

A photograph of the Minnesota State Capitol building, featuring its iconic dome and classical architecture, set against a clear blue sky. The building is partially obscured by a large blue diagonal overlay that covers the lower half of the page.

Minnesota Vehicle Title and Registration System

March 2020 Quarterly Review

March 2020

Financial Audit Division

OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA

Financial Audit Division

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STATE OF MINNESOTA • James Nobles, Legislative Auditor

March 2020

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This report represents the results of the Office of the Legislative Auditor's quarterly review of the Vehicle Title and Registration System (VTRS) project through February 24, 2020. Our last project report was issued on December 10, 2019. The objectives of this review were to actively monitor and report on VTRS in accordance with *Laws of Minnesota* 2019, First Special Session, chapter 3, art. 2, sec. 32. The law requires our office to review the VTRS project implementation, stakeholder engagement, and decommissioning of the legacy motor vehicle systems. For each of these areas, the law requires our office to identify any concerns or risks that could jeopardize the project.

This review was conducted by Mark Mathison (IT Audit Director) and Joe Sass (IT Audit Coordinator).

We received the full cooperation of the Department of Public Safety and Minnesota IT Services staff while performing this quarterly review.

Sincerely,

Mark Mathison
IT Audit Director

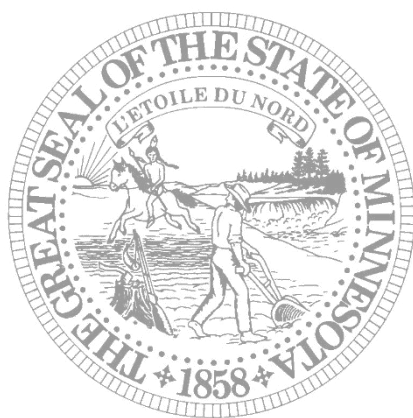
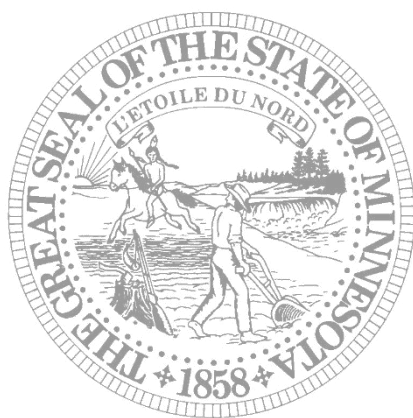


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Report Summary

The 2019 Legislature directed the Department of Public Safety (DPS) and Minnesota IT Services (MNIT) to replace Minnesota's Licensing and Registration System (MNLARS) with a vendor-produced software application, following the recommendations of the *Independent Expert Review of MNLARS*.¹ The law outlined an aggressive project timeline for the new Vehicle Title and Registration System (VTRS), with an initial launch by the end of calendar year 2020. The law also required full implementation of VTRS and a complete decommissioning of MNLARS and the legacy motor vehicle systems by the fall of 2021.

The Legislature identified DPS as the owner of VTRS and made the agency responsible for the final decisions on functionality. MNIT is the technical lead on the project and is responsible for the final decisions on the implementation of technology products, services, and staffing. DPS and MNIT awarded the VTRS contract to Fast Enterprises, LLC (FAST) on June 27, 2019, and signed a contract for both software and implementation services on August 7, 2019. FAST also supplied the state's driver licensing system, which went live on October 1, 2018. Upon completion of the VTRS implementation project, the state will have accomplished what was the original vision for MNLARS—a single, unified driver and vehicle system—now collectively known as Minnesota Drive or MNDRIVE.

The 2019 Legislature dissolved the MNLARS Steering Committee and created the Driver and Vehicle Systems Oversight Committee.² The new committee is responsible for overseeing the VTRS project and the decommissioning of MNLARS and the legacy motor vehicle systems. The law requires DPS and MNIT to provide quarterly updates to the oversight committee. The law also requires the Office of the Legislative Auditor (OLA) to provide quarterly reviews on project implementation, stakeholder engagement, and MNLARS decommissioning. For each of these areas, the law requires OLA to identify any concerns or risks that could jeopardize the project.

Complex computer system development projects are fraught with technical and nontechnical risks. As the project leaders, DPS and MNIT are responsible for continuously assessing risks and developing appropriate mitigation strategies. DPS and MNIT also are responsible for keeping the Driver and Vehicle Systems Oversight Committee apprised of both project status and risks. In these quarterly reviews, OLA intends to assist the oversight committee by reporting on risks that do not have mitigation strategies that are commensurate with the underlying risks.

OLA intends to carry forward and update risks from previous quarters, unless we believe the agencies have sufficiently minimized those risks. We will incorporate newly identified risks, so that each new quarterly report will represent the current condition.

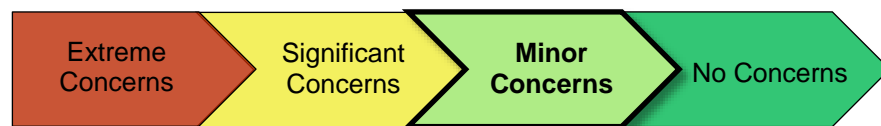
¹ *Laws of Minnesota* 2019, First Special Session, chapter 3, art. 2, sec. 35.

² *Laws of Minnesota* 2019, First Special Session, chapter 3, art. 2, sec. 34.

Conclusions

DPS, MNIT, and FAST continue to be on track to meet the VTRS project implementation deadlines in law. However, as discussed in this report, OLA remains concerned that new legislative requirements still have potential to put the project timeline in jeopardy. Additionally, while improved over last quarter, the decommissioning project lacks a detailed budget and plans for the decommissioning of components replaced by the second rollout of the VTRS project.

OLA has also identified a new risk pertaining to staffing resources that, if left unaddressed, could affect project deliverables.



Our review found four risks and/or concerns that currently do not have complete mitigation strategies:

RISK 1: New legislative requirements could impact the ability to complete the VTRS project on time and within the budget.

RISK 2: Moving data from MNLARS to VTRS could be challenging due to existing data integrity issues.

RISK 3: Limited staffing resources may place further strain on key project personnel.

RISK 4: MNIT's decommissioning plans lack timelines and tasks necessary to retire functionality and data relevant to the second rollout of VTRS. These plans also lack estimated costs for resources needed to complete the work.

March 2020 Quarterly Review

Project Status

The VTRS project continues to be on track to meet the planned implementation dates, within the defined project budget.

Project Plan

The FAST project plan defines major project deliverables and a basic timeline for each project phase. In accordance with the FAST contract, the successful completion of these phases are requirements for scheduled payments.

The project completed the *Definition* phase in early January 2020. In this phase, DPS and FAST worked to gain a clear understanding of the functional requirements and to define and document the business decisions and rules for VTRS. This work defined approximately 235 high-level system requirements and more than 20 external system interfaces that VTRS will use to communicate with external applications and data partners. Project work has moved forward to the *Base Configuration* and *Development* phases, in which system functionality will be implemented prior to user scenario testing and training.

Project risk management activities have also strengthened this quarter as DPS and MNIT contracted with a national accounting, auditing, and consulting firm to perform the statutorily required external risk assessment³ and independent verification and validation audit⁴ of the VTRS project. This work will provide additional insight into the project and assist the work of the OLA in identifying risks. The vendor submitted its first report to DPS and MNIT, which cites only minor concerns for the overall project.

Overall, the project appears on track to meet its two major milestones:

- **November 16, 2020 – VTRS Rollout I:** Serving as the MNLARS replacement, this rollout stage includes vehicle title and registration, dealer management, dealer electronic vehicle titling and registration, fleet management, vehicle permits, and imaging.
- **October 1, 2021 – VTRS Rollout II:** This rollout stage includes functionality for the International Fuel Tax Agreement (IFTA) and the International Registration Plan (IRP) for the trucking industry.

³ *Minnesota Statutes* 2019, 16E.04, subd. 3, requires MNIT to contract with an entity outside of state government to conduct the initial assessment and prepare the mitigation plan for a project estimated to cost more than \$5,000,000.

⁴ *Minnesota Statutes* 2019, 16E.01, subd. 4(e), requires an annual independent audit for active information and telecommunications technology projects with a total expected project cost of more than \$10,000,000.

Project Budget

The Legislature provided \$52,669,000 in a one-time appropriation for the development and implementation of VTRS.⁵ As of February 24, 2020, DPS had spent approximately \$9.8 million of the appropriation.

The most significant expenditure since our last quarterly report was a contractually obligated \$4.25 million payment to FAST for completing the *Definition* phase. MNIT has held 10 percent of this payment, per the contract, as retainage until the successful completion of VTRS Rollout I. Expenditures other than the FAST contractual obligations remain low, with DPS paying approximately \$987,000 to date for DPS, MNIT, and contracted staff, and only \$10,600 on technology and other miscellaneous expenses. We expect to see additional technology expenditures in the next quarter, as MNIT invoices DPS for project-related hardware, software, and infrastructure costs. While current forecasts continue to show the project to be under budget, detailed decommissioning costs still remain unknown. These decommissioning costs are expected to be minimal.

Given that current forecasts continue to show the project to be under budget, we are monitoring the risk of the agencies using funding for expenses that are not directly related to VTRS development and implementation activities. OLA will continue to review project expenditures to ensure that they are allowable and reasonable.

OLA identified three risks to meeting the current project timelines and budget. We discuss these items further in the *Risks and Concerns* section.

- RISK 1: New legislative requirements could impact the ability to complete the VTRS project on time and within the budget.
- RISK 2: Moving data from MNLARS to VTRS could be challenging due to existing data integrity issues.
- RISK 3: Limited staffing resources may place further strain on key project personnel.

⁵ *Laws of Minnesota* 2019, First Special Session, chapter 3, art. 1, sec. 4, subd. 4 (c).

Stakeholder Engagement

DPS continues to foster stakeholder input.

As planned, DPS added two additional subject matter experts (SME) to the project team in January. The new SME from a deputy registrar's office is working with the data conversion team to develop and validate the data conversion from MNLARS and the other legacy systems to VTRS. The SME from the Minnesota Automobile Dealers Association is an important resource as FAST and DPS build dealer-specific functionality. Each of the SMEs, now five in total, provide valuable insight and credibility to the project as they provide not only experience in the field, but also a trusted communication channel to the deputy registrars and auto dealers.

DPS and FAST continue to provide opportunities for stakeholder engagement, such as the *Regional Demo Days*, local *Explore* events, and *Test Drive* office visits. Additionally, DPS held a *Dealer Summit* as part of its planning for the dealer Electronic Vehicle Title and Registration function of VTRS and will be holding an *Explore* event for dealers in early March. The agency has also been reaching out to law enforcement and other stakeholders. DPS, however, does not have a fully developed schedule of upcoming engagement events. Having a more defined plan for when and where future sessions will occur could further strengthen the agency's outreach efforts.

In preparation for the first rollout of VTRS in November 2020, DPS anticipates changes to its Deputy Registrar Appointee Agreement. The agency has recently drafted an update to the agreement and has begun holding sessions to gather stakeholder feedback on the proposed changes introduced in the draft. The draft agreement includes language describing a requirement to use scanners to digitize vehicle transaction documents at the point of acceptance in order to improve the timeliness of the issuance process. The draft agreement also introduces a requirement for deputy registrars to purchase and utilize commercial quality laser printers capable of printing on specialized materials for temporary vehicle permits. OLA is monitoring stakeholder feedback to understand what impact new requirements may have on deputy registrars.

MNLARS and Legacy Systems Decommissioning

Plans to decommission MNLARS and legacy systems are not complete.

The Legislature directed DPS and MNIT to fully decommission MNLARS and the remaining legacy systems by the fall of 2021. Planning for decommissioning has continued since our December 2019 Quarterly Review, and more details have emerged for retiring MNLARS and the ESupport legacy applications. More specifically, MNIT intends to complete decommissioning of the legacy systems that will be replaced by VTRS Rollout I after approximately three months in a read-only state. Decommissioning of these legacy systems is expected to be completed by the end of March 2021.

While decommissioning timelines for the VTRS Rollout I components are now better understood, timelines and work effort associated with the VTRS Rollout II require further clarification. Decommissioning costs still remain unknown. We discuss these concerns in more detail in the *Risks and Concerns* section.

- RISK 4: MNIT's decommissioning plans lack timelines and tasks necessary to retire functionality and data relevant to the second rollout of VTRS. These plans also lack estimated costs for resources needed to complete the work.

Risks and Concerns

To conduct our review, OLA interviewed representatives from DPS, MNIT, FAST, and deputy registrars. We attended DPS stakeholder events and visited a deputy registrar location to observe transactions and the scanning process. We also reviewed project documents, including project risk logs and mitigation strategies. Finally, we discussed project risks with the vendor that was selected to perform the statutorily required external risk assessment. Based on this work, OLA identified four risk areas that collectively pose a minor risk to the VTRS project.

It is important to note that DPS and MNIT are actively managing many technical and nontechnical project risks. The four items discussed in this section are risks that we believe need a more thorough assessment and/or mitigation strategy.

RISK 1: New legislative requirements could impact the ability to complete the VTRS project on time and within the budget.

This risk is carried forward from our last quarterly report.

The 2019 Legislature added two requirements in law that could increase the complexity and risk of the VTRS project. First, the Legislature added a requirement to research alternate ways to determine motor vehicle registration fees.⁶ The Legislature also added a requirement to explore self-service licensing, title, and registration capabilities.⁷ Each of these new requirements could have significant technical ramifications on a project that is already underway and has an aggressive implementation timeline. Any changes would also require significant training for people who will interact with VTRS.

Beyond the legislative requirements, any additional changes put forth by the Legislature within the current session – such as fee changes, rule changes, new specialty plates, etc. – have the potential to impact the project’s timelines and budget.

Alternate Registration Methods and Fee Structures

The 2019 Legislature established a Vehicle Registration Task Force to study alternate registration methods and fee structures. The Vehicle Registration Task Force put forth a recommendation on February 24, 2020, aiming to simplify the tax calculation methodology by removing the destination charge from the vehicle *base value*, using only the vehicle manufacturer’s suggested retail price (MSRP) as the basis.⁸ Additionally, the task force recommended eliminating prior legislation, commonly referred to as the “hold harmless” provision, which restricts DPS from charging a higher registration tax than was paid in the past for the vehicle.

⁶ *Laws of Minnesota* 2019, First Special Session, chapter 3, art. 2, sec. 38.

⁷ *Laws of Minnesota* 2019, First Special Session, chapter 3, art. 2, sec. 37.

⁸ State of Minnesota, *Vehicle Registration Task Force – Report to the Legislature* (St. Paul, February 24, 2020), <https://www.lcc.leg.mn/vrtf/vrtf-final-report-2-24-2020.pdf>.

While the project team believes that these recommendations would not be overly burdensome to implement, the Legislature will still need to act upon these recommendations before they are finalized. Bills similar to the task force recommendations were introduced in both the House of Representatives and the Senate.⁹ As of our report release, these bills were still being discussed and have the potential to change.

FAST leaders have previously testified that a decision made by March 1, 2020, may not have resulted in a VTRS project delay. Later testimony from DPS specified that implementation of changes to the rate structure most likely would need approximately eight months to design, test, and implement. As the Legislature takes action to review and enact recommended changes, they must be cautious of the implementation dates and how they will affect the project.

Self-service

The 2019 Legislature directed DPS to examine ways in which the vehicle and driver systems could include self-service options. DPS has been researching ways to satisfy this requirement, including surveying a broad and diverse collection of stakeholders. However, the law does not include a due date for DPS's report, nor does it require implementation of self-service as part of the VTRS project. Rather, the law simply requires DPS to conduct research and report its findings to the Driver and Vehicle Systems Oversight Committee. Given the potential for changes to registration tax and fee calculation methods, the oversight committee will need to carefully consider whether adding self-service functionality adds too much risk to the VTRS project scope, timeline, and budget.

RISK 2: Moving data from MNLARS to VTRS could be challenging due to existing data integrity issues.

This risk is carried forward from our last quarterly report.

Converting data from one system to another is always a difficult part of a development project. Previous OLA audits pointed out problems with MNLARS data, including inaccuracies in vehicle base values and title deficiency flags. The FAST project director is aware of these data integrity issues and is developing migration processes to address them as part of the project plan. The VTRS data conversion team has made progress in testing the conversion; however, OLA continues to track this as an area of risk given the work that still needs to be done to migrate data with known integrity issues.

As previously noted, the Vehicle Registration Task Force put forth a recommendation to eliminate legislation, commonly referred to as the “hold harmless” provision, which restricts DPS from charging a higher registration tax than was paid in the past for the vehicle.¹⁰ If enacted into law as recommended, this change would allow DPS to correct data to charge the correct registration amounts for vehicles previously undercharged due to data inaccuracy issues or user input errors.

⁹ H.F. 3547 and S.F. 3497, 2020 Leg., 91st Sess. (MN).

¹⁰ *Minnesota Statutes* 2019, 168.013, subd. 1a(j).

RISK 3: Limited staffing resources may place further strain on key project personnel.

This risk is new for this quarter.

DPS is balancing competing priorities between the REAL ID implementation deadline of October 1, 2020, and preparation work for VTRS Rollout I on November 16, 2020. As demand for staff to process REAL ID applications increases, DPS must manage its staffing resources in order to ensure that title application processing does not suffer. Additionally, staff changes in two key areas of DPS has placed additional responsibilities on the MNDRIIVE program director, who is a crucial project resource.

Processing Staff

Beginning October 1, 2020, a REAL ID, enhanced driver's license, passport, or other valid documentation will be required to board a commercial aircraft and access certain federal facilities.¹¹ Although DPS began issuing REAL ID compliant driver licenses in October 2018, only approximately 12.5 percent of Minnesotans hold a REAL ID compliant card as of February 2020. To increase awareness, DPS has undertaken a robust public information campaign. As a result, DPS has seen an increase in the number of REAL ID and enhanced driver license applications. In an effort to keep turnaround times reasonable, DPS must devote more staffing resources to handle the surge of applications. As October 1, 2020, approaches, DPS expects incoming applications to increase steadily.

Meanwhile, DPS is working to minimize the number of registrations and title applications "in-progress" when transitioning from MNLARS to VTRS. In-progress transactions will require special handling to ensure they are accurately completed and properly reflected in VTRS. Minimizing the number of these in-progress transactions allows DPS to devote fewer staff to processing these special transactions and decreases the risk associated with migrating an in-progress application. However, DPS continues to have a backlog of title processing that regularly exceeds one month or more. In the past, DPS has borrowed staff from driver services to assist with managing the title backlog.

As REAL ID and VTRS project deadlines approach, DPS must balance its staffing needs to process both REAL ID applications and vehicle title applications, while also testing and training on the new application. Bolstering title-processing resources now, with temporary staffing, could make DPS better prepared to address the risks posed by the increasing demands on its processing staff.

MNDRIIVE Program Director

DPS's MNDRIIVE program director, who is overseeing the VTRS implementation, has recently inherited significant additional responsibilities due to the vacancy of two key

¹¹ The REAL ID Act of 2005—title II of division B of the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Tsunami Relief, 2005, Public Law 109-13, 119 Stat. 231, 302 (May 11, 2005) (codified as 49 *U.S. Code*, 30301).

positions at DPS. Beyond regular project duties and newly inherited responsibilities, legislative questions and hearing testimonies place further responsibility on this crucial project resource. While the MNDRIVE program director has been able to keep pace with the workload and meet project deliverables, the project timelines could be at risk if workloads exceed reasonable capabilities.

Given the high level of interaction between the MNDRIVE program director and all facets of the VTRS project, OLA believes that DPS leadership should be cautious of adding more workload responsibilities to the program director. DPS should ensure that the MNDRIVE program director can focus on ensuring the VTRS implementation is successful.

RISK 4: MNIT's decommissioning plans lack timelines and tasks necessary to retire functionality and data relevant to the second rollout of VTRS. These plans also lack estimated costs for resources needed to complete the work.

This risk is carried forward from our last quarterly report.

In accordance with the high-level project schedule, MNIT was to complete a decommissioning plan by December 31, 2019. While MNIT produced a plan, it was not complete. The plan lacked information relevant to decommissioning the legacy systems that will be replaced by VTRS Rollout II. The decommissioning plan also did not contain any cost estimates.

MNIT has revised the MNLARS and legacy systems decommissioning plan to include a read-only period for up to 90 days after VTRS Rollout I, concluding with a full decommissioning of MNLARS and the other related applications in March 2021.

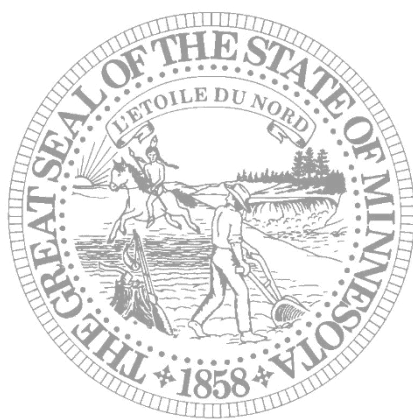
While this plan addresses decommissioning of components replaced by the first rollout of the VTRS project, it was silent on decommissioning timelines, tasks, and resources needed to retire legacy IFTA and IRP components that are planned to be replaced by VTRS Rollout II. The current IFTA and IRP system is vendor-hosted and, while no servers or other technical infrastructure may be present at the state, the decommissioning plan still should address responsibilities and timelines for such things as vendor communications; data archiving; and updates to firewall rules, application inventory records, and disaster recovery plans. It is also important for the plan to establish a temporary, read-only environment before the vendor terminates the application.

Without a timeline for decommissioning the IFTA and IRP components, OLA had difficulty assessing whether the agencies will be able to meet the timelines in law. The Legislature directed MNIT to fully decommission the legacy systems by fall 2021. If VTRS Rollout II goes as planned and is delivered on October 1, 2021, and if MNIT is consistent with the VTRS Rollout I standard of maintaining a read-only period for up to 90 days, some decommissioning tasks may not begin until late December 2021 or early January 2022.

Further, the decommissioning plan should include cost estimates. MNIT anticipated that the system decommissioning work would rely on only the resources of current state staff; however, the plan does not estimate the staff hours needed to complete the work. At a minimum, the plan should identify an estimate on the number of hours staff should plan for tasks, so that budget officers can estimate costs.

When an agency does not sufficiently anticipate and analyze a project's costs during the planning and approval process, the project's budget becomes a moving target throughout the project rather than a controlled baseline. Failure to establish a baseline cost budget during planning makes it impossible for the project's manager, DPS management, MNIT, and other interested parties to determine whether the project is on track to meet objectives.

MNIT and DPS have been responsive to our feedback and have provided some additional information to address this concern.



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