

# Iterative Project Report For Programs & Multi-Year Phased Projects

Submitted to Large Project Oversight on 12/23/2020

## GENERAL INFORMATION

**Program Name:** Motor Vehicle (MV) and Drivers License (DL) Program

**Agency Name:** North Dakota Transportation

**Project Sponsor:** Brad Schaffer

**Project Manager:** Leila Thompson

## PROGRAM DESCRIPTION

During the 2019 Legislative Session North Dakota Department of Transportation (NDDOT) received the funding for a STARS Service Pack Upgrade along with a new DL system which will be called the MV and DL Program. The MV and DL Program frames and drives efforts to succeed in establishing a universal service delivery platform. The program's mission is to achieve and maintain modernized sustainable systems, improve business processes, and offer various opportunities for citizens to consume DL and MV services. The program is comprised of several different projects, which may run simultaneously, or be executed sequentially.

During the June 2020 Emergency Commission meeting NDDOT received CARES Act funding for four projects, of which two were moved under the MV and DL program.

MV and DL program projects are as follows:

- Drivers License Business Process Improvement (DLBPM) Project (Completed March 30, 2020)
- Drivers License and Motor Vehicle Mobile Application Project (DLMVMA)(CARES Act funded. In progress and scheduled to complete December 30, 2020)
- Motor Vehicle Upgrade Phase 1 (MVU1) Project (CARES Act funded. In progress and scheduled to complete December 30, 2020)
- Motor Vehicle Upgrade Phase 2 (MVU2) Project (In progress and scheduled to complete November 23, 2022)
- Driver License System Replacement (DLSR) Project (In progress and scheduled to complete November 23, 2022)

The MVU2 and DLSR were combined to create the LEGEND project.

## BUSINESS NEEDS AND PROBLEMS

DLBPM:

1. NDDOT wants to improve the processing time of the Driver License services and deliverables
  - a. Newer technology would provide for additional growth and enhancements
  - b. The general public will have the assurance that their records are correct and secure
2. NDDOT wants to implement the Service Pack Upgrade to the current Motor Vehicle STARS system in the development environment

DLMVMA:

1. NDDOT wants to expand the DL and MV online and kiosk services to a mobile application platform.

MVU1:

1. NDDOT wants to implement the Service Pack Upgrade to the current Motor Vehicle STARS system in the development environment
  - a. Implementing the upgrade in the development environment is the first step in the upgrade process
  - b. The current version does not allow some processes to be implemented without a service pack

MVU2:

1. NDDOT wants to improve the workflow and implement upgrades to the current MV
  - a. The Service Pack Upgrade will bring the STARS system up to date with the latest updates and better workflow in the system

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- b. The current version does not allow some processes to be implemented without a service pack

DLSR:

1. NDDOT wants to have Driver License systems built on modern technology
  - a. The DL system is built on a Mainframe platform, which is considered out-of-date technology, and developers are hard to find, resulting in few options for support
  - b. The Mainframe is going away and there are very few agencies still using it
  - c. The current Driver License system has an interface to Motor Vehicle, and it would be beneficial to have both systems on the same platform and database to create a connection

## PROGRAM/PROJECT FORMAT

**Program Start Date:** August 1, 2019

**Budget Allocation at Time of Initial Start Date:** \$22.5 million. Additional allocation: June 2020, NDDOT received \$8,300,000 in CARES Act funding for the DLMVMA and MVU1 & 2 projects.

**How Many Projects Expected at Time of Initial Start Date:** Four: DLBPM, DLMVMA, MVU1, and MVU2 and DLSR

**Project Approach Description:** A combination of sequentially and concurrently. The DLBPM project will be initiated first, follow by concurrent execution of DLMVMA and MVU1 through December 30, 2020, and DLSR and MVU2 executed together as the Licensing Enterprise Gateway Endpoint for North Dakota (LEGEND) project through November 23, 2022.

**Estimated End Date for All Phases Known at Time of Initial Start Date:** DLBPM ended 3/30/2020, DLMVMA end date is 12/30/2020, MVU1 end date is 12/30/2020, LEGEND: DLSR and MVU2 end date is 11/23/2022

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## PROGRAM/PROJECT ROAD MAP

The program road map shows the high-level plan or vision for the program/projects/phases. It is intended to offer a picture of the lifespan of all the effort that is expected to be required to achieve the business objectives.

| Project/ Phase Title  | Scope Statement   | Estimated Months Duration | Estimated Budget |
|-----------------------|---|---------------------------|------------------|
| DLBPM                 | Business analysis of current business processes, desired future state, and requirements for the procurement.  | 6 months                  | \$240,000        |
| DLMVMA                | NDDOT mobile app is intended to offer customers another channel to consume DMV unified services by offering seamless and familiar user experiences. The mobile app will improve the customers' ability to quickly access DMV content, services, and reduce the need to visit a physical DMV office. | 6 months                  | \$487,300        |
| MVU 1                 | This project will deliver phase 1 of an upgraded Motor Vehicle system based on the current version of the core FAST product, V12. The project will deliver the installation of the base configuration in the development environment be completed by December 2020.                                 | 6 months                  | \$6,115,000      |
| LEGEND                | This project will deliver a new DL system built on a current, sustainable technology platform and an upgraded MV system based on the current version of the core FAST product, V12 in the production environment.   | 23 months                 | \$20,533,432     |
| Program total budget: |   |                           | \$27,275,732.00  |

## PROJECT BASELINES

The baselines below are entered for only those projects or phases that have been planned. At the completion of a project or phase a new planning effort will occur to baseline the next project/phase and any known actual finish dates and costs for completed projects/phases will be recorded. The iterative report will be submitted again with the new information.

| Project/ Phase | Program/ Project Start Date | Baseline Execution Start Date | Baseline End Date | Baseline Budget | Actual Finish Date | Schedule Variance | Actual Cost    | Cost Variance |
|----------------|-----------------------------|-------------------------------|-------------------|-----------------|--------------------|-------------------|----------------|---------------|
| DLBPM          | 10/16/2020                  | 01/27/2020                    | 03/27/2020        | \$240,000       | 03/30/2020         | 0                 | \$216,349.50   | 0.01          |
| DLMVMA         | 06/19/2020                  | 10/21/2020                    | 12/30/2020        | \$248,449       | 12/23/2020         | -0.02             | \$384,935.73   | 0.21          |
| MVU1           | 06/19/2020                  | 10/21/2020                    | 12/30/2020        | \$3,115,000     | 12/23/2020         | -0.02             | \$6,042,873.00 | 0.01          |
| LEGEND         | 3/2/2020                    | 11/30/2020                    | 11/23/2022        | 20,533,432      | TBD                | TBD               | TBD            | TBD           |

## OBJECTIVES

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| Project/Phase | Business Objective  | Measurement Description  | Met/ Not Met                                      | Measurement Outcome  |
|---------------|---|--|---|--|
| DLBPM         | 1. Reduce training time for new system users by 60 hours. Currently, a new system user goes through 160 hours of system training.   | 1. Within 6 months of system implementation, the system trainers will be surveyed to determine how many hours of system training is required for new system users.   | Partially Met                                     | From the business process prospective, the delivery of the current state business process model provided an immediate reduction in hours required to train new staff. Once the new DL system is implemented, including integration of the future state business process models, the DL program will achieve a greater reduction in hours required to train new DL staff. |
|               | 2. The new DL system will require streamlining work processes and allow for stopping and starting work at any point in the process.   | 2. After User acceptance testing, testers will be surveyed to determine whether their work process has been improved and their processing time has been reduced.   | Partially Met                                     | Several "quick win" process improvements were implemented that streamlined work processes, resulting in a savings of approximately 12 efficiency hours per week.   |
|               | 3. Simplify some process time of certain tasks and how the system flows.  | 3. Within 6 months of system implementation, MV users will be surveyed to determine if the new process is saving time.   | Not Met   | This project set the foundation for achieving this business objective with the implementation of the new DL system.  |
| DLMVMA        | <p>1. It's critical that the NDDOT remain agile to meet customers' demand for more convenience and accessible DMV services.</p> <p>2. Provide accessibility across iOS and Android devices.</p> <p>3. Provide diversion of human-contact services at unified DMV offices.</p> | <p>1. After implementation, staff and customers will be able to access services offered online through the mobile app platform.</p> <p>2. Within 6 months of system implementation MV and DL customers will be surveyed to determine if the new mobile app is more convenient.</p> <p>3. Within 6 months of system implementation, DMV staff will be surveyed to determine if there is decrease in the number of ND citizens visiting DMV offices.</p> | <p>1. Met</p> <p>2. Not Met</p> <p>3. Not Met</p> | <p>1. The mobile application is available for download from the Google and Apple app stores.</p> <p>2. The outcome of this objective will be determined 6 months after implementation in the production environment.</p> <p>3. The outcome of this objective will be determined 6 months after implementation in the production environment.</p>                         |
| MVU1          | 1. To upgrade the MV system by December 16, 2020 in the development environment with the Base Configuration.  | 1. The MV upgrade will be at least 50% completed at the start of phase 2.  | 1. Met  | 1. The update to the MV system is at least 50% completed.  |

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|--------|---|--|--|--|
| LEGEND | 1. Procure a driver license system built on a current, sustainable technology platform.   | 1. During the procurement phase of the project, NDIT architects will be invited to review the technical solution. They will be asked to consider features such as: database structure, support options, compliance with State standards, system architecture, scalability, etc. When surveyed, the architects will identify the proposed solution as a sustainable technology platform. The system will also be positioned for future needs such as a single identity integration. |  |  |
|        | 2. The system will be user intuitive, which will decrease errors, and have audit tracking to assist in determining any functional issues. NDDOT will spend 80% less time troubleshooting system issues. | 2. Within 6 months of system implementation, WMS reports will be evaluated to determine time spent on resolving issues and errors prior to system implementation and post implementation.  |  |  |
|        | 3. The system will include advanced ad hoc reporting capability with minimal skillset required to generate reports.   | 3. Within 2 months of system implementation, users will be able to generate needed reports to retrieve information without IT support.   |  |  |
|        | 4. User manuals and troubleshooting hints will be built into the system processing workflow.  | 4. After User acceptance testing, testers will be surveyed to determine how well the system help answered their questions as they were processing test scripts.  |  |  |
|        | 5. The new system will be easy to maintain and support.   | 5. Within 4 months of system implementation, IT support staff will be surveyed to determine their comfort level with implementing enhancements and or changes.   |  |  |
|        | 6. NDDOT wants to eliminate monthly downtime due to mainframe upgrades that last from 4-8 hours.  | 6. Allow customers to have real-time interfaces through webservices.   |  |  |

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|  |   |  |  |  |
|--|---|--|--|--|
|  | 7. Simplify some process time of certain MV tasks and how the system flows. | 7. Within 6 months of system implementation, MV users will be surveyed to determine if the new process is saving time. |  |  |
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## POST-IMPLEMENTATION REPORT

Post-Implementation Reports are to be performed 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 and identifies actions for improvement going forward. Typical PIR findings include, “What did we do well?” “What did we learn?” “What should we do differently next time?”

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| Project/<br>Phase | Lesson Learned, Success Story, Idea for Next Time, Etc.   |
|-------------------|---|
| BPM               | <p><b>Lessons Learned:</b></p> <ol style="list-style-type: none"><li>1. Identify all SME's up-front and have more smaller working sessions for business process modeling activities</li><li>2. Caution should be taken when project phases are in motion concurrently, to facilitate setting all stakeholder expectations earlier on</li><li>3. Schedule meetings at times that work well for teams to mitigate taking an overabundance of time</li><li>4. Maintain communication across project teams to ensure flexible in scheduling when conflicts arise</li><li>5. It is important to have buy-in across the team during the project and continuing forward</li><li>6. Ensure all impacted stakeholders participate in working sessions to provide feedback and develop the best future state</li><li>7. Implementing interim review of deliverables prior to final submittal reduced</li><li>8. Having documented and defined processes is a win for on-boarding of new employees and knowledge transfer/transition</li><li>9. Look for quick wins that can be implement with not cost and minimal time and that results in efficiency and/or direct cost savings</li><li>10. Ensure new stakeholders are brought up to date on the project to set expectations</li></ol> <p><b>What went well:</b></p> <ol style="list-style-type: none"><li>1. Great engagement level from the business units</li><li>2. The value in getting all impacted parties on processes in the same room to create clarity on current processes but also be able to develop the best future states</li><li>3. Great collaboration and working relationship across teams through the project</li><li>4. Team is continuing to bring up new ideas for improvement</li><li>5. Team felt comfortable in meetings so that they felt they could speak up with ideas and new ways of doing things</li><li>6. Good open discussions across the team</li><li>7. Implemented/utilized NDVIEW on a new project without too much difficulty</li></ol> <p><b>Challenges:</b></p> <ol style="list-style-type: none"><li>1. Membership of the ESC was very fluid throughout the project</li></ol> <p><b>Major Accomplishments:</b></p> <ol style="list-style-type: none"><li>1. Documented over 120 processes with current state maps</li><li>2. Laid out an achievable future state that creates efficiencies internally and improves the overall customer experience</li><li>3. Discussions brought forward opportunities that were not known by the entire team prior to the discussion</li><li>4. Implementation of quick wins to get immediate benefits<ul style="list-style-type: none"><li>o 10-12 quick wins already implemented</li></ul></li><li>5. Ability of DOT team to provide interim review/feedback before final reviews</li><li>6. Buy-in across the team during the project and continuing forward</li><li>7. Proved out benefit of process improvement projects and paved path for future projects</li><li>8. Improved understanding amongst the different Drivers License divisions</li></ol> |



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| Project/<br>Phase | Lesson Learned, Success Story, Idea for Next Time, Etc.  |
|-------------------|--|
| DLMVMA            | <p><b>Lessons Learned:</b></p> <ul style="list-style-type: none"><li>• Ensure communication flows in accordance with project organization and governance structure.</li><li>• Making sure everyone is involved in demos to executive management.</li><li>• One of my lessons learned was to cover all areas in the planning phase. We tried to reach out to different areas and cover everything, but security for instance was not as involved as they maybe should have been, and I know in future projects this will be in the back of my mind. I do think this was caused just due to the very tight schedule.</li><li>• Ensure external dependencies are aware of testing being performed, if possible.</li><li>• Flexible schedules between State and Prominent project participants at all touchpoints.</li><li>• Great collaboration and working relationships across teams mitigated the initially identified project risks.</li></ul> <p><b>What didn't go well:</b></p> <ul style="list-style-type: none"><li>• Prominent team was delayed in gaining access to the State's test environment.</li><li>• The State's Security team was There were only a couple of events that occurred that were not identified prior and those were due to the tight schedule of this whole project and they were handled excellent when they come up.</li><li>• Testing of one feature was briefly delayed due to failed change address validation service.</li><li>• Although, the State responded promptly, Prominent would have preferred the ability to reset test data to mitigate minor delays in testing.</li></ul> <p><b>What went well:</b></p> <ul style="list-style-type: none"><li>• This project was a great success considering the amount of work and the timelines it has been delivered perfectly.</li><li>• The team did a great job delivering a successful project under tight timelines.</li><li>• This project was a great success considering the amount of work and the timelines it has been delivered perfectly.</li><li>• Excellent communication</li><li>• Fast email responses</li></ul> <p><b>Success stories:</b></p> <ul style="list-style-type: none"><li>• The app stores' approval of the mobile application was much quick than expected.</li><li>• The teams did a great job delivering a successful project under tight timelines.</li><li>• All parties involved were excellent to work with.</li><li>• Mobile app performs as expected.</li><li>• ND DOT better positioned to meet customers' demand for more convenience and accessible DMV services, as well as provide accessibility across iOS and Android devices and diversion of human-contact services at unified DMV offices.</li><li>• I honestly believe the overall project is one big success story and I cannot say enough about Leila and how she kept on top of everything. I will be honest coming into this and how the project started off I was pretty nervous about delivering, but Leila kept everything on track and anything myself or team asked for she took care of and quickly.</li></ul> |

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| Project/<br>Phase | Lesson Learned, Success Story, Idea for Next Time, Etc.   |
|-------------------|---|
| MVU1              | <p><b>Lessons Learned:</b></p> <ol style="list-style-type: none"> <li>1. Ensure to involve infrastructure and hardware teams early to ensure the timeliest delivery of hardware. Be prepared to deliver to those teams' hardware requirements to minimize delays having to gather additional information.</li> <li>2. Be sure to communicate with the production support business folks' clear expectations of scope and timeliness of production changes during the project.</li> <li>3. Basic methodology used, was brought in after project started but was easily brought into the loop.</li> <li>4. Early stakeholder support and engagement contributed to the project's success.</li> <li>5. Early review and demos of the deliverables decreased review and acceptance timeframe</li> </ol> <p><b>What went wrong:</b></p> <ol style="list-style-type: none"> <li>1. None</li> </ol> <p><b>What Went Right:</b></p> <ol style="list-style-type: none"> <li>1. Thought this project went very well.</li> <li>2. Overall, everyone did a nice job.</li> <li>3. This project was very well run and executed.</li> <li>4. If you read the SOW, you can go line by line on each of the deliverables and check off that it has been completed.</li> <li>5. The development environment has been up and stable for a few weeks now and developers are able to do development without worry of encountering needless errors.</li> <li>6. While there's still plenty to do, there has been good progress made given the limited timeframe.</li> <li>7. This project has gone very smooth and successful.</li> </ol> <p><b>Success Stories:</b></p> <ol style="list-style-type: none"> <li>1. Under tight timelines, we were able to deliver the first phase of the project successfully.</li> <li>2. Completion of the deliverables in Phase 1 positions the agency well for continued development into Phase 2 and Driver License.</li> <li>3. Completing these preparation items early allows the team to jump right into the coming projects.</li> <li>4. The base configuration demos went extremely well, and there definitely seemed to be excitement from DOT staff about what is to come.</li> <li>5. Communication is timely and relevant allowing stakeholders to remain engaged and involved.</li> <li>6. Prompt responses from both teams and flexibility in schedules resulted in the project being a head of schedule.</li> <li>7. The project was managed, executed and monitored very well.</li> </ol> |
| LEGEND            |   |

## COST BENEFIT ANALYSIS

## KEY CONSTRAINTS AND/OR RISKS

|       |   |
|-------|---|
| DLBPM | <p>Cost, schedule, scope, and quality are often in conflict during projects. The sponsor elected to prioritize as follows:</p> <ol style="list-style-type: none"> <li>1. Quality</li> <li>2. Cost</li> <li>3. Schedule</li> <li>4. Scope</li> </ol> |
|-------|---|

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|        |  |
|--------|--|
| DLMVMA | <ul style="list-style-type: none"><li>• The budget is constrained to the CARES Act Funding.</li><li>• Deliverables must be completed and invoiced by December 16, 2020.</li><li>• All invoices must be paid by December 30, 2020.</li><li>• Cost, schedule, scope, and quality are often in conflict during projects. The sponsor elected to prioritize as follows:<ol style="list-style-type: none"><li>1. Quality</li><li>2. Schedule</li><li>3. Scope</li><li>4. Cost</li></ol></li></ul> |
| MVU    | <ul style="list-style-type: none"><li>• The budget is constrained to the CARES Act Funding.</li><li>• Deliverables must be completed and invoiced by December 16, 2020.</li><li>• All invoices must be paid by December 30, 2020.</li><li>• Cost, schedule, scope, and quality are often in conflict during projects. The sponsor elected to prioritize as follows:<ol style="list-style-type: none"><li>1. Quality</li><li>2. Schedule</li><li>3. Scope</li><li>4. Cost</li></ol></li></ul> |
| LEGEND | <p>Cost, schedule, scope, and quality are often in conflict during projects. The sponsor elected to prioritize as follows:</p> <ol style="list-style-type: none"><li>1. Schedule</li><li>2. Cost</li><li>3. Scope</li><li>4. Quality</li></ol>   |