



NASCIO STATE IT RECOGNITION AWARDS

Title	Colorado DRIVES
Category	Emerging and Innovative Technology
State	Colorado
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EXECUTIVE SUMMARY

The Colorado Driver License Record Identification and Registration Enterprise Solution (DRIVES) is a flexible, reliable, accurate and integrated solution for the Colorado Department of Revenue, Division of Motor Vehicles (DMV). This project is the cornerstone of the DMV strategic plan to improve customer service and meet the Governor's goal of reducing wait times. When fully implemented, DRIVES will provide:

- State and county DMV employees with a modern, user-friendly system that reduces customer service time
- Increased system reliability that significantly reduces outages and downtime in DMV offices across the state
- Citizen access to information to better prepare them for their office visit as well as improved online services

DRIVES is a three-year, \$93M project being implemented in two phases. Phase One replaced the Driver License System (DLS) and was implemented on time in February 2017. Phase two replaces the current Colorado State Title and Registration System (CSTARS) and is scheduled for implementation on August 6, 2018. This nomination focuses on DRIVES rollout of phase one (rollout one): Driver License.

The state Driver License System (DLS) was installed in 1995, and processed more than 5.1 million records annually. Transactions included driver licenses, permits, identification cards and commercial driver licenses. DLS was mainframe-based and used both outdated software and hardware. The system lacked update flexibility, user-friendly interfaces, and the stability and reliability that have come to be expected in a modern 21st century system.

All these issues were overcome with collaborative efforts of the Department of Revenue (DOR), the Governor's Office of Information Technology (OIT), and our vendor of choice, Fast Enterprises. It was delivered in scope, on budget, and on time. Such a feat is virtually unheard of in IT - and a matter of professional pride for Fast, which has never missed a deadline for any project nationally or internationally. This was a transformational success. In the words of a department senior leader, "This is the best project that has ever been executed at the state."



CONCEPT

In 2012 the Colorado Department of Revenue (DOR), its Division of Motor Vehicles (DMV), and the Colorado Governor's Office of Information Technology (OIT) began the work necessary to initiate a DMV information technology modernization project. After completing an infrastructure assessment and feasibility study, a joint request was made to the Colorado General Assembly for capital development funding. This was part of a larger comprehensive funding and legislation request to support the DMV Strategic Plan to improve customer service.

With the support of Colorado's governor and legislature, beginning in 2014, the state made a significant investment in the DRIVES project and other initiatives within the DMV strategic plan. The DMV began implementing organizational, procedural, and technology improvements to help customer service. This, along with increasing staff, helped the DMV make good progress in reducing customer wait times. In 2015, the largest part of the five-year strategic plan, the Colorado Driver License Identification Vehicle Enterprise Solution (DRIVES) was initiated.

Central to the Colorado DRIVES project is the selected vendor - Fast Enterprises, LLC (Fast). Fast, a Colorado-based software vendor, has successfully implemented projects for DMVs nationwide on time and within budget. The DRIVES project team employs the Fast Implementation Methodology. It is agile-based, placing a heavy emphasis on iterative cycles that directly involve business users. State employees work side-by-side with Fast developers to explain the experience and challenges of working in the DMV. This builds a true sense of ownership in the resulting product.

With a \$93 million budget, DRIVES is managed by three project managers. DMV, OIT, and Fast each contribute a project manager – each with an equal voice. Each is responsible for delivery of their team and working with fellow project managers to work out issues and provide a unified project voice. DRIVES rollout one had 110+ employees from DMV, OIT, and Fast.

DRIVES is a browser-based application accessible from multiple operating systems. It features full redundancy in all hardware layers, including real-time data replication over a 10Gb line from operational data centers in Centennial, CO and Chicago, IL. Each center has multiple utility inputs, internet connections, and enough power to run the entire facility for more than a week.

DRIVES included a change management strategy as part of the project. Project Sponsors recognized the importance of change management to address the human aspect of the project and Fast provided resources to assist. They were helpful to the DMV and OIT in supporting



multiple communication initiatives and outreach to build acceptance among stakeholders and partners. The DMV invested in training for state employees in the PROSCI Change Management Model. Today, the DMV administers the change management process. To bolster communications about the DRIVES implementation, the project team uses its change management experience to implement strategic communication. Key messages were sent through the organization using “trusted party” messaging in the existing organization along with traditional communication methods. Two examples of traditional communications are a high-touch, interactive newsletter called *The Journey* and a project website called *The Compass*. The content is created by the DRIVES team and has interactive activities to discover DRIVES and learn about upcoming events and project milestones.

SIGNIFICANCE

DRIVES is the cornerstone of the DMV’s five-year strategic plan which supports one of Governor John Hickenlooper’s top administrative priorities of improving customer service across state government. The DRIVES system directly contributes to the DMV effort in reducing initial driver license office wait times to 15 minutes or less. With the implementation of DRIVES, driver services, state, and county driver license employees have a modern, reliable, user-friendly system that is helping to further reduce customer wait times through a more efficient process.

DRIVES aligns with OIT’s strategic direction of cloud first initiatives, and is compliant with the state’s standard information security practices. The first phase replaced and expanded capabilities of more than five DMV driver license-based systems – some that were up to 20 years old. Platforms replaced include mainframe, web portals, payment submission engines, image storage and retrieval systems, Microsoft Access, Microsoft Excel worksheets, custom systems, and paper-based processes. During rollout one, more than 395 million records were evaluated, purified, combined, and converted.

In addition to DMV systems, DRIVES supports direct data exchanges with more than 80 external parties. Separately, DRIVES provides direct web portal access to external government entities with more than 2,000 users, including state and local law enforcement, local government, state public health organizations, state education, public administration, and state transportation.

Colorado residents benefit from DRIVES when they visit DMV offices as employees are able to offer faster service, clearer communications, and standardized service statewide. Some of the



biggest improvements for residents are 11 new online services which afford residents a total of 18 online services which allow them to complete transactions when and where they decide. Services include: start a new driver license application online, sign up for reminders, pay citations, pay reinstatement fees, downgrade a license, and update emergency contact information. Online services are real-time - information is immediately available to law enforcement and other DMV partners. You can see more at <https://mydmv.colorado.gov>.

The DRIVES project allowed the ability to rapidly develop and deploy additional solutions due to flexibility of both the project team and the capabilities of Fast's software. Scope was increased without changing original project plan timelines or changing the original rollout date. Examples of expanded capability via the Colorado DRIVES system included:

- A web portal for citizens to enter crash information when law enforcement did not respond. The portal replaced a broken web site previously hosted by state police.
- Creation of a portal for state police and Department of Transportation officials to view, search, and perform analytics on accident data from statewide sources.
- Automation and integration with three ignition interlock vendors who can now conduct installs, verifications, and transmit compliance information in real-time.
- DMV and regulatory hearings were added to DRIVES, replacing Microsoft Excel and paper based processes.
- Conversion of more than 20 million historical images including matching with previous transactional activity.
- New business processes such as "back office cashiering" which consolidated mail-in paperwork to a one-stop-shop with real-time document scanning to customer records.

The DRIVES project is unique among government and DMV projects. Of particular significance is the decision to use Colorado's cloud first initiative as the basis for DRIVES. It is the first of its kind DMV system nationally to be hosted, maintained, and secured by a vendor. Fast provides infrastructure, data centers, security controls, and implementation expertise necessary for DRIVES. DMV, OIT, and Fast have an effective partnership – each with a high interest in success.

One of the significant investments Colorado made and continues to make in support of the DRIVES project is to backfill employees assigned to the project. Too often, businesses are asked to participate in enterprise level projects and continue "normal" work simultaneously. This leads to burnout and lower quality work for the project and the business area. Fast's experience with government showed that dedication of employees to implementation projects is a critical



part of success. Temporary employment agencies are providing backfill for vacated positions in State and County Motor Vehicle Services offices to sustain productivity during the project.

IMPACT

Administering driver license in Colorado involves two primary business areas: driver license offices, which serve the public, and driver control, which is responsible for back-office administration of driving records. The pre-DRIVES work environment tracked the use of paper-based methods as well as use of multiple disconnected systems. Managers had little visibility as to productivity, relying on tally sheets to assess customer throughput and employee success.

DRIVES significantly improved these areas of DMV operation. With consolidation and data integration of more than five different systems, there is a single view of a customer's activity. Real-time workflow and case tracking mean the amount of work in the pipe and in process can be monitored and shifted to meet demand. Work is based on electronic images that automatically route to employees based on their manager's preference. Implementing DRIVES allowed a significant shift in the Driver Control area. Employees are cross-trained to maximize utilization as work demand changes. In the driver license offices, employees depend on DRIVES for automated checks of documentation and application of statutory rules.

Before when DMV hired a new driver license technician, the employee was provided training and then required hands-on supervision for up to one year. This was because previous systems were not intuitive and relied on employees to know the detailed rules under which they were required to operate. A mistake meant an applicant could be issued a document they were not entitled to – a big deal as the driver license and/or ID card is the basis for privileges such as obtaining a bank account, using air travel, or obtaining public medical benefits. Under DRIVES, new hire employees are given a three-day training course. Within a week, they are independently productive employees guided by the system through business processes and automatically informed when an applicant does not qualify for issuance. While this benefit is impressive, an interesting side effect occurred when designing DRIVES. DMV used the system implementation as an opportunity to revisit compliance with state statute, Department of Revenue rules, and internal business procedures. This led to adjustments and standardization statewide and has reduced the applicant's capability to "shop" for a driver license technician who may (knowingly or otherwise) break the rules and issue an undeserved document.



DRIVES has a fundamental impact on the residents of Colorado. Residents are currently, on average, waiting six minutes to be served by a driver license technician. They can also accomplish much more online. For example, when DRIVES went live, one of the first online transactions to occur was a citizen paying their reinstatement fee. DRIVES accepted payment and automatically reinstated the citizen's driver privilege. Previously, the citizen would have been required to drive to an office, wait in line while their record was researched, make payment, and then proceed to receive the driver license. With DRIVES, the citizen was automatically eligible for a driver license and was able to proceed without delay or embarrassment. In just over two months, DRIVES has processed more than 67,000 web-based transactions that would have not have been possible previously.

Another major impact is DRIVES' capability to provide full revenue accounting of all money received. Under the old system, revenues were only recorded according to the type of revenue they represented (e.g., driver license fee, test fee, etc.). The reality is that driver license and other fees have a much more complex breakdown. DRIVES allows each fee collected to be broken down to its individual parts and traced from the citizen who paid all the way through transmission to the state's general ledger. Automation with the state's bank also provides electronic submission of revenue from outlying offices faster. As a result, the state recognizes driver license money faster and reconciliation of funds is much more efficient. Prior manual processes which consumed a week or more are now completed in a matter of hours.

Beyond benefit to strategic objectives and citizen experience, state employees participating in DRIVES receive significant benefit. For many, participating in DRIVES is outside their comfort zone and utilizes a very different skillset compared to their normal jobs. Being involved with a software project of DRIVES' magnitude and complexity requires them to learn critical thinking, discussion practices, and presentation skills among others. Employees coming to the DRIVES project often return to promotions and leadership roles which might not have been previously accessible.

DMV and OIT made a strategic investment when they chose to implement DRIVES. Not only was the contract based on OIT's cloud first initiative, but a long term contract was established that makes keeping DRIVES up-to-date a contractual requirement. DMV will receive included upgrades, service packs, and hotfixes to the DRIVES system for the next ten years – guaranteeing that technology will be up-to-date and shift with innovations. This approach also empowers Colorado lawmakers the flexibility to implement new policy and DMV the ability to adapt and innovate around their business processes.

