</p> <ol style="list-style-type: none"> <li>ND Login not clearly understood – leading to major issues with public users</li> <li>PINs a challenge for users</li> <li>Staff not prepared for large volume of phone calls, emails, voice mails</li> <li>A lot of production support required from project team</li> <li>Due to issues with ND Login, might have opted to use the Tecuity login/account functionality already part of the system</li> <li>Need to have detailed requirements</li> <li>Should have gone with modules and phases 1, 2 and 3 for scheduling</li> <li>Underestimated complexity of ND SOS requirements</li> </ol>
FS Sub-Program	<p>Success Stories:</p> <ol style="list-style-type: none"> <li>First project (Enhancement AR) went live as scheduled</li> <li>Required less PM time (under budget)</li> <li>Use of sprints/iterations helped keep project on track</li> </ol>

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	<ol style="list-style-type: none"><li>4. Better planning</li><li>5. Concentrated a short period of time on a piece of functionality</li><li>6. Improved experienced for public users</li><li>7. Second project (FS Data Lists Requests) went live early and under budget.</li><li>8. Combination of Notary and Apostilles-Authentications projects will optimize resources, functionality and time.</li></ol>
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## COST BENEFIT ANALYSIS

- Improved and more efficient business processes
  - Reduced paper document handling and improved quality of data indexing
  - Front-end scanning business processes and validation
  - Performance measurement tools
  - Ad hoc reporting capabilities
  - Online services
  - Improved/increased imaging and indexing
  - Improved data quality resulting from decreased manual entry
  - Utilization of progress dashboard enabling supervisors to track workflow progress
- Technology benefits
  - Retirement of unsupported AS400 (for SOS Business & Licensing System)
  - Retirement of mainframe system (for SOS Central Indexing System)
  - Regular software updates of system including new business functionality and technological enhancements

## KEY CONSTRAINTS AND/OR RISKS

The project has the following constraints:

- Limited SOS Resources constrained due to daily workloads and Legislative Sessions (all phases)
- The appropriated costs of the project will remain within \$3.5 million (Phases 1-5)
- ITD Resources and contractors (Phases 1-5)
- SOS has limited funding available (all phases)
- The deadline to implement the CIS replacement was August 1, 2015 per North Dakota Century Code
  - The deadline was changed to August 1, 2016 during the last legislative session (01/05/2015)
- Some of the Subject Matter Experts may not be available during the entire project due to retirements and leaves of absences that are expected to occur during the phase's time frame (Phases 1-5, BLS Phase, CIS Phase, CF Phase)