

STATE OF WEST VIRGINIA

Department of Transportation, Division of Motor Vehicles

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WV PURCHASING
DIVISION

Driver System Modernization
CRFP-0802-DMV2400000002

Technical Proposal

Submitted by:


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BID COVER SHEET – TECHNICAL PROPOSAL

Vendor Name: Fast Enterprises, LLC
Buyer: David Pauline, Senior Buyer
Solicitation Number: CRFP-0802-DMV2400000002
Bid Opening Date: March 1, 2024
Bid Opening Time: 1:30 p.m. EST
Vendor Fax Number: (303) 770-3701

James G. Harrison, Partner & Authorized Signatory 02/29/24

(Printed Name and Title of Authorized Representative) (Date)



(Signature of Authorized Representative)

REQUEST FOR PROPOSAL

West Virginia Division of Motor Vehicles Driver System Modernization

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

Fast Enterprises, LLC

(Company)

James G. Harrison, Partner and Authorized Signatory

(Representative Name, Title)

Phone: 877-275-3278/Fax: 303-770-3701

(Contact Phone/Fax Number)

02/29/24

(Date)


(Representative Signature)

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.

(Printed Name and Title) James G. Harrison

(Address) 7229 S. Alton Way, Centennial, CO 80112

(Phone Number) / (Fax Number) Phone: 877-275-3278/Fax: 303-770-3701

(email address) BusinessTeam@FastEnterprises.com

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that: I have reviewed this Solicitation/Contract in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation/Contract for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that this bid or offer was made without prior understanding, agreement, or connection with any entity submitting a bid or offer for the same material, supplies, equipment or services; that this bid or offer is in all respects fair and without collusion or fraud; that this Contract is accepted or entered into without any prior understanding, agreement, or connection to any other entity that could be considered a violation of law; that I am authorized by the Vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on Vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

By signing below, I further certify that I understand this Contract is subject to the provisions of West Virginia Code § 5A-3-62, which automatically voids certain contract clauses that violate State law; and that pursuant to W. Va. Code 5A-3-63, the entity entering into this contract is prohibited from engaging in a boycott against Israel.

Fast Enterprises, LLC

(Company) James G. Harrison

(Signature of Authorized Representative)

James G. Harrison, Partner and Authorized Signatory 02/29/2024

(Printed Name and Title of Authorized Representative) (Date)

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Solicitation No: CRFP-0802-DMV2400000002, Driver System Modernization Project

February 29, 2024

Mr. Pauline,

Fast Enterprises (FAST) is pleased to present this proposal to the West Virginia Department of Transportation, Division of Motor Vehicles (WVDMV) in response to CRFP-0802-DMV2400000002, Driver System Modernization Project. We will provide WVDMV with our production-proven FastCore Driver Services (FastDS) solution, experienced project personnel, and an unblemished record of successful project delivery of FastCore system modernization projects for over 100 client agencies worldwide. We have successfully implemented (or are currently implementing) our FastCore solution for administering driver services and/or vehicle services for 22 state motor vehicle agencies. In addition, the West Virginia Department of Revenue (DOR) has been in production with GenTax, our FastCore solution for tax and revenue programs, for the past 17 years. The DOR continues operating a modern solution through routine FastCore updates and upgrades.

We have unparalleled success in delivering our client agencies' system-modernization projects on time and on budget. We offer the same commitment of successful project delivery to WVDMV through this proposal, which consists of:

- Implementing our FastDS solution on the latest version of our FastCore government software platform (Version Core21). Our implementation supports the complete administration of WVDMV's driver license and credential programs and the interface between FastDS and your agency's vehicle system to ensure drivers are correctly linked with their own vehicles.
- A proven and streamlined implementation methodology that minimizes project risk and complexity and has been used successfully on every FAST system-modernization project for more than 25 years.
- A commitment to providing staff experienced with the implementation of our FastCore solutions for government agencies.

We hope to have the opportunity to expand on the successful partnership that we have had with your state by serving as your solution and service provider for the Driver License System Modernization Project. We look forward to helping your agency meet its requirements, scope objectives, and modernization goals through implementing our FastDS solution and our continued commitment to providing West Virginia with state-of-the-art solutions and services.

Sincerely,



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EXECUTIVE SUMMARY

Fast Enterprises, LLC (FAST) is pleased to submit this proposal to provide the West Virginia Department of Transportation, Division of Motor Vehicles (WVDMV) with a state-of-the-art driver-license system. Our proposed FastCore Driver Services (FastDS) system will support your agency's vision of delivering best-in-class services through use of a customer-centric, web-based system for the administration of driver programs and services.

FAST was established as a privately held company in 1997 to provide government agencies with an alternative and more effective approach to system modernization and program administration. The development and delivery of our fully featured FastCore software for government program administration represented a stark departure from projects based on custom coding and complicated connections between multiple third-party applications. Today, our full line of software products, all of which operate on our FastCore government software platform and underlying code base, operate as the modern system of record and software solution for over 100 agencies that administer hundreds of government programs worldwide. These agencies include West Virginia Department of Revenue (DOR), which for the past 17 years has been in production with our FastCore solution, GenTax, for the administration of your state's tax and revenue programs. Through routine FastCore updates and upgrades, DOR continues to operate a modern and state-of-the-art solution that has provided significant return on investment for the agency and the citizens of West Virginia.

Today, 15 U.S. state motor vehicle agencies are in production with FastDS for the administration of their states' programs and services for driver's licenses, credentials, and driver control. Montana's Motor Vehicles Division, the latest state agency to enter production with FastDS, successfully completed its FastDS system-modernization in November 2023. In the first few weeks, Montana MVD reported significant gains in productivity, reduced need for office visits through modern online customer self-services and eliminated months of appointment backlogs caused by the limitations of the agency's legacy systems.



The Fully Featured FastCore Driver Services Solution, FastDS

FastDS is a complete, production-proven, and working system designed exclusively for motor vehicle agencies to administer driver licenses and credentials. Its Driver Services module provides program-specific functionality to manage issuance and driver record control. Built-in FastCore features and functions for customer account management, financials and accounting, business intelligence and reporting, workflow management, process automation, solution implementation, and production operation support these functions without needing separate systems. The following image provides a visual of the robust features included in the FastDS solution.

EXECUTIVE SUMMARY

Driver Services Solution (FastDS)

Driver Services	Driver Licensing Identity Management Enforcement & Control Accident/Crash Mgmt. Knowledge Testing Mobile Driver License (mDL) Investigations Hearings
Customer	Customer Profile Self-Service Portal Queuing Appointments Correspondence Documents & Imaging Business Licensing
Information	KPI Dashboard Reporting AAMVA Exchange Interface Management Partner Access Data Warehouse
Financials	Point of Sale Mgmt. Payments Billing Refunds Accounting
Workflow	Work Management Case Management
Solution Mgmt.	Business Rules Project Support Operations Support Security Help

FastDS contains complete functionality for the administration of program and services for driver's licenses and credentials, eliminating need for the complex interconnections of third-party applications required by most alternative systems.

A Modern Solution for Achieving Your Goals

Rather than expending time and resources on system design, programming, and application integration issues, our project team works directly with agency personnel to define (and refine) system requirements, configure pre-built baseline functionality, and adapt WVDMV's specific business processes in FastDS to deliver a true customer-centric and end-to-end solution. Our experienced project team and pre-built FastDS software will provide WVDMV with a modern solution for achieving your agency's requirements, scope objectives, and goals through:

- ▶ A Complete and Working Solution Designed Exclusively for Driver License Administration: FastDS contains baseline driver licensing and control functionality that is operable upon installation. This baseline functionality—including driver licensing, credential and identity management, enforcement and control, accident/crash management, investigations, hearings, AAMVA and federal-system interfaces, and much more—enables a rapid and streamlined approach to system modernization through configuration rather than programming and complex code modifications.
- ▶ A Single and Unified Solution for WVDMV Programs and Services: FastDS serves as an agency's unified system of record for driver services. Its integrated capabilities for core business functions and back-office support processes eliminate the need for a patchwork of

EXECUTIVE SUMMARY

systems and applications. This all-inclusive functionality significantly simplifies an agency's technology footprint and reduces system complexity, maintenance and support burden, interface development, upgrade and training requirements, and overall system cost. Users access consolidated real-time information and perform all aspects of their work through one system that provides a consistent and user-friendly interface. External interface data (including data from the existing vehicle services system) is processed and presented to users through our single-user interface. It gives them the information they need to make data-driven decisions and perform the business functions supporting their work. Whether reviewing up-to-date customer records and correspondence, generating focused and relevant data displays and reports, or providing direct assistance to customers and stakeholders, FastDS serves as the single source of truth for providing users with comprehensive and timely information in the formats that meet their needs.

- ▶ **Modern Digital Services and a One-Stop-Shop Experience for Customers:** FastDS will serve as your platform for building a modern service-based culture that engages customers and supports their transactions through various communication channels and online self-service features. Customers can perform a variety of driver and credential transactions, view account status and action items, review documentation and information, and correspond with your agency through online devices. FastDS also enables agency and customer communications through modern communication channels like a customer web portal, secure web notices, e-mail, SMS text messaging, automated and staffed chat, and physical mail correspondence.
- ▶ **Complete Capabilities and System Automation That Streamline Services & Operations:** FastDS contains FastCore components that provide complete capabilities for government program administration. These FastCore components, along with program-specific functionality for driver services, offer comprehensive driver program administration capabilities without third-party applications or point solutions. In addition to core components that provide built-in capabilities for financials, reporting, correspondence, forms, online services, and interfaces, FastDS contains core functions for automating system processes and workflow. Our project team will identify system and business process improvements and maximize FastDS automation to optimize and streamline your agency's services and operations.
- ▶ **A Secure and Centralized System of Record for Verifying & Managing Identities & Credentials:** FastDS will serve as WVDMV's centralized identity verification and management solution. Agency-defined business rules drive identity-verification processes that use internal system data and information obtained from third-party data sources, such as AAMVA systems, federal systems (like those that verify passports, immigration status, and vital records),

EXECUTIVE SUMMARY

commercial biometric and facial-recognition systems, and additional commercial and government data sources. As your state's system of record for identity management, FastDS provides your staff and authorized partners like law enforcement with accurate and secure access to verify identities and obtain real-time driver information.

- ▶ **Best Practices for System Processes and Project Procedures:** We routinely incorporate industry best practices and procedures into our FastCore solutions through ongoing software updates, enhancements, and upgrades. We also leverage best practices and project procedures gained from our experience on successful FastCore system-modernization projects for 20 state motor vehicle agencies since 2011. These best practices and procedures will enable successful system implementation during the project and successful system operation during production.

Expedited & Achievable Project Delivery Through a Proven Modernization Approach

We propose a single 16-month rollout to modernize WVDMV's driver services system. Our pre-built FastDS software and consistent, proven approach to system delivery enables speedy implementation based on solution configuration rather than programming. Our approach will lead to successful migration of existing systems, interfaces, and business processes during the project, and achievement of your agency's modernization goals.

Proposed 16-Month WVDMV Project Schedule

Phase/Stage	Duration (Calendar Days)	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	Production Support
WVDMV Driver System Modernization	516 days	[Gantt bar spanning all months]																
Preparation Phase	40 days	[Gantt bar]																
Definition Phase	221 days	[Gantt bar]																
Foundation Phase	117 days		[Gantt bar]															
Development Phase	368 days		[Gantt bar]															
Conversion Phase	460 days		[Gantt bar]															
Testing Phase	250 days									[Gantt bar]								
Training Phase	166 days												[Gantt bar]					
Rollout Phase	197 days											[Gantt bar]						
Production Release/Go Live	1 day																	[Gantt bar]
Production Stabilization Phase	19 days																	[Gantt bar]
Production Support																		[Gantt bar]

The rollout will include the full spectrum of relevant in-scope FastDS functionality for driver services administration. Please note that the proposed timeline is contingent upon use of the FAST Implementation Methodology, the same methodology used for successful delivery of our FastCore solutions for hundreds of government programs, including your state's tax and revenue programs. If awarded the Driver System Modernization project, we will work with the state during contract negotiations to define a schedule and start date that aligns with the needs and preferences of WVDMV.

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FAST employs a full-lifecycle approach to software and service delivery that differs from most technology companies and consultancies that only provide select services or components for system modernization. Rather than implementing and interconnecting general-purpose software products developed by a variety of companies, our company and staff are solely devoted to developing, implementing, supporting, and enhancing our FAST-developed, FAST-implemented, and FAST-supported software solutions, including FastDS. This streamlined single-provider model—an organizational approach in which we serve as our client agencies' combined software developer, system integrator, and support-services resource—plays a major factor in the success of all FAST system-modernization projects. It also provides our client agencies with a single point of contact for addressing all aspects of system modernization, operation, training, and ongoing support and enhancement.



Our Commitment to Your FastDS Solution and Ongoing Success

Government agencies are FAST's only client base and the singular focus of our software development and service offerings. As the software and service provider for these government agencies, we are committed to ensuring that all our client agencies have access to continually effective and modern FastCore solutions. By partnering with FAST, your agency will experience the commitment to perpetual FastDS software modernization and ongoing system success that we provide to every FAST client agency.

If awarded, FAST will provide WVDMV with a resilient and robust enterprise-class FastDS system that provides the crucial processes and essential services that your clients, business partners, law enforcement, and commercial and federal entities depend on to achieve their objectives.

We are grateful for this opportunity to propose our services and FastDS solution, and we hope to partner with you to deliver successful system modernization and ongoing production operations for your employees, customers, and additional stakeholders across West Virginia.

RESPONSE TO SECTION 4 REQUIREMENTS

Section 4 Requirements

This section of our proposal contains FAST's responses to the requirements found in the following portions of RFP Section 4:

- Section 4.2 Project Goals and Mandatory Requirements.
- Section 4.3 Qualifications and Experience.
- Section 4.4 Mandatory Qualification/Experience Requirements.
- Resumes of Proposed Key Personnel.

SECTION 4 RESPONSE

4.2 Project Goals and Mandatory Requirements:

WVDMV currently uses several disparate systems to assist customers conducting business with WVDMV. The Division of Motor Vehicles Agent (DMVA) may need to access as many as seven different screens to properly assist the customer who is attempting to comply with state and federal laws. WVDMV is seeking a vendor to provide and implement a modernized, customer centric, web-based driver licensing system that will interface with all other WVDMV systems and is capable of returning all driver and vehicle information pertaining to the search. Vendor should describe its approach and methodology to providing the service or solving the problem described by meeting the goals/objectives identified below. Vendor response should include any information about how the proposed approach is superior or inferior to other possible approaches.

Our proposal is based on providing WVDMV with successful system modernization through the implementation of our FastCore Driver Services (FastDS) software solution. FastDS is a modern, customer-centric, web-based solution that is in production for 15 U.S. state motor vehicle agencies. As a single and unified solution, FastDS provides complete functionality for the administration of driver license and credential programs and eliminates the need for interconnection between, and access to, multiple disparate systems. As highlighted below, our FastDS solution and proven approach to its on-time and on-budget delivery will enable true system modernization that significantly enhances your customer services, the experience of your agency users, and the effectiveness of your agency operations.



A Complete & Working Solution Designed Exclusively for Driver License Administration

FastDS is a complete, web-based, working, and production-proven system that was designed exclusively for motor vehicle agencies. It contains baseline functionality for driver licensing and control that is operable upon installation. This baseline functionality—including driver licensing, credential and identity management, enforcement and control, accident/crash management, investigations, hearings, AAMVA and federal-system interfaces, and much more—enables a more rapid and streamlined approach to system modernization. Rather than expending time and resources on system design, programming, and application-integration issues, our project team works with agency personnel to define system requirements, configure pre-built baseline functionality, and adapt specific WVDMV business processes in FastDS to deliver a true customer-centric and end-to-end solution that meets your agency's requirements and goals. This complete solution eliminates the need for staff to use several disparate systems to complete their work.

Our implementation supports the complete administration of WVDMV's driver license and credential programs, as well as linkage between FastDS and your agency's vehicle system, connecting vehicles and their owners.

SECTION 4 RESPONSE

FastDS also contains complete knowledge- and skills-test capabilities for creating, scheduling, administering, and scoring tests and exams, and can interface with external testing systems. Exam types are configurable and provide agency staff with functions for maintaining exam questions and answers, administering exams at exam workstations, automating exam scoring, and recording details of exam questions and answers on the driver record. FastDS includes tools for manually adding, modifying, or removing exams from the system, as needed. To ensure drivers are only issued licenses for which they have met configurable exam requirements, FastDS automatically checks exam details during credential issuance transactions. Based on agency policy, knowledge testing functionality can also be deployed to customer web portals and online self-services.

FastDS supports several exam features, including:

- ▶ Supporting tests in different languages (with translations supplied by an agency).
- ▶ Incorporating graphics (such as road signs) and videos (such as situational examples).
- ▶ Randomizing answer positions.
- ▶ Test “stacking” functionality, which enables customers to progress through a test but stops the exam once a point is reached in which a customer cannot pass the test.

Regardless of the test method, FastDS stores test results (including third-party test results) on the customer record for access during the issuance process. Results and updates can be received, viewed, edited, and used in real-time. The subsystem also allows agencies to charge fees for tests, if required.



Complete Capabilities & System Automation That Streamline Services & Operations

FastDS contains FastCore components that provide complete capabilities for government program administration. These FastCore components, along with the program-specific functionality for driver services in FastDS, provide complete capabilities for program administration, with no need for third-party applications or points solutions. In addition to core components that provide built-in capabilities for financials, reporting, correspondence, forms, online services, and interface management, FastDS contains core functions for automating system processes and workflow.

The FAST- WDDMV project team will identify system and business process improvements and maximize use of FastDS automation to optimize and streamline your agency’s services and operations. Automated system processes and business activities will minimize manual workload, increase productivity, and streamline efficiencies across all aspects of driver services and program administration. FastDS automates customer case management, financial calculations, correspondence and report generation, document management, data exchange, and other critical system processes and business operations. Process automation will be configured to align with agency practices and policies, and the integrated FastDS business-rules engine will support rapid modification for changing business requirements, processes, and regulations.

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Real-Time Reporting & Performance Indicators for Improving Services & Operations

Integrated Reporting functionality in FastDS largely eliminates the need for traditional paper reports. It provides immediate access to information used to access and summarize agency performance and operations. Report information is available in real-time through database queries, ad hoc searches, standard reporting lists and views, and data displays that can be viewed, saved, shared, exported, and printed. The reporting dashboard provides a means for quickly and precisely querying current and historical data to address specific reporting requirements. Real-time reporting based on information from business partners is also fully supported.



Best Practices for System Processes & Project Procedures

We routinely incorporate industry best practices and procedures into our FastCore solutions through ongoing software updates, enhancements, and upgrades. We also leverage best practices and project procedures gained from our experience on successful FastCore system-modernization projects for 22 state motor vehicle agencies since 2011, and an additional 78 government agencies over the past 25 years. These best practices and procedures will enable successful system implementation during the project and successful system operation during production.

The pre-built core functions in FastCore, common to all our FAST software products, largely eliminate the need for custom programming and use of third-party applications. With core functionality already created, tested, and ready for agency-specific configuration, our system implementation teams focus on configuring our pre-built and program-specific software solutions to meet distinct agency requirements and modernization goals. Rather than developing custom code, connecting disparate applications, or documenting every requirement prior to system implementation, our project teams and agency project personnel can work directly with our software within days of project initiation.



Continual Innovation – A Modernized, Customer-Centric, Web-Based Driver Licensing System

FastCore software and services provide governments with perpetually modern solutions. We provide agencies with continual system enhancement, long-term innovation, and return on investment through routine software service packs and version upgrades. Since 1997, we have released 13 new versions of our FastCore platform to provide our client agencies with perpetual innovation and ongoing modernization. These updates and upgrades provide ongoing access to modern features and functions, like user-interface enhancements, modern security measures, advanced data-analytics processes, emerging best practices, new mobile platforms, and improvements to underlying infrastructure technologies.

We draw on input and feedback from our client agencies as a source for enhancement and improvement. As a single solution for providing virtually all software functionality necessary for managing modern government programs, enhancements to features used for all aspects of program management benefit our entire user community. Our streamlined and simplified approach to software

SECTION 4 RESPONSE

modernization also benefits agency IT personnel by eliminating need to maintain multiple systems, juggle uneven upgrade paths, and replace obsolete applications.

Modern Digital Services & One-Stop-Shop Experience for Customers

FastDS will serve as your platform for building a modern service-based culture that engages customers and supports their transactions through a variety of communication channels and online self-service features. Its web portal functionality provides your customers with anytime access to an intuitive user interface, clear navigation features, and step-based guidance for conducting online self-services. The same business rules that govern in-office system transactions apply to online transactions, ensuring that online customer self-services are processed accurately and completely based on all applicable WDMV business rules, processes, and procedures.

Customers can perform a variety of driver and credential transactions, view account status and action items, review documentation and information, and correspond with your agency through a variety of online devices, including desktop computers, mobile devices, and self-service kiosks. Web portal screens contain navigational aids designed to help customers maintain awareness of their location within the portal and their progress in completing forms, applications, or workflow. Forms and fields within the portal also provide auto-fill and edit-check capabilities to support expedited and accurate customer transactions. Important information and alerts, such as renewal notifications and required customer actions or documentation, are also highlighted on the home page of customers' online accounts. Customers have multiple online account-personalization options, such as designating their preferred forms of electronic communication and notification, language preference, payment types, and more.

FastDS enables agency and customer communications through multiple communication channels. It supports direct messaging through the customer web portal, secure web notices, e-mail, SMS text messaging, automated chat, and physical mailed correspondence. Customers can select and manage their preferred communication channels through their online accounts to ensure important information is delivered through the method, or methods, that suit their preferences and needs. FastDS can also use these channels to provide customers with activity reminders, appointment check-ins, confirmations, and other pertinent information. In addition, the built-in FastCore Gateway interface-integration layer supports full integration with agency interactive voice response (IVR) systems and provides customer support for all IVR-related functions. FastCore also supports integration with virtual communication platforms, like Zoom and Microsoft Teams, for scheduling and conducting internal virtual meetings with agency staff and partners and external virtual meetings with customers and their representatives.

FastDS has automated chat functionality, available in multiple languages, that provides customers with an online virtual assistant for answering common questions. The chatbot can also direct customers to relevant information, screens, and other online self-service features for conducting activities such as submitting payments, completing forms, and downloading documents. By answering

SECTION 4 RESPONSE

simple inquiries, the assistant enables customers to complete more tasks online, reducing call volumes and office visits. The virtual assistant can provide customers with hyperlinks to applicable information or screens on the customer web portal. It also provides agency users with integrated functionality for managing the chatbot's knowledgebase and responses to common questions.

Integrated Tools for Compliance and Fraud Mitigation

FastDS contains integrated tools to assist WVDMV with internal and external investigations, compliance, and fraud mitigation efforts. In the following paragraphs, key features are described. During an active implementation, the FAST development team will work with appropriate agency leadership to identify areas of concern, mitigation strategies, reporting, and additional needs.

Reviewing and Researching Employee and Customer Activity

Authorized users and security personnel can view audit logs and reports within FastDS at any time. FastDS also contains pre-built reports and dashboards for reviewing audit logs, and additional specialized reports and screen views can be configured to meet specific agency needs. As part of the audit trail, FastDS records details such as transaction type, date and time the transaction is processed, user who conducted the transaction, and additional information, like inquiry access to accounts, how many times an account was accessed, or whether a user was denied access to the account. The system also records how frequently users have performed system actions/activities over time, including access to customer accounts, records, financial history, correspondence, cases, reports, and other records and information.

Fraud Mitigation & Identity Verification

Authorized users can manually mark records, transactions, and activities for possible fraudulent activities. Throughout the course of the project lifecycle, we will work with the agency to identify any areas of concern for fraudulent activity. This could include specific actions taken during an issuance transaction or volume of the transaction. We can also help to identify areas where rules can be implemented automatically during transactions to proactively monitor situations where fraud is likely. Additionally, using the KPI Dashboard subsystem and the Reporting subsystem, reports can be configured to monitor certain behavior such as volume of transactions by office and compared against historical data. Each of these elements work together to create a toolset for preventing fraud and identifying fraud when it happens.

Agency-defined business rules are factored into identity-verification processes that use internal FastDS data and information obtained from third-party data sources, such as AAMVA systems, federal systems (like those that verify passports, immigration status, and vital records), commercial biometric and facial-recognition systems, and additional commercial and government data sources. Transactions can be configured to require specific identity documents, and a full history of documents are stored and linked to the related transaction to track when and why documents were collected.

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A Proven & Consistent Approach to Speedy Delivery of System Modernization

Our pre-built FastCore solution and proven and consistent approach to its delivery enable speedy implementation and successful migration of existing systems, interfaces, and business processes during the project. We will complete our proposed 16-month project schedule on time and on budget through use of the FAST Implementation Methodology, the same methodology used for successful delivery of our GenTax solution for your state's tax and revenue programs.

FAST Implementation Methodology

Our proposed implementation phases and timelines are based on our FAST Implementation Methodology. Our methodology provides a roadmap for successful completion of the project by specifying the activities that will be carried out, the deliverables that will be produced, project governance, quality control, review-and-acceptance procedures, and so on. It has been used to successfully deliver our software to over 100 government agencies worldwide. For more information about our proposed work breakdown and timeline, please see our response to **4.2.2.17 Project Schedule**.

The nine phases of the FAST Implementation Methodology, illustrated and described below, guide our project teams and their use of our FastCore solutions for conducting project activities that create the work products and deliverables necessary for successful project execution and delivery. Rather than being conducted consecutively, the phases overlap, run in parallel, and can be revisited in later stages of the project. The iterative nature of the methodology and its phases support continual refinement of the software's configurations and functionality. System enhancements and modifications to in-scope functionality can be made throughout the phases of the implementation project, without need for change orders or impactful schedule disruption. Each phase of the methodology is described on the following page.

SECTION 4 RESPONSE

- ▶ The **Preparation Phase** involves planning that defines the execution of the FastDS system-modernization project.
- ▶ The **Definition Phase** includes defining and documenting requirements as definition items and outlining the tasks necessary for delivering agency-specific configurations to the software's baseline functionality.
- ▶ The **Foundation Phase** structures and implements the starting point for configuration of FastDS' baseline functionality to meet the general requirements of an agency. Once the foundation is in place, the system supports basic navigation and processing for relevant agency business functions.
- ▶ During the **Development Phase**, the project team uses definition items identified in the Definition Phase to produce work packages that specify parameters, establish options, define thresholds, and perform other types of configurations or development of site-specific extensions.
- ▶ The **Conversion Phase** provides the new system with a base set of data with which the business functions operate, and involves the extraction, transformation, validation, and load of legacy data into the new FastDS system.
- ▶ The **Testing Phase** includes identification of system instabilities or issues and ensuring that the system is thoroughly tested and capable of meeting the agency's business needs in a robust, effective, and stable manner in production.
- ▶ During the **Training Phase**, the project team develops training materials and conducts train-the-trainer sessions for the individuals and/or entities responsible for training. Training documentation incorporates insight derived from organizational change-management activities, which start early in the project to support the agency's transition to the new FastDS solution.
- ▶ The **Rollout Phase** readies the project and the agency for cutover and delivers the new system to production.
- ▶ The **Production Phase** provides rollout, stabilization, and solution-specific help desk support during the initial production period and establishes the groundwork for operating and maintaining the production system over the long-term.

Nine Phases of the FAST Implementation Methodology



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The phases of the FAST Implementation Methodology guide our project teams and their use of our software for conducting project activities that create the work products and deliverables necessary for successful project execution and delivery. Our pre-built FastDS software and its core components are installed and accessible within the first weeks of project initiation, providing agency project staff, business users, and IT staff with direct exposure to baseline functionality at the project's onset. Over the course of the project, project staff and agency staff access and work with the software throughout the phases of our methodology.

Agency project personnel and staff have hands-on access and use of FastDS through a staging environment that mimics production. The environment allows agency staff to work with the new software early in the project, greatly enhancing real-world training and knowledge transfer. It also provides our FAST project team with expertise and insight from agency business experts. Their feedback on the software and its configuration for meeting your agency's specific business goals is key to ensuring the most usable and efficient system for agency staff, customers, and additional stakeholders. Based on input from agency business representatives, we configure, tune, and expand the software. Requirements are entered as definition items and business rules and configurations are made directly into FastDS, allowing agency project personnel and staff to verify that business requirements are being met through the software's integrated tools and screens. The result is a fully functioning production system that has been tailored to meet the distinct needs of your agency and jurisdiction.

4.2.1 Goals and Objectives – The project goals and objectives are listed below.

4.2.1.1 To modernize our legacy mainframe WVDMV driver system to a modern application that improves business process efficiencies with little to no interruption to the customer, which is also scalable and responsive to change.

FastCore's common code, components, and capabilities will provide WVDMV with a scalable and flexible foundation for delivering routine enhancement and innovation in functionality, usability, accessibility, performance, and security. FastDS contains complete capabilities for administering driver services without the need for third-party applications. In addition to core components that provide built-in capabilities for financials, reporting, correspondence, forms, online services, and interface management, FastDS contains core functions for automating system processes and workflow.

The FAST project team will identify system and business process improvements and maximize use of FastCore automation to optimize and streamline your agency's services and operations. Automated system processes and business activities will minimize manual workload, increase productivity, and streamline efficiencies across all aspects of driver services and program administration. FastDS automates customer case management, financial calculations, correspondence and report generation, document management, data exchange, and other critical system processes and business operations. Process automation will be configured to align with agency practices and

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policies, and the integrated business-rules engine will support rapid modification for changing business requirements, processes, and regulations.

During configure-and-confirm iterations in the Definition and Development Phases, additional requirements may surface that were not previously documented. Scope control should be considered when addressing these new requirements to ensure the overall project is not delayed. Our objective is to accommodate as many project requirements as possible through configuration and to develop site-specific code only when other options are impractical. To manage functional scope, we propose using the following guiding principles:

- ▶ FastDS will support the technical and functional requirements listed in the RFP and as responded to in our technical proposal.
- ▶ Our proposal is based on use of core FastDS features, functions, and processes, whenever possible, to reduce need for the development of site-specific code and associated maintenance requirements. Modern FastDS functionality will provide your agency with the ability to align agency business processes with new and enhanced system capabilities. Rather than replicating business processes that were largely based on the limitations of legacy systems, we anticipate that the agency will embrace streamlined business processes and procedures made possible by the modern FastDS system.
- ▶ We do not place a limit on the number of inputs or outputs included. Reports, letters, notices, and interfaces that are reasonable and necessary to administer the agency's business lines will be provided. The agency will provide FAST all necessary information related to processing and interfaces.

4.2.1.2 Establish a customer centric model that supports/allows a method to retrieve both driver and vehicle information with one search method.

FastDS is a customer-centric solution for driver services that brings together a complete customer view. The FastDS records customer information, including name, address, IDs, contact information, and other configured biographic information as needed. The customer record serves as a centralized location to understand interactions between the customer and various service channels. Customers can have a residential address and a mailing address and multiple IDs, such as an SSN and system-generated identifiers. Configured hierarchies determine which name, or address, to use depending on the situation (for example, sending a driver license to a physical address and other correspondence to a mailing address).

FastDS is structured around customer entity records with one or multiple accounts. Individual customers may have a "license" or "ID" account containing information related to the driver license or state ID. In this way, the customer persists even if their license or ID does not.

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While the scope of this implementation does not include our FastCore for Vehicle Services (FastVS) functionality, FastDS has the capability to interface with WVDMV's existing vehicle system to display information for vehicles associated to registered FastDS customers.

4.2.1.3 Provide a mobile-first experience process for the customer to participate wherever allowed by state code. To be fully compliant with all State and Federal regulations and laws.

FastDS has built-in web portal functionality and online self-service features that engage, inform, and empower customers and reduce staff workload. It provides customers with anytime access to their online accounts, obligations, and self-service features through an intuitive, user friendly, and responsive interface that is optimized for use on desktops, tablets, and mobile devices. Online self-service features provide step-based guidance for completing online transactions. It also supports customer preparedness and expedites in-office transactions by allowing customers to partially complete information online, providing clear guidance on original hardcopy documentation, and displaying web-based time, date, and location scheduling for office appointments. Customers can also receive important alerts and notifications and correspond with your agency through a variety of electronic communication channels. The web portal provides the tools and features to create secure, easy-to-use transactions for online processes. These processes can range from simple data submission/upload and correspondence lookups to completing reinstatements and submitting applications for duplicate licenses.

Web Portal & Online Self-Services

FastDS' built-in web portal functionality provides customers with an easy-to-use interface that has a consistent look, feel, and flow across all portal sections, screens, and modern browser versions. It provides access to accurate, centralized, and comprehensive customer and driver account information, options for electronically corresponding with the agency through a variety of communication channels, and easy-to-navigate online self-service features. Portal screens contain navigational aids designed to help customers maintain awareness of their location within the portal and their progress in completing forms, applications, or workflow. Forms and fields within the portal also provide auto-fill and edit-check capabilities to support expedited and accurate customer transactions. Important information and alerts, such as required customer actions or documentation, are highlighted on the home page of customers' accounts.

FastDS' online self-service features simplify customer service and communication and reduce workload for agency personnel. Customers can submit required documentation for reinstatement; view detailed case and financial summary screens; change contact and address information; set preferences for electronic correspondence; make online payments and establish automated payment plans, and more. Payment information can be stored for making future payments, and autopay options are available to automatically debit customers' designated bank accounts or credit/debit cards according to payment schedules.

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Customers have multiple online account-personalization options, such as designating their preferred forms of electronic communication and notification, language preference, payment types, and more. They can subscribe to receive e-mail and/or SMS text notifications from the agency and can also use secure web messaging/mail from their online accounts to communicate with the agency. FastCore can automatically assign web messages from customers as tasks for agency staff to ensure customer communications are addressed in a timely manner.

Enabling customers to conduct their WVDMV business online provides great value, but being able to analyze the effectiveness of the services provided takes customer service to the next level. To that end, the FastDS web portal dashboard contains features for managing the portal and analyzing real-time information and statistics related to online customer usage, issues, feedback, and other web analytics, including:

- ▶ Quick-view graphs of portal activity, with overviews of logged active sessions, web request submissions, web logons created, and web notices, e-mail, and text messages sent. Graphs can display information for hourly, daily, monthly, and other timeframes.
- ▶ Abandonment statistics on customers who begin, but do not complete, online services and web requests. Statistics include customer device usage, time spent on each screen, area of abandonment, and referral details. Analysis of these statistics can help to understand customer issues to improve online usability and services.
- ▶ Customer feedback and responses to online satisfaction surveys.
- ▶ Scheduling web portal outages to perform maintenance and updates.
- ▶ Creating lockout groups that allow authorized agency personnel to override default lockout durations and maximum number of logon attempts. For example, users can create a group based on the IP addresses for agency self-service kiosks to allow for a higher number of logon attempts.
- ▶ Web security statistics, including failed and successful logon attempts and other security-related information.

4.2.1.4 Provide an intuitive solution that supports both law enforcement with real time search capability, and daily business intelligence for reporting and auditing functions.

FastDS will provide authorized partners, like law enforcement, with accurate and secure 24x7 access for verifying identities and obtaining real-time driver information through a system-to-system interface, enabled by the FastCore Gateway functionality. FAST will work with agency business representatives to identify the type of information available to law enforcement and other third-parties.

FastDS will serve as West Virginia's centralized solution for identity verification and management, providing law enforcement and other authorized partners with secure and remote access for verifying identities, obtaining driver data, and exchanging information. Your agency can assign distinct roles and permissions to partner representatives to grant access to accurate real-time information and web-based functions related to credentials, certifications, restrictions, revocations, suspensions,

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convictions, and more. We understand the importance of working together with agency staff and local law enforcement to ensure that all needs are met and that the tools used to support and protect law enforcement are correct, functional, and reliable. Two of the most important stakeholders for driver enforcement are law enforcement and AAMVA. FAST has AAMVA interfaces in production for 20 states that use our FastCore driver and/or vehicle services solutions. FastDS contains core support for AAMVA messages (PDPS/CDLIS/SPEXS) via the AAMVA Exchange subsystem.

FastDS is configured to maintain virtually any type of customer data, including identities. Unique Customer IDs and account numbers are automatically assigned to all customers and accounts, according to configured rules. Sensitive identities, such as Social Security Numbers and Customer IDs, can be masked in the user interface for privacy purposes.

Likewise, FastDS provides multiple reporting tools to facilitate data-driven decision making. Because it is an integrated solution, reporting tools query the same database (or a synchronized copy) as end users. This enables access to up-to-the-minute, accurate information. Interactive reporting tools enable users to jump directly to specific records or data elements returned within the reporting tools, a feature that cannot compare to solutions with separate or standalone reporting solutions.

FAST confirms our solution is CJIS compliant. Our security posture follows the National Institute of Standards and Technology (NIST) 800-53 (moderate baseline) and U.S. Internal Revenue Service (IRS) Publication 1075 for regulatory compliance and best practices (which meets many CJIS protection requirements). We have extensive experience assisting our clients in complying with third party audits.

4.2.1.5 Interface with all other DMV systems/partners per attachment B.

FastDS will interface with all other DMV systems/partners identified in **Attachment/Exhibit B** and will enable interface integration with additional systems and partners necessary for successful system and agency operation. FastDS interfaces with internal and external third-party systems and applications through the solution's built-in Gateway integration layer and interface-management function. The Gateway provides robust API management and services that simplify, streamline, and expedite the development and integration of interfaces, without the cost, complexity, risk, and overhead of third-party middleware. The Gateway natively supports interfaces with systems maintained by AAMVA, including the Commercial Driver License Information System (CDLIS), Problem Driver Pointer System (PDPS), National Motor Vehicle Title Information System (NMVTIS), U.S. Passport Verification, Digital Image Access & Exchange (DIA), and more. These interfaces are in production in our FastCore solutions for multiple state motor vehicle agencies. Any new AAMVA interfaces become part of the core solution and are made available to all agencies that use FastCore for the administration of driver and/or vehicle programs and services. For non-AAMVA interfaces, the Gateway handles technical interface complexities like security protocols, communication, setup, and more through direct connectivity with the FastCore system architecture.

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Gateway functionality for managing and maintaining all interfaces, including modern, real-time, web-service interfaces and file transmissions from older systems and communication protocols, is accessed directly within FastDS. Examples of the Gateway's features and functions include:

- ▶ Capabilities for managing the lifecycle of application programming interfaces (APIs), from API establishment and testing to production deployment and ongoing performance monitoring.
- ▶ Controls for managing access permissions for third-party systems and entities.
- ▶ Queueing, logging, and monitoring for all API calls/requests.
- ▶ Load distribution and auto-scaling for efficient processing during periods of high-volume API calls/requests.
- ▶ Dashboards and reporting for API security and performance.
- ▶ API call/request throttling to protect against service overload.

External data exchanged and processed through the Gateway enables FastDS to serve as users' single source for accessing and viewing complete and consolidated real-time customer, account, and case-status information. The Gateway also assimilates and processes external data to automate case flow. As the system of record for all customer and account information, FastDS can transfer information to centralized data repositories, analytics environments, federal systems, and other external platforms and partners. FastDS supports both real-time and batch-driven interfaces, including flat files, Simple Object Access Protocol (SOAP), and Representational State Transfer (REST) web services.

With the Gateway, agencies can also provide external interface partners and third parties with access to an API developer portal that streamlines and supports the development, testing, and deployment of interfaces for data transfer with FastDS. The API developer portal includes an API catalogue, functions for developing and testing web services, self-service credential maintenance (certificates, API keys, username/password), and additional features, such as OpenAPI Specification support, IP address whitelisting, and Cross-Origin Resource Sharing (CORS) support for integration with client-side JavaScript frameworks used by browsers and mobile devices.

FastDS interface-management functions also include the FAST Developer Portal, which provides authorized interface partners with resources for establishing, testing, deploying, and managing their API connections with the solution. The Developer Portal includes published interface definitions, documentation, and the ability to perform test calls, as well as:

- ▶ Functions for web-services development and testing.
- ▶ An API catalogue.
- ▶ Online documentation, including parameters, URLs, responses, and additional information.
- ▶ Self-service credential maintenance (certificates, API keys, username/password).
- ▶ Tracking for required testing scenarios, including completion of agency-required authorization steps.

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- ▶ Approval and certification functionality for specific approval of interface-partner APIs, as well as IP address whitelisting.
- ▶ Open API (Swagger) support.
- ▶ Cross-Origin Resource Sharing (CORS) support, for integration with front-end java-script clients (such as cell phones, web browsers, and tablets).

4.2.1.6 Implement or modernize the following programs in accordance with AAMVA standards

4.2.1.6.1 State to State

4.2.1.6.2 Driver History Record (DHR) – SPEXS 6.2

4.2.1.6.3 Exclusive Electronic Exchange (EEE)

4.2.1.6.4 Drug and Alcohol Clearinghouse (DACH) – SPEXS 6.3

4.2.1.6.5 National Registry of Certified Medical Examiners (NRCME)

We will implement or modernize the interface programs listed above in accordance with AAMVA standards. Our FastCore solutions for motor vehicle agencies, including FastDS, have pre-built and production-proven interfaces designed specifically for data exchange for most of the programs listed above.

4.2.1.7 To provide an electronic workflow that generates digital copies of letters, forms, and notices that are sent from the system and stores them in the DMV document management system.

FastDS provides functions for creating, managing, and printing letters and other correspondence sent to customers. Every letter produced in FastDS is saved in the exact form that it was issued. A unique correspondence ID is assigned and displayed on each letter so it can be uniquely identified. Agency users can search for letters using the correspondence ID. Issued letters are retained indefinitely and can be reprinted in the exact form of the original. Letters can also be reissued with the current date and customer and/or account details.

FastDS uses mail types to simplify the creation and management of letters. Each mail type (for example, a registration confirmation letter, a renewal reminder, or a notice of suspension) has configurable settings based on agency business rules, such as whether the letter will be generated for a customer through manual or automated processes, which account types are eligible to receive the letter, and the hierarchy of customer names, addresses, and identifiers used in the letter.

According to agency business rules, correspondence can also be configured to be delivered and displayed electronically, using the secure web portal known as e-Services. Customers can select and manage their preferred communication channels online to ensure important information is delivered in a way that is most likely to reach them. FastDS can use these channels to communicate with customers regarding activity reminders, appointment check-ins, confirmations, and other pertinent information. Including information on the customer self-help options available through e-Services aids in reducing inbound call volumes.

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FastDS can be scheduled to create and process batches automatically or unprinted letters can be grouped into batches for individual printing online. Once a print batch is generated, users can view a list of all the letters in the batch, view summary data for any of the letters, preview letters, e-mail letters, or export letters as PDF files. Batch print files are produced in PDF format and can be automatically transmitted to network printers.

4.2.2 Mandatory Project Requirements – The following mandatory requirements relate to the goals and objectives and must be met by the Vendor as a part of its submitted proposal. The Vendor should describe how it will comply with the mandatory requirements and include any areas where its proposed solution exceeds the mandatory requirement. Failure to comply with mandatory requirements will lead to disqualification, but the approach/methodology that the vendor uses to comply, and areas where the mandatory requirements are exceeded, will be included in technical scores where appropriate. The mandatory project requirements are listed below.

4.2.2.1 Modernize the WVDMV Driver System

The Vendor must provide, install, configure, test, support and maintain a modernized driver system for WVDMV. The new solution shall be an API-driven, Chromium based web application. It shall NOT have dependencies on any desktop client operating hardware or software. The local computing environment should have no bearing on the new solution.

For all our implementations, FAST serves as the prime contractor, providing software and implementation services for the entire project lifecycle. This includes consulting services, software installation, configuration, code extensions, testing, conversion, as well as system knowledge transfer, training, production cutover, follow-on system support and maintenance services.

FastDS is an API-driven enterprise web-based application that runs in a modern (Chromium-based) web browser with JavaScript enabled. This allows FastDS to run on most mobile devices and desktops/laptops regardless of their operating system. The most current version of a browser is recommended. API interfaces are provided and managed using the integrated Gateway manager.

Supported Web Browsers (FastDS application and associated e-Services/web portals):

- ▶ Microsoft Edge - most recent two versions
- ▶ Safari - most recent two versions
- ▶ Google Chrome - most recent two versions
- ▶ Mozilla Firefox - most recent two versions
- ▶ Opera - most recent two versions

Supported desktop operating systems:

- ▶ Windows 10, 11
- ▶ Linux
- ▶ Mac OS

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Please note that a Windows-based operating system with .NET Core is required for development, training, and testing activities.

4.2.2.2 Roles Based Access Controls (RBAC)

The new solution shall use Roles Based Access Controls (RBAC) to segregate functions and services at the appropriate operational level.

FastDS uses a role-based security model and provides configurable, content-sensitive security based on users' designated roles. Users are assigned to roles, roles fall into groups, and groups have access to designated functions, data, actions, and more. Roles can be created for both agency and external users (if applicable).

A security role is a collection of one or more security identifiers. Both the roles and the security identifiers in each role are fully customizable, and roles are generally mapped to business roles in the agency. Each user can belong to one primary security role, but supplemental security roles can be created and assigned to a user for more granular control of permissions. All changes to users' security role memberships, as well as changes to the security roles themselves, are tracked for historical auditing purposes.

Security changes in the production environment can be automatically synchronized to other non-production environments. FastDS can also be configured to automatically cease a user's access if they have not accessed the environment for extended configurable amount of time. These features allow for unified management of user creation, termination, and security role changes for all environments from a single environment, resulting in improved efficiency and compliance for security administrators.

The Security subsystem manages service accounts by defining and enforcing application function security. Security tools and functions allow system/security administrators to define application security controls; maintain security groups; designate, track, summarize, and maintain user access and activities; and perform many other security-related activities.

Integrated workflow allows users to submit formal requests for access for approval by the account managers.

Security roles and rules for workflow are managed with the FastDS Security subsystem, which defines, enforces, and tracks user authentication, functional access, and system activity. Once a user has been authenticated, functional access is granted to agency users through role-based authorization. Each user has access to only the screens, data, and functions associated with their assigned role.

Security can also consider physical location to further limit transactions. When configured, transactions can be limited to specific machines to protect sensitive transactions. The most common example of this functionality is securing transactions like undercover driver license issuance. Using the FastDS security model allows these transactions to be conducted only within a highly secured area. For additional access information, see our response to **4.2.2.3** below.

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4.2.2.3 Vendor Access

All Vendor employees, requiring access to the solution shall be identified and authenticated using the state's Active Directory.

For user authentication on the state network, FastDS supports single sign-on through interface with a Lightweight Directory Access Protocol (LDAP) repository, such as Active Directory. The solution's LDAP integration features enable central management of role-based access, enforcement of authentication policies, and a simplified and streamlined experience for user access and authorization.

Agencies can grant external access to authorized vendor representatives—such as those who represent dealerships, insurance companies, and other service providers—with FastDS' multi-factor authentication features and/or web-portal login. FastDS provides complete control over security and authentication settings, like role-based access to select system features and information, requirements for username and password format, password expiration and reset rules, and additional access and authentication requirements.

With the role-based security settings in FastDS, WVDMV can assign distinct roles and permissions to vendor representatives to grant access to accurate real-time information and web-based functions related to credentials, certifications, restrictions, revocations, suspensions, convictions, and more based on business need. As with all user and system activities, all actions and activities undertaken by external users and partners are fully logged, tracked, and auditable by FastDS.

4.2.2.4 Migration

Migrate the legacy mainframe WVDMV driver system data (DB2) to the new system of record. The solution shall maintain compliance with the state's Enterprise Architecture standard <https://sites.google.com/wv.gov/wvotenterprisearchitecture/home>. The vendor must fully explain and provide a data migration plan, along with a timeline to migrate the existing WVDMVDS data to the new solution.

FastDS will maintain compliance with the state's Enterprise Architecture standard.

Migration/conversion of legacy mainframe WVDMV driver system data (DB2) to the new FastDS system of record will be conducted through our proven approach to data conversion. With this approach, we have successfully converted data on our software implementation projects for over 100 government agencies on our FastCore system-modernization projects, including over 20 state motor vehicle agencies. In total, FAST has successfully converted billions of accounts, records, and transactions from our clients' legacy systems, databases, and applications. Temporary interfaces, integrations, and conversions have been implemented between our software and mainframe, midrange, client server, and standalone PC applications, including DB2-based systems.

We will develop the conversion/migration plan during the project's Conversion Phase, which begins early in the project, in parallel with the Preparation Phase, and continues until a few weeks before production release, as highlighted below.

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Proposed 16-Month WVDMV Project Schedule – Conversion Phase Highlighted

Phase/Stage	Duration (Calendar Days)	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	Production Support
WVDMV Driver System Modernization	516 days	[Gantt bar spanning all months]																
Preparation Phase	40 days	[Gantt bar]																
Definition Phase	221 days	[Gantt bar]																
Foundation Phase	117 days		[Gantt bar]															
Development Phase	368 days		[Gantt bar]															
Conversion Phase	460 days		[Gantt bar]															
Testing Phase	250 days																	
Training Phase	166 days																	
Rollout Phase	197 days																	
Production Release/Go Live	1 day																	
Production Stabilization Phase	19 days																	
Production Support																		

The conversion plan will outline the strategy for successfully converting agency legacy data to FastDS. The plan is used to address topics and questions such as:

- ▶ Data to be converted:
 - ▶ What data is required by FastDS to provide the planned business functions?
 - ▶ Should inactive accounts be converted?
 - ▶ How much historic data is required to do business today and in the future?
 - ▶ Will any debits or credits be written off as part of conversion?
- ▶ Data conversion approach:
 - ▶ What data will be converted using automated processes?
 - ▶ What data will be converted using manual processes?
 - ▶ How will the project team resolve situations in which data that is required by FastDS is not available in legacy systems?
- ▶ Conversion transformation:
 - ▶ What criteria and transformations will be performed during the conversion process?
 - ▶ What are the customer, account, demographic, financial, compliance, and output mappings to be performed?
- ▶ Reconciliation approach:
 - ▶ What are the data layouts to be used during data reconciliation?
 - ▶ What reconciliations will be used for each data type?
 - ▶ How are data anomalies, if found, addressed during reconciliation?

Additional information related to our FAST conversion planning and process can be found in our response to requirement 4.3.2.21.

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4.2.2.5 Data

WVDMVDS contains information related to the client that must meet Personally Identifiable Information (PII), Federal Tax Information (FTI) guidance and regulations and Social Security Online Verification (SSOLV) security requirements. The vendor shall ensure their solution complies with current state and federal security regulations and guidelines.

Our software complies with state and federal security and data-safeguarding regulations and guidelines, including those related to Personally Identifiable Information (PII), Federal Tax Information (FTI), and Social Security Online Verification (SSOLV). It contains built-in security and privacy controls for protecting the confidentiality, integrity, and availability of sensitive data. FastDS encrypts all data at rest and in motion, enables masking/tokenization of sensitive information (like Social Security numbers), and has robust security, data management, and privacy safeguards based on security best practices and controls that comply with U.S. Internal Revenue Service (IRS) Publication 1075, National Institute of Standards and Technology (NIST) 800-53, and other compliance regimes.

FastDS controls access to federal tax information (FTI) data through role-based permissions, segregates FTI data into separate data stores, displays an on-screen indicator when FTI data is displayed, and logs details of all access to FTI data. FastDS also has an IRS-approved Safeguard Computer Security Evaluation Matrix (SCSEM). The SCSEM streamlines compliance with the confidentiality and data safeguard requirements outlined by IRS Publication 1075. It also helps to expedite system review and audit processes related to Pub 1075. Every FastDS system-modernization project has undergone the Social Security Administration's (SSA's) audit and certification process, resulting in successfully certified FastDS systems for 15 state motor vehicle agencies.

To provide a complete audit trail, FastDS logs all user activities, system actions, and access. Security analytics and reporting functions allow authorized users to view, analyze, and report extensive security-related information and real-time statistics, such as login attempts, user activity, sensitive-data views, IP groups, and more. FastDS also generates automated alerts to notify security officials of unusual user activities, restricted-access attempts, and other indications of potential misuse.

4.2.2.6 Forms, Letters, and Notifications

The vendor must explain how the solution will address approximately 25 forms, 180 letters and 10 notifications that will be printed, communicated or shared with customers, this should include email opt-in/opt-out options and text messaging.

FastDS includes functions for creating, managing, and printing letters and other correspondence sent to customers. The integrated Correspondence solution places no limits on the number of forms, letters, or notifications that can be configured.

FastDS provides multiple communication channels to provide customers and external users with important information. These channels include direct messaging on the self-service web portal, secure web notices, email, SMS text messaging, and physical mailed correspondence. Customers can select and manage their preferred communication channels online to ensure important information is

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delivered in a way that is most likely to reach them. FastDS can use these channels to communicate with customers regarding activity reminders, appointment check-ins, confirmations, and other pertinent information.

During the Definition Phase of the FAST Implementation Methodology, an inventory of all correspondence that is necessary to administer agency business will be taken prior to the start of configuration and development activities.

4.2.2.7 External Electronic Document

The system must include an external electronic document submission process that associates the document to a unique customer identity.

FastDS uses index information from electronic documents and images to automatically associate files and documents to a unique customer identity, ensuring that customers, vehicles, cases, transactions, and other index categories are associated, managed, and maintained with the correct customer account. Work items can also be generated to prompt users to manually index documents and image files. FastCore processes documents and image files received through single transaction or batch modes and supports industry-standard image formats, such as PDF, TIFF, Bitmap, PCX, DCX, JPEG, and XIF.

As the centralized repository for storing and managing all documents, images, forms, and correspondence, FastDS provides users with a complete view of customers and their related electronic documentation, images, and signature data through a single and unified relational database structure. When viewing customer profiles/accounts, authorized users have access to current and historical electronic documents, photos, signatures, correspondence, and other data obtained by FastCore through interface with third-party scanning and imaging devices. Version history is retained for all content in the system.

FastDS supports imaging and indexing of documents received through both external electronic document-submission processes and during customer and licensing transactions. During licensing transactions, document imaging is associated with both the source transaction and the driver record. This approach provides document tracking for situations in which review is necessary after the transaction. The system also supports adding images outside of standard licensing transactions. For example, if a driver submits a new DOT medical card during the middle of their license term, the document can be imaged to the record and to the data-entry task used to enter the information into the system, even though no new licensing transaction takes place.

Online transactions through FastDS' web portal functionality can also be configured, based on agency policy, to allow customers to upload documentation for direct online processing. Based on agency business rules, this online documentation can be used to complete select transactions online, or to expedite in-person transactions by enabling the pre-submission of required documentation through the customer web portal. When a transaction requires multiple documents, FastDS can provide customers with a list of permissible documents to upload. Once uploaded, the system can either

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complete document processing automatically or create a task for manual staff review before update to the customer record and/or transaction is complete. If customers prefer (or are required) to submit paper copies, the online self-service portal can generate a cover sheet with a barcode to easily identify the record and intended transaction. The barcode can initiate an in-office transaction without the agency staff having to search for the customer or choose what kind of transaction they would like to process. Instead, the customer's data entry becomes the basis for performing the in-office transaction.

FastDS also allows authorized education providers to submit completion certificate information online. Providers can submit verification information for a driver (such as driver's license number and last name) as well as additional certification data and agency-specified information for posting to a driver record. If needed, appropriate images can be uploaded within the submission. Once the education provider provides the required data, FastDS posts the information to the driver record in real time. Alternatively, the system can automatically generate a task for agency personnel to review and authorize the posting of the information.

External education providers often process certificate submissions for several customers at a time. For example, when conducting a class with 20 students the provider may wish to enter certificates for 20 drivers during a single transaction. To provide this time-saving service, FastDS allows the external education provider to enter each student's certificate within a single online self-service portal transaction. The data can be provided by an education provider keying the information or by uploading a correctly formatted spreadsheet. FastDS provides the ability for the provider to download the correctly formatted template.

Like education providers, additional authorized third-party entities can submit electronic information and documentation on behalf of customers through web portal upload. For example, medical providers can submit information necessary for drivers to obtain a DOT medical card.

4.2.2.8 SSOLV

The Social Security Online Verification (SSOLV) process used to export/import data into files for sending/receiving interface consumers/providers shall function at least as they do currently.

FastDS includes all AAMVA interfaces in the core product, including Social Security Online Verification (SSOLV). The core product is updated along with version updates provided by AAMVA.

Although the preferred method for interacting with SSOLV would be through real-time Webservice calls, FastDS can implement SSOLV checks via file interface for voter verification purposes.

FastDS uses configurable business rules to implement internal and external system checks, validations, data retrieval and error checks for transactions. These can be included in transactions and other appropriate workflows. Common external interfaces include SSOLV, PDPS, SPEXS, USPVS, and others. Each interface check within a transaction can be triggered automatically based on field values or when these values change, triggered at a specific step in the transaction, or triggered

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manually by a user. All interface checks are logged in the FastCore Gateway, which includes error tracking and reporting tools.

4.2.2.9 Data Exchange Interfaces and Partners

There are many interfaces that consume WVDMVDS data and WVDMVDS consumes data from many sources. The vendor must ensure this information consumption is minimally impacted as a result of the new system. Please refer to Attachment B for the list of interfaces and account for the creation of the following new interfaces with AAMVA.

- Implement/Modernize State to State (S2S) Verification Service for WVDMV.
- Implement/Modernize Driver History Record (DHR) functionality for WVDMV.
- Implement/Modernize Exclusive Electronic Exchange (EEE) for WVDMV.
- Implement/Modernize Drug and Alcohol Clearinghouse Exchange (DACH) for WVDMV.
- Implement/Modernize State Pointer Exchange Services (SPEXS) 6.3 for WVDMV.
- Implement/Modernize National Registry of Certified Medical Examiners (NRCME) for WVDMV.

We will implement and/modernize the interface programs listed above, including all interfaces listed in **Attachment B**, and will ensure information consumption is minimally impacted as the result of the implementation of FastDS.

Except for NRCME, FastDS has pre-built and production-proven interfaces designed specifically for data exchange with each of the programs in bullets listed above. Final specifications for the data exchange with NRCME have not yet been released by the Federal Motor Carrier Safety Administration. When these specifications are released, we will develop and implement an interface for use by WVDMV and all our FastCore client agencies that manage driver programs and services.

In addition to the programs listed above, FastDS natively supports interfaces with several additional AAMVA and federal systems. Examples include:

- ▶ Problem Driver Pointer System (PDPS)
- ▶ U.S. Passport Verification (USPVS)
- ▶ Social Security Online Verification (SSOLV)
- ▶ Digital Image Access & Exchange (DIAE) systems

Additional interfaces necessary for meeting the project's scope of work can be rapidly developed and implemented through FastDS' built-in interface-management functions and Gateway integration-layer functions.

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4.2.2.10 Support

The vendor must provide technical support to resolve issues related to the implementation or operation of the resulting migrated system throughout the term of the contract.

Our support methodology closely resembles our FAST Implementation Methodology in which agency users are empowered to lead the modernization effort and assume ownership of the product while being supported by FAST team members. This support approach evolves during the different phases of the project (ex. implementation, go-live, and production support) to provide the level of support needed at each of these phases.

During Implementation

During the initial implementation phase of the project, FAST provides most of the support to resolve any issues with the FastDS environments (ex. Development, Training, Testing, etc.). Most full-time project personnel will be on site within one to two weeks of project start, with the project manager and select project team managers on site within the first week of the project. FAST considers the implementation project to be a partnership with the agency, with both parties assisting with support to agency testers, trainers, and other parties involved in early verification.

Immediately Post Rollout

Immediately after transitioning to production, a rollout support team provides elevated support to user work areas affected by the implementation. This team is comprised of project team members and agency staff who are most familiar with the software solution. Rollout support can be provided in-person or remotely depending on where staff are located and agency preferences. Support staff remain on duty for the initial days or weeks that the new system is in production and are available to answer any questions that arise during those initial weeks. Users may have questions or may simply want someone standing by as they perform new tasks.

Production Support

As the need for rollout support diminishes, project team members no longer provide elevated support on a regular basis to the business areas. At this stage, a system-specific help desk serves as an application triage center—routing non-system-related calls to the help desk, responding to and managing system related help calls, and sometimes dispatching a specialist from the project team to provide in-person assistance. As calls related to the new system decrease, the help-desk service transitions back into the standard agency help desk. During a transition period, we work with agency help desk staff to ensure they have the skills, knowledge, and procedures to take over. This may include training, use of a “buddy system,” mentoring, and documentation development. The duration of these support periods varies according to the agency’s comfort level.

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Knowledge Transfer and Long-Term Maintenance and Support

Throughout the project lifecycle, FAST provides training and knowledge transfer to support the ability of agency personnel to operate and maintain FastDS in production. During the Production Support Phase, a Maintenance and Support Plan is created with the agency to prepare for the transition of daily support and maintenance activities to agency personnel. The plan outlines the resources and timing necessary for transferring day-to-day operational support to the agency. The plan also outlines the activities to be performed, at a high level, to support FastDS and its environments. Within the plan, we define the tasks that should be performed daily, routinely, and proactively to support and maintain the system.

The project team will also establish how affected business units submit service requests to the production support team during the Production Support Phase. Agency leadership establishes a governance method to assess what requests for system corrections, changes, and enhancements will be addressed. The method sets out how service requests will be prioritized. Project leadership assigns project team resources to respond to service requests, either as part of the ongoing implementation team or as a distinct sub-team. Project leadership also sets out how service requests will be assigned to team members, how the work will be conducted and managed, how progress will be monitored and reported, and how system changes will be authorized for production.

4.2.2.11 System Availability

- All servers used as part of the Vendor solution must be configured for automatic failover to minimize system downtime.
- Monthly maintenance windows for servers will be established, and the Vendor must provide notification of their intent to utilize the maintenance window no less than 1 week in advance.
- Downtime is defined as any time that any portion of the WVDMVDS system is unavailable for normal business operations, and when the Agency approved work around is not available.
- Downtime will start from the time the Agency first notifies the Vendor's designated representative for Help Desk of the imperative condition until it is returned to working order.
- The backup and disaster recovery solution shall provide for data restoration services and for complete system recovery services in the event of a catastrophic failure.

We confirm and agree to meet this requirement. Our solution is designed to have no single point of failure and includes backup and disaster recovery services. Redundancy is provided by using multiple servers that perform the same function. Business operations within the solution are typically processed as discrete units of work that either succeed or fail. Any message request passed through the application server will commit only if successful.

In the event of a system or component failure in a high-availability environment, the additional servers continue to process messages and work with the database to ensure no data is lost. Our

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performance and load estimates are designed to ensure that the unlikely event of a component failure will have minimal impact on overall system performance.

The platform is designed for high availability as follows:

- ▶ Middleware components provide the ability to detect server outages and route to redundant servers.
- ▶ Network Load Balancing is used for web services.
- ▶ Cloud high availability services are used for all servers.
- ▶ All servers, services, and components in the solution's production environment are configured in a redundant manner so that a failure in any one component is extremely unlikely to result in unplanned downtime.
- ▶ No standard system administration tasks involve interruption of client sessions. If a client session is interrupted for some reason, the most recently completed transaction will already be committed and will not require any restoration activity.

Routine system maintenance is scheduled during off hours with advanced notice to our clients. We work with each client to finalize a routine maintenance schedule and limit downtime as much as possible.

4.2.2.12 Help Desk Support

During the entire term of the contract, the Vendor will provide the Agency with a toll-free Help Desk number and email address to contact the Vendor for technical support. At a minimum, the Help Desk Hours must be:

- 7:00am to 8:00pm, Eastern Time Monday through Friday
- 7:00am to 2:00pm, Eastern Time Saturdays
- Extended hours as needed for special events such as the West Virginia State Fair.

Requests for after-hours support should be directed to FAST's on-site production-support manager, project manager, or other designated FAST representatives as agreed in the Production Support Plan. If on-site resources are unavailable, FAST's toll-free number can be used. Phone support from the FAST Development Center is available at 877-275-3278 (877-ASK-FAST). While it is expected that most support activities will occur during normal business hours, we recognize that after-hours support may occasionally be necessary for scheduled maintenance or to resolve critical system issues.

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4.2.2.13 Security

The vendor must ensure all work related to the migration of customer data from the WVDMVDS system will be performed in accordance with [WVOT security policies. WV Office Of Technology Policies](#)

We align our security and data protection policies with the two most prominent and widely accepted industry standards applicable to our solution, NIST 800-53, and IRS Publication 1075. The security program enforced on the project is designed to substantially meet the security controls and assessment procedures for the Moderate-Impact Baseline defined by the National Institute of Standards and Technology (NIST) in the special publication NIST 800-53

The response to vendor technical questions indicates vendors should submit NIST standards and certifications to be evaluated by the WV Office of Technology. We conduct annual security audits on our hosted environments. FAST agrees to provide the requested reports if invited to negotiations. We require a signed Non-Disclosure Agreement before providing sensitive information contained in our 3rd party annual SOC 2 Type II security audit reports. FAST also uses the Center of Internet Security (CIS) Benchmarks for hardening infrastructure components.

4.2.2.14 WV Policies

The vendor must review and agree to all West Virginia policies and rules related to privacy and confidentiality (attachment C and D).

We confirm and agree to all West Virginia policies and rules related to privacy and confidentiality in Attachment C and D. Our software solutions comply with the required federal, state, and/or jurisdiction-specific accounting, legal, and technical policies and regulations of all our clients.

4.2.2.15 Technical Design Document

The Vendor must provide a Technical Design Document detailing Phase One of the project. At a minimum, the Technical Design Document must include:

- System and Network Architecture according to Statewide Architecture Requirements
- Hardware and Software requirements
- Database design to include at a minimum the overall architecture, the logical data model, the physical data model, and the data dictionary
- System Component Listing and Description Interface design
- Screen layouts
- Screen functions and field edits
- Reporting functions
- Procedural Design such as Use Cases including:

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- [Processing specifications](#)
- [Special conditions/exception processing](#)
- [Outputs](#)
- [Data Dictionary](#)

We confirm and agree to meet this requirement if selected for contract award. FAST will provide user and technical documentation that is based on the agency's specific configuration of FastDS. User guides and other forms of documentation will be integrated within the software, providing topical inline tips and Help items for users. For example:

- ▶ User and developer guides are maintained in the Help subsystem. Site-specific documentation can be added to the Help system as standalone documents or can be appended to existing core documents. Updates to the core documentation are imported without overwriting any site-specific documentation.
- ▶ The Fast Central Repository (FCR) is the primary repository for all FastCore code and site-specific configurations, table definitions, and document source code that is designed specifically for the agency. It also serves as a repository for all additional users and technical documentation needed to use or maintain the system.

The following are examples of the standard user and technical documentation that is tailored to provide agency-specific training and reference material:

Standard User Documentation

- ▶ Training material
- ▶ Context-sensitive online Help that describes FastDS screens, springboards, fields, and action and navigation buttons
- ▶ Online task-oriented Help that describes how to accomplish specific user tasks with FastDS
- ▶ Detailed guides for selected FastDS procedures
- ▶ Quick reference materials
- ▶ Security Configuration Guide

Standard Technical Documentation

- ▶ FastDS Subsystem Guides
- ▶ Development Help Configuration Guides
- ▶ Application Server Installation Guide
- ▶ Batch Manager Guide
- ▶ Database Roles and Triggers
- ▶ Developer Machine Setup Guide

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- ▶ Diskspace Best Practices
- ▶ Environment Infrastructure Maintenance Guide
- ▶ File Server Setup Guide
- ▶ Infrastructure Best Practices Guide
- ▶ Initial Environment Database and Config Setup
- ▶ Long-Term Backup Retention Recommendations
- ▶ Network Segregation Best Practices
- ▶ Server Manager Service - Services Settings Guide
- ▶ Database Server Analysis Services Installation Guide
- ▶ Database Server Best Practices
- ▶ United States Postal Service Data Overview
- ▶ Web Gateway Service Setup

Documentation is continuously updated from multiple sources. Agency-specific documentation is managed and updated by FAST and project staff. The core documentation (e.g., FAST Software Online Help) is managed and updated by the FAST Headquarters.

As requested in the response to vendor technical questions, FAST proposes to implement FastDS using our FAST Implementation Methodology. This methodology, which is both a Program Management and a System Development Life Cycle (SDLC) approach, has been used to successfully deliver our software solutions on every one of our implementation projects. While unique to our company and our FastCore software, it is based on industry standard methodology principles and includes our approach to plan, design, develop, test, and deploy FastDS. For a full description of the FAST Implementation Methodology, see **4.2 Project Goals and Mandatory Requirements – A Proven & Consistent Approach to Speedy Delivery of System Modernization**, above.

4.2.2.16 Meetings

The vendor shall participate in a kick-off meeting within one (1) week of the contract effective date to review the draft Project Schedule and all draft components. The final version of the Project Schedule shall be submitted to the department for review and approval within thirty (30) calendar days after the kick-off meeting.

A draft schedule has been provided in our response to **4.2.2.17 Project Schedule**.

In addition, FAST will conduct a formal project kick-off meeting to formally recognize the start of the project, introduce key project participants, communicate a shared view of the project, ensure understanding of the approved project objectives, and clarify next steps for project personnel and agency staff. We will prepare presentations for kick-off and system-overview meetings. As part of the kick-off meeting, FAST's project management team presents an overview of FastDS and the project schedule, project team structure, expectations for each team, and upcoming project tasks are highlighted in the meeting by FAST and key agency project personnel. The meeting provides the

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details necessary to communicate the project approach and preliminary activities for project implementation and it is usually conducted within 30 days of project start.

4.2.2.17 Project Schedule

The vendor must provide a project schedule which includes a detailed breakdown of the tasks necessary to provide the contract deliverables and the timeline for carrying out all tasks to complete the project. The Project Schedule shall include tasks related to all phases of the project identified in the Implementation Plan, functions, and activities. At a minimum, the Project Schedule shall include:

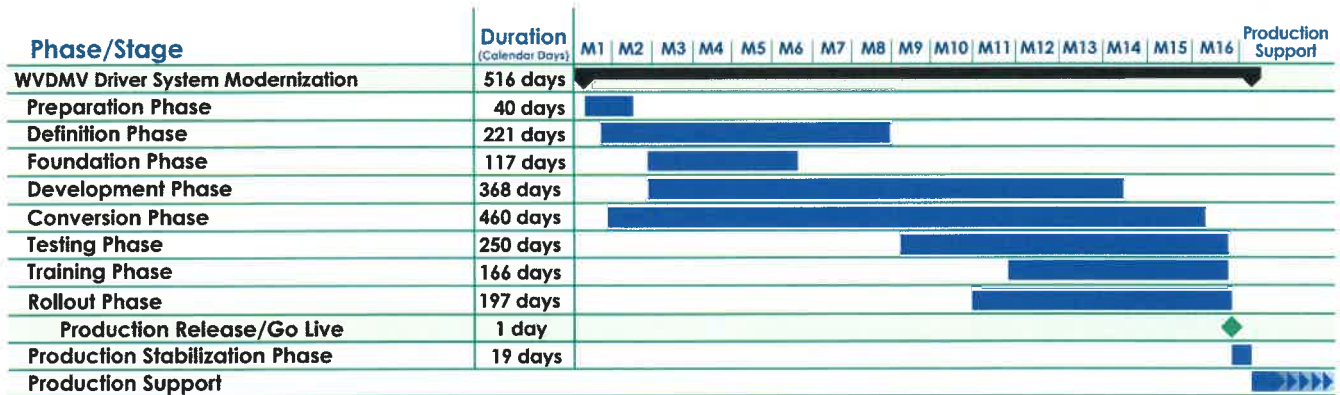
- A detailed project management plan pursuant to industry standard guidelines for project management plans for major system implementation, including staffing and resource requirements, and describes how the solution will meet AAMVA, NHTSA, REAL ID Act, State Code, Administrative Rules, and FMCSA.
- Staff Interviews defining desired use cases.
- A detailed technical design that describes the use cases and steps for developing the new solution.
- A training and post-implementation support plan for the system.
- Development and administration of a user test plan and provision of a test liaison to the department during acceptance testing.
- Preparation and provision of concise, accurate weekly reports of the project's status to the department outlining:
 - Main tasks worked on during the week,
 - Milestones reached,
 - Deliverables provided,
 - Main tasks to be worked on next week,
 - Project concerns and problems, and
 - Items needed from the department's project management team, including a personal meeting or telephone conference to review the project status.
- Change Management Process – Preparation and documentation of a change management process for all proposed changes to the project plan once the plan is base-lined. The change management process shall include, but not be limited to, change requests and approval levels, as well as associated risks. Additionally, the change management process shall address priorities and other relevant information pertinent to the proposed changes and the effect on the project in terms of time, money, and resources. Both parties, as part of the final Implementation Plan, shall mutually agree on the change management plan and processes.
- The vendor must provide an hourly rate for professional services (value add).

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- Risk Management Plan – Preparation and documentation of a Risk Management Plan, including but not limited to, identification of all risks associated with the project, the triggers that will alert the project manager to the risk’s likelihood of occurring, and a mitigation plan. Both parties, as part of the final Implementation Plan, shall mutually agree on the Risk Management Plan.
- Documentation of all assumptions made in preparing the Implementation Plan and those associated with the completion of the project as well as what the vendor needs the department to provide in terms of resources, workspace, and computing environment.

As shown in the following illustration, we are proposing a 16-month schedule to implement FastDS as WVDMV’s full-function, automated, and modernized solution for the administration of West Virginia’s driver/credential programs and services. This schedule includes complete implementation of FastDS functionality for driver services, credentials, enforcement, and additional functionality related to driver and identity services. If awarded, FAST will work with WVDMV during contract negotiations to define a start date and further refine the schedule. FAST can have staff in Charleston ready to begin work 30 days after a signed contract.

Proposed Project Schedule – WVDMV Driver System Modernization (FastDS Implementation Project)



The following table provides additional detail on the phases, milestones, and activities of our proposed 16-month schedule for the WVDMV Driver System Modernization Project.

Detailed Schedule: 16-Month WVDMV Driver System Modernization Project

Project Phases, Milestones, & Activities	Duration (calendar days)
WVDMV Driver System Modernization Project (FastDS Implementation/System Modernization)	516
1. Preparation Phase	40
1.1 Install FAST Software/Installation Report	12
1.2 Identify Project Objectives	33
1.3 Develop Project/Implementation Plan, including the Quality Assurance Plan	33
1.4 Perform System Overview	19

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Project Phases, Milestones, & Activities	Duration (calendar days)
1.5 Develop Business Profiles	26
1.6 Prepare Inventories	33
1.7 Create Project Schedule	33
1.8 Identify Resources & Develop Team Assignments	26
2. Definition Phase	221
2.1 Develop Resource Plan	19
2.2 Define Business Requirements	194
2.3 Perform Developer Technical Training	12
2.4 Perform Infrastructure Recommendations	26
3. Foundation Phase	117
3.1 Define Scope of Foundation	26
3.2 Perform Foundation Setup	96
3.3 Perform Verification	12
4. Development Phase	368
4.1 Perform Development Tasks	285
4.2 Develop Correspondence	285
4.3 Develop Reports	264
4.4 Develop Interfaces	285
4.5 Review Configuration (Verification)	306
4.6 Define Application Security	124
4.7 Perform Change Impact Analysis	369
4.8 Develop Architecture Plan	103
5. Conversion Phase	460
5.1 Inventory Data Resources	19
5.2 Define Conversion	201
5.3 Purify Data	411
5.4 Perform Extracts	411
5.5 Develop Conversion	411
5.6 Run Mock Conversions	362
5.7 Verify Conversion	320
6. Testing Phase	250
6.1 Create Test Plan	54
6.2 Perform Business Testing	89
6.3 Perform Converted Data Testing	117
6.4 Conduct Performance Testing	33

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Project Phases, Milestones, & Activities	Duration (calendar days)
6.5 Perform End-to-End Testing	54
6.5.1 Perform Application Security Testing	54
7. Training Phase	166
7.1 Create Training Plan	33
7.2 Localize Training Material	61
7.3 Localize User Documentation	61
7.4 Train Trainers	26
7.5 Train Users	54
8. Rollout Phase	197
8.1 Prepare Installation Report	26
8.2 Prepare Operations & Support Plan	47
8.3 Perform Operations Training	12
8.4 Update Disaster Recovery Plan	26
8.5 Create Cutover Checklist	124
8.6 Set Up Help Desk	19
8.7 Run Conversion	2
8.8 Production Cutover (Go-Live)	1
9. Production Stabilization Phase	19
9.1 Perform Desk Side Support	19
9.2 Perform Production Support	19
9.3 Perform Operations Support	19

FAST has provided additional detail on our approach to project status reports, change management, risk management, and project assumptions in the narratives below.

Project Status Reports

Effective and comprehensive communication is the foundation of any sound project management team. Structured and informal communications facilitate decision-making and the exchange of information. They also aid in identifying issues for resolution before they can adversely affect the project. Timely, accurate, and effective communication is the key to minimizing risk, maximizing the benefits of our software, and helping the agency meet its project goals and objectives. FAST and agency project personnel are typically co-located within the project workspace to enable consistent, collaborative communication amongst teams. Weekly status meetings are held at the individual functional and support team level to discuss team-specific assignments and objectives, while weekly all-project team meetings address project wide status, issues, and relevant cross-team information. Management and executive level meetings and status reports are conducted at agreed-upon intervals to review project status, issues, risks, and overall progress.

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The status of virtually all aspects of the project can be viewed directly within FastDS Delivery Workbench dashboards. Authorized users can view project progress, tasks, schedules, work products, and additional information through the dashboards in real time. Data tables and charts can be exported and manipulated in a variety of formats, along with supporting narrative from the project management team. The Workbench provides users with functionality for creating, monitoring, modifying, and managing the project schedule and associated tasks, timelines, and work products. It allows the project team to summarize and view project status, assigned and unassigned tasks, project resources, historic schedules, and more. Notes, attachments, correspondence, and other support documentation can also be included as reference information or project artifacts in the Delivery Workbench. This centralized access within Delivery Workbench to real-time activities, project status, and artifacts supports collaboration in all aspects of project management and status reporting, providing your agency with the necessary transparency to monitor the project schedule, identify project-related issues and concerns, and make data-driven decisions.

For more formal reporting, such as quarterly management meetings, status reports are generated directly from FastDS-based on project information, activities, and schedules that are embedded and managed within the Delivery Workbench. They can be generated on demand or at agency-selected intervals, such as weekly and monthly to align with scheduled status meetings and management checkpoints. During the initial Preparation Phase, FAST and agency project managers define the standards and requirements for project status reporting and review. They establish the format of the report and the information it will contain. Our standard format for project status reports includes:

- ▶ A recap of the previous reporting period's work, including testing and test results.
- ▶ A preview of the next reporting period's work.
- ▶ The status of major activities (tasks and deliverables) and milestones.
- ▶ Status of any potential delays (risks and issues) in reaching target dates.
- ▶ Status of pending decisions and their impact on project schedule.
- ▶ Additional information to accommodate agency requirements.

Change Management

The following section will define the FAST Change Management Methodology (CMM); specifically designed for FAST system implementations, The FAST CMM includes activities that span all the project implementation phases. The FAST CMM was developed as a formal methodology due to our experiences working with various jurisdictions and the realization that jurisdictions were looking to industry vendors to provide change management guidance. The FAST CMM is comprised of best practices developed across software implementation projects of various sizes and extensive experience working with government agencies and their wide array of stakeholders, both internal and external.

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Maintaining and Managing Project Changes

Modifications to the schedule, requirements, deliverables, and scope are controlled through our change-management process. The implementation of enterprise-level IT systems is a dynamic process that is best served by flexibility. We understand that some requirements will inevitably change during the project. We will address changes to in-scope requirements through a collaborative working relationship with WVDVM leadership and project personnel.

Our objective on this project, as on all our projects, is to complete the project on time and within budget. We have extensive experience in system modernization through the implementation of our FastCore software, and this experience and knowledge is reflected in our certainty of successful schedule delivery, our fixed-price cost, and our willingness to accommodate changes to requirements as the project unfolds. Changes to definition items, requirements, and configurations are frequent, anticipated, and built into the project schedule of all our implementation projects. The flexibility of our software allows for these sorts of changes without schedule modification or disruption. As such, formal change requests are needed only when an item of significant scope change is presented, such as the addition of a new agency program or a significant change in project direction that would require a formal change request and contract modification. Change orders are extremely rare on our projects, and in every case have been initiated at the request of our client agencies, typically to add significant scope that was not in the original contract.

Low-level change impacts are based on multiple considerations. The considerations involve if, when, and how the change will be made based on current project bandwidth and answers to questions such as:

- ▶ What additional value will the change provide to the agency?
- ▶ Is the change mandated by law?
- ▶ Who or what is affected by the change (for example, all customers, select stakeholders, or a new interface to an external agency)?
- ▶ Does the change fit within the current stage in the project lifecycle (for example, does configuration, testing, and training need to be modified)?
- ▶ Is the change a configuration or development modification?
- ▶ Does the change impact other system components, and if so, in what way?
- ▶ What is the nature of the change (for example, cosmetic, additional business-rule validations, workflow route, etc.)?
- ▶ Is the change needed at go-live or can it be addressed in post-production?
- ▶ What will occur, or not occur, if the change is not performed?
- ▶ What are the alternatives, if any, to address the requested change?

Based on the above considerations, FAST and WVDVM will determine if the change should be implemented without need for a change request, or if re-work or redirection is needed. If re-work or

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redirection is needed, the amount of necessary work is estimated. Relevant baselines are re-baselined upon change-order implementation and schedules and planning documents are adjusted accordingly.

The goal of the change-management process is to:

- ▶ Ensure that standardized methods, processes, and procedures are used for changes.
- ▶ Facilitate the efficient and prompt handling of changes.
- ▶ Maintain the proper balance between the need for a particular change and the potential detrimental impact of the change.
- ▶ Improve communication within the organization and notify appropriate stakeholders of changes and the impact of change.
- ▶ Provide for a centralized repository and maintenance of project changes. A change request is not a risk, issue, or schedule change. However, risk, issues, and schedule changes may result in a change request.

Project management is ultimately responsible for the change-management process. The project managers can delegate responsibilities within the project team as appropriate. The project managers, executive sponsor, and executive steering committee typically represent the three progressively authorized levels of change control on our implementation projects. Additionally, based on the approved change, steps may be defined for sending changes to a change-control or change-advisory board.

Our standard decision-request process helps to ensure that the project team presents issues to decision makers in a complete and concise fashion as part of the overall change-control process. Issue resolution is facilitated by use of a decision-request item, which requires project personnel to include the issue origination date, the decision “needed by” date, and the project priority level (such as emergency, expedited, or standard). The decision-request item is used within FastDS to track issues and decision requests, from inception to resolution, and serves as a project artifact.

FastDS is designed to effectively incorporate change, modification, and innovation through configuration at a more accelerated pace than is possible with most alternative systems. FAST and WVDMMV project personnel can explore multiple options and technologies to develop process improvements and meet emerging business needs. Those elevated to the next level are developed into business cases that outline the features and benefits of the innovation, an estimated cost and level of effort for implementation, potential impacts to customers and stakeholders, and any legislative requirements.

FastDS can automatically notify all project personnel and additional agency stakeholders of changes that impact schedule, tasks, deliverables, processes, and other applicable aspects of the project. Significant change items are also discussed in recurring project meetings and are included in routine project reports.

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Organization Change Management

The FAST Change Management Methodology (CMM) helps to direct and define the impact of change on the agency and its personnel. The methodology is an approach to organization change management that is specifically designed to support an agency's transition to a new system during software implementation projects.

FAST and WVDVMV will collaboratively create a formal and detailed change management plan during the project's Preparation Phase. The plan will outline the project's approach for:

- ▶ Documenting, tracking, and managing changes.
- ▶ Identifying the internal and external stakeholders who may be affected by the changes.
- ▶ Analyzing the nature and degree of the changes on stakeholder groups.
- ▶ Developing schedules, strategies, communications, and tactics to help each stakeholder group make an effective transition.

As an integrated component of the FAST Implementation Methodology, change management activities will be aligned with, affected by, and incorporated into major project deliverables, such as the project plan, communication plan, and training plan.

FAST change management focuses on significant changes that fundamentally alter how work is performed, who performs the work, and changes in the volume of work, as well as policy and practice changes. Throughout the implementation project, the change management team works alongside agency personnel to identify, assess, and plan for the potential impact of organizational changes associated with the modern FastCore-based solution. For each significant change identified, the team, with the assistance of agency management, determines affected stakeholders, how they will be affected, known resistances to the change, and the most effective methods of assimilating each change into the organization. Less significant changes, such as adjusting to different screen layouts, using new features and functionality, using novel terminology, and learning system navigation, are addressed through the training program.

Change management is a shared responsibility. Agency ownership and engagement in the change process are crucial to successful organizational change. FAST provides structure and experience by offering guidance, tools, and best practices. The agency provides leadership and support from within. The agency and FAST OCM teams will meet regularly to discuss OCM efforts and develop a plan to execute the change management tactics needed to support desired changes. FAST and the agency's project managers will work with additional agency leaders to determine the most appropriate personnel to lead the project's various change management activities. It's important for the agency to provide a change management and communications lead to ensure that the program is properly executed, and the leadership team is kept informed of changes, sensitive issues, and any resistance points. This person should be a respected staff member in the agency who has a solid working

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knowledge of the organization, sensitivity to employee and stakeholder concerns, and strong communication skills.

The OCM manager will work closely with the project team and agency leadership to identify key change messages and appropriate change tactics for the project. Messages and change tactics will reinforce OCM best practices. The message themes are identified to demonstrate the agency's commitment and investment in staff (for example, messages about the agency's commitment to job security, agency support during times of learning and transition, culture shifts, and changes to business processes). Change tactics fall into the following categories: communication, training, functional readiness, human resources and facility readiness, data and technical readiness, user preparedness and attitude, supervisor preparedness and attitude, and post-production support.

The diagram below displays a high-level flow of key activities for each stage of the FAST change management approach. This diagram provides a general outline of when various activities will occur. Managing change is iterative and often loops back as the project progresses.

FAST Change Management Activities by Stage



Risk Management

Our approach and philosophy on risk management seeks to minimize the impact of unplanned incidents on the project by identifying and addressing potential risks before significant negative issues and consequences occur. As described in the remainder of our response to this topic, our methodology includes risk and issue management processes and mitigation strategies.

Risk Management Plan

FAST and WDMV will collaboratively create a risk management plan that defines the proposed approach and associated processes used for risk identification, risk analysis and escalation, risk response and contingency planning, and risk monitoring and tracking. Project risks are future

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uncertainties, liabilities, or vulnerabilities that may have a negative impact on the project. Since every project carries some element of risk, it is important to manage risk proactively through a risk management process.

The risk management plan, which will be managed by the project management team, includes the following key steps:

- ▶ Risk identification
- ▶ Risk analysis and measurement
- ▶ Risk response planning
- ▶ Contingency planning
- ▶ Risk monitoring and control
- ▶ Risk escalation

Risk Management Process

Risk management is an ongoing process that continues throughout the project lifecycle. Project managers will start the risk-management process by identifying risks, analyzing and planning accordingly for these risks, and then monitoring and controlling the risks. These steps are repeated throughout the project as new risks are identified, analyzed, planned for, and controlled or mitigated. As part of the ongoing risk-management process, the project managers will identify checkpoints during the project at which time new risk identification will be given a higher priority. For example, new risks are more common prior to project work commencing, during major plan revisions, when significant deviations from the plan occur, and at the beginning of new phases of the project.

The project managers review project risks and decide if risks should be researched, accepted, mitigated, watched, or avoided. Risks become issues when it is evident that they have been triggered and at that time should be handled according to the procedures detailed in the plan.

During risk response planning, stakeholders are consulted to provide a variety of perspectives and to provide valuable input into risk-response planning. The diversity of perspectives and knowledge held by stakeholders can be leveraged to create a meaningful risk response plan.

We use the FastDS integrated Delivery Workbench for logging, assigning, and tracking project risks. The Delivery Workbench can be used to document, describe, prioritize, assign, and track risks, as well as to report on their progress and resolution.

Risk Registry

FastDS risk-registry functionality is used for risk identification, analysis, and escalation; risk response and contingency planning; and risk monitoring, management, and reporting. It is the primary FastDS function used in our risk-management approach, which is ongoing throughout the project lifecycle and designed to minimize the impact of unplanned incidents by identifying and addressing potential risks

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before they become impactful issues. Since FastDS is based on the FastCore software platform that has been implemented and is in production for multiple government agencies, standard risks that are common to all modernization projects are populated into the registry. Additional identified risks are added to the registry during the project's Preparation Phase. Risk and issue status are routinely monitored and measured, and FastDS can automate the distribution of severity alerts and updates. Risk and mitigation activities are identified and disclosed in routine status meetings and reports.

Following are risks that are common to all system-modernization projects and the strategies and solutions that we employ to mitigate these risks.

Risk

Use of general-purpose software not specifically designed for government program administration.

Mitigation

FastDS was built specifically for the administration of driver services and provides virtually all functionality necessary for program administration, including core business functions and back-office support processes. Its integrated, pre-built components operate as a unified system of record, allowing agencies to focus on configuring the single software solution to meet distinct business requirements, rather than connecting a patchwork of applications to fill functional gaps.

Risk

The system cannot easily adapt to changes to policies, procedures, and new legislation.

Mitigation

Our software is designed to rapidly incorporate changes to legislative requirements and business rules through configuration rather than the development of custom code. Our client agencies configure our software to make hundreds of legislative changes each year, and basic configurations can often be implemented, tested, and released to production within a matter of days. Date changes to accommodate program extensions, as well as modifications to payment rates and distribution rules, penalty and interest, and fee calculations, can be rapidly configured in FastDS.

Risk

The vendor relies on an ineffective project management methodology.

An ineffective project management methodology and project delivery tools result in missed milestones, schedule slippage, and overall delay of project completion and system rollout.

Mitigation

Our implementation methodology is specifically designed for the delivery of our FastCore software and has been used on all our software implementation projects. In addition to complete functionality for managing all aspects of Driver Services programs, FastDS also contains integrated tools and functions that streamline and align with our methodology, expedite project delivery, and support

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production operation. These integrated tools and functions are used to develop, record, track, and manage project tasks, activities, assignments, workflow, reporting, deliverables, and best practices. The software also contains a centralized and easily auditable project repository for work products, training exercises, artifacts, reports, and documentation, as well as additional information on project-support resources.

Risk

The vendor is incentivized to prolong project delivery to maximize change orders and additional revenue.

Some vendors' commitments to fulfilling project requirements during the procurement stage can be based on an intention to enact change orders once the project is underway for any omitted or modified business requirements. This tactic can lead to missed deadlines, ongoing project delays, and sustained cost overruns.

Mitigation

Every FAST system-modernization project for more than 25 years has been successfully completed at the original contract price. We understand that agencies cannot identify every business and technical requirement for the new system within an RFP. FastDS is a highly flexible solution that supports rapid configuration and testing in a non-production environment, supporting iterative implementation and refinement of changing and emerging business requirements and system processes over the course of the project. Change orders are extremely rare on our projects and in every case have been initiated at the request of our client agencies, typically to add significant scope that was not in the original contract.

Risk

System functionality that was not sufficiently or accurately captured in initial business requirements can't be implemented without increases to the project schedule and/or cost.

Mitigation

FastDS' configurable functionality and integrated business-rules engine support rapid implementation of new and evolving business requirements, providing ease of integration and testing of functionality. Formal change requests are only necessary for items of significant scope change, such as a major change in project direction. The flexibility of our software and methodology provides assurance that necessary business requirements are implemented without formal change request or cost overrun.

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Assumptions

Our proposed implementation timeline is based on the following key assumptions:

- ▶ WVDMV will dedicate knowledgeable staff to the project. The success of the project relies on knowledgeable business representatives being dedicated full-time to the project.
- ▶ WVDMV will dedicate a project manager who meets the following requirements to the project. The WVDMV Project Manager will be:
 - ▶ A full-time WVDMV employee who works for the Division of Motor Vehicles from the business side with expertise in driver services business practices, rules, policies, etc.
 - ▶ One of WVDMV's senior-most managers for purposes of directing all WVDMV employees involved with the project; have the authority to make a final decision on behalf of WVDMV for all matters related to the project including business requirements, prioritization of work, approval of deliverables, personnel assignment, invoice approval, and project activities.
- ▶ Dedicated project staff will be authorized to make decisions. Business representatives assigned to the project will be asked to make many decisions each day. The assigned staff need authority, trust, and backing from WVDMV executives to make these decisions without delay. FAST believes that a bad decision can be corrected, but no decision impedes progress.
- ▶ Data extracts from legacy systems will be provided without delay. Conversion is one of the biggest tasks with the highest risk for an implementation. The FAST conversion process relies on prompt delivery of converted data extracts from legacy systems.
- ▶ Interface partners will be available to respond to questions and perform integration tests. FAST takes a "do no harm" approach to existing interfaces. This means we do not require any material updates to existing interfaces to continue operations in FastDS. This approach alleviates pressure on the interface partners, but they still need to be available to provide interface documentation, answer questions, and assist with interface tests.
- ▶ During the implementation project period, the number of FAST resources dedicated to the project will vary. These staffing levels can be expected to change depending on the phase of the project.
- ▶ Most of FAST's services will be performed in Charleston at the project office. There will be a core group of full-time FAST resources working in Charleston along with additional FAST resources that may be needed for short periods. Some work may take place in FAST's U.S. development centers. WVDMV will allow off-site FAST personnel working on project deliverables to access the system's infrastructure remotely. Costs associated with any travel that may be required for FAST employees to and from the FAST Development Center will not be billed to WVDMV and are included in our prices.

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- ▶ To the extent that customer data needs to reside in a non-production environment, such data (names, addresses, etc.) will be secured but not scrambled. We encrypt all data at rest and in motion. The environments support different levels of security standards based on data classification requirements.

4.2.2.18 Implementation Plan

The vendor must provide an implementation plan that includes all implementation activities and should address the activities related to the migration and all activities leading to a fully functional and operational WVDMVDS system using new architecture and technologies. This plan should identify the iterative delivery of capability and describe whether this includes iterative customer rollout.

During the project's initial Preparation Phase, we will provide an implementation plan that includes all implementation activities of the system-modernization project, including data migration and other activities necessary for delivery of a fully functional, operational, and successful WVDMVDS (FastDS) system based on our proposed FastCore architecture and technologies.

The proposed schedule, implementation activities, work products, and other aspects of the project included in the implementation plan will be based on our FAST Implementation Methodology, which is a project planning, program management, and system-development lifecycle approach. Our FAST Implementation Methodology was designed specifically for the delivery of our pre-built and production proven FastCore software solutions, like FastDS. It serves as a proven approach to project delivery that contains phases and tasks that interconnect our software and the activities designed for its implementation.

The FAST Implementation Methodology is iterative in nature. Project phases, decisions, and configurations are not set in stone and can be revisited to further improve system configurations, functions, and business processes. The methodology also leverages our configurable FastCore architecture to implement agency-specific functions and processes. It is based on collaborative project execution that leverages the software and delivery expertise of our FAST project personnel and the business and organizational expertise of your agency professionals.

Project Success Through Integrated Software, Service, & Approach

This portion of our response provides examples of how our FAST project teams use the built-in project-delivery features and functions of FastDS, referred to collectively as the FastDS Delivery Workbench, to conduct the activities and complete the deliverables required in each of the nine phases of our methodology (illustrated below). The interconnection of our software, services, and implementation approach are key to our record of expedited and successful project delivery. This interconnection forms the basis for the implementation plans on all our FastCore system-modernization projects and enables the iterative delivery of our FastDS solution's fully functional features and capabilities.

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FAST Implementation Methodology Phases: Designed for Successful FAST Software Delivery



Preparation Phase

The integrated FastDS Delivery Workbench contains functionality for managing the modernization project and associated activities, work products, and deliverables used throughout its duration. The project schedule, based on the phases of our FAST Implementation Methodology, is developed and managed with Workbench functionality. Project tasks and activities are directly recorded and tracked in the Workbench as integrated and dynamic components of the schedule, and all authorized users and third-party project personnel can view the schedule and associated real-time project activities, tasks, assignments, and deadlines. The project schedule is displayed in calendar-based and Gantt-chart formats that have a graphics-based hierarchical structure like that found in packaged project management applications. All project schedule information is reportable and exportable from FastDS.

In addition to the creation and tracking of the project schedule, activities, and assignments, the Workbench is also used for defining, finalizing, and managing the list of formalized project deliverables. The integrated list outlines procedures for creating, reviewing, and approving the deliverables. It also contains a description of the content that is applicable for each deliverable based on our FastDS software. Through use of the Workbench, the project team has an integrated and centralized source for submission of all deliverables, artifacts, reports, and other documentation under the project contract. It also serves as an easily accessible and auditable repository of all project activities and documentation.

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Definition Phase

Business requirements are documented during definition sessions conducted during the Definition Phase. Definition sessions lay the groundwork for defining the business processes, development items, and FastDS configurations that are necessary for implementing a solution that meets your specific requirements (including agency-specific design and compliance requirements) and objectives.

The definition items created during these sessions are directly entered into FastDS' Delivery Workbench, where they are reviewed and approved (or reworked) by agency business representatives/subject-matter experts. They serve not only as the business-written definitions that define the outcomes needed from the system, but also as action items that drive system configuration during the Base Configuration and Development Phases of the FAST Implementation Methodology. They are also used as the foundation for creating test scenarios that are executed during the project's Testing Phase, and for identifying requirements that merit development of change-management categories which document the changes necessary to accommodate the requirement (such as changes to business processes, staffing, forms, and correspondence).

Foundation Phase

During the Foundation Phase, definition items from the preceding Definition Phase are used to scope, implement, and verify the preliminary configuration of FastDS. As part of this effort, the definition items are updated in FastDS for use in the creation of development items that drive the tasks conducted during the Development Phase.

Development Phase

Development items within FastDS are used for the creation of development tasks that are linked to the definition items and project schedule within FastDS and assigned to project personnel. These development tasks outline the activities necessary for the configuration of the solution's functions, user interface, forms, correspondence, reports, interfaces, and other aspects of the system. In addition, all configurations and code are directly linked to the development tasks within FastDS, supporting the direction, management, and reporting on system design, development, and implementation activities and processes. Interface design documents are also developed and recorded in FastDS to identify, manage, and assign design activities for interfaces with other entities and ancillary agency systems.

Conversion Phase

Data conversion definition items recorded in FastDS' Delivery Workbench are used as conversion tasks that are assigned, tracked, and marked as completed in the software. Cutover-conversion schedules, with associated activities and outcomes, are also tied to the overall project schedule within FastDS. Outcomes of mock conversions are recorded by FastDS for access, view, and reporting by project personnel.

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Testing Phase

As the centralized project implementation and testing resource, FastDS streamlines collaboration during testing and quality-review processes conducted by the project team, the agency, and third-party entities. It serves as the single source for identifying test issues, their associated activities and configurations, and the individuals assigned to their resolution.

Development items from earlier project phases are used as the basis for adjusting baseline test scenarios to align with an agency's particular configurations, as well as for creating additional agency-specific test scenarios. Users manage, execute, and track the results of the test scenarios directly in the FastDS user interface, and the software automatically stages failed tests for assignment, review, and resolution. History and details for specific test scenarios, reported issues, and assigned testing personnel are recorded and accessed within the solution.

Training Phase

Computer-Based Training (CBT) modules and agency-specific training materials are stored and accessed within FastDS. We conduct train-the-trainer sessions with the project's trainers/training vendor and collaborate with them to develop complete and comprehensive training on system components. We also provide a training environment that mimics the FastDS production environment. The environment is a separate instance of the application that is made available to support your agency's training needs.

Rollout Phase

Cutover-checklist tasks are input, assigned, and managed directly within FastDS, as are post-release desk-side support items. Users report rollout support issues through FastDS' integrated ticketing functionality (discussed in greater detail in the next Production Phase section) which automates assignment of issues to project-support personnel and is used for tracking their resolution.

Production Phase

Following production release, FastDS integrated project execution, delivery, and support tools continue to provide a centralized solution for managing the modernized system. Users can submit support requests, called tickets, through FastDS integrated Ticketing Manager functionality. Multiple types of support requests can be configured to align with agency preferences and priorities. For example, tickets can be submitted to unlock user accounts, to request access to documents, to report a system issue, and even request equipment repairs. Users with system access can add tickets directly within FastDS. Optionally, users with or without system access can send an e-mail to a specified address that automatically generates a ticket in the system. Either option, or a combination of both, can be used to suit your agency's needs.

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4.2.2.19 Implementation

The vendor is to perform the entire project through a phased implementation of the replacement system. Each activity has a deliverable that must be submitted to WVDMV for approval. WVDMV will have a minimum of 10 business days to review each deliverable and provide feedback.

The deliverable schedule and major deliverable-acceptance criteria will be finalized by WVDMV and the FAST project manager during the project’s initial Preparation phase. Deliverables progress through submission and review cycles to reach final acceptance by WVDMV.

Written deliverables will demonstrate due diligence in meeting the quality, scope, and requirements of the associated final written deliverable. Written deliverables shall:

- ▶ Satisfy the deliverable scope and requirements.
- ▶ Be presented in a format appropriate for the subject matter and depth of discussion.
- ▶ Meet the acceptance criteria developed for each deliverable.

Please note that we have proposed a schedule, implementation activities, work products, and price that are based on the use of our FAST Implementation Methodology. Our commitment to all our client agencies is successful project delivery and the use of our methodology is the greatest assurance of this success. FAST understands and agrees that WVDMV will have a minimum of 10 business days to review each deliverable and provide feedback.

The table below outlines the FAST Implementation Methodology’s standard work products and deliverables by phase.

Work Products and Deliverables by FAST Implementation Methodology Phase

Phase	FAST Standard Work Products/Deliverables
Preparation Phase	<ul style="list-style-type: none"> • Hardware/Software/Hosting Plan • Installation Report • Organization Chart • Project/Implementation Plan, including the Quality Assurance Plan • Business Profile(s) • Communication Plan
Definition Phase	<ul style="list-style-type: none"> • Business requirements and definition items • Technical training material • Inventories of inputs and outputs including letters, reports, interfaces, etc.
Foundation Phase	<ul style="list-style-type: none"> • Updated definition items • Preliminary configuration of FastDS

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Phase	FAST Standard Work Products/Deliverables
Development Phase	<ul style="list-style-type: none"> • Interface Design Documentation • Application Security Overview • Configurations • Site-specific code/extensions
Conversion Phase	<ul style="list-style-type: none"> • Conversion Plan • Conversion definition items • Conversion reconciliation report
Testing Phase	<ul style="list-style-type: none"> • Testing Plan • Test scenarios • Test results
User Training Phase	<ul style="list-style-type: none"> • Training Plan and Approach • Training materials • Online Help
Rollout Phase	<ul style="list-style-type: none"> • Operations Plan • Cutover Checklist • Help Desk/Rollout Support Plan • Updated Disaster Recovery Plan
Production Support Phase	<ul style="list-style-type: none"> • System Maintenance and Support Plan

4.2.2.20 Quality Assurance Plan

The vendor must implement, and maintain a Quality Assurance Plan (QA) that documents the processes to be used in assuring the quality of services provided for each requirement in the scope of work, including but not limited to, timely provision of services, professional quality reports and documentation, a process for addressing customer service issues, and a plan for addressing necessary changes resulting from changes in WVDMV needs, findings of substandard performance, or other external factors.

Included in our Implementation Plan, we will implement and maintain a Quality Assurance (QA) Plan that documents the processes to be used in assuring the quality of services and the scope of work's project requirements. Our QA procedures include periodic reviews of key project processes, development of documentation, and interviews with key business and technical staff. Quality assurance also includes evaluating, identifying, and recommending adjustments to activities or tasks that must be performed to achieve the project's quality standards. QA activities focus on processes used to manage and deliver the program deliverables and objectives. Achieving QA standards requires routine evaluation of overall project performance.

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To achieve the quality outcomes, our projects adhere to the following QA principles:

- ▶ Ensuring the required project infrastructure necessary for development is in place.
- ▶ Use of our standardized FAST Implementation Methodology for the implementation of all FastCore software solutions, including FastDS.
- ▶ Basing implementation/configuration decisions on best practices that are enabled by the pre-built design of the FastCore software solution.
- ▶ Works collaboratively and productively by leveraging the software expertise of FAST project personnel and the business expertise of agency project personnel.
- ▶ Meeting all scheduled milestones on time and ensuring the project is executed within the contract scope and budget.

Our QA approach includes:

- ▶ Formal, structured reviews of project deliverables.
- ▶ Collection and reporting of project performance, including scope, schedule, and budget.
- ▶ Risk and issue management, along with recommended changes to scope, schedule, and cost baselines.
- ▶ Status reporting to communicate project progress and effectiveness.
- ▶ Coordination with oversight and assessment entities to ensure compliance with the FAST methodology and implementation processes.

QA findings have been incorporated into our software, implementation methodology, and deliverables since our first project in 1999. They are the catalyst for the consistent and standardized work products and deliverables that we provide on every FAST software implementation project. These work products and deliverables have been continually refined to streamline the delivery of our software and improve its capabilities. They represent the information, materials, and deliverables that are necessary for efficiently and effectively implementing our software to meet the distinct requirements of our client agencies, without the overhead and resource demands associated with extraneous work products that add little to no value to the project.

Many of the improvements that we have incorporated based on QA findings are centered on enhancing the customer experience of our client agencies. They include enhancements to the user interface of our software, for example, to provide users with the most intuitive, consistent, and responsive design possible for conducting their work and obtaining information. To improve the experience of our client agencies' customers, they also include similar enhancements to the web portals and e-Services that are enabled by our software.

Improving the customer and system-user experience also involves enhancements that benefit our client agencies and project management activities during the implementation project. We have found one of the most significant improvements to be full transparency of all aspects of the implementation project, including the project schedule and activities, deliverables, and work products, testing

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scenarios and results, and virtually all other aspects of the implementation project. Our client agencies and project teams have centralized, real-time access to all project-related information and deliverables directly within our software. This transparency and ease of access to all project-related information within FastDS provides the project team, agency, and oversight authorized oversight entities with the information necessary to confirm that the project's schedule, activities, and deliverables meet expectations for quality, timeliness, and successful delivery.

4.2.2.21 Quality Assurance Plan Approval

Submit a final version of the Quality Assurance Plan (QA) to the department for review and approval within ninety (90) calendar days after the contract effective date.

The QA Plan, which is part of the Project/Implementation Plan, will be completed during the project's initial Preparation Phase and submitted to the department for review and approval within 90 calendar days after the contract effective date.

4.2.2.21.1 Data

The vendor must utilize a quality assurance process to ensure one hundred percent (100%) accuracy of the migrated data. There shall be zero (0) defects for all test cases performed by the department during User Acceptance testing in the UAT environment.

FAST considers conversion to be a collaborative effort between FAST and WVDMV to achieve production readiness of FastDS. While we cannot ensure that the quality of data from legacy systems is 100% accurate, our goal on this project, as on every FastCore system-modernization project, is to ensure effective operation of the solution in production through the selection, purification, and verification of accurate and timely data.

Selection of Converted Data

Once all sources of legacy data have been identified, the conversion team determines the data that must be converted from each source and how far back in time to convert historical data. Topics and questions used data selection include:

- ▶ What data is required by FastDS to provide the planned business functions?
- ▶ Should inactive accounts be converted?
- ▶ How much historical data is required to do business today and in the future?
- ▶ Will any debits or credits be written off as part of conversion?

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Since many legacy data fields represent artifacts of the system architectures and designs that are being replaced, the data may not be applicable to FastDS. While this data may be useful for historical reference purposes, it is not necessary to convert it as live/operational data in the new system. The conversion team therefore designates converted data for placement in one of the following two categories as needed:

- ▶ Live/operational data – Live/operational data is updateable data that is necessary for current system processes in FastDS. Examples include current demographic information or recent transaction activities.
- ▶ Reference/non-operational data – Reference/non-operational data is read-only data that is not necessary for current system processes. Although this data has no explicit operational need, it may be loaded into a database for historical research purposes. Links, queries, and reports in FastDS can be configured to reference this data, supporting users' ability to access the data for research or review.

Reference data can replicate the live data within its original context to provide a complete picture of the data as it existed in the legacy system(s). Reference data does not include all data from all legacy applications. Rather, it is reference data that is necessary to support a business need in the new system.

Purification of Converted Data

In our approach, most of the data purification and/or consolidation activities take place prior to data extraction on legacy hardware and software. Wherever possible, existing online and batch facilities provided by the legacy application are used to make the data corrections. The joint FAST/agency conversion team develops the data purification strategy early in the conversion process. Higher quality data results in a better user experience during production. Dedicating resources to the purification effort is well worth an agency's time.

The following tasks are part of data purification efforts. These tasks are conducted early in the conversion process but may be repeated throughout the process if issues arise.

- ▶ Identify each data anomaly and associated repair opportunity.
- ▶ Determine the nature and frequency of each type of anomaly.
- ▶ Determine how to resolve the anomalies.
- ▶ Determine whether the data will be converted using an automated or manual process.
- ▶ Select users to perform data purification activities.
- ▶ Verify changes to resolve each anomaly.

In some cases, it may not be possible to resolve all issues identified in the legacy data. This can happen when the legacy system does not have functionality available to resolve the issue, there are not enough resources available, or there is not sufficient time to address the issue. FAST

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recommends that data purification begin as early as possible during the project to quickly remedy substantial defects. When it is not possible to address an issue before conversion, impact analysis must be performed, risks associated with the issue must be identified, and steps must be taken to mitigate the effects of data issues following conversion. Some of the solutions used in the past to address legacy data issues include:

- ▶ Adjusting legacy-extraction criteria to exclude the data (if appropriate).
- ▶ Conducting post-conversion manual cleaning in the new application, which can be implemented during conversion week or scheduled for cleaning at a later date.
- ▶ Adding indicators at the customer or account level to modify system behavior after conversion.
- ▶ Identifying and manually invalidating duplicate customers.

Typically, agency business analysts perform any needed post-conversion cleanup. No further data purification/transformation should occur to the data in the legacy system once the data extraction process has begun.

Verification of Converted Data

Converted data verification includes the visual inspection of data converted into the solution and the comparison of corresponding data in the legacy system. The conversion team develops data review checklists that testers use to perform validation. Agency business users review converted data with assistance from the conversion team. Defects found during converted data review are reported to and tracked by the conversion team.

The goal of converted data verification is to confirm that mock extractions and conversions are performed according to the data conversion plan and to identify additional anomalies in legacy data. Ultimately, the production cutover extraction and conversion activities should also occur according to the plan.

Converted data verification is therefore successful when:

- ▶ Legacy data that is out of scope is not converted.
- ▶ Extracted and converted data is complete and accurate.
- ▶ No new anomalies are found in legacy data.

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Converted Data Usage Testing

Test scenarios are executed by agency end-users to validate system processes against converted data as well as native data. While not strictly a part of conversion verification, this ensures that business processes perform as expected against data from legacy systems in addition to data native to FastDS.

For a full description of the Conversion and Testing phases of the FAST Implementation Methodology, including the specific activities, see our responses to **4.3.2.21** and **4.3.2.19**.

4.2.2.21.2 Restore

A description of how the system can revert to a previous version.

The need to revert to a previous version is mitigated by using our project testing and verification methodology. The production environment receives frequent data backups and point-in-time snapshots. FAST and WVDMV will determine a consistent timeframe during which changes are applied to the production environment. All changes are properly tested in lower environments prior to being promoted to production to ensure the change will not cause any unintended consequences. If a change needs to be rolled back, project personnel review the business-rule versions associated with the change and identify the appropriate version to roll back. When possible, the rollback is verified and migrated through the appropriate environments before being implemented in the production environment. Any urgent change or roll back that is requested by WVDMV or recommended by FAST outside of the normal schedule will be discussed prior to taking any action.

4.2.2.22 Hosted Environment

The vendor solution shall be hosted in a state owned public or private cloud environment. Vendor(s) must present as part of their TECHNICAL PROPOSAL a detailed description of a RACI model, a proposed cloud architecture design plan and software licensing list. The vendor is also required to provide information detailing considerations for network inbound and out bound traffic.

Information related to the proposed total cost of ownership, (yearly) for both the solution and cloud infrastructure should be included in the vendor's COST proposal which is to be submitted separately.

FAST confirms we support a state-owned public or private cloud environment to host the solution. FAST has extensive experience hosting our FastCore solutions across multiple Cloud Service Providers (CSP) both domestically and internationally. FAST currently has 34 clients across all our FastCore solutions that are using a hosted platform. We propose hosting the FastDS system using a state-provided tenant on a mutually agreed CSP. Under this proposal, we assume responsibility for the production and delivery of all services offered under a hosted managed services agreement. We have included pricing for hosted management services in our cost proposal. Since WVDMV is providing the public or private cloud tenant, we have not included infrastructure pricing in our cost proposal. However, we have included estimated infrastructure costs in our cost proposal for consideration. We will work collaboratively with WVDMV to successfully provide the required resources for the hosted

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environments on the mutually agreed CSP's infrastructure. The hosted environments are typically provisioned within weeks of the project start date and include the development, testing, training, conversion, staging, production, control, and disaster recovery environments.

Our proposed offer includes managed services to design, administer, support, and secure the infrastructure. The FAST-Hosting Services (FHS) staff that provides managed services includes:

- ▶ System administrators
- ▶ Network engineers
- ▶ Information security officers
- ▶ Operational support

The following RACI chart identifies the responsibilities of FAST and the state/agency for the hosted environment and services. Within the table cells, **R = Responsible**, **A = Accountable**, **C = Consulted**, **I = Informed**.

Hosted Services & Solution Support Activities	FAST	State/Agency
FastCore Solution (FastDS) Installation & Maintenance	R, A	I
Database Administration & Tuning	R, A	I
Hosting Administration, Maintenance, & Monitoring	R, A	I
Security, SLA Monitoring, & Client Support	R, A	C, I
Data, Disaster Recovery, & Long-Term Backup Retention	R, A	C, I
Operating System, Middleware, Applications	R, A	I
Virtualization & Other Services	I	R
Servers, Storage, & Network	I	R
Physical Security, Power, & Cooling	I	R

We provision the primary and disaster recovery environments as well as the associated maintenance and operations activities. The architecture is designed with redundancy to maximize system uptime. Hosted services include infrastructure management, routing and firewall services, security services and compliance.

The following hosted services are also provided:

- ▶ Data backups with redundant copies in different locations, monitoring, and reoccurring testing
- ▶ Server updates and critical patches
- ▶ TLS certificate management
- ▶ Network services (routing, security, VLANs, zoning, and so on)
- ▶ Data replication management
- ▶ Infrastructure access control
- ▶ Penetration testing for new versions of FastCore

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Please see section 4.3.2.20 for the proposed cloud architecture design diagram. The projected yearly costs for hosting the infrastructure at a mutually agreed CSP are included within the **Cost Summary** of our submitted Cost Proposal. Our solution does not require additional software licensing for third-party software outside the Microsoft licensing costs included with CSP hosted servers. Following is an example of cloud resources and assets to host the solution. We will provide a finalized recommendation during the project if selected as the preferred vendor.

Servers:

- ▶ c7i.xlarge (4-vCPU, 8GB RAM) - Qty: 16
- ▶ m7i.xlarge (4-vCPU, 16GB RAM) - Qty: 4
- ▶ m7i.2xlarge (8-vCPU, 32GB RAM) - Qty: 10
- ▶ Managed databases – TBD

Cloud Platform:

- ▶ Virtual Private Cloud (VPC)
- ▶ Load Balancing
- ▶ Network Firewall
- ▶ Audit and Logging

The proposed solution does not include the following with our managed hosting services. We assume that WVDMV will provide the following, if applicable.

- ▶ Printing equipment and services, including post-printing processing (folding, stuffing, etc.) and the installation of printers on hosted servers.
- ▶ Opening, scanning, data entry, or processing of documents.
- ▶ Telecom equipment and services.
- ▶ Client site internet circuits.
- ▶ Dedicated client network circuits to the CSP.
- ▶ Client infrastructure and networking.
 - 1 GB for client workstations. (100MB minimum).
 - Remote office bandwidth: Our solution is optimized to run efficiently over varying bandwidth to process compressed and encrypted web requests between client desktops and the web servers. The optimal bandwidth for remote office internet connections should support a minimum of 10 Mb for every 25 people. For example, 50 people using the application at a remote office location will benefit from a minimum connection of 20 Mb.
- ▶ Client responsible for remote access if applicable or required by the client.
- ▶ Security certificates for agency-managed public domain URLs.

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- ▶ If required for the project, multi-factor devices (like two-factor authentication smart cards) will be provided or obtained by the State.
- ▶ E-mail relay servers, including associated SPF, DKIM, and DMARC records for e-mail authentication.
- ▶ FTPS/SFTP server.
- ▶ Project team members (for FAST and agency employees) workstations, laptops, and associated software or services used for collaboration with agency personnel (e.g., agency e-mail accounts, Office365, Google Workspace, etc.).
- ▶ User Help Desk support.
- ▶ Third-party software other than the software required to deliver our hosting services.
- ▶ A client business continuity plan.
- ▶ Direct access to databases for purposes other than development or debugging.
- ▶ Backup retention for all data not included in the scope of conversion or migration.
- ▶ Point of contact or ticketing system through which the project team may make requests related to any of the described agency responsibilities.

4.3 Qualifications and Experience – Vendor should provide information and documentation regarding its qualifications and experience in providing services or solving problems similar to those requested in this RFP. Information and documentation should include, but is not limited to, copies of any staff certifications or degrees applicable to this project, proposed staffing plans, descriptions of past projects completed (descriptions should include the location of the project, project manager name and contact information, type of project, and what the project goals and objectives where and how they were met.), references for prior projects, and any other information that vendor deems relevant to the items identified as desirable or mandatory below.

4.3.1 Vendor should describe in its proposal how it meets the desirable qualification and experience requirements listed below.

We have implemented our FastDS software as the modern system for administration of driver license and credential programs and services for 15 U.S. state motor vehicle agencies. On each of these projects, we served as the prime contractor and provided full lifecycle system-modernization services, including serving as the software developer, system integrator, consulting-services provider, and product-support vendor. All of our FastCore-based implementations for over 100 government clients have been delivered on time and on budget.

FastDS first entered production for Arkansas Department of Finance and Administration's Office of Driver Services in September 2012. Over the next 12 years, 14 additional state agencies have entered production with FastDS as their modern solution. Our latest release of FastDS for Montana Department of Transportation, which successfully entered production on November 13, 2023, has cut customers' wait time in half and has provided the agency with significant improvement in performance and operations.

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As a comprehensive solution that is routinely updated and upgraded, FastDS provides motor vehicle agencies with a perpetually modern solution that contains built-in functionality for core program-administration processes, back-office support functions, and value-added functionality. In addition to program-specific functionality for driver license administration, FastDS contains built-in FastCore capabilities that provide value-added features and functions for enhancing your customers' experience, your employees' productivity, and your agency's performance and operations. Some of these features and functions include:

- ▶ The FastCore web-portal, which provides customer-centric online self-services through a responsive user interface for easy access to information and alerts, digital communication channels, and payment options.
- ▶ The FastCore Gateway, which eliminates middleware and streamlines interfaces with external data sources to support automated case initiation and workflow, updated customer account information, and other critical business processes.
- ▶ The integrated FastCore financials engine, which manages trillions of dollars in annual transactions and financial distributions for multiple state motor vehicle agencies and over 75 additional government agencies worldwide, including West Virginia Department of Revenue.
- ▶ Enterprise content-management functionality that provides a centralized solution for managing documents, images, payment remittances, correspondence, and additional content.
- ▶ The embedded FastCore business-rules engine, which supports rapid change to system and business processes without need for code modification, enabling your agency to focus on driver license administration rather than system design and programming issues.
- ▶ FastCore's reporting and performance-indicator functions, which provide reports, dashboards, and displays of real-time information for immediate insight into system operations, agency productivity, and agency performance measures.
- ▶ Electronic workflow and workload functions that automate work assignments based on your agency's business rules and settings, presents managers with open work for automated or manual assignment to staff, and provides staff with work queues and task assignments.
- ▶ Process automation for virtually all aspects of agency business and operations. Business processes, calculations, and activities are automated across driver services to streamline operations, reduce manual workload and errors, and free your staff to focus on higher-value activities and customer service.
- ▶ Point-of-sale management features that interface with third-party cashiering hardware to provide software-based cashiering capabilities to agency staff and customer-service representatives.

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- ▶ A drag-and-drop interface for creating the format and content of templates for documents, forms, and correspondence, which can include electronic-signature functionality and fields for auto-populating relevant information (such as customer name, contact information, and topical content and information).
- ▶ Appointment scheduling that provides customers with online scheduling for appointments that require in-person office visits, and queuing functionality that streamlines in-office customer flow by providing customers with QR code ticketing and text-based SMS appointment confirmations, reminders, wait-time estimates, turn announcements, and more.
- ▶ Secure, built-in Mobile Driver License (mDL) functionality that supports an agency's role as the issuing authority for digital identification in conformance with AAMVA, ISO, and agency-specific standards and guidelines. FastDS' mDL functionality interfaces with Apple Wallet, Google Wallet, and similar digital identity applications to provide customers with a convenient and secure means of adding, storing, and accessing their digital driver's license or state identification (ID) cards.

4.3.2 Vendor's proposal should include specific written technical documentation to allow for a thorough evaluation of the vendor's qualifications and experience.

State motor vehicle agencies that represent 22 jurisdictions are in production (or are currently implementing) our FastCore solutions for the administration of driver and/or vehicle programs and services. The following project profiles highlight our qualifications and experience in successfully implementing our FastDS solution as the modernized system for agencies that manage driver programs and services for the states of Alabama, Montana, North Dakota, and Tennessee.

Alabama Law Enforcement Agency (ALEA) – FastDS System-Modernization Project Project start: Sept. 2020 | Project complete: Apr. 2022

As the prime contractor for the Alabama Law Enforcement Agency (ALEA) system-modernization project, FAST served as the software developer, system integrator, and support-services provider for the agency's modern FastCore Driver Services (FastDS) solution for the administration of driver and identity programs and services. The 19-month project, started in September 2020, was completed on schedule and on budget in April 2022 with the successful statewide production release of the modern FastDS system.

In the first week of production, 28,000 driver licenses were successfully issued with over 1.3 million driver license credentials processed as of April 2023. ALEA's FastDS-based system-modernization project involved the decommissioning of 30 legacy systems and applications, training for over 1,000 users, and interface with multiple third-party systems, including federal and AAMVA systems. The project involved the first ever implementation of the FAST Station Camera solution, including the camera hardware suite and 1:1 facial recognition functionality. The FAST Station Camera provides agencies with a FAST-designed and fully self-contained photo-capture hardware system for seamless

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performance with the integrated image-capture and management functionality in our FastCore software solutions. Using the FAST Station Camera solution allowed the agency to capture driver license photos from within FastDS rather than interfacing with another vendor to provide the service. Additionally, with the implementation, Alabama opted into the AAMVA electronic, state-to-state Driver History Record (DHR), allowing them to electronically share whether an individual possesses a license or state ID in another state. This deployment made Alabama the second U.S. state (at the time) to enroll in the program.

ALEA's FastDS solution joins other modern systems for Alabama state agencies that are based on our FastCore government software platform. Our FastCore solutions are also in production for Alabama Department of Revenue's (DOR) administration of tax and revenue programs. Additionally, an implementation of our FastVS software is currently in progress at Alabama DOR to modernize the state's vehicle programs and services. The system is on pace to deploy as planned in December 2023.

Montana Department of Transportation (DOT) – FastDS System-Modernization Project
Project start: Aug. 2022 | Project complete: Nov. 2023

As the prime contractor for Montana Department of Transportation's (DOT's) system-modernization project, FAST served as the software developer, system integrator, and support-services provider for the agency's modern FastDS solution for the administration of driver and identity programs and services. The 15-month project, started in August 2022, was completed on schedule and on budget in November 2023 with the successful statewide production release of the modern FastDS system.

Since entering production on November 13, 2023, Montana DOT's FastDS system has cut in half the average time for customer-service sessions. Prior to FastDS production release, we implemented our FastCore appointment management functionality, known as FastQ, to provide Montana DOT with modern customer flow and appointment scheduling functionality. FastQ functionality cut customer no-show rates by 66% and reduced appointment-related phone calls from customers by 30%.

Montana DOT's FastDS-based system-modernization project involved the decommissioning of five legacy systems, training for hundreds of users, and interface with multiple third-party systems, including federal and AAMVA systems. The project involved successful mass deployment and operation of FAST Station Cameras at DOT office locations across the state. The FAST Station Camera provides agencies with a FAST-designed and fully self-contained photo-capture hardware system for seamless performance with the integrated image-capture and management functionality in our FastCore software solutions. The project team recorded over 400 training modules, developed 86 agency-specific reports, and conducted thousands of testing scenarios. The project also entailed the first release of our current and thirteenth version of the FastCore software platform, known as Core21, for the administration of driver license programs and services.

DOT's FastDS solution joins a long list of modern systems for Montana state agencies that are based on our FastCore government software platform. Our FastCore solutions are also in production for

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Montana Department of Revenue's administration of tax and revenue programs and Montana Department of Labor & Industry's administration of unemployment insurance tax and benefits programs. In addition, we are currently working with Montana DOT to implement our FastVS solution for the agency's modern administration of the state's vehicle programs and services.

North Dakota Department of Transportation (DOT) – FastDS System-Modernization Project Project start: Oct. 2020 | Project complete: May 2022

As the prime contractor for North Dakota Department of Transportation's (DOT's) driver and vehicle system-modernization projects, FAST served as the software developer, system integrator, and support-services provider for the agency's modern FastCore Driver and Vehicle Services (FastDS-VS) driver licensing and vehicle registration solutions. The FastCore Vehicle Services (FastVS) system-modernization project began in February 2015 and was completed in June 2016. Based on the success of this project, in October 2020, the agency began system modernization for its driver programs and services through the implementation of our FastCore Driver Services (FastDS) solution. This project was successfully completed in May 2022 and resulted in a single and fully unified FastDS-VS solution for the administration of all agency driver and vehicle programs and services.

Because FastDS was implemented into the agency's existing FastVS system, the rollout included a full upgrade of the entire system into FAST's version 12, which was the most current version at that time. During this rollout, nearly one million customers and 1.8 million credentials were converted from legacy systems to FastDS. Since entering production in May 2022, North Dakota DOT's FastDS system has issued over 211,000 driver licenses, issued tens of thousands of additional permits and credentials, and processed over 355,000 financial transactions.

DOT's legacy driver-services system was more than 40 years old and was increasingly difficult for the agency to maintain. Knowledge transfer and training were difficult due to the outdated user-interface. The FastDS solution provided DOT with a modern, consolidated, and customer-centric view of all activities in a single customer record, simplifying customer services and significantly reducing transaction times. In addition, the project team used built-in FastDS functionality to produce 310 site-specific training modules, knowledge exams, and Help articles to support user training and knowledge transfer initiatives.

In total, FAST has worked with North Dakota state agencies for over 17 years. In August 2005, we began our FastCore-based system-modernization project for the North Dakota Office of State Tax Commissioner. This 22-month project to implement our FastCore solution (also known as GenTax) for tax and revenue administration involved multiple production releases of tax and revenue programs in GenTax and was completed on time and on budget in June 2007. Since that time, the agency has undergone four version upgrades of GenTax to operate a perpetually modern production system for tax and revenue administration. In 2022, the agency's GenTax system was used for the administration of over \$6.2 billion in annual state revenue.

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Tennessee Department of Safety & Homeland Security – FastDS System-Modernization Project Project start: Aug. 2013 | Project complete: Feb. 2015

As the prime contractor for Tennessee Department of Safety and Homeland Security's (DSHS's) system-modernization project, FAST served as the software developer, system integrator, and support-services provider for the agency's modern FastDS solution for the administration of driver and identity programs and services. Starting in August 2013, the project replaced the legacy solution with the modernized FastDS solution.

Since project completion in February 2015, more than 18.1 million payments have been received, over 84 million activities have been processed, and 6.9 million online transactions have been generated, totaling over \$559 million dollars. DSHS has taken advantage of the perpetually modern capabilities and flexibility of FastCore to continually improve its system and services, and in 2019 was awarded the AAMVA Customer Convenience Service Award for the Region II Motor Voter Initiative enabled by FastDS. Additionally, the agency has continued to enhance its FastDS system through two version upgrades and the implementation of additional functionality for knowledge testing and handgun permits. The system-modernization project is currently implementing FastCore Mobile Drivers Licensing (mDL) functionality. The project started in April 2023 is on schedule for production in January 2024.

In the state of Tennessee, our FastCore solutions are the modern system of record for two additional agencies: Tennessee Department of Revenue for the administration of tax and revenue programs, and Tennessee Department of Labor and Workforce Development for the administration of unemployment insurance benefits. Tennessee Department of Revenue's tax and revenue system-modernization project was completed on time and on budget in May 2020 and then had undergone a software version upgrade to Version 12, in June 2021. The Tennessee Department of Labor and Workforce Development's system-modernization project is currently implementing unemployment insurance benefits which is on track to be completed on schedule and on budget in February 2024.

4.3.3 Include various testimonials from third party trade journals or publications that attest to the vendor's experience. This may include vendor references which outline the number of enterprise class installations.

Third-party testimonials related to our FastDS solution and system-modernization projects are included behind the **Testimonials** tab of this proposal.

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4.3.4 Any references that are provided should include Name, Title, Company Represented, Phone Number, and Email Address information.

Alabama Law Enforcement Agency (ALEA) – FastDS System-Modernization Project
Project start: Sept. 2020 | Project complete: Apr. 2022

Reference Name: Holley Cook
Title: ALEA Chief
Agency/Company Represented: ALEA
Phone: 334.676.7369
E-mail: Holley.Cook@alea.gov

Montana Department of Transportation (DOT) – FastDS System-Modernization Project
Project start: Aug. 2022 | Project complete: Nov. 2023

Reference Name: Laurie Bakri
Title: Project Sponsor
Agency/Company Represented: Montana DOT, Motor Vehicle Division
Phone: 406.437.2440
E-mail: laurie.bakri2@mt.gov

North Dakota Department of Transportation (DOT) – FastDS System-Modernization Project
Project start: Oct. 2020 | Project complete: May 2022

Reference Name: Brad Schaffer
Title: Director and Project Sponsor, Driver License Division
Agency/Company Represented: North Dakota DOT, Driver License Division
Phone: 701.328.1674
E-mail: bkschaffer@nd.gov

Tennessee Department of Safety & Homeland Security – FastDS System-Modernization Project
Project start: Aug. 2013 | Project complete: Feb. 2015

Reference Name: Michael Hogan
Title: Assistant Commissioner, Driver Services Division
Agency/Company Represented: Tennessee Department of Safety & Homeland Security, Driver Services Division
Phone: 615.251.5140
E-mail: Michael.Hogan@tn.gov

4.3.5 Vendor’s proposal should include a detailed list of team members that will be involved in the system design and implementation. The vendor may include resumes, certifications, and any other documentation necessary to substantiate experience.

We are proposing a team of highly qualified key personnel based on the scope, requirements, and modernization goals of the Driver System Modernization Project. Each of these key personnel is experienced in leading large-scale, state-wide modernization projects based on the implementation of our FastCore solutions.

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Our proposed project executive, Mayank Agrawal, is a FAST director who currently serves as the project executive and project manager for Michigan Department of State’s FastDS-VS implementation. Mr. Agrawal has over 14 years of experience, exclusive to motor vehicle system modernization projects, serving in both leadership and development roles across five FastDS and/or FastVS projects.

Our proposed project manager, Steven Parkinson, has over eight years of experience leading FastCore-based motor vehicle system modernization projects and currently serves as the project manager for Mississippi Department of Revenue’s FastVS implementation. Additionally, he has served as a project architect and developer on FastCore modernization projects three FAST client agencies since 2005.

In addition to the proposed key personnel listed in the table below, additional FAST personnel will be assigned to the project team to support development, technical, conversion, training, and testing activities.

FAST Proposed Key Personnel

Proposed Role	Resource Name	Years of FastCore Experience
Project Executive	Mayank Agrawal	20+
Project Manager	Steven Parkinson	18+
Architect	Ross Melby	11+
Technical Manager	Joel Kuneck	3+
Conversion Manager	John Zepeda	10+

The following table lists the roles and responsibilities of our proposed key personnel. Resumes for these proposed key personnel can be found at the end of this Section 4 Response.

FAST Key Personnel – Roles and Responsibilities

Key Personnel	Responsibilities
Project Executive <i>Mayank Agrawal</i> <i>Remote, Part-time</i>	FAST’s project executive is a senior FAST executive who serves in a part-time role in supporting the agency and FAST project team in the successful delivery of the FastDS solution. Responsibilities include, but are not limited to: <ul style="list-style-type: none"> ▶ Serving as a senior FAST liaison with WVDMV leadership and project personnel, including agency executives, program sponsors, senior agency managers, and external stakeholders.

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Key Personnel	Responsibilities
<p>Project Manager</p> <p><i>Steven Parkinson</i> <i>On site, Full-time</i></p>	<ul style="list-style-type: none"> ▶ Providing strategic project oversight, with a focus on quality and the achievement of agency goals and outcomes. ▶ Supporting the FAST project team in ensuring successful project delivery and client satisfaction. <hr/> <p>FAST's project manager is responsible for managing all FAST resources, developing, and maintaining the overall project management plan. The project manager serves as the senior on-site FAST project resource and liaison with project's steering committee and management. Additional responsibilities include:</p> <ul style="list-style-type: none"> ▶ Managing the schedules, quality, and functional/technical requirements of the project. ▶ Managing the overall budget for the project. ▶ Reviewing adherence to the project contract. ▶ Assuming overall responsibility for ensuring that the delivered solution meets agency business requirements while ensuring the project follows best practices. ▶ Serving as a senior FAST subject matter expert on the project. ▶ Providing guidance and support to FAST functional project managers and other FAST project personnel. ▶ Managing the contractual relationship between FAST and the agency.
<p>Application Architect</p> <p><i>Ross Melby</i> <i>On site, Full-time</i></p>	<p>FAST's application architect is the primary system architect responsible for directly supporting the FAST project manager and leading the overall software architecture of the solution, including site-specific extensions and interface components. Responsibilities include:</p> <ul style="list-style-type: none"> ▶ Assuming responsibility for the overall software architecture. ▶ Ensuring that individual implementation consultants conduct work in a manner that conforms to the design criteria, standards, constraints, and interface/integration requirements established for the project. ▶ Working closely with team managers to manage the day-to-day workings of the project as it relates to the solution design. ▶ Ensuring related standards and policies are followed where applicable. ▶ Reviewing and approving final configurations and subsystem integrations. ▶ Reviewing decision requests related to new development or

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Key Personnel	Responsibilities
	<p>modification of site-specific code.</p> <ul style="list-style-type: none"> ▶ Controlling migrations and updates into and between environments to ensure quality control. ▶ Leading the execution of project tasks and overseeing deliverables as outlined in the project management plan. ▶ Leading software configuration and the development of site-specific components. ▶ Gathering and analyzing data in support of business cases, development initiatives, and systems requirements. ▶ Providing requirements and business-process support to development, test, and training teams. ▶ Leading input/output inventories and the configuration of system interfaces.
<p>Technical Manager</p> <p><i>Joel Kuneck</i> <i>On site, Full-time</i></p>	<p>FAST’s technical manager is responsible for implementation of the data models and database schemas for site-specific design extensions, the hosted FastDS platform/environment, and tuning and optimizing performance and throughput of the FastDS system. Additional responsibilities include:</p> <ul style="list-style-type: none"> ▶ Monitoring the configuration, tools, and repositories to ensure quality processes are maintained. ▶ Overseeing implementation of security measures and server backup and providing support to agency security administrators. ▶ Providing technical support to the project team. ▶ Assisting technical staff with procurement, installation, and support of the hardware and software platform. ▶ Leading the design and architecting of hosting systems. ▶ Implementing best practices for networks and distributed computing. ▶ Designing and implementing the solution environments. ▶ Performance tuning, capacity planning, and troubleshooting. ▶ Ensuring adherence to technology standards and IT best practices. ▶ Supporting the FAST and agency conversion teams in the organization, management, and execution of the conversion process to move data into FastDS.

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Key Personnel	Responsibilities
<p>Conversion Manager</p> <p><i>John Zepeda</i> <i>On site, Full-time</i></p>	<p>FAST's conversion manager is responsible for organization, management, and execution of the conversion process to move data into FastDS, including:</p> <ul style="list-style-type: none"> ▶ Leading conversion activities. ▶ Analyzing conversion needs. ▶ Organizing necessary extract programs. ▶ Monitoring extracts. ▶ Conducting mock conversions. ▶ Monitoring data purification. ▶ Overseeing conversion and validation. ▶ Reporting results for data reconciliation. ▶ Leading resolution of conversion issues. ▶ Leading tuning and optimizing performance and throughput of the solution as it pertains to the conversion load of FastDS.

During the system-modernization project, the number of FAST personnel actively involved in the project will vary between 25 and 35 depending on the project phase. Most FAST key personnel will be on site shortly after contract initiation and the number of personnel will remain consistent as the project proceeds from phase to phase. Only the number of implementation consultants will change. For example, as the Preparation Phase proceeds, more full-time staff will be assigned to cover the functional and technical requirements of the project. During following phases of the project, a complete team of FAST project personnel will be on site performing tasks related to design, configuration, technical infrastructure and application support, testing, training, change management, and production cutover activities. Additional FAST professionals may provide part-time project assistance, either on site or remotely. Individuals who have performed similar tasks in other jurisdictions will also periodically visit the project to share their expertise and experience in specific functional or technical areas of the project.

Recommended Support from Agency Staff

Involving agency personnel in the project significantly increases project success, provides valuable hands-on experience to staff, and supports learning from FAST staff. FAST project staff work alongside agency technical and business representatives who hold expertise in their appropriate business areas.

We have listed recommended agency staffing roles and responsibilities based on our experience in implementing FastDS for projects of a similar scope and scale. The roles represent staffing suggestions and are highly recommended for successful system delivery. It is important to note that our proposed schedule does not rely on these precise staffing numbers to complete the project on time and on budget. We have found, however, that staffing levels like those in the table below best

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ensure that the system is configured to your specific requirements and expectations during the project and provide the knowledge transfer necessary for supporting the system in production. Please note that some roles are part-time and that many do not require participation during the entire project duration.

The involvement of existing Department staff with agency experience and knowledge in the roles of business representatives/subject-matter experts, testers, conversion specialists, trainers, and legacy developers are critical to the project team. The agreed-upon staffing/resource plan, developed collaboratively by FAST and the Department during the project’s initial Preparation Phase, will outline final staffing roles and responsibilities for FAST and Department project staff. As part of the development of this plan, FAST will work collaboratively with the Department staff to reach agreement and synchronization on the final staffing plan.

The following table lists the roles and responsibilities of recommended state staffing positions.

Recommended Agency Project Personnel – Roles and Responsibilities

Recommended Role	Responsibilities
Executive/Program Sponsor	Responsible for securing resources for the project. Acts as a vocal and visible champion, legitimizes the project’s goals and objectives, keeps abreast of major project activities, and is a key decision-maker for the project. Provides support for the project manager; assists with major issues, obstacles, problems, and policy conflicts.
Project Manager	Projects are most successful when the project manager is a full-time employee from the business side of the agency. The project manager works with the FAST project manager to direct day-to-day activities. This agency leader oversees the agency’s resources (both functional and technical) and resolves issues in a timely way to keep the project team’s work moving forward. Serves as a primary project decision-maker, champions the project, removes barriers, and holds primary responsibility for all issues regarding the progress of the work. Signs off on all deliverables.
Business Representatives	Business representatives must be business end-users who hold experience and knowledge in agency business processes. They provide expert business-process knowledge and contribute to the implementation project by: <ul style="list-style-type: none"> • Making decisions regarding system configuration and escalate decisions requiring senior management resolution. • Performing configuration verification.

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Recommended Role	Responsibilities
	<ul style="list-style-type: none"> • Creating scenarios for system testing (user acceptance) and end-to-end testing. • Making detail-level decisions on behalf of the agency in a timely manner on a day-to-day basis. • Reviewing training material for completeness and accuracy. • Providing FastDS expertise to users.
Trainers	<p>Attend train-the-trainer sessions to become proficient in training others to use FastDS. Work with FAST to create job-specific training material and data. Deliver job-specific user training. Modify online Help to accommodate agency-specific functionality. Perform desk-side support at rollout. Share coordination of training logistics with FAST counterparts. Schedule training for agency personnel.</p>
Software Configuration Specialists	<p>Though not necessary for the implementation of FastDS, the agency can choose to include IT personnel during the project to serve as software configuration specialists. These personnel gain experience in configuring FastDS during the project to support and implement software configurations during production.</p>
Conversion Specialist(s)	<p>Conversion resources must have thorough knowledge of the agency 's legacy system(s) and data model and should be able to guide all activities related to extraction of data from legacy applications for conversion to FastDS.</p>
Testers	<p>While automated testing tools are used to test processes that are consistent and easily defined, such as aspects of interface testing, our approach also relies on hands-on use and testing by knowledgeable agency business representatives. Agency business representatives work with FastDS during the project and undertake test scenarios to verify that its functionality achieves agency business needs and anticipated results. Resources in this role must be business end-users who are dedicated to the role and not engaged in other project roles. They execute business test scenarios and document any issues found, and also perform regression testing as needed.</p>
Change Management Leader	<p>Acts as an engaged and visible sponsor who champions change. Captures and manages policy and process impacts of the new system. Leads execution of the change management plan.</p>

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Recommended Role	Responsibilities
Security Administrator	Assists in defining application security. Loads and validates access rules. Grants and revokes user access to system functions. Manages security levels and investigates access and permission requests.

Agency Project Personnel

We anticipate WVDMV will support the project team by providing:

- ▶ Project workspace(s) to accommodate approximately 40-50 people, with the final count depending on the number of agency resources assigned to the project who are not already seated in or near the project space. Ideally, the project workspace will be in the same building used by most agency users. Although a separate workspace is acceptable, we have found that co-location with a broader pool of agency users and business experts increases opportunity to leverage their expertise in discussions and decisions related to the new system.
- ▶ To support various project deadlines, FAST and agency resources assigned to the project will require access to the project workspace after business hours. This includes weekends and state holidays.
- ▶ Local-area-network (LAN) infrastructure and support. Network connection at each workstation and access to network printers and scanners.
- ▶ Office space for FAST project management.
- ▶ Use of meeting rooms/conference rooms and data projectors.
- ▶ Stationery, offices supplies, white boards, chairs, desks.
- ▶ Project administration support.
- ▶ FAST and agency project staff will have the required access to systems and communication tools in the event work must be performed remotely due to agency health and safety guidelines.
- ▶ The project will require a testing space that can accommodate 20-30 people and training spaces that can accommodate 20-25 people. These should be two separate space and should be equipped with desks, chairs, workstations connected to the LAN, whiteboards, and other office items.

FAST also requests that WVDMV will endeavor, to the greatest extent possible, to assign existing staff, with agency experience and knowledge, to the project.

In circumstances in which an agency’s employees are represented by a union, cooperative activities are required to ensure project performance and deliverables. The agency should be aware that this may result in the following activities:

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- ▶ Need for agency personnel to work on the project (which may fall outside of an employees' job description including testing and training roles and responsibilities).
- ▶ Changes to job titles and/or responsibilities due to the implementation of the new, modern system.
- ▶ Expectation for WVDMV personnel to work more than the standard hours or on holidays during some portions of the project.
- ▶ Engage unions to genuinely support the change and participate in change management activities.

4.3.6 All personnel providing technical support or installation of the recommended solution should be badged representatives that are employed by the hardware/software manufacturers for all hardware components.

FAST is not proposing, nor do we require the use of subcontractors for this implementation. FAST will serve as the software developer/provider, system integrator, solution implementer, and product-support vendor for the project. We are responsible for the entire project lifecycle and will serve as the single point of contact for all issues related to the project and software.

4.3.2 The Vendor should provide the following documentation:

4.3.2.1 A detailed description of the integrated hardware/software procedure/process for testing the impact of software and firmware updated prior to installation in the production environment.

We use a spiral model for software configuration and testing systems or other infrastructure updates. Project personnel apply changes in lower environments. These configurations and components are verified prior to their migration to higher environments. If a configuration or component does not pass the verification process at any stage of the migration path, the component or configuration is returned to lower environments for modification. Once modified, the configuration or component begins reverification through each stage of the migration path. This method allows users to use multiple environments simultaneously. Reviews, documentation, confirmations, and other quality assurance tasks help to ensure the production environment is stable and operating as intended.

We provide extensive user and technical documentation that is based on the agency's specific configuration of FastDS during the project. The goal of this documentation is to enable the successful implementation of the new system and to support the agency's ongoing operation of the system after the project is complete. Documentation provided by FAST will cover in-scope FastDS functionality.

For examples of the types of documentation we provide during the project, please see our response to section **4.2.2.15 Technical Design Document**.

4.3.2.2 A detailed description of the vendor's experience interfacing/integrating with AAMVA.

Our FastCore solutions for 20 motor vehicle agencies, including FastDS and FastVS solutions, are in production with interfaces to AAMVA systems. Both FastDS and FastVS have pre-built and production-proven interfaces designed specifically for data exchange with AAMVA systems.

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FastDS' interface-management functionality supports ease of interface development and maintenance. It leverages the built-in FAST Gateway integration layer, which provides robust API services for ease of interface with other internal and external systems, without the cost, complexity, or overhead associated with middleware. The module natively supports interfaces with systems maintained by AAMVA, including the Commercial Driver License Information System (CDLIS), Problem Driver Pointer System (PDPS), National Motor Vehicle Title Information System (NMVTIS), U.S. Passport Verification, Digital Image Access & Exchange (DIA), and more. Any new AAMVA interfaces become part of the core solution and are made available to all agencies that use FastDS.

The Information module supports a variety of means for partner agencies, business partners, and other authorized parties to securely access agency-specified data and functions from the FastDS system of record and its integrated data warehouse. Real-time web-service interfaces can be established to allow authorized partners to import FastDS data for access within their own systems. Alternatively, partners can securely access agency-approved data, screens, and functions through secure web portal. As with all user and system activities, all actions and activities undertaken by partner personnel are fully logged, tracked, and auditable by FastDS.

4.3.2.3 A single point of contact to support all hardware and software that is outlined in this procurement.

We propose to host the new system using a State-provided tenant on a mutually agreed Cloud Service Provider (CSP). Under this proposal, FAST assumes responsibility for the production and delivery of all services offered under a hosting agreement. We will work collaboratively with the State to successfully provision the required resources for the hosted environments. We are not proposing third-party hardware and software outside of the State-provided CSP. The single point of contact for FAST-managed hosting services is:

- ▶ Lucas Bremseth, FAST Hosting Manager, e-mail: lbremseth@fastcore.com

Additional support contacts will be provided to WDMV during the project.

4.3.2.4 The proposed solution and how it will be custom built and tailored to meet the specific requirements outlined in this RFP.

As a single and unified system of record containing all the capabilities necessary for administration of modern programs for driver services, FastDS will provide a pre-built solution that is configured, rather than programmed, to meet WDMV's specific requirements, processes, and goals. The pre-built baseline functionality of FastDS avoids the schedule delays, cost overruns, technical issues, and system complexities that are commonplace to enterprise IT systems based on custom development. Our FastCore solutions, like FastDS, provide ongoing value and return on investment through:

- ▶ **Adaptability** – The flexible FastCore framework enables efficient and expedited configuration of virtually all aspects of the core components and pre-built baseline functionality of our program-specific software products. FastDS is easily modifiable and expandable to accommodate and implement changing legislation. The FastCore platform provides agility and

SECTION 4 RESPONSE

scalability to support rapid changes to regulations and accommodate future growth. In many cases, existing business rules, associated logic, and calculations can be modified quickly without need for system reprogramming or code modification, allowing staff to focus on rules definition rather than technical implementation issues.

- ▶ **Suitability** – Rather than general-purpose industry software, FastCore is designed specifically for government, providing the features and functions necessary for the effective administration of public-sector programs. Best practices, processes, and procedures implemented for individual FAST projects, programs, and product lines can be leveraged and incorporated into the FastCore platform to the benefit of our entire client community and suite of software solutions.
- ▶ **Reliability** – Since 1999, the production-proven core components and foundational functions of FastCore have provided capabilities that are essential to the efficient and effective administration of all government programs. FastCore's financials, workflow management, reporting, correspondence, online services, registration, case management, and other modules and components provide the core functionality used by all FAST software for the administration of hundreds of government programs worldwide.
- ▶ **Maintainability** – FastCore is based on modern industry-standard technology and environments that align with the expectations and skillsets of today's IT professionals. It significantly simplifies an agency's IT footprint and associated maintenance and support burden by eliminating the need for the third-party applications, licensing structures, and divergent technologies required by alternative patchwork systems.
- ▶ **Upgradeability** – Through continuous development and release of routine updates and upgrades to core components and capabilities, FastCore provides our client agencies with access to perpetually modern services and solutions across our entire software suite.
- ▶ **Extendibility** – FastCore offers true modularity and seamless integration across all FAST software solutions, supporting the integration of multiple FAST products, the expandable implementation of new government programs, and the incorporation of our value-added services on a single robust platform and system of record.

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As illustrated on the below, the modern features and functions of FastDS are enabled by fully integrated FastCore modules and components that are configured—not programmed—to meet the distinct business and technical objectives of motor vehicle agencies, including those outlined in this RFP. WVDMV will have a single and unified FastCore solution that provides service continuity across all your driver programs and services. In addition, FastCore, through its integrated Information feature, can interface with and return data from the WVDMV vehicle services solution.

FASTCORE
FastCore Driver Services (FastDS)



Customer

- Customer Profile
- Self-Service Portal
- Queuing
- Appointments
- Correspondence
- Documents & Imaging
- Business Licensing



Driver Services

- Driver Licensing
- Identity Management
- Enforcement & Control
- Accident/Crash Mgmt.
- Knowledge Testing
- Mobile Driver License (mDL)
- Investigations
- Hearings



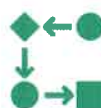
Information

- KPI Dashboard
- Reporting
- AAMVA Exchange
- Interface Management
- Partner Access
- Data Warehouse



Financials

- Point of Sale Mgmt.
- Payments
- Billing
- Refunds
- Accounting



Workflow

- Work Management
- Case Management



Solution Management

- Business Rules
- Project Support
- Operations Support
- Security
- Help

FastDS contains complete functionality for the administration of program and services for driver's licenses and credentials, eliminating need for the complex interconnections of third-party applications required by most alternative systems.

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4.3.2.5 How the vendor will install, configure, and provide functional readiness for the following:

- State to State (S2S) Verification Service for WVDMV.
- Driver History Record (DHR) functionality for WVDMV.
- Exclusive Electronic Exchange (EEE) for WVDMV.
- Drug and Alcohol Clearinghouse Exchange (DACH) for WVDMV.
- State Pointer Exchange Services (SPEXS) 6.3 for WVDMV.
- National Registry of Certified Medical Examiners (NRCME) for WVDMV.

We will install, configure, and provide functional readiness for the interface programs listed above. Except for NRCME, FastDS has pre-built and production-proven interfaces designed specifically for data exchange with each of the programs in bullets listed above. Final specifications for the data exchange with NRCME have not yet been released by the Federal Motor Carrier Safety Administration. When these specifications are released, we will develop and implement an interface for use by WVDMV and all our FastCore client agencies that manage driver programs and services.

In addition to the programs listed above, FastDS natively supports interfaces with several additional AAMVA and federal systems. Examples include:

- ▶ Problem Driver Pointer System (PDPS)
- ▶ U.S. Passport Verification (USPVS)
- ▶ Social Security Online Verification (SSOLV)
- ▶ Digital Image Access & Exchange (DIAE) systems

Additional interfaces necessary for meeting the project's scope of work can be rapidly developed and implemented through FastDS' built-in interface-management functions and Gateway integration-layer functions.

4.3.2.6 Suggested training courses and methods, both onsite and available via online resources. If optional training courses are available, the vendor should include pricing.

The FAST training approach is designed to provide agency business users and technical staff with the training and education necessary to use and support FastDS. A variety of training methods are used to deliver training, including classroom training, computer-based training, on-the-job training, mentoring and peer learning, software Help functionality, training guides and documentation, and Deskside Support.

The development of user competency is an iterative process. We provide users with multiple exposures to the software so that they acquire the skills and knowledge necessary to perform their jobs successfully. Users attend a series of classes scheduled over several weeks which build upon one another. Students are better able to reach competency because they have multiple opportunities to work with the new system and learn how it operates.

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Users participate in a series of training sessions using a multi-tiered approach. This training approach does not cover every function that users will perform on day one, but it does address frequently occurring business activities. Users begin with the basic functions of the new system and then advance their skills perform job-specific tasks. At a high level, FAST training falls into the following four training tiers.

FAST Training Tiers

Basics	In-training users are introduced to FastDS and develop confidence in the system by completing daily activities such as searching and viewing records, referencing Help content, and basic navigation concepts. Basics training provides users with foundation-level knowledge of the solution before they advance to training on job-specific functionality.
Specifics	Users are assigned training topics that cover functionality that aligns with their roles and responsibilities, specific job duties, and skillsets. Following train-the-trainer sessions, FAST works closely with agency trainers to develop role-based curriculum for training users on use of the solution for conducting their job-specific duties.
Application	Users complete practice exercises that simulate the real work of targeted business groups. Application training focuses on skills refinement through repetitive use of the solution for conducting real-world tasks.
Support	Users continue to learn once the system is live. Support training provides users with increased assistance from desk-side support personnel to bolster users' confidence in conducting work with the new FastCore solution. This increased desk-side support during production rollout reinforces the training that users have received and is an essential step in the training process.

Training Courses

During the **Definition** and **Foundation** phases, FAST and agency trainers will complete a thorough needs analysis that fully identifies the scope of:

- ▶ Identification of impacted staff
- ▶ Training resource requirements (and availability)
- ▶ Training objectives
- ▶ Business process changes
- ▶ Training materials and delivery approach

After analysis is complete, FAST will deliver a training plan that successfully ensures driver services staff are confident using the system prior to rollout.

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The following table includes an abbreviated sample training delivery plan that describes common curriculum.

Sample Driver Services Training Approach

Description	Training Curriculum
<p>Basics Self-paced training through pre-existing FastDS Computer-Based Training courses. These courses introduce staff to FastDS and provide them with the basic skills needed to use the system. Course topics include simple navigation and terminology, basic driver record structure, searching, general workflow concepts, and typical business activities performed by various groups of business users.</p>	<p>Customer and Driver's License Information</p> <ul style="list-style-type: none"> • View customer demographics • View key Driver's License information (type of license or permit, expiration date, etc.) • Introduction to driving record and driving history. • Introduction to new interfaces (e.g., State Pointer Exchange Services) <p>Transaction basics</p> <ul style="list-style-type: none"> • Introduction to start of day • How to begin a transaction • Introduction to end of day • Additional topics
<p>Specifics Job-specific training through instructor-led courses and practice exercises that cover duties of targeted business groups. This training provides users with the skills needed to perform their job responsibilities in FastDS.</p>	<p>View and access Driver's License information</p> <ul style="list-style-type: none"> • REAL ID status • Document type (Driver License, State ID, etc.) • CDL Information • Permits • Endorsements and restrictions • Additional topics <p>Viewing and access driving record information</p> <ul style="list-style-type: none"> • Driving record overview • Convictions • Out of state convictions • Medical reviews • Suspensions and revocations • Driver probation • Additional topics

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Description	Training Curriculum
<p>Application Staff can practice their skills in a practice environment with pre-production data. Staff gain additional practice in FastDS with realistic scenarios, situations, processes, and transactions.</p>	<p>Issuance transactions</p> <ul style="list-style-type: none"> • Issue a permit to a teenage driver • Out of state license transfer • Issue a Commercial Learner’s Permit (CLP) • Renew a Driver’s License/ID • Additional topics <p>Interfaces within transactions</p> <ul style="list-style-type: none"> • SAVE (System Alien Verification for Entitlements) • SSOLV (Social Security Online Verification) • Additional topics <p>Other transactions</p> <ul style="list-style-type: none"> • Issue an exam • Surrender/cancel a license • Change of address • Additional topics <p>Driver Control-related actions</p> <ul style="list-style-type: none"> • Detailed driving record review • Add a conviction • Add an out of state conviction • Additional topics <p>Key business process changes being implemented with the new system + additional topics</p>

Training Methods

The training plan details the training delivery format appropriate for each identified user group, analyzes the impact the training method has on the agency organization and scheduling, and tracking training material development and preservation so that they can be modified for future trainings post “go-live.”

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The below table describes training methods that may be utilized as part of the WVDMV training program.

Types of Training Methods

Type	Description
Computer Based Training (CBT) Modules Core and Site Specific	<p>These courses introduce users to FastDS and provide them with the basic skills needed to use the system. Course topics include simple navigation and terminology, basic driver record structure, searching, and general workflow concepts.</p> <p>Additional site-specific modules can be incorporated and added to the integrated FastDS Learning manager.</p> <p>A CBT module may be associated with assigned practice tasks using realistic data in a non-production environment and/or topic-based questionnaires to measure trainee comprehension.</p>
Help Topic Core and Site Specific	<p>The integrated FastDS learning manager can assign core and/or site-specific Help topics for review by specific staff. Help topics allow learners to read through content and procedures/processes and understand its meaning without direct instruction. They are often used to communicate new procedures to a targeted group when a manual or reference guide is not required for learning.</p> <p>Help topics may be associated with any of the learning methods described here including topic-based questionnaires to measure trainee comprehension.</p>
Video (i.e., recorded demonstrations, instruction provided by a trainer) Site Specific	<p>The integrated FastDS Learning manager includes a built-in video processing tool to upload videos, add captions, and provide keyword search capabilities.</p> <p>Demonstrations allow trainers or SMEs to share changes to business processes/procedures within the system. Trainers or SMEs prepare talking points and data prior to walking through the process/procedure in the system. The Learning manager's built-in video tool allows trainers to add captions and provide keyword search capabilities.</p> <p>This functionality is frequently used when content is advanced, and users would benefit from increased guidance regarding the change to business processes/procedures.</p> <p>A video or demonstration may be associated with assigned practice tasks using realistic data in a non-production environment and/or topic-based questionnaires to measure trainee comprehension.</p>

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Type	Description
<p>PowerPoints Site Specific</p>	<p>PowerPoints can be assigned through the integrated FastDS Learning manager as a learning module. PowerPoints provide an easy way to distribute information to a large group of users and may be used to introduce new topics during a training session or as a resource associated with a training course.</p> <p>These are frequently used when staff can read through content prepared by their peers and understand its meaning without interaction with a trainer or coach.</p> <p>A PowerPoint may be associated with assigned practice tasks using realistic data in a non-production environment and/or topic-based questionnaires to measure trainee comprehension.</p>
<p>Guides and handouts (i.e., Quick Reference Guides) Site Specific</p>	<p>Guides and handouts can be assigned through the integrated FastDS Learning manager as learning modules.</p> <p>Guides and handouts often are used to facilitate communication on one-off topics that target specialized units or work groups and are not included in standard training courses.</p> <p>Guides and handouts may be used to supplement other training methods described here. A guide or handout may be associated with assigned practice tasks using realistic data in a non-production environment and/or topic-based questionnaires to measure trainee comprehension.</p>
<p>Video/Web conference session Site Specific</p>	<p>“Live” instruction and demonstrations using video/web conferencing tools enables users to view an instructor’s screen and verbally interact with each other and the instructor. Sessions can be recorded and made available for future use.</p> <p>These are frequently used when users benefit from increased guidance or when the learning experience is enhanced by hearing from the trainers/SMEs directly.</p> <p>This training method is often associated with one or many of the other learning methods described here.</p>

For a full description of the Training Phase of the FAST Implementation Methodology, see our response to **4.3.2.16** below.

Training is a phase of the FAST Implementation Methodology and is included in our pricing.

4.3.2.7 The quality control of firmware and software verification process to ensure compatibility with all proposed system components.

Firmware updates are provided and managed by the Cloud Service Provider (CSP). For other architectural and infrastructure related changes, we adhere to the change management and system operation standards as described in the National Institute of Standards and Technology (NIST) Special

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Publication 800-53. Change management tools are provided to ensure all changes are tracked and reviewed for approval and verification by a Change Approval Board (CAB) and a FAST-Hosting Manager. We propose to manage and apply the patches, firmware updates, and other routine maintenance activities during a mutually agreed maintenance schedule.

We use a spiral model for software version control, verification activities, and configuration management for all aspects of the development process. Project personnel apply configurations (or develop site-specific components) in lower environments. These configurations and components are verified prior to their migration to higher environments. If a configuration or component does not pass the verification process at any stage of the migration path, the component or configuration is returned to the development environment for modification. Once modified, the configuration or component begins re-verification through each stage of the migration path. This method allows users to use multiple environments simultaneously. Reviews, documentation, confirmations, and other quality assurance tasks help to ensure the production environment is stable and operating as intended. The following graphic illustrates the migration path of configurations and components across the development, test, staging, and production environments.

4.3.2.8 Health check hardware/software status procedure and describe this process.

FastDS includes a broad set of built-in System Monitoring and Health Check tools and dashboards available through the Fast Central Repository (FCR) application. FAST monitors the Health Check tool using real-time data provided by client sites to ensure all aspects of the software and the underlying infrastructure are working properly. The FAST Operations Center in Colorado continuously reviews health check information and acts if necessary. There are numerous metrics that are monitored by the Health Check tool including several that identify potential security threats. The Health Check tool also monitors the uptime and availability of publicly accessible instances of e-Services, the online customer self-service portal. If an e-Services site goes offline or becomes unresponsive for any reason, the Health Check tool immediately alerts FAST Operations Center personnel.

4.3.2.9 Details outlining how the proposed solution can accommodate both expected and unexpected growth. This description should detail any costs that may be associated with such growth.

FastDS is a highly flexible and configurable enterprise web application. We size the system based on mutually agreed service level agreements. We scale the system to meet target service levels. We propose to fully manage and support your FastDS system using a mutually agreed Cloud Service Provider for the primary and disaster-recovery sites. Our services include building, managing, and maintaining the hosted environments and associated infrastructure, routing devices, and firewall systems; conducting security and compliance services for the software and platform; and providing 24x7 access to FAST hosting-support personnel.

The hosted system will operate on a highly scalable platform that accommodates planned and unplanned capacity growth without performance degradation or cost increases. Our solution is currently in production for agencies that employ between 300 to 12,000 agency users who

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administer programs for jurisdictions that serve populations of between one million and 39 million people. None of these agencies' systems have experienced performance-degradation issues related to concurrent use. Your hosted environment will be monitored through system automation and alerts, as well as ongoing analysis and optimization by our support personnel, to ensure reliable and consistent levels of performance, service, and operations, regardless of capacity increases.

We agree to work collaboratively with WVDMV in sizing the hosted environments to meet Service Level Agreements (SLAs) and the requirements of the RFP.

4.3.2.10 Description of how the administration of access controls within the solution can be transferred to WVDMV.

WVDMV will be involved with the administration of access controls early in the project to promote full transparency and separation of duty best practices. FastDS has an integrated Security subsystem that manages agency defined security roles and access control policies. Our application provides role-based security access and grants user access to functionality using security groups. A security group is a collection of one or more security identifiers. Users are assigned to groups that grant them access to security identifiers for secured functions associated with the group. Security groups provide a flexible way to manage access to all levels of the system. Groups can be organized, for example, by roles, functionality, partner entity, or individuals. A default group feature can automatically grant new users limited access to default function areas. Internal agency users can also be assigned to a security group for administrative processes on behalf of a partner agency. The integrated role-based security provides configurable, content-sensitive security depending on a user's role and can be applied to actions, link, items, etc.

The Security subsystem defines and enforces application function security. Security tools and functions allow system/security administrators to:

- ▶ Define application security controls
- ▶ Maintain security groups
- ▶ Designate and protect "VIP" customer data
- ▶ Designate, track, summarize, and maintain user access and activities
- ▶ Perform many other security-related activities.

4.3.2.11 A detailed description of how the system can be used to support an electronic mobile identification solution that allows citizens to display their credentials on their phone.

The FAST Mobile Driver's License (mDL) solution is an integrated part of the FastDS system, and interfaces with Apple Wallet, Google Wallet, and similar digital identity applications to provide customers with a convenient and secure means of adding, storing, and accessing credentials such as their digital driver's license or state identification (ID) cards. FastDS automates ID authentication by analyzing and processing the information received from the digital wallet provider.

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Based on agency policy and preference, FastDS can automatically evaluate, authenticate, and approve (or reject) the mobile ID, or automate workflow for review and final approval by agency staff. FastDS can also be configured to conduct additional authentication steps, including online verification through the FastDS web portal and use of verification codes sent to a customer's e-mail address on record.

Additional features and functions of the FastDS mDL solution include:

- ▶ Management of cryptographic mechanisms and issuance of digital ID certificates, including Issuing Authority Certificate Authority (IACA) root certificates, signer certificates, and certificates required for communication with wallet/digital-identity application providers, like Apple and Google.
- ▶ Automated data refresh and real-time updates to credentials to reflect changes to customers' age, name, address, driving privileges, physical card format (for example, when a customer reaches the age of 21), and other user information.
- ▶ Interface with AAMVA's State-to-State Verification Service for electronic and automated interstate exchange of Driver History Record information.
- ▶ Complete mDL integration within FastCore citizen records, providing agency users with details on customers' mDL enrollment and the ability to make real-time changes to digital credentials, such as deactivation based upon customer request.
- ▶ Online features and functions that allow customers to self-manage aspects of their digital identity through the FastCore web portal, including the ability to submit address changes or deactivate the digital credential in the case of loss of the mobile device on which it is stored (with the ability to later reactivate).
- ▶ Robust security through public-private key cryptography and encrypted data exchange between FastCore and an mDL device.

[4.3.2.12 A recommended target system, environment, and infrastructure, proposal for the sizing of the target production environment, architecture overview, server sizing estimate and a list of third-party tools and utilities necessary to run the system.](#)

FastDS was designed to maximize flexibility and interoperability. We provide an integrated framework and methodology to support, make and track changes to the system using a core architecture that's easy to use and industry proven. Our core architecture utilizes the .NET Framework to process secured web services. FastDS was built using the C# development language, which is the preferred language for any custom code extensions. The application architecture requires Microsoft Windows Server operating system for the web and application servers, and an ODBC compliant enterprise database management system such as Microsoft SQL Server or PostgreSQL.

FastDS is a web-based application that runs in a modern web browser. No installation is required if a supported browser running JavaScript is installed on client machines. This allows FastDS to run on

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most mobile devices and desktops/laptops regardless of their operating system. The most current version of a browser is recommended. Supported web browsers, include:

- ▶ Microsoft Edge - most recent two versions
- ▶ Safari - most recent two versions
- ▶ Google Chrome - most recent two versions
- ▶ Mozilla Firefox - most recent two versions
- ▶ Opera - most recent two versions

Note: Internet Explorer versions prior to Version 11 are no longer supported due to their extremely low utilization rates and end-of-life support from Microsoft.

The supported desktop operating systems include:

- ▶ Windows 11, 10
- ▶ Linux*
- ▶ Mac OS*

*Client computers running Linux and Mac-based operating systems are compatible with FastDS and e-Services when using one or more of the supported web browsers. Client computers used by developers, trainers, testers, and power users require a Windows-based operating system.

FastDS is a fully featured application that requires little in the way of third-party software for production operation. Although FastDS is the only software solution necessary for administration and support functions, the following third-party software is recommended to support the FastDS implementation project.

- ▶ Developers
- ▶ Visual Studio Professional 2022 (or 2019) - Integrated Development Environment.
- ▶ Database client tools.
- ▶ RedGate ANTS Profiler Professional – optional memory-management tool.
- ▶ Trainers
- ▶ Adobe Captivate – Used for developing agency-specific training materials, demonstrations, and interactive simulations.

We understand the State prefers to leverage their existing cloud provider to host the required environments. We propose to host the FastDS system using a State-provided tenant on a mutually agreed Cloud Service Provider (CSP). Under this proposal, FAST assumes responsibility for the production and delivery of all services offered under a hosting agreement. We will work collaboratively with the State to successfully provision the required resources for the hosted environments. The hosted environments are typically provisioned within weeks of the project start date and include the development, testing, training, conversion, staging, production, control, and disaster recovery environments.

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The following is an example list of cloud resources and assets to host the solution. A finalized recommendation will be provided during the project if selected as the preferred vendor.

- ▶ Servers:
- ▶ c7i.xlarge (4-vCPU, 8GB RAM) - Qty: 16
- ▶ m7i.xlarge (4-vCPU, 16GB RAM) - Qty: 4
- ▶ m7i.2xlarge (8-vCPU, 32GB RAM) - Qty: 10
- ▶ Managed databases - TBD
- ▶ Cloud Platform:
- ▶ Virtual Private Cloud (VPC)
- ▶ Load Balancing
- ▶ Network Firewall
- ▶ Audit and Logging

[4.3.2.13 A proposed strategy for migrating data from the mainframe to the target database system with appropriate checkpoints.](#)

Our strategy and plan for Data Conversion and Migration Management is based on the FAST conversion approach that we have used on every FAST system-modernization for more than 25 years. In total, we have successfully converted billions of accounts, records, and transactions from legacy systems to our FAST software solutions. Our conversion experience includes data migration from legacy systems based on mainframe, midrange, client-server, and standalone PC applications from IBM (COBOL and DB2), Oracle, SAIC, SAP, Anderson Consulting, Unisys, Sybase, AMS, and many others, as well as dozens of custom-built legacy systems.

Our conversion strategy minimizes need for significant staff involvement in data purification by employing the integrated conversion tools in FastDS, which enable system rollout without carrying forward data problems from legacy systems. The Conversion Phase starts shortly after project initiation and is conducted throughout its duration, including during the Testing Phase. Testing activities are structured to use both converted and native data, ensuring the system functions as expected regardless of the data source. This provides our conversion teams with ample time to ensure all converted operational data is accurate and actionable at production release.

Our conversion approach consists of scheduled stages and best practices learned from leading conversion activities on system-modernization projects for over 100 agency clients, including the West Virginia Department of Revenue. At a high-level, it focuses on:

- ▶ Starting the conversion process early in the project schedule to ensure all data is purified, transformed, and properly reconciled for use at production release.
- ▶ Inventorying existing legacy-data resources and reviewing data quality and integrity.
- ▶ Selecting and targeting the data and historical timeframes that must be converted from each legacy source.

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- ▶ Focusing on the most important and reliable data, with priority assigned to data that has critical impact to operations and financials.
- ▶ Defining the most practical and effective approach to converting data based on multiple factors and considerations, such as the limitations of legacy data and sources, use of automated versus manual processes, potential impact on new system processes, and need for detailed versus summary financial information.
- ▶ Conducting ongoing and iterative data-purification activities throughout the project's duration.
- ▶ Mapping legacy data into conversion staging tables for additional tuning, purification, transformation, and reconciliation to ensure all data was successfully extracted and loaded to the staging tables.
- ▶ Sequencing data migration/conversion activities to minimize changes and impact current system operations. Activities that could potentially impact legacy system operations, like copying data or conducting extract processes, are conducted during off-peak hours to avoid any performance degradation.
- ▶ Loading data from the staging tables into our software to perform multiple mock conversions for ensuring legacy data is accurately and successfully converted for use by FastDS.
- ▶ Reconciling data to confirm that actual load and conversion processes were successful, and that no data was lost or incorrectly transformed.
- ▶ Conducting testing and verification to ensure extracted and converted data is complete and accurate.

For a more detailed description of the FAST Implementation Methodology Conversion Phase, please see our response to requirement **4.3.2.21**.

4.3.2.14 An overview of the vendor's security practices, how the solution uses NIST 800 best practices <https://csrc.nist.gov/publications>.

FAST aligns our security and data protection policies with the two most prominent and widely accepted industry standards applicable to our solution, NIST 800-53, and IRS Publication 1075. We also use the Center of Internet Security (CIS) Benchmarks for hardening infrastructure components. The security program enforced in our environments is designed to substantially meet the security controls and assessment procedures for the Moderate-Impact Baseline defined by NIST in Special Publication (SP) 800-53. These security and privacy controls are incorporated in our solution to protect the confidentiality, integrity, and availability of sensitive information.

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4.3.2.15 A description of the vendor's approach to designing, developing, and testing a solution of similar size and scope.

FAST has extensive experience designing, developing, and testing a solution of similar size and scope to the system described in this RFP. FAST has experience providing our FastCore solutions domestically and internationally in government agencies of all sizes. As a full lifecycle-services provider, we serve as the software developer, system integrator, consulting-services provider, and product support vendor on all our projects. These services include consulting, software installation, configuration, extension development, testing, and conversion, as well as user training, production cutover, knowledge transfer, and additional transition, deployment, support, and maintenance services.

Currently, 20 agencies use our FastCore software solutions (FastDS, FastVS, or FastDS-VS) for the administration of driver- and/or vehicle-services programs, making the software the most successful solution on the market for agencies that administer driver licensing and/or vehicle registration programs. We have provided a list of all 20 agencies, including implementation details, in our response to **4.4.4**.

Each of our system-modernization projects across all our FastCore solutions have been completed on time and on budget using our proven FAST Implementation Methodology. Our FastCore platform provides a flexible and expandable foundation and framework for rapid development, implementation, and ongoing enhancement.

As pre-built and pre-tested software that provides baseline functionality upon installation, the need for design and customization of FastDS is essentially unnecessary. As such, our project team focuses instead on working collaboratively with experienced agency professionals to define business requirements that form the basis for FastDS configuration and overall system modernization. The business knowledge of designated agency experts, coupled with the extensive experience of on-site FAST project personnel in configuring FastDS, results in a fully modernized solution that meets the distinct requirements of the agency and its jurisdiction, customers, and additional stakeholders.

The agility of FastDS enables rapid configuration—supporting changes to initial and newly identified requirements as the project progresses. These configurations are then tested, adjusted, or enhanced, as necessary, throughout the phases of FAST's proven and repeatable implementation methodology. The methodology is highly iterative, meaning that project phases, decisions, and configurations are not set in stone and can be revisited to further improve system configurations, functions, and business processes over the course of the project.

An important characteristic of all system-modernization projects based on FastCore software is that project personnel and agency users have hands-on access to the software at project inception. This provides the project team with direct system-based feedback from agency users. It also provides the project team with built-in FastDS functionality that supports the implementation, including integrated

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tools and screens for inputting, working, and managing requirements and definition items, project activities and schedules, development and configuration tasks, business rules, and much more.

At project initiation, we work with designated agency project personnel to confirm the business requirements and goals of the system-modernization project. Requirements are not just documented on paper—rather than recording business definitions and requirements in separate documents, these items are entered, worked, and tracked directly in FastDS as definition items, business rules, and configurations. This method of combining documentation and delivery tasks into single work activities streamlines the implementation project and results in FastDS solution that has been specifically configured to meet an agency's distinct requirements and objectives.

4.3.2.16 A description of the vendor's approach to training a large number of users at multiple locations across the state.

Our standard FAST training approach is based on the use of a train-the-trainer model. This scalable approach has been used successfully on multiple FastCore projects and is the recommended approach for this project. A user training plan will be developed in close collaboration with WVDMV. The Training Plan serves as an overview of the types of training, delivery methods, and tools used to provide training and knowledge transfer to agency users and agency technical staff. The plan will detail the following processes:

- ▶ Identifying trainers and trainees
- ▶ Selecting the training venue and equipment
- ▶ Deciding on appropriate training methods for each audience
- ▶ Analyzing the impact on agency organization and scheduling
- ▶ Preparing the training schedule and registering users for classes
- ▶ Tracking training activities and progress
- ▶ Capturing trainee feedback and incorporating improvements

FAST and WVDMV will deliver training according to the approved training plan. The training approach is constantly evaluated to identify improvements and the Training Plan is updated, as needed.

Train the Trainer Program

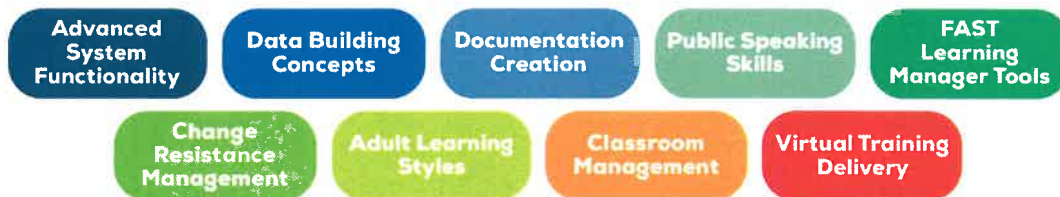
We train and support agency personnel using a train-the-trainer approach. FAST trainers will teach agency trainers about FastDS functionality and effective ways to deliver training so that they can educate functional users. Using the train-the-trainer approach provides the following benefits:

- ▶ Agency trainers better understand the business activities of their agency and help to instill confidence in users by demonstrating that the system is user friendly and easily accessible by their agency peers.

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- ▶ Agency trainers understand the various business needs, so they are best able to provide meaningful examples to demonstrate the solution functionality and answer specific user questions.
- ▶ Agency trainers support the dissemination of knowledge to users. During the project, agency trainers act as another mechanism to provide informal communication back to their units. When training is complete, the expertise of agency trainers is leveraged to answer users' day-to-day questions.
- ▶ Training activities, materials, and responsibilities can be transitioned to agency trainers so WVDMV can continue to deliver the training program for new employees.

Our train-the-trainer program is designed to develop the skills necessary for their role as FastDS trainers. The program focuses on teaching trainers to use the system at an advanced level, create training data, document new system processes, design curriculum, and develop essential skills to deliver the training to the end users. Areas that the training program will focus on include:



Training Delivery

FAST will develop a class schedule for the training program. It will support the goals identified during the training needs analysis while also considering the agency's operational realities and constraints. We try to schedule classes that group impacted staff that perform similar job functions. This allows us to focus each class on business scenarios that will resonate with most students. Following are some factors to consider when developing the class schedule:

- ▶ Number of students required to attend each course
- ▶ Training room availability and location
- ▶ Number of trainers to instruct and to assist each class, including backups
- ▶ Length of each class
- ▶ Agency business activities
- ▶ Contingency planning

Class sizes can vary. They are influenced by the capacity of available training rooms and equipment, the optimal period to conduct classes, the number of users to be trained, and the number of available trainers. When these factors afford it, our goal is to typically keep classes to a manageable size that

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allows each participant to receive assistance from an instructor. FAST can also support remote or web-based training. FastDS training environments are web hosted and can be accessed through VPN or an internet connection with multi-channel authentication.

For a detailed description of our customized training and format options, please see our response to 4.3.2.6 above.

Training Constituents

WVDMV senior management should identify the constituents to be educated and/or trained. Typically, the project's communication plan outlines the training method, delivery dates, and type of messages to be shared with external user groups.

The project's communications plan outlines the following for these various user areas:

- ▶ **Frequency** - the frequency on which those stakeholders will be appraised of project activities
- ▶ **Method** – appropriate methods of communications for each stakeholder group
- ▶ **Type of message** – determine the message to be shared with each group
- ▶ **Resources** – identify the resources/services who will deliver the message

Once the communication plan has been finalized, the approach for training can be determined. The FAST training manager can assist and provide guidance in development of the appropriate training materials, however the agency is ultimately responsible for the delivery of all constituent training and reinforcing key messaging to WVDMV's customers. The use of pre-recorded videos, seminars, mailing inserts, e-mail postings on agency websites, creation of online toolkits, and online informational help, are examples of the types of training used on prior projects for constituents.

Supporting Agency Trainers During Delivery

Communication and collaboration with agency staff are critical components of project success, which we rely on for all FAST software implementation projects. Our approach is based on pairing our FAST training team members with agency trainers to support frequent exchange of information, ideas, knowledge transfer, and clear lines of communication.

From the time WVDMV trainers join the project, they will work directly with the software allowing them to use the system at an advanced level by the time of training delivery. Through daily access to the software, participation in the train-the-trainer program, and access to FAST's integrated tools including the Help manager, Delivery Workbench, and Learning manager, agency trainers will have access to a multitude of tools to answer most end user inquiries during training delivery.

The FAST training team, and managers, will have access to the FastDS Learning manager where they can generate learning statistic reports, view learning progress rates by learning role, and use topic-based questionnaires to measure trainee comprehension. Utilizing the system reporting tools, the training team will be able to support agency trainers in identifying and addressing opportunities to refine training materials or to develop a plan to address gaps prior to "go live." Updated materials

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may be distributed to WVDMV users through the FastDS Learning manager as a quick reference guide, or job-specific Help topics may be added to the Help manager.

Where possible, FAST training team staff provide support during in-class and web-based training sessions. Support may be provided using a unified communications as a service (UCaaS) tool such as Microsoft Teams. Alternatively, members of the training team (both FAST and WVDMV) may act as a producer or co-facilitator for the class session to assist in answering questions, monitoring the schedule to ensure materials are completed as anticipated, or otherwise providing classroom management support. After each training session, members of the training team will participate in a debrief activity where agency trainers can learn from the experiences of the other trainers.

The FAST training manager will work closely with WVDMV to manage all training logistics including class scheduling, student enrollment, and training attendance tracking.

4.3.2.17 A description of the vendor's planned approach to iteration testing or the equivalent.

The Testing Phase is one of nine phases of the FAST Implementation Methodology as referenced in the image below. Our testing approach has been used successfully on integrated software projects for all our implementations. Our testing approach has been used successfully on our integrated software projects for over 100 government agencies. Thorough testing ensures that the production system meets agency business needs in a robust and stable manner. This includes identification of potential system and specification instabilities or issues. It is imperative that agency users are involved in the testing process. Agency testers should be agency users who are familiar with the agency's business. Testers will receive training on use of integrated testing tools to execute business test scenarios, document any issues found, and perform regression testing as needed.

FastDS software is based on a core pre-built system architecture and functions that can be configured to provide agencies with the options, settings, and functions necessary to meet their business needs. Since we are testing a pre-built solution, rather than a custom build, our testing is focused on confirming business functions and outcomes as opposed to individual screens or background processes.

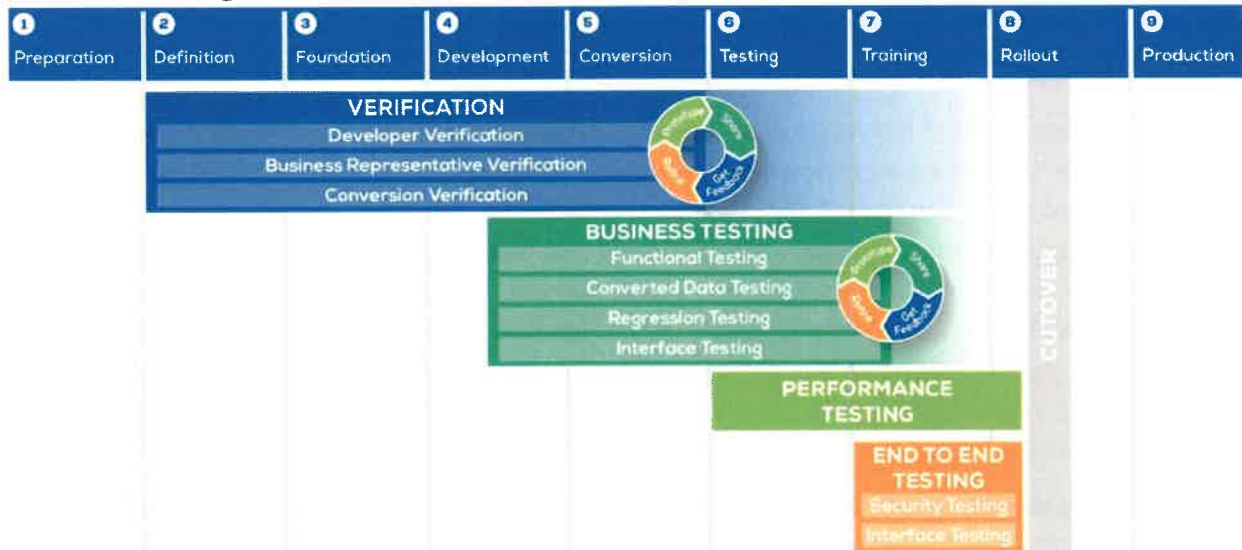
Unlike in traditional development methodologies in which User Acceptance Testing (UAT) occurs only after all definition and development is complete, our operable software and iterative FAST Implementation Methodology enable early and frequent configuration and verification of business rules to ensure the FastDS solution meets agency business requirements. Agency business representatives/subject-matter experts assigned to the project are involved in the early verification work. and business users serve as testers later in the project. FAST testing activities run in parallel with multiple phases of our methodology to reduce implementation risk by empowering agency personnel to identify any missed business requirements early in the project.

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Testing Phases and Approach

The testing approach is a collaborative effort between FAST and WDMV to achieve production readiness of the FastDS product. This testing plan assumes collaboration in all areas with each party bringing their expertise to bear. The combination of technical and business experts working together to identify and resolve issues allows for a significantly more efficient testing process. There are three main phases of testing, which include multiple types of testing, which follow FAST's Implementation Methodology – Verification, Business Testing and End-To-End Testing. Both Verification and Business Testing phases follow the iterative approach and may overlap to accommodate ongoing development changes.

Testing Phases Overlap with Phases of the FAST Implementation Methodology



4.3.2.18 A description of the vendor’s planned approach to conducting structured testing with AAMVA.

In each of the 20 states where FastDS and/or FastVS is in production for driver and/or vehicle services, as the system of record, FastDS-VS has been successfully implemented with AAMVA interfaces. Naturally, that process involves Structured Testing. Due to the critical nature of these interfaces, working with AAMVA is a priority. FastDS natively supports interfaces with systems maintained by AAMVA, and we will work collaboratively with the State to ensure that all interface partners have the information and support necessary to develop and test system interfaces. Interface Testing is carefully coordinated and timed to ensure that both sides of the interfaces are thoroughly tested. We work with the State to follow the Structured Testing requirements provided by AAMVA.

Our experience implementing FastDS across many jurisdictions allows us to understand the complexities and requirements of working with AAMVA to make our projects successful. Given our experience implementing AAMVA we have a wide range of resources to pull from to successfully

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implement and maintain AAMVA solutions. We understand the importance of working together with agency staff and AAMVA to ensure that all needs are met and that the tools used to support agency operations are correct, functional, and reliable.

4.3.2.19 A description of the vendor's planned approach to Integration, System, Performance, and User Acceptance Testing.

The Testing Phase ensures that the production system meets agency business needs in a robust and stable manner. This includes identification of potential system and specification instabilities or issues. We believe it is critical to ensure, as early as possible, that the new system will meet the agency's business needs.

The project's test plan is created toward the end of the Development Phase while configuration is being confirmed by developers and verified by project business representatives. We place a significant focus on testing and verifying the system from a business perspective and believe it is imperative that agency users be heavily involved in the testing process. This focus is designed to ensure that FastDS supports your agency's specific business processes, operates correctly on converted data, properly executes any encountered exceptions, and successfully conducts other critical processes. We recognize that while the agency is committed to realizing the benefits of a modern integrated solution, there are often misgivings associated with the introduction of a new system. Bringing users into the testing process offers them early exposure to the new system and helps to relieve their concerns that the system will not meet their needs.

Unlike traditional development methodologies where User Acceptance Testing occurs only after all definition and development are complete, our iterative approach enables end users to start verifying that the software meets business needs—early and often—as the business rules are configured. Business representatives assigned to the project are involved in the early verification work and, later, business users are engaged as testers in Business and End-to-End Testing. Altogether, these testing phases achieve the traditional User Acceptance Testing process. FAST testing activities run in parallel with multiple phases of the FAST Implementation Methodology, reducing implementation risks by providing end users with an opportunity to identify missed business requirements early in the project.

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The following table provides an overview of the various test types that are typically performed on a FastDS implementation project. The table includes a brief description of the test type and a description of how this type of testing may be performed.

Testing Types and Activities

Test Type	Description	Testing Activities
Verification Testing (Unit Testing)	<ul style="list-style-type: none"> • Developers carry out tests at the individual configuration and component level. • Focuses on verifying and evaluating granular business functionality during the Definition, Foundation, and Development phases. • Both native and converted data are used. 	<ul style="list-style-type: none"> • Results of unit testing are tracked by individual developers. • The development team and agency business representatives discuss and review the iterative development in design sessions. • Formal test scenarios are not developed or tracked during unit testing.
Business Testing (System and Integration Testing)	<ul style="list-style-type: none"> • First formal phase of testing. • Uses formal test scenarios. • Structured in a front-end to back-end manner. • Both native and converted data are used. • Includes functional, converted data, regression, and interface testing. 	<ul style="list-style-type: none"> • WVDMV end users execute formal test scenarios, written by agency business representatives, as well as unstructured ad-hoc testing. • Testing efforts focus on business processes and site-specific configuration—not core functionality.
End-to-End Testing	<ul style="list-style-type: none"> • Mimics a full and real-world business cycle. • Verifies full process business flows with converted and native data. • Verifies actions and outcomes dependent on specific dates or periods of time. • Includes security, interface, and performance testing. 	<ul style="list-style-type: none"> • The development team coordinates with business representatives and WVDMV end users to identify key processing dates and establish appropriate scenarios. <ul style="list-style-type: none"> ○ FastCore’s integrated RunDate tool is used to automatically change the date system-wide to test results of actions over time. • WVDMV business representatives and end users execute formal scenarios and ad-hoc testing.

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Test Type	Description	Testing Activities
		<ul style="list-style-type: none"> • Fee calculations, financial revenue processing, billing and collections stage-flow, other interfaces, reports, workflow, user security, and system performance are focuses during this phase.
<p>Converted Data Testing</p>	<ul style="list-style-type: none"> • Two-part process consisting of: <ol style="list-style-type: none"> 1. Converted data usage – WVDMV end-users perform transactions using converted data. 2. Conversion verification – WVDMV end-users examine the data to verify that it converted completely and without corruption. 	<ul style="list-style-type: none"> • Extensive converted data testing is completed as part of the business and end-to-end testing phases, in addition to ad-hoc testing performed by project members. • A sub-set of scenarios used in business testing may be repeated using converted data.
<p>Interface Testing</p>	<ul style="list-style-type: none"> • With the support of developers, WVDMV end-users confirm that data entering FastDS from external interfaces is received and processed correctly. • Data leaving FastDS is reviewed by FAST developers prior to transmitting; once data is received by the external system the interface partners confirm the data was received and processed correctly. • Carefully coordinated and timed to ensure both sides are thoroughly. 	<ul style="list-style-type: none"> • WVDMV-staff manage communication with interface partners and facilitate planning discussions for interface testing activities. This is typically incorporated into the project Communication plan. • Most interface testing occurs during end-to-end testing and closely resembles production volumes and complexities to allow for performance tuning and validation.

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Test Type	Description	Testing Activities
<p>Performance Testing</p>	<ul style="list-style-type: none"> • Performance testing validates the speed, scalability, and stability of the system. • Assures response times of various time-critical business processes and transactions. • Seeks to identify and resolve any serious performance problems before end-to-end testing begins. 	<ul style="list-style-type: none"> • Typically led by the FAST technical team. • Repeated until desired results are achieved.
<p>Regression Testing</p>	<ul style="list-style-type: none"> • Seeks to uncover new faults in existing areas of the system when changes to configuration are made. 	<ul style="list-style-type: none"> • Regress testing is typically performed once the system has gone live as part of service packs and subsequent rollouts to verify that the new functionality does not “break” other areas of the system. • An inventory of regression test scenarios is curated to reflect key business processes and high-impact areas of functionality that will commonly require regression testing
<p>Vulnerability/ Penetration Testing (Security Testing)</p>	<ul style="list-style-type: none"> • The process typically includes two types of testing: <ul style="list-style-type: none"> ○ User role security testing ○ Technical security testing 	<ul style="list-style-type: none"> • During user role security testing, WVDMV users test that the correct access rules are applied and meet the business process needs of the agency. • During technical security testing, both the FastDS system and self-service web portal are tested to make sure the systems are free from vulnerabilities, risks, and threats.

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Usability and Accessibility Testing

Usability verification is incorporated into the overall business testing phase in the FAST Implementation Methodology. The FastDS navigation architecture allows agencies to customize the appearance and function of many screens, including adding panels or tabs to present additional information to internal users. FastDS is designed to be extendable in this manner and adding additional features and content does not impede the application's ability to accommodate future service packs or software upgrades.

Agencies can also configure and customize the appearance of the application to use agency standard logos, colors, and other design elements. Similarly, the FastDS e-Services feature, which provides online self-service features to customers, can be configured to display web portals that align with an agency's web, design, and accessibility standards. Web page content, online forms and applications, informational guides, navigation hyperlinks, field captions, tip text, icons, and other aspects of the portals are all configurable to meet the needs of the agency, its customers, and stakeholders.

Accessibility testing coincides with business testing and is performed once per rollout with a third-party vendor. Since our core product routinely undergoes usability testing to maintain compliance with Americans with Disabilities Act (ADA) and Web Content Accessibility Guidelines (WCAG) guidelines, the vendor will perform independent accessibility tests for site configuration. These tests are sponsored by FAST and are performed at no cost to the state.

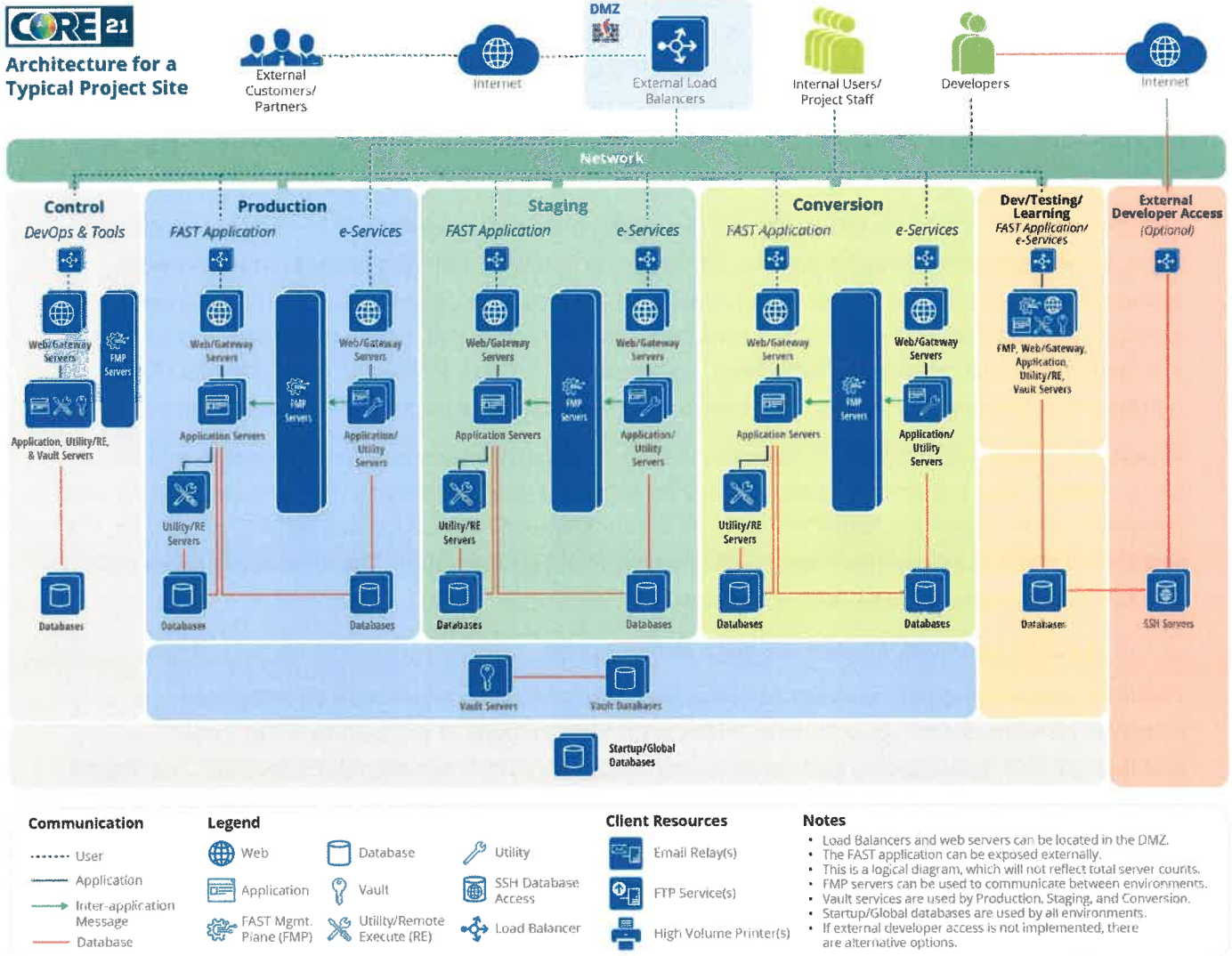
4.3.2.20 A network diagram and network description.

FastCore was designed to maximize flexibility and interoperability. We provide an integrated framework and methodology to support, make and track changes to the system using a core architecture that's easy to use and industry proven. Our core architecture utilizes the .NET Framework to process secured web services. FastCore was built using the C# development language, which is the preferred language for any custom code extensions. The application architecture requires Microsoft Windows Server operating system for the web and application servers, and an ODBC compliant enterprise database management system such as Microsoft SQL Server or PostgreSQL.

FastDS is optimized to run efficiently over varying bandwidth to process compressed and encrypted web requests between client desktops and the web servers. The optimal bandwidth for remote office internet connections should support a minimum of 10 Mb for every 25 people. For example, 50 people using the application at a remote office location require a minimum connection of 20 Mb.

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FastCore/FastDS Architecture Diagram

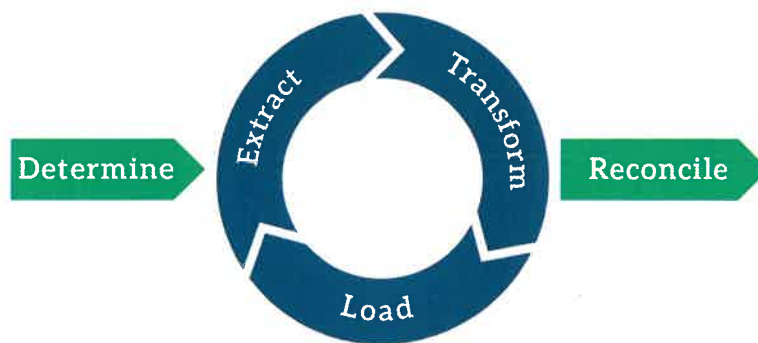


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4.3.2.21 A description of activities performed, resources involved, and artifacts used for data conversion, migration, and synchronization requirements for this project.

Our FAST conversion process entails the identification/determination, extraction, transformation, load, and reconciliation of legacy data and its requirements. Data cleansing/purification is conducted iteratively throughout the process. Our process leverages the actual FAST software system to load converted data. The iterative stages of the FAST conversion process are shown in the following graphic.

Iterative Stages of the FAST Conversion Process



Through a series of mock conversions, the project team builds a database optimized for the new system. The conversion process starts early in the project to allow time for purification and to permit a fully converted database to be used during End-to-End Testing. As the cutover date approaches, the mock conversion activity will include optimizing the time it takes to convert the whole database, so that conversion is completed in the time allotted during cutover. At cutover, the production database and feeder systems are addressed according to a cutover checklist so that conversion can be conducted without conflict. High-level activities of this phase are outlined in the following sections.

Inventory Data Resources

For each of the lines of business that are being converted, the existing data resources are inventoried. This defines the scope of agency data and systems that are available for the conversion process. Each data source is reviewed for integrity and quality. FAST will collaborate with WDMV subject matter experts to gather inputs for and create a conversion plan.

Define, Select, and Target Conversion Data

Once all sources of legacy data have been identified, the conversion team determines the data that must be converted from each source and how far back in time to convert historic data. Development of conversion-selection criteria usually happens simultaneously at the customer and account levels.

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Purify Data

Prior to the execution of the conversion, the data from each selected source is inspected to determine if there are inconsistencies. These inconsistencies must be resolved by developing and executing strategies to purify the data prior to conversion. Purification is conducted across multiple stages of the process, as well as phases of the project, to support the conversion of relevant high-quality data.

Perform Conversion Extracts

Conversion extract processes are guided or developed and led by agency IT staff to access conversion data sources and produce data extracts. These data extracts may take the form of standardized flat files or direct database queries. The conversion extract process also provides control reports that detail the extraction process and can be used to confirm the load processes.

Develop Conversion Loads

Conversion loads transform and adapt legacy data to function in FastDS. This includes functionality to:

- ▶ Load extract data into staging tables.
- ▶ Validate the extracted data.
- ▶ Process legacy data into FastDS using the same business objects developed for native data.
- ▶ Produce conversion load control reports detailing the validation and load process.

Run Mock Conversions

Conversion is not a one-time event. For high data volumes, mock conversions are performed initially on a small subset of data and then on increasingly larger subsets. Once the mock conversion is complete, a final reconciliation report is created including counts of data elements and financials migrated.

Verify Mock Conversions

One or more complete mock conversions are performed to provide the basis for user verification of the converted data. Verification is supported by a reconciliation document that describes how converted data is reconciled to its legacy source.

Conversion Deliverables and Work Products

Typical deliverables and work products that result from the Conversion Phase include:

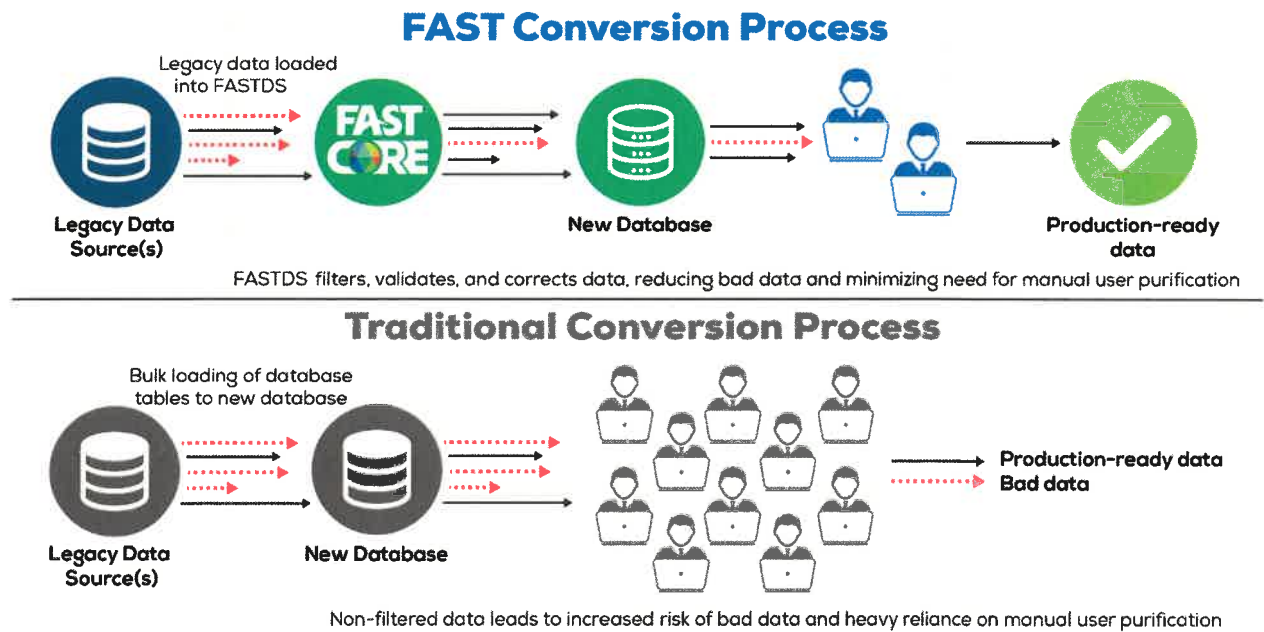
- ▶ Conversion plan
- ▶ Conversion definition items
- ▶ Conversion reconciliation report

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Data Cleanup

FAST understands that WDMV may have minor naming convention differences between the existing driver and vehicle services systems that will need to be accounted for during conversion into FastDS. Data cleanup and purification is an integral part of all conversions and is an iterative activity throughout the conversion process. It is conducted across multiple stages of the process to support the conversion of relevant, high-quality data. Whereas traditional data conversion efforts rely on bulk loading of database tables, which often results in a heavy reliance on users to identify even basic purification issues, our approach uses the FastDS application to load conversion data (see the following graphic). By running the data through the application as part of the conversion process, data anomalies that would be problematic in the new system are identified. This permits rollout of the new system without carrying forward data problems that may have existed in legacy systems. It also provides important feedback to data purification efforts as the agency works to cleanse as much data as possible prior to conversion.

FAST Conversion Process versus Traditional Conversion Process



Data purification and/or consolidation can be done at several stages during the conversion process, such as:

- ▶ Programmatically prior to the extract – This involves development of one-time processes that employ legacy tools, file utility tools, or custom programs in the legacy environment. This is the preferred approach.

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- ▶ Manually by users of the legacy system prior to the extract – This can be a labor-intensive approach if volumes are high but may be the only alternative when human judgment is required.
- ▶ As part of the transformation process – The team can devise purification rules and apply to programmatically to the data in the load files or with SQL updates against the load staging tables. This method can add complexity to the reconciliation process and requires taking into account any repairs made after extract and before load.

The following tasks are part of data purification efforts. These tasks are conducted early in the conversion process but may be repeated throughout the process if issues arise.

- ▶ Identify each data anomaly and associated repair opportunity.
- ▶ Determine the nature and frequency of each type of anomaly.
- ▶ Determine how to resolve the anomalies.
- ▶ Determine whether the data will be converted using an automated or manual process.
- ▶ Select users to perform data purification activities.
- ▶ Verify changes to resolve each anomaly.

In some cases, it may not be possible to resolve all issues identified in the legacy data. This can happen when the legacy system does not have functionality available to resolve the issue, there are not enough resources available, or there is not sufficient time to address the issue. FAST recommends that data purification begin as early as possible during the project to quickly remedy substantial defects. When it is not possible to address an issue before conversion, impact analysis must be performed, risks associated with the issue must be identified, and steps must be taken to mitigate the effects of data issues following conversion.

Roles and Responsibilities

In our standard conversion approach, agency IT personnel are typically responsible for managing data in their existing systems and data stores. This can include programming of modules designed to extract data from legacy applications or automatic data purification. Agency business experts/representatives are typically responsible for cleansing the source data due to their familiarity with existing systems and data stores. FAST is typically responsible for the following activities:

- ▶ The creation of detailed conversion and conversion test plans.
- ▶ Defining layouts for extraction files or direct data extract queries.
- ▶ Data transformation and load after extract.
- ▶ Mock conversion runs.
- ▶ The creation of reconciliation reports to verify the conversion process.
- ▶ The creation of reports detailing data anomalies that manifest during conversion.

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- ▶ Consulting with agency IT personnel and business experts to extract legacy data in the correct form, identify data errors, reconcile the conversion, and resolve data anomalies.
- ▶ Working with agency staff to verify the conversion process.

Agency IT personnel and SMEs will have the first pass at identifying corrections to be made for the data to be compatible with FastDS. During the transform and load steps of conversion, FAST personnel will identify additional data anomalies by using native FastDS conversion tools. Anomalies will be reported back to the agency for correction or other remedial activities.

The following table provides, at a high level, the data conversion activities and the suggested roles for agency business and IT personnel and FAST.

Data Conversion Activities and Suggested Roles for FAST & Agency Business and IT Personnel

Data Conversion Activity	Role of Agency Personnel	Role of FAST Personnel
Inventory data sources	Research legacy systems and create an inventory of systems and data fields.	Assist with research and review inventory of data sources.
Detail conversion approach	Review and approve conversion approach. Based on agency needs, help determine what legacy data will need to be converted for the solution.	Create conversion approach for each business function.
Perform data purification	Perform data purification.	Identify data inconsistencies for data purification.
Create conversion extracts	Design, develop, and test extraction processes or provide guidance for direct data queries.	Validate extracts meet conversion needs. Design, develop, and test transformation processes.
Perform conversion loads	Validate, verify, and approve data load.	Perform the data load.
Run sample mock conversions	Run extract programs to extract data.	Load extracted data into FastDS.
Run full mock conversions	Run extract programs to extract data.	Load extracted data into FastDS.
Reconciliation	Run reconciliation queries and verify expectations against actual load.	Run reconciliation queries and verify expectations against actual load and publish conversion report.

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4.3.2.22 A description of how data will be synced with AAMVA.

Following are some of the features of FastDS that enable efficient and effective data exchange with AAMVA systems.

Built-In AAMVA Interfaces & Functions

FastDS has pre-built interfaces and functions for interconnection and data exchange with AAMVA systems. It supports the latest version of each AAMVA application, as well as any prior versions currently in use by our client agencies. As AAMVA releases new or modified services and solutions, our FAST Development Center releases updates that are distributed to our FAST client agencies through software service packs and updates.

Participation in the newest AAMVA programs and versions is based on agency preference and often requires a small project team to undertake updates in coordination with the AAMVA community.

Standardization & Flexibility

FastDS handles AAMVA-related processing for motor vehicle agencies that represent more than a third of all U.S. AAMVA jurisdictions. Our client agencies benefit from standardization and best practices available as part of having FastDS support such a large and growing number of jurisdictions. FastDS is flexible and configured to agency-specific business rules reflecting what is allowed per statute or policy for each client's AAMVA processes.

Seamless AAMVA Information Processing

AAMVA-related processing in FastDS is tightly integrated into relevant business processes. Most inquiries to AAMVA systems are transmitted seamlessly in the background while business staff are providing services at customer-facing counters. Based on agency-defined business rules, staff may see warnings or stop-processes if an exception occurs. As an alternative to stop processes, the agency may choose to allow overrides, supervisor overrides, or back-office workflows to continue serving the customer. Upon successful completion of a transaction, FastDS can automatically send updates to the AAMVA systems. This level of integration can allow the agency to remain synchronized with national AAMVA systems without impact to front-line office staff and customer-service representatives.

FastDS also supports back-office processing for AAMVA interfaces and issues by providing agency staff and IT personnel with functionality for identifying and rectifying data-processing issues or anomalies, such as those introduced through interface with another jurisdiction's system. If any messages fail to transmit correctly, FastDS creates a review item for agency staff. The solution displays relevant messages sent, the data received, and any detected anomalies to allow support staff decision-making and continued processing.

SECTION 4 RESPONSE

Bulk Load & Reconciliation Support

FastDS natively supports transmitting and receiving large sets of data to and from AAMVA for bulk load processes and reconciliation processes. For example:

- ▶ CD31 CDLIS
- ▶ CD31 Non-CDLIS
- ▶ CD31 NCHP (No Credential History Pointers)
- ▶ CD34 Initial Load for S2S or DHR
- ▶ PDPS Clean File

In situations in which these processes require user intervention, FastDS conducts workflow processes for specific records to allow staff to make necessary decisions and perform updates to keep information synchronized. Additionally, FastDS automatically resolves S2S Duplicate Pointer situations in which a high-confidence match can be made systematically. FastDS enables agencies to conduct frequent reconciliation with AAMVA systems. For example, some of our motor-vehicle client agencies perform a quarterly CD31 reconciliation process (for CDLIS pointers) instead of performing it annually.

4.3.2.23 [A detailed description of its proposed backup and disaster recovery strategy for the West Virginia Drivers System in detail.](#)

Backup and disaster recovery services are included in our hosting services when FAST is managing the hosted environments. We provide frequent data backups and disaster recovery services for production environments. Data is securely replicated to a secondary data center which can be brought online in the event the primary data center is offline from a disaster.

Backup jobs are monitored by our support personnel to ensure all backup jobs complete successfully without error. We implement a 3-2-1-1-0 backup strategy for our hosted clients, which includes:

- ▶ 3: Maintain at least 3 copies of data
- ▶ 2: Store backups on 2 different storage media
- ▶ 1: Store at least 1 copy at an offsite location
- ▶ 1: Store at least 1 copy offline
- ▶ 0: Verify backups with 0 errors

Using a 3-2-1-1-0 backup strategy mitigates data loss from ransomware attacks as well as from a disaster event.

The production environment is designed for high availability with redundancy at all layers to mitigate the risk of having an outage in the first place. The scope of our disaster recovery service is typically discussed and finalized during project startup activities.

SECTION 4 RESPONSE

4.4 Mandatory Qualification/Experience Requirements – The following mandatory qualification/experience requirements must be met by the Vendor as a part of its submitted proposal. Vendor should describe how it meets the mandatory requirements and include any areas where it exceeds the mandatory requirements. Failure to comply with mandatory requirements will lead to disqualification, but areas where the mandatory requirements are exceeded will be included in technical scores where appropriate. The mandatory qualifications/experience requirements are listed below.

4.4.1 The vendor shall be an authorized reseller, owner, or explicitly authorized to transfer of intellectual property, with documented experience supporting the ability to sell, service and/or support the hardware and/or software proposed in this RFP.

We are the software developer, system integrator, and service provider for our proposed FastDS software solution for the administration of driver programs and services. As the owner of the FastDS software, we authorize our client agencies' use of the software through a perpetual licensing agreement. As the system integrator and service provider for our FastCore software solutions, we also provide our client agencies with services for the software's implementation and its ongoing support and enhancement.

Our full-lifecycle approach to software and service delivery differs from that of most technology companies and consultants that only provide select services or components for system modernization. Rather than implementing and interconnecting general-purpose software products developed by a variety of companies, our employees and company are solely devoted to developing, implementing, supporting, and enhancing our FAST-developed and FastCore-based government software solutions, including our proposed FastDS solution for the administration and enforcement of driver licenses, identity management, and credentials.

This streamlined single-provider solution, services, and support model—an organizational approach in which we serve as the combined software developer, system integrator, and support-services resource—provides our client agencies with one point of contact for addressing all aspects of system modernization, operation, and enhancement.

4.4.2 The vendor shall identify any third-party relationships that will be formed to provide equipment, software and services outlined in the RFP.

We do not require third-party relationships to provide the services outlined in this RFP. FAST is the sole manufacturer of FastDS and our solution supports industry standard technology and infrastructure to implement the solution.

SECTION 4 RESPONSE

4.4.3 The vendor shall identify the team members that will be assigned to complete this project. The vendor shall notify the WVDMV of any substitutions to the personnel that will be providing services under this RFP. WVDMV reserves the right to approve all personnel that will be working on this project.

Our proposed key personnel are identified in our response to 4.3.5 above. We have a history of maintaining continuity of our implementation project and support teams. The number of required implementation consultants varies based on project phases and requirements. For example, fewer implementation consultants are needed in the project's initial Preparation Phase than in later phases.

FAST key project staff will be on site within one to two weeks of project start, with the project manager and select team managers on site within the first week of the project. FAST will begin assigning additional implementation consultants during the project's Preparation Phase and agrees to provide staff names as they are confirmed. When assigned, implementation consultants work full time as on-site resources.

FAST will inform WVDMV of staff additions or changes and will provide appropriate details to ensure onboarding and access requirements are met.

FAST understands the requirement that WVDMV may reasonably request to remove staff that it disapproves of from working on this project.

4.4.4 The vendor must provide documentation of at least five years' experience across multiple government agencies associated with motor vehicle, driver licensing, and identity administration. At least one project must have been completed within the last five years.

FAST meets and exceeds the qualification of having at least five years' experience across multiple government agencies associated with motor vehicle, driver licensing, and identity administration.

In the past five years, the FastDS solution has been successfully implemented as the modernized and integrated driver licensing system for state motor vehicle agencies that represent the following AAMVA jurisdictions:

- ▶ Alabama
- ▶ Georgia
- ▶ Maryland
- ▶ Michigan
- ▶ Montana
- ▶ North Dakota

SECTION 4 RESPONSE

	Implementation Specifics					Project Scope
	Driver Licensing System	Successfully Deployed	Fully Functional	Within Budget	Currently Operating	
AAMVA Jurisdiction						
State of Alabama						
Alabama Law Enforcement Agency (FastDS)						FastCore – Driver Services (FastDS) Project start: Sept. 2020 Project complete: Apr. 2022
Alabama Department of Revenue (FastVS)	Y	Y	Y	Y	Y	FastCore – Vehicle Services (FastVS) Project start: Oct. 2022 Project complete: Dec. 2023
State of Georgia						
Georgia Department of Revenue (FastVS)						FastCore – Vehicle Services (FastVS) Project start: Nov. 2017 Project complete: May 2019
Georgia Department of Driver Services (FastDS)	Y	Y	Y	Y	Y	FastCore – Driver Services (FastDS) Project start: July 2019 Project complete: Jan. 2021
State of Maryland						
Maryland Department of Transportation, Motor Vehicle Administration						FastCore – Vehicle Services (FastVS) Project start: June 2018 Project complete: July 2020
	Y	Y	Y	Y	Y	FastCore – Driver Services (FastDS) Project start: Sept. 2020 Project complete: Dec. 2021
State of Michigan						
Michigan Department of State						FastCore – Vehicle Services (FastVS) Project start: May 2017 Project complete: Feb. 2019
	Y	Y	Y	Y	Y	FastCore – Driver Services (FastDS) Project start: May 2019 Project complete: Mar. 2021

SECTION 4 RESPONSE

	Implementation Specifics					Project Scope
	Driver Licensing System	Successfully Deployed	Fully Functional	Within Budget	Currently Operating	
AAMVA Jurisdiction						
State of Montana						
State of Montana, Department of Justice, Motor Vehicle Division	Y	Y	Y	Y	Y	FastDS- Driver Services Project Start: Aug. 2022 Project Complete: Nov. 2023 FastVS- Vehicle Services Project Start: Dec. 2023 Project Complete: Mar. 2025
State of North Dakota						
North Dakota Department of Transportation	Y	Y	Y	Y	Y	FastCore – Vehicle Services (FastVS) Project start: Feb. 2015 Project complete: Jun. 2016 FastCore – Driver Services (FastDS) Project start: Oct. 2020 Project complete: May 2022

Additionally, in the table on the following pages, you will find our full list of implementations (including in-progress implementations) in alphabetical order, for our FastDS and/or FastVS solutions since 2011. Many clients have implemented version upgrades over this time, leveraging the evolution of our underlying FastCore platform technology to keep their system modern without the need for replacement.

SECTION 4 RESPONSE

FastCore Driver Services and/or Vehicle Services System-Modernization Projects

AAMVA Jurisdiction	Agency Information	Project Schedule	Project Status
Alabama, USA Pop. 5.1M	Alabama Law Enforcement Agency (FastDS)	<u>Driver Services</u> Project start: Sept. 2020 Project complete: Apr. 2022	Maintenance & Support
	Department of Revenue (FastVS)	<u>Vehicle Services</u> Project start: Oct. 2022 Project complete: Dec. 2023	Maintenance & Support
Arkansas, USA Pop. 3.06M	Department of Finance and Administration, Office of Driver Services	<u>Driver Services</u> Project start: June 2011 Project complete: Sept. 2012	Maintenance & Support
		<u>Vehicle Services</u> Project start: Nov. 2012 Project complete: Sept. 2013	Maintenance & Support
Colorado, USA Pop. 5.9M	Department of Revenue, Division of Motor Vehicles	<u>Driver Services</u> Project start: Aug. 2015 Project complete: Feb. 2017	Maintenance & Support
		<u>Vehicle Services</u> Project start: Mar. 2017 Project complete: Aug. 2018	Maintenance & Support
		IRP functionality included.	
Georgia, USA Pop. 11M	Department of Revenue (FastVS)	<u>Vehicle Services</u> Project start: Nov. 2017 Project complete: May 2019	Maintenance & Support
	Department of Driver Services (FastDS)	<u>Driver Services</u> Project start: July 2019 Project complete: Jan. 2021 IFTA functionality included.	Maintenance & Support

SECTION 4 RESPONSE

AAMVA Jurisdiction	Agency Information	Project Schedule	Project Status
Maryland, USA Pop. 6.2M	Department of Transportation, Motor Vehicle Administration	<u>Vehicle Services</u> Project start: June 2018 Project complete: July 2020 <u>Driver Services</u> Project start: Sept. 2020 Project complete: Dec. 2021 IRP functionality included.	Maintenance & Support Maintenance & Support
Massachusetts, USA Pop. 7.1M	Department of Transportation, Registry of Motor Vehicles	<u>Driver Services</u> Project start: Nov. 2016 Project complete: Mar. 2018 <u>Vehicle Services</u> Project start: Apr. 2018 Project complete: Nov. 2019 IRP functionality included.	Maintenance & Support Maintenance & Support
Michigan, USA Pop. 10.0M	Department of State	<u>Vehicle Services</u> Project start: May 2017 Project complete: Feb. 2019 <u>Driver Services</u> Project start: May 2019 Project complete: Mar. 2021 IRP functionality included.	Maintenance & Support Maintenance & Support
Minnesota, USA Pop. 5.8M	Department of Public Safety	<u>Driver Services</u> Project start: Nov. 2017 Project complete: June 2019 <u>Vehicle Services</u> Project start: Aug. 2019 Project complete: Nov. 2020 <u>IFTA, IRP</u> Project start: Jan. 2021 Project complete: Oct. 2021	Maintenance & Support Maintenance & Support Maintenance & Support

SECTION 4 RESPONSE

AAMVA Jurisdiction	Agency Information	Project Schedule	Project Status
Mississippi, USA Pop. 2.9M	Department of Revenue	<u>Vehicle Services</u> Project start: May 2016 Project complete: Oct. 2017	Maintenance & Support
Missouri, USA Pop. 6.2M	Department of Revenue, Motor Vehicle and Driver Licensing Division	<u>Driver Services</u> Project start: May 2023 Project complete: Nov. 2024 <u>Vehicle Services</u> Project start: Jan. 2025 Project complete: July 2026	Active Implementation Project Active Implementation Project
Montana, USA Pop. 1.1M	Department of Justice, Motor Vehicle Division	<u>Driver Services</u> Project Start: Aug. 2022 Project Complete: Nov. 2023 <u>Vehicle Services</u> Project Start: Dec. 2023 Project Complete: Mar. 2025	Maintenance & Support Active Implementation Project
Nebraska, USA Pop. 2M	Department of Motor Vehicles	<u>Vehicle Services</u> Project start: Mar. 2018 Project complete: Oct. 2019	Maintenance & Support
New Mexico, USA Pop. 2.1M	Taxation and Revenue Department, Motor Vehicle Division	<u>Driver Services</u> Project start: Mar. 2014 Project complete: May 2015 <u>Vehicle Services</u> Project start: May 2015 Project complete: Sept. 2016	Maintenance & Support Maintenance & Support
North Dakota, USA Pop. 764K	Department of Transportation	<u>Vehicle Services</u> Project start: Feb. 2015 Project complete: Jun. 2016 <u>Driver Services</u> Project start: Oct. 2020 Project complete: May 2022	Maintenance & Support Maintenance & Support

SECTION 4 RESPONSE

AAMVA Jurisdiction	Agency Information	Project Schedule	Project Status
Oklahoma, USA Pop. 4.05M	Service Oklahoma	<u>Vehicle Services</u> Project start: Jan. 2014 Project complete: Mar. 2015	Maintenance & Support
Oregon, USA Pop. 4.3M	Department of Transportation	<u>Vehicle Services</u> Project start: July 2017 Project complete: Jan. 2019 <u>Driver Services</u> Project start: Feb. 2019 Project complete: July 2020	Maintenance & Support Maintenance & Support
South Dakota, USA Pop. 909K	Department of Revenue, Division of Motor Vehicles	<u>Vehicle Services</u> Project start: Nov.2023 Project complete: Feb. 2025	Active Implementation Project
Tennessee, USA Pop. 7M	Department of Safety & Homeland Security	<u>Driver Services</u> Project start: Aug. 2013 Project complete: Feb. 2015	Maintenance & Support
Utah, USA Pop. 3.3M	State Tax Commission, Division of Motor Vehicles	<u>Vehicle Services</u> Project start: July 2012 Project complete: Nov. 2013 IRP functionality included.	Maintenance & Support
Vermont, USA Pop. 650K	Department of Motor Vehicles Montpelier, Vermont, USA	<u>IFTA, IRP, Motor Fuel, Motor Vehicle Rental Tax</u> Project start: May 2019 Project complete: May 2020 <u>Vehicle Services</u> Project Start: June 2022 Project complete: Nov. 2023	Maintenance & Support Maintenance & Support

SECTION 4 RESPONSE

AAMVA Jurisdiction	Agency Information	Project Schedule	Project Status
<p>Washington, USA</p> <p>Pop. 8M</p>	<p>Department of Licensing</p>	<p><u>Vehicle Services</u> Project start: Apr. 2015 Project complete: Dec. 2016</p> <p><u>Driver Services</u> Project start: Jan. 2017 Project complete: Sept. 2018</p> <p><u>IFTA, IRP, Fuel Tax</u> Project start: Oct. 2014 First production: Oct. 2015 Project complete: Jun. 2016</p>	<p>Maintenance & Support</p> <p>Maintenance & Support</p> <p>Maintenance & Support</p>

RESPONSE TO SECTION 4 REQUIREMENTS

Section 4 Requirements

Key Personnel Resumes

Mayank Agrawal

Proposed Project Executive



CURRENT FAST ROLE

Michigan Department of State

May 2017 – Present

FastDS-VS Implementation Project

Project Director/Manager

FAST ASSIGNMENTS¹

North Dakota Department of Transportation

Mar. 2015 – May 2017

FastVS Implementation Project

Application Architect

Tennessee Department of Homeland Security

Sept. 2014 – Mar 2015

FastDS Implementation Project

Conversion Team Manager

FAST Development Center

Jun. 2014 – Sept. 2014

FastCore Driver and Vehicle Services Core Development

Application Architect

EDUCATION

Bachelor of Science, Computer Engineering

Louisiana State University

Baton Rouge, LA

TECHNICAL SKILLS

- FastCore software architecture
- FastCore software tools
- Visual Basic (.NET)
- C, C++
- Microsoft SQL Server
- PERL
- Turbo Pascal

PROFESSIONAL SUMMARY

Mayank Agrawal is a Fast Enterprises (FAST) project manager with over 20 years of experience with the implementation of FastCore software. He has worked as a project manager, application architect, implementation manager, and developer on seven FAST client sites. Most recently, Mr. Agrawal has worked as a project director and manager on the Michigan Department of State's FastDS-VS implementation. Mr. Agrawal holds extensive expertise in leading and providing oversight for the functional analysis, development, quality assurance, and delivery of FastCore integrated software systems for the administration of government programs. His attention to detail, as well as communication and organizational skills ensure that the project stays on track and allows him to easily interact with department staff and executive level leadership. His combined experience of being a manager and developer provides him with an extensive understanding of how to satisfy the variety of goals and needs an agency may have.

HIGHLIGHTED SKILLS, EXPERIENCE & QUALIFICATIONS

Executive Leadership

- Delivering account management, client relations, and dispute resolution
- Providing FAST executive decision and contract management.
 - Tracking contract revisions and amendments.
 - Working with agencies through contract renewal.
- Advising on business and software improvements.
- Providing motor vehicle agency best practices based on experience and industry knowledge.

Risk/Issue Management

- Managing FAST's role in status reporting, quality, issues, risks, and change control.
- Identifying, managing, and tracking risks and issues using Delivery Workbench.
- resolving business decisions and issues, including helping to identify when decision requests are needed.

Project Management

- Managing the schedules, quality, and functional/technical requirements of the project
- Tracking and managing project tasks and deliverables.
- Fostering a strong client relationship.
- Promoting FAST's Implementation Methodology and overseeing all phases of the implementation.

¹ The FAST Assignments section includes Mr. Agrawal's experience from the past ten years. Information regarding experience from four additional FAST client sites (Utah Tax Commission, Arkansas Department of Finance and Administration, Alabama Department of Revenue, and Louisiana Department of Revenue) is available upon request.

Steven Parkinson

Proposed Project Manager



CURRENT FAST ROLE

Mississippi Department of Revenue

May 2016 – Present

FastVS Implementation Project

Project Manager

FAST ASSIGNMENTS

Mississippi Department of Revenue

Aug. 2011 - May 2016

GenTax Implementation Project

Project Architect

Alabama Department of Revenue

Nov. 2005 – Aug. 2011

GenTax Implementation Project

Project Architect

Montana Department of Revenue

Nov 2005 – Aug 2011

GenTax Implementation Project

Implementation Consultant

EDUCATION

Bachelor of Science, Electrical Engineering

Florida Institute of Technology

Melbourne, FL

TECHNICAL SKILLS

- FastCore software architecture
- FastCore software tools
- ASP
- C#, C++
- Fortran
- HTML
- Java
- Microsoft SQL Server
- Oracle Database
- Visual Basic (.NET)

CERTIFICATIONS

Project Management Professional (PMP)® certification [REDACTED] – Active since 10/2022

PROFESSIONAL SUMMARY

Steven Parkinson is a Fast Enterprises (FAST) project manager with over eighteen years of experience with the implementation of FastCore software. He has worked as a project manager, project architect, and developer on four FAST client sites. Most recently, Mr. Parkinson has served as a project manager for the FastVS implementation at the Mississippi Department of Revenue. Mr. Parkinson is a Project Management Professional (PMP), with strong project organization skills and a proven record of leading teams to meet demanding deadlines on multiple production rollouts on time and on budget.

HIGHLIGHTED SKILLS, EXPERIENCE & QUALIFICATIONS

Project Management

- Leading related to project governance, team communications, planning, execution, monitoring, control, and quality assurance.
- Managing the schedules, quality, and functional/technical requirements of the project.
- Overseeing adherence to the project contract, budget, and plans.
- Resolving business decisions and issues, including helping to identify when decision requests are needed.
- Preparing contract deliverables.
- Working closely with client agency executives to identify and communicate project objectives and meet their business needs.
 - Facilitate communication with client leadership, including client relationship management, issue determination and resolution.
- Serving as a senior FAST subject-matter expert and FAST's primary point of contact.
- Resolving business decisions and issues, including helping to identify when decision requests are needed.
- Providing leadership and guidance to developers, business analysts, and subject-matter experts in the implementation of FastCore integrated solutions

Solution Development

- Management and oversight of the overall system design using the FastCore platform.
- Helping the project architect identify the need for decision requests related to definition that require site-specific or overly complex solution.

ADDITIONAL EXPERIENCE

Prior to joining FAST in 2005, Mr. Parkinson had an 11-year career in the software development industry working as a project manager, system analyst, software developer, and engineer. His clients included the US military, small businesses, and local government agencies.

CURRENT FAST ROLE

Nebraska Department of Motor Vehicles

May 2018 – Present

FastVS Implementation Project
Project Manager, Architect, and
Implementation Consultant

FAST ASSIGNMENTS

Oklahoma Tax Commission

Feb. 2013 – May 2018

GenTax Implementation Project
Architect, Production Support
Manager, and Implementation
Consultant

EDUCATION

Bachelor of Science, Management Information Systems & Minor in Computer Science

North Dakota State University
Fargo, ND

TECHNICAL SKILLS

- FastCore software architecture
- FastCore software tools
- C#
- Visual Basic (.NET)
- Microsoft SQL Server
- Oracle Database

PROFESSIONAL SUMMARY

Ross Melby is a Fast Enterprises (FAST) application architect with over 11 years of experience with the implementation of FastCore software. He has worked as a project manager application architect, implementation manager, and developer on two FAST client sites and has an extensive understanding of aligning business process optimization with the needs and objectives of agency employees. Since 2018, he has worked on the Fast VS implementation project (VicTory) for the Nebraska Department of Motor Vehicles and has held a variety of developer and management roles, including his current role as a project manager.

HIGHLIGHTED SKILLS, EXPERIENCE & QUALIFICATIONS

Application Architect

- Providing leadership and guidance to developers, business analysts, and subject-matter experts in the implementation of FastCore integrated solutions
- Gathering requirements and coordinating the implementation of site solutions for client business processes, while adhering to core standards
- Implementing Fast Software Solutions using the FAST Implementation Methodology from development through deployment
- Specializes in solving business challenges using Fast Solutions technology
- Working with the agency to plan and prioritize high impact change initiatives

Project Management

- Managing the schedules, quality, and functional/technical requirements of the project
- Keen on continual optimization and improvement of existing processes

Large Scale Project Delivery and Process Improvement

- Implementation of a new plate ordering interface with the Department of Corrections, where over three million plates have been ordered since April 2022 (Nebraska Department of Motor Vehicles)
- Helped maintain and implement over 25 tax types that collect over six billion dollars annually, (Oklahoma Tax Commission)

ADDITIONAL EXPERIENCE

Mr. Melby worked in web design and application development for Codelation, formerly 81Designs prior to working for FAST. He created and designed websites for small businesses and local groups.

John Zepeda

Proposed Conversion Manager



CURRENT FAST ROLE

Washington Department of Licensing

Oct. 2023 - Present

FastDS-VS Implementation Project

Conversion Manager

FAST ASSIGNMENTS

Mr. Zepeda has served as Conversion Team Manager or Conversion Team Member for the following FAST clients:

Montana Department of Labor & Industry

Jan. 2023 – Sep. 2023

FastUI Implementation Project

Michigan Unemployment Insurance Agency Department of Licensing and Regulatory Affairs

Jan. 2021 – Dec. 2022

FastUI Implementation Project

District of Columbia

Aug. 2019 – Jan. 2021

GenTax Implementation Project

Georgia Department of Motor Vehicles

Jan. 2018 – Jul. 2019

FastDS-VS Implementation Project

New York City Department of Finance

Jan. 2015 – Jan. 2018

GenTax Implementation Project

Mississippi Department of Revenue

Jun. 2013 – Jan. 2015

GenTax Implementation Project

EDUCATION

Bachelor of Arts, Computer Science

Carroll College

Helena, MT

PROFESSIONAL SUMMARY

John Zepeda is a Fast Enterprises, LLC (FAST) conversion manager with over ten years of experience with the implementation of FastCore software. During this time, he has focused exclusively on data conversion, making him an expert at planning and deploying the data conversion process for FastCore implementations. Mr. Zepeda currently serves as the Conversion Manager for the Washington Department of Licensing's FastDS-VS implementation for International Fuel Tax Agreement (IFTA) and International Registration Plan (IRP) programs. In total, Mr. Zepeda has conducted conversion efforts for seven FAST clients.

HIGHLIGHTED SKILLS, EXPERIENCE & QUALIFICATIONS

Conversion Management

- Overseeing all conversion activities, including planning, definition, configuration, extraction, load, mock conversion, reconciliation, and data purification.
- Facilitating conversion verification sessions with agency staff.
- Managing the transition of data from legacy systems, including optimizing data migration to minimize downtime.
- Reporting the conversion progress to the project and agency management.
- Facilitating communication with implementation teams to confirm data requirements are met for processing needs.
- Overseeing and resolving issues discovered during conversion verification testing.
- Supporting implementation consultants with the resolution of converted data-related issues.

Large Scale Project Delivery

- Overseeing the functional aspects of the solution, custom applications, and project interface components during seven large scale system-modernization projects.

Client Relationships

- Guiding the client throughout the conversion process.
- Educating clients on the conversion process importance of verification, and ways to mitigate legacy data issues prior to conversion.
- Fostering strong relationships with data stakeholders to ensure a successful conversion from the legacy system

TECHNICAL SKILLS

- FastCore software architecture
- FastCore software tools
- C#
- Visual Basic (.NET)
- Microsoft SQL Server
- Oracle Database
- PostgreSQL

CURRENT FAST ROLE

City of New Orleans – Bureau of Revenue

Jan. 2023 - Present

GenTax Implementation Project

Technical Team Manager

FAST ASSIGNMENTS

Pennsylvania Department of Revenue

Apr. 2021 – Jan. 2023

GenTax Implementation Project

Technical Team Member

Fast Centralized Tech

Mar. 2020 – Apr. 2021

Fast Corporate Technical Support

Technical Team Member

EDUCATION

B.S. Information Technology

Kutztown University

Kutztown, PA

TECHNICAL SKILLS

- SQL Server Admin
- C#
- SOAP
- REST
- SQL Server Developer
- NET Core
- USPS Mail Processes

PROFESSIONAL SUMMARY

Joel Kuneck. is a Fast Enterprises, LLC (FAST) technical team manager with over three years of experience with the implementation of FastCore software. He has provided database and system administration support, created and maintained multiple environments, coordinated data center relocations, designed interfaces, managed application security, and optimized processes for multiple subsystems. Most recently, Mr. Kuneck. has supported the GenTax implementation, FAST's core software for tax and revenue programs, for the City of New Orleans Bureau of Revenue, where he is responsible for planning and leading all technical project activities.

HIGHLIGHTED SKILLS, EXPERIENCE & QUALIFICATIONS

Technical Team Management

- Fully support all functional and non-functional project teams.
- Work directly with client centralized IT to put application connections in place from internal networks to various environments, including any necessary database connections.
- Issue and oversee firewall requests for all interface paths, including SFTP connections, to and from the FastCore application.
- Acting as a liaison between project staff and the client IT department

Product Deployment, Development, and Maintenance

- Monitoring the configuration, tools, and repositories to ensure quality processes are maintained.
- Build and maintain all required project environments.
- Facilitate major version upgrades of the FastCore software, including all infrastructure and code optimization considerations for code base language changes.
- Architect role-based application security in all environments.
- Build required interfaces for project requirements, including SFTP, SOAP, and RESTful incoming and outgoing connections, as well as directly communicating with all third parties to ensure successful, on-time, and secure connections.

Large Scale Project Delivery

- Execute cutover from legacy systems to the FastCore product, including synchronization of production environment with development efforts and all required manual scripts and batch jobs.
- Rebuild non-production environments to move them in line with production post-cutover to allow for immediate continued support.

REQUESTED CONTRACT MODIFICATIONS

Requested Contract Modifications

This section of our proposal contains FAST's requested modifications to select terms and conditions included in the RFP.

REQUESTED CONTRACT MODIFICATIONS

FAST requests the opportunity to discuss the following general terms and conditions.

Section	Original Language	Requested Modification
6	6.EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency.	6.EMERGENCY PURCHASES: The Purchasing Division Director may authorize the Agency to purchase goods or services in the open market that Vendor would otherwise provide under this Contract if those goods or services are for immediate or expedited delivery in an emergency <u>and Vendor cannot otherwise provide those goods or services.</u> <i>Vendor rationale: Vendor seeks to clarify that such emergency purchases related to the Contract are for goods and services that Vendor cannot otherwise provide.</i>
11	11.LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications: \$4,839 per day for DL/ID that cannot be processed due to system/vendor problems.	11.LIQUIDATED DAMAGES: This clause shall in no way be considered exclusive and shall not limit the State or Agency's right to pursue any other available remedy. Vendor shall pay liquidated damages in the amount specified below or as described in the specifications: <u>\$4,839 per day for DL/ID that cannot be processed due to system/vendor problems.</u> <u>Liquidated Damages Are Not Included in this Contract.</u> <i>Vendor rationale: Vendor and the State have a history of successful contract partnership without the imposition of Liquidated Damages. If invited to Contract Negotiation, Vendor requests the opportunity to discuss this term.</i>
13	13.PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. Notwithstanding the foregoing, Vendor must extend any	13.PRICING: The pricing set forth herein is firm for the life of the Contract, unless specified elsewhere within this Solicitation/Contract by the State. A Vendor's inclusion of price adjustment provisions in its bid, without an express authorization from the State in the Solicitation to do so, may result in bid disqualification. <u>Notwithstanding the foregoing, Vendor must extend any</u>

REQUESTED CONTRACT MODIFICATIONS

Section	Original Language	Requested Modification
	publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.	<p>publicly advertised sale price to the State and invoice at the lower of the contract price or the publicly advertised sale price.</p> <p><i>Vendor rationale: Vendor's COTS system for government modernizations is dynamically priced based upon the circumstances of each jurisdiction. Vendor requests the opportunity to discuss this Section.</i></p>
15	15.PAYMENT METHODS: Vendor must accept payment by electronic funds transfer and PCard. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)	<p>15.PAYMENT METHODS: Vendor must accept payment by electronic funds transfer and PCard. (The State of West Virginia's Purchasing Card program, administered under contract by a banking institution, processes payment for goods and services through state designated credit cards.)</p> <p><i>Vendor rationale: Vendor does not traditionally accept PCard payment given the Contract circumstances.</i></p>
16	16.TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.	<p>16.TAXES: The Vendor shall pay any applicable sales, use, personal property or any other taxes arising out of this Contract and the transactions contemplated thereby. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes. <u>If the State becomes required to pay a transaction tax that a buyer of goods would pay, like a sales tax, or the goods or services provided under this contract become subject to a transaction tax, like a gross receipts tax, the State will reimburse Seller for any such taxes that Seller pays hereunder.</u></p> <p><i>Vendor rationale: Vendor seeks clarification in the event the State imposed a new tax to which it was not exempt as this has happened in other jurisdictions in Vendor's experience.</i></p>
22	22. COMPLIANCE WITH LAWS: Vendor shall comply with all applicable federal, state, and local laws, regulations and	<p><i>Vendor comment: Vendor agrees to act in compliance with all applicable laws; however, Vendor wishes to discuss the</i></p>

REQUESTED CONTRACT MODIFICATIONS

Section	Original Language	Requested Modification
	ordinances. By submitting a bid, Vendor acknowledges that it has reviewed, understands, and will comply with all applicable laws, regulations, and ordinances.	<i>parties' respective obligations for interpreting and carrying out laws within Vendor's solution in accord with the State's business rules.</i>
28	28.WARRANTY: The Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship.	28.WARRANTY: During the Warranty Period the Vendor expressly warrants that the goods and/or services covered by this Contract will: (a) conform to the specifications, drawings, samples, or other description furnished or specified by the Agency; (b) be merchantable and fit for the purpose intended; and (c) be free from defect in material and workmanship. <i>Vendor rationale: Vendor seeks clarification that its warranty is limited to the bid warranty period.</i>
30	Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in www.state.wv.us/admin/purchase/privacy .	Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in www.state.wv.us/admin/purchase/privacy via its compliance with NIST 800-53, rev. 5. <i>Vendor rationale: If invited to contract negotiations, Vendor requests the opportunity to discuss use of an industry standard or to discuss specific aspects of the State's Confidentiality Policies and Information Security Accountability Requirements. For example, Vendor would discuss the scope of "any cost associated with the appropriate response actions deemed by the State to be reasonable and necessary" as included in the State specific policy.</i>
36	36.INDEMNIFICATION: The Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against...	36.INDEMNIFICATION: To the extent caused by Vendor or Vendor's subcontractor, the Vendor agrees to indemnify, defend, and hold harmless the State and the Agency, their officers, and employees from and against...

REQUESTED CONTRACT MODIFICATIONS

Section	Original Language	Requested Modification
Additional Term	Limitation on Liability	<p><i>Vendor rationale: Vendor seeks to add clarifying language that the indemnification obligation is for events caused by Vendor or its subcontractors (if any).</i></p>
Additional Term	Vendor License Agreement	<p><i>Vendor comment: If invited to contract negotiations, Vendor requests the opportunity to discuss a limitation of liability with respect to Contractor's liability under the Contract, including in the context of Indemnification.</i></p>
Additional Term	Vendor License Agreement	<p><i>Vendor comment: If invited to contract negotiations, Vendor requests the opportunity to discuss incorporation of Vendor's standard license agreement.</i></p>

ADDENDUM ACKNOWLEDGEMENT FORM

Addendum Acknowledgement Form

This section of our proposal contains FAST's signed RFP Addendum Acknowledgement Form.

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DMV2400000002

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|----------------------------------------------------|-----------------------------------------------------|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input checked="" type="checkbox"/> Addendum No. 6 |
| <input checked="" type="checkbox"/> Addendum No. 2 | <input checked="" type="checkbox"/> Addendum No. 7 |
| <input checked="" type="checkbox"/> Addendum No. 3 | <input checked="" type="checkbox"/> Addendum No. 8 |
| <input checked="" type="checkbox"/> Addendum No. 4 | <input checked="" type="checkbox"/> Addendum No. 9 |
| <input checked="" type="checkbox"/> Addendum No. 5 | <input checked="" type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Fast Enterprises, LLC

Company


Authorized Signature

02/29/2024

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.

TESTIMONIALS

Testimonials

This section of our proposal contains various third-party testimonials related to our FastCore Driver Services (FastDS) system and modernization projects. These testimonials, from trade journals, press releases, award organizations, and other publications, include:

- Alabama Celebrates One-Year Anniversary of New Driver License System
- Maryland Motor Vehicle Administration Modernization Named Best Use of Technology and Innovation
- Maryland Motor Vehicle Administration Wins Awards in Customer Convenience, Community Service, and Innovation
- Online Portal Digitizes 76% of Maryland MVA Interactions
- Montana MVD Modernizes Driver Licensing, Enhances Customer Service
- Oregon DMV Expands E-Services, Improves Customer Service
- Nebraska VTR and Georgia DRIVES Projects Recognized for Excellence in Government Partnership
- Vermont DMV Reopens with Major Data System Upgrade
- Tennessee Department of Safety and Homeland Security FastDS project wins the 2019 AAMVA Customer Convenience Service Award for the Region II Motor Voter Initiative

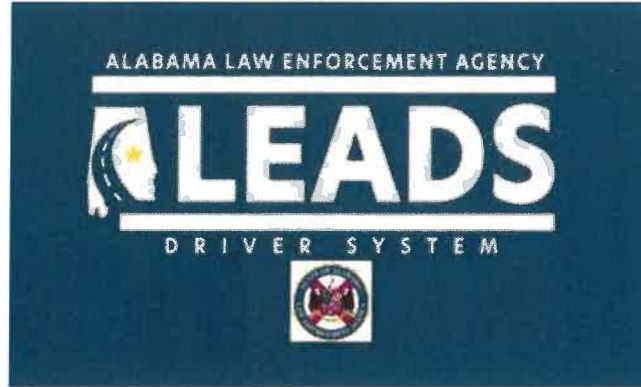
Alabama Law Enforcement Agency (ALEA)

FastDS System Modernization Project

Project start: Sept. 2020 | Project complete: Apr. 2022

The testimonial in this section highlights the successful implementation and use of our FastCore-based solution for driver services. In this press release, the agency celebrates the one-year anniversary of the launch of the Alabama Law Enforcement Agency Driver License System (LEADS).

ALEA Marks One Year Anniversary, Highlights the Success of LEADS



May 1, 2023
Lee Evancho

Montgomery, AL – *Over 1.3 million Driver License Credentials Processed Since April 26, 2022*

In April of 2022, the Alabama Law Enforcement Agency's (ALEA) Driver License Division launched a new and modernized driver license system, replacing a complex legacy system that had been in place for nearly two decades.

Since the launch of the Alabama Law Enforcement Agency Driver License System (LEADS), operations for both citizens and driver license personnel have greatly improve across the state. Over 1.3 million driver license credentials have been processed since the modernized system went live, however, the Agency has experienced reduced wait times in local offices, and hard copies of driver licenses have been delivered to customers two to three days faster than with the previous system. Additionally, a new streamlined process for submitting accident claims has improved processing times from approximately two to three weeks to two to three business days.

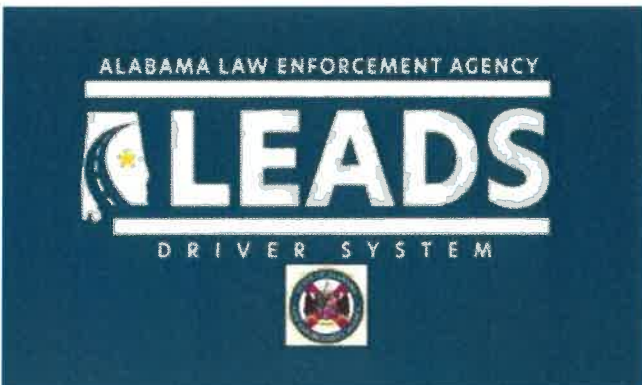
"Employees within multiple divisions of ALEA worked diligently alongside FAST Enterprises to develop and implement this new system. I am pleased to recognize and showcase the hard work and dedication of all the employees who played an integral role in LEADS by highlighting the success of such a monumental and historic project," ALEA Secretary Hal Taylor said. "Our Agency is proud to serve the citizens of Alabama and we are dedicated to continuing to find innovative and convenient methods to provide Alabamians with premier customer service, whether it's face to face in our local driver license offices or by enhancing online services."

Drivers can renew their license online, update emergency contacts, make payments, upload U.S. Department of Transportation (USDOT) Medical Cards, and individuals can even pre-apply for an Alabama License if they are first-time drivers. ALEA's updated webpage also features a virtual "ALEA" assistant via chat box to assist in navigating the online services and answer basic questions.

Since LEADS, thousands of customers have taken advantage of the enhanced online services, increasing efficiency and customer satisfaction. Data collected by the Agency shows 78 percent of customers now submit hardship applications online, allowing processing times to decrease from five days to one or two days. Over 6,000 Commercial Driver License (CDL) Medical Self-Certifications are processed each month online, which has resulted in an 87 percent increase in approval time. Over 22,000 license renewals or duplicates are processed online per month, and over 2,000 motor vehicle reports are processed online each month.

ALEA's Department of Public Safety Director (DPS) Colonel Jon Archer previously served as the Agency's Driver License Division Chief and led the division from start to finish of the project before his promotion to Colonel on March 1.

"A new modernized driver license system to improve customer service and internal operations was first envisioned by Secretary Taylor several years ago and was brought to life at the direction of his leadership," said Colonel Archer. "Through analytics and observations over the course of the past year, it is easy to mark LEADS as a huge success for the Agency and the entire State of Alabama. Our employees worked long hours to complete this project and did an outstanding job ensuring all tasks were met and all equipment was in working order by the designated deadlines. We are grateful for their dedication as well as the continued support of Governor Kay Ivey and the Legislature for providing us with the resources needed for this monumental success. However, this one-year anniversary does not mark the end but only the beginning as we continue to strive for excellence and exceed customer expectations moving forward."



Northeastern Region Winners Named For 2022 America's Transportation Awards Competition

editor 07/13/2022 0 COMMENTS

WASHINGTON—Six state department of transportation projects in Maine, New York State, New Jersey, Pennsylvania, and Maryland [won regional awards in the 2022 America's Transportation Awards competition](#). The contest honored projects for benefiting communities in several ways, such as revitalizing a neighborhood cut off from downtown Pittsburg in the 1950s due to Interstate construction, utilizing a strategy known as a "road diet" to make a busy traffic corridor safer, and using cutting-edge technology to make a bridge replacement less costly to taxpayers.

"State DOTs are overwhelmingly focused on innovative solutions to address the transportation issues of today and tomorrow, meeting challenges involving climate change, equity, resiliency, and safety," said Jim Tymon, executive director of the American Association of State Highway and Transportation Officials. "The America's Transportation Awards program shows just how they're doing that. Whether on foot, in a vehicle, on two wheels, or by rail or transit, state DOTs are continuing to advance a safe, multimodal transportation system."

Sponsored by AASHTO, AAA, and the U.S. Chamber of Commerce, the competition serves as a way to recognize state DOTs and highlights the projects they deliver that make their communities a better place to live, work, and play. Project nominations fall into one of three categories: Operations Excellence, Best Use of Technology & Innovation, and Quality of Life/Community Development.

All nominated projects will first compete on a regional level against projects of their own size: "Small" (projects costing up to \$25 million), "Medium" (projects costing between \$25 million and \$200 million), and "Large" (projects costing more than \$200 million).

In the **Northeast Association of State Transportation Officials** (NASTO) region, seven states and the District of Columbia nominated eighteen projects for this year's competition. As a result, the following six projects won regional America's Transportation Awards.

Maine Department of Transportation — Gardiner Downtown Bridges and Trail Project (Quality of Life/Community Development, Small category)

Pennsylvania Department of Transportation — I-579 Urban Open Space Cap Project (Quality of Life/Community Development, Medium category)

New York State Department of Transportation – State Route 5S and North Genesee Street Multi-Modal Safety and Connections Enhancements Project (Operations Excellence, Small category)

New Jersey Department of Transportation – Route 495, Route 1&9/Paterson Plank Road Bridge (Operations Excellence, Medium category)

Maine Department of Transportation – Grist Mill Bridge Replacement Project (Best Use of Technology and Innovation, Small category)

Maryland Transportation Department – Customer Connect System Modernization (Best Use of Technology and Innovation, Medium category)

AASHTO Transportation TV showcases this year's NASTO nominees and winners in [this video](#).

The three highest-scoring projects from each regional competition earn a place on a "Top 12" list of projects that will compete for the national Grand Prize – selected by an independent panel of industry judges – and the People's Choice Award, chosen by the public through online voting. In addition, those top national winners each receive \$10,000 cash awards to be donated to a charity or scholarship of the state DOT's choosing.

The 12 finalists will be announced and online voting for the People's Choice Award will begin in September after all regional winners have been announced. AASHTO will reveal the winners for the People's Choice Award and the Grand Prize this October at its 2022 Annual Meeting in Orlando.

Visit <https://americastransportationawards.org/> to learn more about this year's NASTO nominees.

Maryland Motor Vehicle Administration (MVA)

FastDS System Modernization Project

Project start: Sept. 2020 | Project complete: Dec. 2021

The testimonials in this section highlight awards and accolades that MVA has received through the successful implementation and use of our FastCore-based solution for driver and vehicle services. The agency modernized their driver and vehicle processing systems, now known as Customer Connect. On the following pages, we have featured the following awards:

- **2022 America's Transportation Awards Competition – Northeastern Region**
 - Best Use of Technology and Innovation
- **2022 American Association of Motor Vehicle Administrators (AAMVA) Awards**
 - Customer Convenience Category – functionality to provide certified birth certificates at branch offices.
 - Community Service Category – functionality to provide identification cards to individuals experiencing homelessness.
 - Innovative User of Technology Category – functionality for customers to request and be approved for disability products, including plates and placards, online.

Additionally, we have included a press release detailing how MVA digitized up to 76% of customer interactions.

MDOT MVA Recognized For Customer Convenience, Public Affairs And Innovation



by Motor Vehicle Administration September 20, 2022

GLEN BURNIE, Md. – The Maryland Department of Transportation Motor Vehicle Administration (MDOT MVA) has received three Service Awards and three Public Affairs and Consumer Education (PACE) Awards from the American Association of Motor Vehicle Administrators (AAMVA) for the agency’s work in Customer Convenience and Education, Innovative Use of Technology and Community Service.

The AAMVA awards honor individuals, teams and organizations for the commitment of time and resources to promote safety initiatives, outstanding customer service and public affairs and consumer educational programs throughout North America.

MDOT MVA received the awards during the 2022 AAMVA Annual International Conference, held September 13-15 in Baltimore. More than 1,000 professionals from 59 jurisdictions, including Canadian provinces, attended the conference, which was hosted by MDOT MVA. Each year, the AAMVA Conference is held in the home state of the chair of the AAMVA International Board of Directors. MDOT MVA Administrator Chrissy Nizer served that role for the last year.



Administrator Nizer, District Manager Paul Taylor, Deputy Administrator Leslie Dews, District Managers Amy Prime and Kenneth Mason and AAMVA President and CEO Anne Ferro pose with the award for Customer Convenience at the 2022 AAMVA International Conference.

“I am so proud of the MDOT MVA team for continuing to find innovative and convenient ways to provide Marylanders with premier customer service, whether it’s face to face in our branch offices or making services more accessible online,” said Administrator Nizer. “Maryland continues to be at the forefront of customer-focused initiatives, and it was an honor to recognize the team in front of hundreds of our AAMVA colleagues.”

“AAMVA awards are the industry standard for excellence, innovation and customer service, and it’s a great source of pride for the entire MDOT Team that Chrissy and her staff have been recognized for their outstanding work,” said MDOT Secretary James F. Ports, Jr. “The AAMVA Conference was terrific, and as the host agency MDOT MVA showed off the best of MDOT, Baltimore and all of Maryland.”

MDOT MVA received both regional and international recognition in the Customer Convenience category for the implementation of its [birth certificate printing program](#). The award recognizes jurisdictions for making life easier for customers by offering new programs or enhancing existing programs. The birth certificate printing service, offered in the Annapolis, Baltimore City, Essex, Frederick and Largo branch offices, provides Maryland-born customers with a certified copy of their birth certificate as proof of identity to get their REAL ID. Since the program's inception in 2021, more than 2,000 customers have taken advantage of this service.

In the Community Service category, MDOT MVA received regional and international recognition for its [partnership with the Baltimore City Office of Homeless Services](#) to provide identification cards to individuals experiencing homelessness. This partnership provided a critical step for these individuals to receive housing, secure employment and other benefits.

AAMVA's Innovative Use of Technology award praised the agency's efforts allowing customers the ability to request and be approved for disability products online. In real time, a customer's physician can digitally input medical certification and support an individual's eligibility for disability plates and placards. Customers can submit and track progress of their application, eliminating a trip to an MDOT MVA branch for this critical service. This service was implemented following MDOT MVA's IT modernization project, Customer Connect, which allows the agency to offer more online services than ever before. In fact, Customer Connect recently received the Northeast Association of State Transportation Officials America's Transportation Award for Best Use of Tech and Innovation, and is under consideration for national recognition.



Executive Officer Janet Bochniewicz poses with the Innovative Use of Technology award for her role in adding disability products online

MDOT MVA was also the recipient of three Region 1 PACE Awards. In the print and electronic publications category, the agency was recognized for Maryland's [Connected and Automated Vehicle \(CAV\) Strategic Framework](#). This framework recommends developing plans that align with CAV technology strategies and reflects Maryland's multi-disciplinary approach to CAVs.



CAV Program Manager Nanette Schieke and Deputy Director of the SHA Office of Transportation Mobility & Operations Carole Delion pose with the PACE award for print and electronic publication for the Connected and Automated Vehicle Strategic Framework.

In the Region 1 PACE writing category, MDOT MVA received recognition for the [Child Passenger Safety Week 2021 Press Release](#) that provided education and resources for parents and caregivers to support safe travel practices, as well as videos demonstrating the proper installation of child safety seats for various ages.

And in the website and technology category, MDOT MVA received an award for the [Zero Deaths Maryland Website](#), which was recently redesigned to be user-friendly and easy to navigate. Since its launch, organic and paid media efforts have driven more than 120,000 visitors to the site.



MDOT MVA's Highway Safety Office Deputy Director Myra Wieman and Communications and Media Manager Anna Levendusky accept the award for their roles in redesigning the Zero Deaths MD website.

Founded in 1933, AAMVA serves North American motor vehicle and law enforcement agencies. The association's mission – Safe Drivers, Safe Vehicles, Secure Identities, Saving Lives – guides its activities, resources and programs in driver licensing, vehicle titling and registration, motor carrier services, identity management and technology solutions.

For a full list of the 2022 winners and more information about the AAMVA Awards, [click here](#).

MDOT MVA's new initiative to boost customer service and delivery

by Morning Show Producer & Emily R. Condon | Fri, September 22nd 2023, 8:52 AM MDT



MDOT MVA's new initiative to boost customer service and delivery

BALTIMORE (WBFF) — The Maryland Department of Transportation is boosting convenience and efficiency for tasks such as renewing licenses, and commercial vehicle drivers will see changes soon, according to an MDOT MVA representative,

Christine Nizer, an MDOT MVA Administrator, joined Fox 45 Morning News with some initiatives they're taking to provide premiere customer service. The entity is offering a new "My MVA" online system where Marylanders can do tasks such as schedule appointments, renew a license, renew registration and find information of vehicle emissions testing.

Up to 76% of MVA business is now being done outside of physical in-or ce interactions and last week, 70% of MVA in-person appointment attendees waited less than five minutes before being helped, according to Nizer.

"We're talking about a great experience for everybody, not just a select few at a few branch offices, but really statewide having that premiere customer service experience we talked about," Nizer said.

While wait time is averaging under five minutes, when Marylanders do need to go to the MVA in person, they can make appointments and check in through the My MVA system.

On Oct. 1, new laws will be enacted to boost efficiency for commercial vehicle drivers as well, according to Nizer.

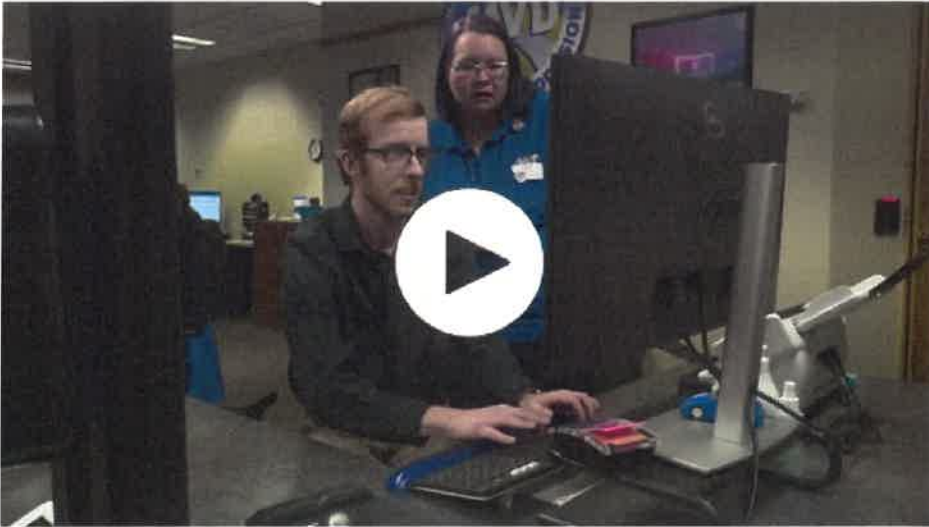
Nizer encouraged feedback from Marylanders and said even more changes will come too.

Montana Department of Transportation – Motor Vehicle Division (MVD)

FastDS System Modernization Project
Project start: Aug. 2022 | Project complete: Nov. 2023

The testimonial in this section highlights the successful implementation and use of our FastCore-based solution for driver services. MVD recently went live with the Credentialing and Registration System (CARS). In this press release, the agency reflects on how the new system allows them to streamline their customer interactions and enhance customer service by decreasing the amount of time a customer needs to spend in the office, as well as the importance of a perpetually modern solution.

New system at MVD works to streamline the process of getting your license



By: [Tom Buchanan](#)

Posted at 5:58 PM, Nov 13, 2023 and last updated 12:03 PM, Nov 14, 2023

HELENA — For many folks, a trip to the Motor Vehicle Division is a dreaded affair due to the threat of long wait times and monotonous paperwork, but that’s all changing here in Montana. Starting this Monday, a new streamlined system is allowing for convenience and speedy visits.

“...when I started running for Attorney General. I was talking about crime. I was talking about drugs. But everywhere I went everyone went, well, yeah, that. But let me tell you about the awful time I had at MVD.

And I heard that literally everywhere I went,” says Attorney General Austin Knudsen.

Phase 1 was released in October of 2022 and focused on revamping the online scheduling system.

For phase 2, the state upended the antiquated system known as MERLIN and replaced it with the drivers services system, CARS (Credentialing and Registration System). The new system allows folks to begin the process for such things as license renewals, replacements, and reinstatement fees online from home. Once you get to the MVD the amount of time to finish the transaction has been about cut in half due to the new system. Everything now happens at one desk opposed to the former system in which the process would take both employees and citizens around the room.

“If you don't keep up to date, you become a dinosaur-like what we had prior to today. And if you don't keep up with technology, you can't provide a service that citizens deserve,” says MVD Administrator, Laurie Bakri.

Attorney General Austin Knudsen says that keeping up with changing technology trends is vital to a thriving government agency and its citizens.

“We have to bring us into the 21st century and deliver the kind of customer service that Montanans expect. And they should,” says Knudsen.

Phase 3 will be out in March of 2025 which will deal with titling and registration for vehicles.

Oregon Driver and Motor Vehicle Services (DMV)

FastDS System Modernization Project

Project start: Feb. 2019 | Project complete: Jul. 2020

The testimonial in this section highlights the successful implementation and use of our FastCore-based solution for driver and vehicle services. The agency modernized both their driver and vehicle processing systems, known as Oregon License Issuance and Vehicle Registration (OLIVR). In this press release, the agency reflects on how the system allowed them to expand the services available to customers online, which was especially timely during the wake of the COVID-19 pandemic.

Is There Hope for Modernizing State DMVs?

The Department of Motor Vehicles may be the most common way residents interact with state government, but digitizing those systems for a modern constituency is no small feat. Three states share their progress.



March 2023 • Skip Descant



Shutterstock.com

Motor vehicle departments represent powerful evidence for why older systems need to be modernized. No other state agency comes into contact with such a wide cross-section of residents. And those residents expect widely available, easy-to-use online services. But DMVs can also be the most difficult to modernize, according to Bill Kehoe, state CIO and director of Washington Technology Solutions, the state's consolidated technology agency.

“Many DMV programs were built in silos,” said Kehoe, “with disparate and separate technology that is difficult to merge.” Add to that the fact that there are highly complex workflows that are tightly aligned with

those aging systems, Kehoe said. But the enormity of the challenge isn't stopping states from taking on necessary upgrades.

OREGON

A massive technology overhaul of Oregon Driver and Motor Vehicle Services (DMV), completed just as the COVID-19 pandemic was getting underway, has led to the kinds of automated processes drivers — and indeed, DMV workers — expect.

The project retired nearly 100 old legacy systems, which were difficult to operate and required programming languages like [COBOL](#) that have long since faded in use. The new system makes driver data available to other state agencies in real time, among other customer-facing improvements, according to the department.

“From the very beginning, Oregon DMV treated this effort as a business improvement project: a way to re-envision how we serve customers,” said Ben Kahn, manager for innovation and planning at the Oregon Department of Transportation.

“**Delivering** excellent customer service is something DMVs across the country strive for, and to that end, they should place special attention on modernizing and updating legacy systems to align with, and exceed, customer expectations,” Kahn added.

Since the launch of the new system, dubbed OLIVR (Oregon License Issuance and Vehicle Registration), online services are now accessible on any connected device, signatures can be handled electronically and paperwork has been drastically reduced. Drivers can renew their license online, access their profile, update emergency contacts, make payments and even purchase a [Sno-Park permit](#). Last year, the state processed more than 1 million vehicle titles, with 58 percent of these transactions “auto-approved,” said Kahn. Later this year, self-service kiosks and online exams will be added to the mix.

“The adoption rate by customers of the new online options is encouraging and provides a direction for future enhancements,” he added. “Oregon DMV is now a place of innovation and continuous process improvement.”

TESTIMONIALS

The following client testimonials are grouped together in this section, because they both received awards during the same AAMVA awards program.

Nebraska Department of Motor Vehicles (DMV)

FastVS System Modernization Project

Project start: Mar. 2018 | Project complete: Oct. 2019

The testimonial in this section highlights an award that DMV received through the successful implementation and use of our FastCore-based solution for vehicle services. The agency modernized their vehicle processing system, now known as Vehicle Titling and Registration (VTR). On the following pages, we featured the following award:

- 2020 America's Transportation Awards Competition – (Region 3 and International Winner)
 - Excellence in Government Partnership Award

Georgia Department of Revenue

FastVS System Modernization Project

Project start: Nov. 2017 | Project complete: May 2019

The testimonial in this section highlights an award the agency received through the successful implementation and use of our FastCore-based solution for vehicle services. At the time of this award, the driver services portion of this implementation was still in progress. The state modernized both their driver and vehicle processing systems, now known as Driver Record and Integrated Vehicle Enterprise System (DRIVES). On the following pages, we have featured the following award:

- 2020 America's Transportation Awards Competition – (Region 2 Winner)
 - Excellence in Government Partnership Award

2020

AAMVA AWARDS PROGRAM

Fostering a Tradition of Excellence



American Association of
Motor Vehicle Administrators

AAMVA's awards program fosters a tradition of excellence in the motor vehicle and law enforcement community by honoring individuals, teams, and organizations who have committed their time and resources to safety initiatives, outstanding customer service, and public affairs and consumer education programs throughout North America. Each year, AAMVA receives numerous outstanding submissions in each category and through a rigorous judging process selects those that are exemplary. Awards are presented at our Regional Conferences and at our Annual International Conference though this year, because of the COVID-19 pandemic, awards were presented via video and mailed directly to winners.

Excellence in Government Partnership Award

INTERNATIONAL WINNER AND REGIONAL WINNER

Nebraska Department of Motor Vehicles | Vehicle Titling & Registration Modernization

The modernization of the Vehicle Titling and Registration (VTR) system was an enormous task encompassing 93 elected county treasurers, the state auditor, the state treasurer, and the Game & Parks Commission. The system is critical to state operations, processing over 2.5 million registrations and collecting over \$720 million annually. Corraling a cohesive and effective team meant reaching across traditional silos in order to deliver a system to meet the needs of everyone. Led by the DMV, this project was truly an example of first class government partnership. By maintaining the focus on customers, the team was able to successfully deliver a product which provided a more convenient, efficient, and effective service for customers. The project was delivered on time and 3% under budget.

REGIONAL WINNERS

Georgia Department of Revenue | Georgia DRIVES Project Partnership With FAST Enterprises

The Georgia Driver Record and Integrated Vehicle Enterprise System (DRIVES) is a multi-year technology upgrade effort between the Department of Revenue and Department of Driver Services to modernize and combine into one application two of Georgia's largest and most complex legacy software systems. The Department of Revenue's motor vehicle system upgrade was implemented in May 2019. The Department of Driver Services' upgrade will be implemented in January 2021. Georgia's partner in this endeavor is FAST Enterprises.

TESTIMONIALS

Vermont Department of Motor Vehicles (DMV)

FastVS System Modernization Project

Project start: Jun. 2022 | Project complete: Nov. 2023

The testimonial in this section highlights the successful implementation and use of our FastCore-based solution for vehicle services. In this press release, the agency discusses staff and customer benefits. As a result of the implementation, the agency reduced and/or eliminated paper-based processes, minimized customer wait-times, and increased the number of transactions available online.

DMV reopens with major data system upgrade

With a new database and website, long lines and waiting times could potentially be cut in half.

Share



Updated: 6:37 PM EST Nov 15, 2023

Infinite Scroll Enabled



Amanda Martin-Ryan



MONTPELIER, Vt. —

After being closed for the past week, DMVs across the state opened their doors back up on Wednesday, and with a new system that will impact customer experiences with their service.

Before the DMV's rollout of their new digitalized system, everything was done through documents and filing — a painstaking and time-consuming process for employees, like Patrick Pipitone.

Instead of customers having to wait weeks for their new registrations, titles, or plates to be delivered through the mail, they'll now be able to walk out of any DMV location with them in hand.

"I don't really have to go through and rate all of our paperwork as we did previously, so I'm able to zip through this pretty well," Pipitone said Wednesday while demonstrating the new expedited process.

The new system was up and running after 18 months, converting everything from paper to computer.

It's an upgrade for both employees and customers, something Pipitone already saw on the first official day of the system rollout.

Pipitone said, "It was great to see that their first question was, 'You don't need to go upstairs, you don't need to search through any filing cabinets?' It was just, 'Here's everything you asked for in a timely manner. Have a great day.'"

DMV Commissioner Wanda Minoli said the transition has been a goal of the state for years, but the means to do so has been absent until now.

"It was difficult as a commissioner to say, 'We really can't do that, we really don't have the capacity to do it,'" Minoli said.

Fifty years of vehicle data is now stored in a mainframe system – what Minoli called an investment in the state's IT infrastructure.

That investment has already been noticeable. In just hours, more than 600 transactions were able to be done online.

"That 633 online transactions, which is now live, real data, are 633 people who don't need to make an appointment," Minoli said.

For Pipitone, it was a feeling of accomplishment and relief.

"As someone said, it's that proud papa moment, where I get to see people playing in the sandbox I just built and making beautiful castles," Pipitone said.

This is just phase two of the DMV going digital. Phase three, set to begin next spring, will get all information and data on drivers' licenses onto the database.

TESTIMONIALS

Tennessee Department of Safety and Homeland Security

FastDS System Modernization Project

Project start: Aug. 2013 | Project complete: Feb. 2015

The testimonials in this section highlight awards and accolades the agency received through the successful implementation and use of our FastCore-based solution for driver services. On the following pages, we have featured the following award:

- **2019 American Association of Motor Vehicle Administrators (AAMVA) Award**
 - Customer Convenience Category – functionality to provide a real-time voter registration interface.

2019

AAMVA AWARDS PROGRAM

Fostering a Tradition of Excellence



American Association of
Motor Vehicle Administrators

Customer Convenience Award

INTERNATIONAL WINNER AND REGIONAL WINNER

Arizona Motor Vehicle Division | Abandoned Vehicle Process Innovations Save Time and Money

Electronic innovations have transformed interactions between the Arizona Department of Transportation MVD and the towing industry in the state. Backlogs of six to eight weeks to process abandoned vehicle paperwork at MVD are gone, as is the paperwork, because now everything is electronic. All told, tow companies had to make thousands of trips to MVD each year to conduct business that can now be done electronically. These changes came about in two steps, both electronic improvements: one for filing abandoned vehicle claims and the second for issuing titles.

REGIONAL WINNERS

Maryland Motor Vehicle Administration | One Stop Shop for Insurance Compliance Payments

Maryland Department of Transportation MVA's newest customer convenience, implemented at the end of September 2018, allows customers to pay insurance fees online or at a kiosk, have flags removed from their account, and complete registration all within the same transaction. Previously, insurance flags were placed on customers' vehicle registrations, preventing them from renewing any vehicle they have registered in their name until the fee is satisfied. The new convenience has assisted thousands of clients from having to physically visit an MVA to process these transactions.

Nebraska Department of Motor Vehicles | Metro South Service Center

An increasing population, limited resources, and the aim of providing a more efficient, effective service culminated in the need to deliver transformative change. What resulted was a comprehensive review of services in the Omaha metro area and a plan to deliver those changes. A legislative change facilitated the development of a service center model and removing the need for the County Treasurer to accept payment for driver licenses. In conjunction with the introduction of a fit-for-purpose workstation for examiners, ensuring the required resources were in the right place at the right time, there has been a 74% reduction in wait times and extremely positive feedback from our customers.

Tennessee Department of Safety & Homeland Security | Motor Voter Initiative

In March 2018, the Tennessee Department of Safety and Homeland Security partnered with the Tennessee Secretary of State's Office and the Tennessee Attorney General's Office to provide a real-time voter registration interface for the department's two most used external applications—eServices and the Self-Service Kiosk. Prior to this

interface, customers were only able to submit voter registrations in person at a Driver Services Center or County Clerk affiliate. The new interface not only adds a customer-convenience component but also provides real-time notification to the Secretary of State's Office for voter record updates.

Excellence in Government Partnership Award

INTERNATIONAL WINNER AND REGIONAL WINNER

Montana Department of Justice | Montana Motor Vehicle Division's REAL ID Partnerships

Montana's Motor Vehicle Division (MVD) partnered with MSU-Billings for the Montana REAL ID informational campaign. This creative partnership was designed to disseminate information about REAL ID to Montana citizens to raise public awareness. The student-led campaign, which was developed over the course of two semesters and five college classes, features explorers Meriwether Lewis and William Clark as they try to navigate Montana without REAL IDs. MSU-Billings students gained valuable real-world experience under the guidance of professors and MVD staff. This collaboration was an opportunity to enhance classroom learning while simultaneously fulfilling the need for a statewide informational public relations campaign. MVD also partnered with State Print and Mail as well as other government agencies to disseminate information about REAL ID.

REGIONAL WINNERS

Arkansas Department of Finance & Administration | MyDMV

The Arkansas Department of Finance and Administration, in partnership with the Information Network of Arkansas, launched a new website in February 2018 that is changing the way Arkansans do business at the DMV. By offering online access to 18 driver and motor vehicle services, mydmv.arkansas.gov allows citizens to renew their vehicle registrations, pay vehicles sales taxes, order duplicate driver licenses, change their addresses, request driver records, and more—all from the comfort of their own homes.

Nebraska Department of Motor Vehicles | State IDs for Inmates

This program aims to smooth the transition of inmates back into society by ensuring they have the opportunity to obtain state-issued identification prior to being released. Working with the Nebraska Department of Correctional Services, the DMV has developed a process by which inmates can collect the required documentation and complete an application prior to travelling to the DMV. Upon arrival at the DMV, inmates are processed very quickly due to the advanced preparation. This program began as a pilot in October 2017 and uptake from inmates has grown significantly in that time, with 315 inmates being provided a state ID to date.