SOFTWARE MODERNIZATION RFP

DEPARTMENT OF SAFETY

VISION CARD CREATION SYSTEM (CCS)

DOS RFP 2015-072

RFP ISSUED.................................................................1/13/2015

VENDOR CONFERENCE..............................................1/28/2015, 9:00 AM

AT: NEW HAMPSHIRE DEPARTMENT OF SAFETY
DIVISION OF MOTOR VEHICLES
STEPHEN E. MERRILL MOTOR VEHICLE BUILDING
23 HAZEN DRIVE
CONCORD, NH 03305-001

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contract type..................................................NOT TO EXCEED

PROPOSALS DUE...................................................3/10/2015, 2:30 AM

AT: STATE OF NEW HAMPSHIRE
DEPARTMENT OF SAFETY, DIVISION OF MOTOR VEHICLES
23 HAZEN DRIVE
CONCORD, NH 03305
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1. OVERVIEW

The purpose of this Request for Proposal (RFP) is to procure a full set of services that will capture images, produce AAMVA compliant credentials (permanent cards), integrate with VISION our Driver Licensing management system and provide support for the workstations and central production environment. The project is known as VISION Card Creation System (CCS).

The state’s goal is to provide the full complement of services at 60 customer service counter locations. This requires one workstation to support the CCS as well as VISION and MAAP systems. The implementation of CCS will coincide with the implementation of VISION.

The State of New Hampshire is currently underway with a software modernization project to replace the existing 30 year old outdated Cobol-based IDMS motor vehicle system. The new system, to be known as VISION, is comprised of a modifiable Commercial-Off-the-Shelf based fully functional motor vehicle software solution suite built on a Microsoft Dynamics Customer Relationship Management (CRM) platform and configured with Tech Mahindra’s Motor Vehicle Enterprise Solution (MOVES) framework. Once fully implemented the VISION system will provide the State of New Hampshire DMV with a unified motor vehicle system encompassing the subsystems of Financial Processing, Driver Licensing, Financial Responsibility, Hearings & Violations, Inspection Stations, Automotive Dealerships, and Consumable Inventory. The first phase of the VISION software is due to be implemented in the fourth quarter of 2015.

The MAAP (Municipal Agent Automation Project) is a motor vehicle online registration and titling system used by the NHDMV in Concord, several DMV substations and approximately 226 Municipal Agents (cities and towns) throughout the State of New Hampshire. Approximately half of the Municipal Agents utilize one of four vendor developed software packages to interface with the MAAP system via an XML interface. The remaining Municipal Agents use a web browser-based thin client to interface with the MAAP system. All Municipal Agents access the State of New Hampshire data network either through a VPN connection over the Internet or over a leased frame-relay circuit. The MAAP system performs both new and renewal of vehicle registrations, titling of vehicles, and the processing of payments for these transactions.

The services sought under this procurement will include:

1. Providing hardware to support 60 licensing CSR counter operations including:
   a. Microsoft Windows based workstations capable of supporting VISION, MAAP and CCS software
   b. Laser Printer (black and white)
   c. Image capture equipment
   d. Signature capture equipment
   e. Document validation equipment
2. Implementing a fully functional interface to VISION. Demographic information will be passed to CCS from VISION. CCS must capture both images and signatures, transfer them to VISION and generate temporary licenses for immediate issuance at the counter. CCS must provide VISION with status information on the permanent card production process.
3. Hardware, Software and supplies for the production, insertion and mailing of the permanent cards. Proposals must include options for card production at State of NH facilities and at vendor facilities.
4. Continuity of Operations services
5. On Site Technical Support for workstations and card production and mailing systems.
The State will provide all software licenses to support the VISION and MAAP functionality that will run on the workstations. The vendor must provide all required licensing for the CCS solution.

The successful vendor will be required to post a performance bond of $1,000,000 as described in section 4.17, for eighteen months to cover the implementation period and first year of operation.

The State wishes to evaluate two possible methods of operation. The first approach is to completely house the systems and production facility at the State owned location in Concord, NH which is our current practice. The second approach would use vendor owned facilities for the production, insertion and mailing of the permanent cards. Vendors are required to include both approaches in their proposal.

1.1 Request for Proposal (RFP) Overview

The goal of this document is to convey the requirements of the system sought by the State of NH, DMV. The required aspects of the project to implement the system, and the procedures that must be followed by entities that wish to participate in this procurement process.

Section 2: SYSTEM REQUIREMENTS of this document and the attachments referenced in this section convey the minimum requirements for functionality of the information system sought under this procurement. The foremost requirement is that there must be an existing software product as the foundation for any proposal. The state does not have the time or resources available to engage in a project to “scratch build” a solution. It is required that any proposer be ready to demonstrate the foundation software during the evaluation process (see Section 6: EVALUATION PROCEDURE). The requirements are in two groups. First, a series of general requirements that must be fully met (APPENDIX A: DETAILED SYSTEM AND INTERFACE REQUIREMENTS). The second grouping contains detailed requirements for various functions (APPENDIX E: DETAILED BUSINESS REQUIREMENTS (MANDATORY)).

Section 3: PROJECT REQUIREMENTS of this document contains the minimum requirements for how the project shall be accomplished. The State expects the successful vendor to bring a project methodology that is based on sound project management principles and include appropriate tools to implement the methodology. The State also expects that the staff proposed will be well versed in the methodology and will be able to function with it in an efficient and accurate manner.

Section 4: GENERAL CONTRACT REQUIREMENTS contains terms, conditions and approaches that will govern any contract that results from this procurement process. If a vendor takes issue with or has any questions about topics in this section or anywhere else in the document it is imperative that they raise those questions or issues during the vendor question period or at the Vendor Conference. All questions must be submitted in writing in order to receive a formal written response from the state. Vendors must recognize that the State has very limited ability to negotiate or change terms and conditions after proposals are submitted.

Section 5: RESPONSE PROCEDURE outlines how proposals should be submitted. It is important that all submittals conform to the requirements and deadlines contained in this section. Failure to comply could result in the rejection of a proposal before it is evaluated.

Section 6: EVALUATION PROCEDURE outlines the approach that will be used in scoring the proposals submitted.
1.2 Schedule of Events

The following table provides the Schedule of Events for this RFP through Governor and Council approval and Notice to Proceed.

<table>
<thead>
<tr>
<th>EVENT</th>
<th>DATE</th>
<th>TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFP released to vendors (on or about)</td>
<td>01/13/2015</td>
<td></td>
</tr>
<tr>
<td>Vendor Inquiry Period begins (on or about)</td>
<td>01/13/2015</td>
<td></td>
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<tr>
<td>Notification to the State of the number of vendor representatives attending the optional Vendor Conference (attendance recommended)</td>
<td>01/23/2015</td>
<td></td>
</tr>
<tr>
<td>Vendor Conference (optional); location identified in Section 5.2: Vendor Conference</td>
<td>01/28/2015</td>
<td>9:00 AM</td>
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<tr>
<td>Vendor Inquiry Period ends (final inquiries due)</td>
<td>02/05/2015</td>
<td></td>
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<tr>
<td>Final State responses to vendor inquiries</td>
<td>02/17/2015</td>
<td></td>
</tr>
<tr>
<td>Final date for Proposal submission</td>
<td>03/10/2015</td>
<td>2:30 PM</td>
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<tr>
<td>Invitations for vendor presentations</td>
<td>03/13/2015</td>
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<tr>
<td>Vendor presentations, discussion sessions and interviews (scheduled dates to occur on or about)</td>
<td>03/23/2015</td>
<td></td>
</tr>
<tr>
<td>Anticipated Governor and Council approval</td>
<td>04/2015</td>
<td></td>
</tr>
<tr>
<td>Anticipated Notice to Proceed</td>
<td>04/2015</td>
<td></td>
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</tbody>
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2. SYSTEM REQUIREMENTS

2.1 Overview
The State seeks to procure a solution based on an existing product. The State does not have the time or resources available to participate in a build from scratch solution.

This procurement requires the vendor to provide three types of service:

a) Permanent Card production and insertion for mailing of credentials.
b) Workstation functionality to capture images and signatures, produce temporary credentials and interface with VISION.
c) On Site Technical Support Services to support both the production environment and the customer service workstations provided under this procurement.

Each Proposal must present a unified combination of software, hardware and services that can fully support the required functionality contained in APPENDIX A: DETAILED SYSTEM AND INTERFACE REQUIREMENTS and APPENDIX E: DETAILED BUSINESS REQUIREMENTS (MANDATORY).

2.2 Effective Collaboration
The CCS will play an integral role in DMVs model of customer service. It is imperative that the hardware and software provided under this procurement must be able to coexist with VISION and MAAP to form one coherent customer service workstation environment to enable CSR’s to effectively and efficiently serve customers.

Since CCS and VISION will be implemented concurrently, the vendor must be willing to effectively work with the VISION team to ensure the interface and interaction between the systems are fully functional. This will require close coordination during the development of the interface, combined testing of the systems and implementation to coincide with the VISION project implementation.

The workstations provided under this procurement will exist in the DMV network environment and will be a State standard device configured to meet the State standard specifications for operating system and software. Support of these workstations will be the responsibility of the vendor, but must be closely coordinated with the Department of Information Technology (DoIT) staff that support the rest of the DMV network environment. The vendor must coordinate software updates, browser configuration changes or workstation configuration changes with DoIT and participate in testing to ensure there are no conflicts or unintended consequences within the environment or with other software that may exist on these systems. The vendor must work closely with DoIT to use the existing methods and tools to distribute software, policy or configuration changes to the workstations via an automated method. The vendor will be responsible to provide DoIT with a packaged update which will then be distributed to devices via our State standard distribution method.

2.3 Services
The State seeks to procure services along with all required hardware and software which is based on an existing product.
The primary scope of this project is to replace our existing card production environment, which is provided by Marquis ID Systems, and provides the associated support and operational services as described below:

2.3.1 **Workstation Environment**

The vendor must provide workstations and all required peripherals for 60 CSR counter positions (as described in APPENDIX E Future System Environment). The workstations must meet or exceed the specifications found in APPENDIX E Future System Environment, and support the States VISION and MAAP systems operations as well as any applications provided under this procurement. The State will provide software licensing for VISON, MAAP, productivity tools and anti-virus software. The vendor must provide licenses for any other software required to operate their proposed solution.

2.3.2 **Server Environment**

The Vendor is responsible for the procurement, maintenance and support all required servers and associated storage devices and associated software, including anti-virus software. For any equipment located in State owned facilities, the State will provide space in a data center, power and network connectivity.

2.3.3 **Networking Environment**

The State will provide network connectivity, IP addressing schemes and device naming conventions for all equipment located in state facilities.

2.3.4 **VISION interface**

The State requires that the card production system integrate fully with the VISION system. It must be able to reside on the same workstation that hosts both VISION and MAAP, provide appropriate control over image capture, signature capture and document validation equipment located at the workstation and send and receive required information to and from VISION. The VISION interface specification is found in attachment 1 for online and attachment 2 for batch.

2.3.5 **Temporary Card Production**

The overall approach to the system is to centrally issue permanent cards. At the time of the visit by a customer a temporary credential that will last at least 180 days must be issued at each individual CSR workstation.

2.3.6 **Permanent Card production**

Permanent card production includes the creation of the card, the creation of a corresponding letter to the recipient and the insertion of both into an appropriate mailer. The vendor must provide all software and equipment needed to produce permanent cards that meet the specification in Appendix E. If the State chooses to house the equipment in a State owned facility the state will provide power and air conditioning in the space housing the equipment.

2.3.7 **On Site Technical Support Services**

The vendor must provide suitably trained individual(s) to provide support to the workstation and production environments. The state will provide office space at DMV headquarters to serve as the primary work location, but the technician(s) must travel to DMV substations when outages
occur. Technicians must coordinate their efforts with DMV and DoIT staff that support the DMV environment.

2.3.8 Supplies

The vendor is responsible to supply all central site materials required for the production and insertion of permanent cards, the accompanying letter stock, adhesive that affixes the card to the letter, envelopes, and the stock required for the production of temporary licenses. Printers must be provided with the original toner cartridges and the state will be responsible for subsequent refills.
3. PROJECT REQUIREMENTS

The Vendor will be responsible for all aspects of the CCS project, including, but not limited to: hardware and software architecture, software configuration and code modification to meet functional and technical requirements, installation, configuration, testing, application security, and tuning and system implementation. The vendor must work cooperatively and coordinate CCS implementation activities with the VISION project implementation activities.

A Project Management Plan will be required. The plan will be used to manage the project through completion. The Project Plan will also be required and will need to be updated as mutually agreed upon by the state and vendor throughout the duration of the project. Status/project meetings will be required and held periodically. The Project Management Plan shall contain the following documents at a minimum, but the State welcomes other vendor specific documents that would prove useful in managing this project:

- Scope Document
- Quality Assurance and Quality Control Plan
- Risk Management Plan
- Conversion Strategy Plan
- Project Schedule
- Recommended Hardware/Software Architecture
- System Configuration (including pc and printer configurations)
- System Documentation
- Application and System Architecture Documentation
- Disaster Recovery/ Business Continuity Plan

The coordination between the CCS project and the VISION project is critical. To ensure a unified approach the vendor shall provide information pertinent to the CCS project that can be used to update the following VISION project documents.

- Testing Plan
- Training Plan
- Communication Plan
- Implementation Plan
- Change Management Plan

3.1 Management Approach

3.1.1 Vendor Staff

In the Proposal, the Vendor shall assign and identify a Project Manager and key Vendor staff, in accordance with the Requirements and Deliverables of APPENDIX A: DETAILED SYSTEM AND INTERFACE REQUIREMENTS and Section 5.4: Standards for Describing Vendor Qualifications.

The Vendor’s selection of a Project Manager will be subject to the approval of the State. The State’s approval process may include, without limitation, at the State’s discretion, review of the proposed Project Manager’s resume, qualifications, references and background checks, and an interview. The Vendor’s Project Manager must be qualified to perform the obligations required of the position under the Contract, have full authority to make binding decisions, and shall
function as the Vendor’s representative for all administrative and management matters. The Project Manager must be primarily on site and available to promptly respond during normal working hours within two (2) hours to inquiries from the State. The Vendor must use its best efforts on the project.

The Vendor shall not change key Vendor staff and Project Manager (collectively referred to as “Project Staff”) Commitments unless such replacement is necessary due to sickness, death, termination of employment, or unpaid leave of absence. Any such changes to the Vendor’s Project Staff shall require prior written approval of the State. Replacement Project Staff shall have comparable or greater skills with regard to performance of the project as the staff being replaced and be subject to the provisions of this RFP and any resulting Contract. Notwithstanding anything to the contrary, the State shall have the option to terminate the Contract, at its discretion, if it is dissatisfied with the Vendor’s replacement Project staff.

The State, at its sole expense, may conduct reference and background checks on the Vendor’s Project Staff. The State shall maintain the confidentiality of reference and background screening results. The State reserves the right to reject the Vendor’s Project Staff as a result of such reference and background checks. The State also reserves the right to require removal or reassignment of the Vendor’s key Project Staff found unacceptable to the State.

### 3.1.2 State Project Team

State high-level staffing for the project will include:

#### 3.1.2.1 State Project Sponsor

The State Project Sponsor, DMV Director Richard C. Bailey, Jr. and the Department of Safety, will be responsible for securing financing and resources, addressing issues brought to their attention by the State Project Manager, and assisting the State Project Manager in promoting the project throughout the State. The Project Sponsor or an appropriate designee will be available to resolve issues on a timely basis.

#### 3.1.2.2 State Project Manager

The State Project Manager will be responsible to the Project Sponsor and has the primary responsibility of seeing to the project’s success:

Major duties include:

- Leading the project
- Promoting the project statewide
- Developing project strategy and approach
- Engaging and managing all Vendors
- Managing significant issues and risks
- Managing stakeholders’ concerns

#### 3.1.2.3 State Business Lead

The State Business Lead will be responsible to the State Project Manager and has the primary responsibility of coordinating the participation of the appropriate State functional area experts into the various portions of the project.
3.1.2.4 State Testing Coordinator

The State Testing Coordinator will be responsible to the State Project Manager and has the primary responsibility of assisting in the planning and testing of the software application being provided by the vendor.

3.1.2.5 State Training Coordinator

The State Training Coordinator will be responsible to the State Project Manager and has the primary responsibility of assisting with the planning and providing of training, specific to this project, to DMV staff.

3.1.2.6 State IT Liaison

The State IT Liaison will be responsible to the State Project Manager and has the primary responsibility of providing and supporting an open channel of communication between all parties involved in the project relating to IT goals and needs for the success of the project. The parties are as follows:

- State of New Hampshire, Department of Safety
- State of New Hampshire, Department of Information Technology
- The Vendor

3.1.3 Project Schedule

The Vendor shall submit a preliminary Project Schedule in its Proposal. The Project Schedule shall include, without limitation, a detailed description of the schedule, tasks, deliverables, major milestones, and task dependencies. The testing and implementation phases of the project plan must be effectively coordinated with the VISION project which is scheduled to be implemented in the fourth quarter of 2015.

The Vendor shall update the Project Schedule as necessary, but no less than every two weeks to accurately reflect the status of the Project, including without limitation, the schedule, tasks, deliverables, major milestones, and task dependencies. The project schedule must be listed as an agenda item at every project meeting. Any updates to the Project Schedule shall require the written approval of the State prior to final incorporation into the Contract.

Unless otherwise agreed to in writing by the State, changes to the Project Schedule shall not relieve the Vendor from liability to the State for any damages resulting from the Vendor’s failure to perform its obligations under the Contract, including without limitation, performance in accordance with the Schedule.

In the event of a delay in the Schedule, the Vendor must immediately notify the State in writing. The written notification will identify the nature of the delay, i.e., specific actions or inactions of the Vendor or State causing the problem; its estimated duration period to reconciliation; specific actions that need to be taken to correct the problem; and the expected Schedule impact on the Project.

In the event the Vendor requires additional time to correct Deficiencies, the Schedule shall not change unless previously agreed in writing by the State, except that the Schedule shall automatically extend on a day-to-day basis to the extent that the delay does not result from Vendor’s failure to fulfill its obligations under the Contract. To the extent that the State’s execution of its major tasks takes longer than described in the Project Schedule, the Schedule shall automatically extend on a day-to-day basis.
Notwithstanding anything to the contrary, the State shall have the option to terminate the Contract for default, at its discretion, if it is dissatisfied with the Vendor’s Project Schedule or elements within the Project Schedule.

3.2 Deliverables Approach

The Vendor shall provide the State with the Deliverables and Services as set forth in Section 4.9: Deliverables.

3.3 Testing

3.3.1 Testing and Acceptance

The State requires that an integrated and coherent approach to complete System testing, Deficiency correction and Implementation, in coordination with the VISION project plan to ensure a successful Project.

In its Proposal, the Vendor is to include its proposed Test methodology and any scheduling assumptions used regarding the client resource efforts required during testing. After Contract award, the Vendor will be required to customize its proposed Test methodology to reflect the needs of the Project and its interaction with the VISION project. The test methodology details (test plan) shall be created in a format that allows it to be considered an addendum to the VISION test plan. Test scenarios and requirements, error tracking and resolution must be captured in the State’s Microsoft Team Foundation Server tool set (licenses and access will be provided by the State).

Testing of the CCS desktop application must include demonstrations of CCS functionality and demonstration of the CCS functionality fully integrated with the VISION system. Testing of the central production environment must include a demonstration of the credential creation and insertion capability.

See APPENDIX B: DETAILED TESTING REQUIREMENTS for further information relating to these requirements.

3.3.2 Remedies

If the Vendor is not able to make the system corrections within the time allotted by the State, or the entire integrated System fails the Acceptance Test, the State may declare the Vendor in default and, at its option:

1. Terminate the Contract, in whole or in part, by providing written notice to the Vendor, without penalty or obligation to the State and deem the Vendor in default;

2. Return the Vendor’s product provided under the Contract and receive a refund of all amounts paid, including but not limited to, applicable Software License fees within ninety (90) days of notification to the Vendor of the State’s intent to request a refund;

3. And pursue its remedies available at law or in equity.

Notwithstanding any provision of the Contract, the State’s option to terminate the Contract and pursue the remedies above will remain in effect until the Vendor completes the Contract to the satisfaction of the State.
3.3.3 **System Acceptance**

Upon successful completion of User Acceptance Testing for all required functionality the State will issue a Letter of System Acceptance and the Warranty Period will commence.

3.4 **Warranty**

3.4.1 **System**

The Vendor shall warrant that the System, including but not limited to the Software and the individual modules or functions, must operate in conformance with the specifications, terms, and requirements of the Contract, including but not limited to all elements, i.e., the software, hardware, and any interfaces.

3.4.2 **Software**

The Vendor shall warrant that the Software, including but not limited to the individual modules or functions furnished under the Contract, is properly functioning within the System, compliant with the requirements of the Contract, and will operate in accordance with the specifications.

3.4.3 **Viruses; Destructive Programming**

The Vendor shall warrant that the Software will not contain any viruses, destructive programming, or mechanisms designed to disrupt the performance of the Software in accordance with the specifications.

3.4.4 **Compatibility**

The Vendor shall warrant that all components, including but not limited to the individual modules or functions, including any replacement or upgraded Software components provided by the Vendor to correct deficiencies or as an enhancement, shall operate with the rest of the Software without loss of any functionality.

3.4.5 **Services**

The Vendor shall warrant that all Services to be provided under the Contract will be provided in a professional manner in accordance with industry standards and that Services will comply with performance standard.

3.5 **On-site Technical Support Services**

- Resources primarily on site during normal business hours 8:00am to 4:30pm.
- Help Desk ticket reporting tool or methodology.
- Onsite support personnel will be required to travel to satellite offices located throughout the state and be coordinated and scheduled by the State.
- Respond to system wide outages within 15 minutes
- Respond to card production issues within 4 hours
- Respond to individual workstation outages with 1 hour for the Concord location. Responses to remote substations will be coordinated and scheduled with State staff.
- Coordinate with DoIT for software updates/distribution
• Hardware and software maintenance in this contract must be documented and reported on a weekly basis to DMV administration to include detail of the nature of the hardware or software problem addressed and the specific location of the issue.

3.6 Administrative Specifications

3.6.1 Travel Expenses

The State will not be responsible for any travel or out of pocket expenses incurred in the performance of the Services.

The Vendor must assume all travel and related expenses for both direct Staff and Subcontractors by “fully loading” the proposed labor rates to include, but not limited to: meals, hotel/housing, airfare, car rentals, car mileage, and out of pocket expenses.

3.6.2 Shipping and Delivery Fee Exemption

The State will not pay for any shipping or delivery fees unless specifically itemized in the Contract.

3.6.3 Project Workspace and Office Equipment

The State will work with the Vendor to determine the requirements for providing all necessary workspace and office equipment, including State standard desktop computers for the Vendor’s staff. If a Vendor has specific requirements, they must be included in the Vendor’s Proposal.

3.6.4 Work Hours

Vendor personnel shall work normal business hours between 8:00am and 5:00pm, eight (8) hour days, forty (40) hour weeks, excluding State of New Hampshire holidays. Changes to this schedule may be made upon agreement with the State Project Manager. However, the State requires an unpaid lunch break of at least thirty (30) minutes be taken after five (5) consecutive hours of work.

3.6.5 Access/Cooperation

As applicable, and reasonably necessary, and subject to the applicable State and federal laws and regulations and restrictions imposed by third parties upon the State, the State will provide the Vendor with access to all program files, libraries, personal computer-based systems, software packages, network systems, security systems, and hardware as required to complete the contracted Services.

The State will use reasonable efforts to provide approvals, authorizations, and decisions reasonably necessary to allow the Vendor to perform its obligations under the Contract.

3.6.6 State-Owned Documents and Data

The Vendor shall provide the State access to all Documents, State Data, materials, reports, and other work in progress relating to the Contract (“State Owned Documents”). Upon expiration or termination of the Contract with the State, Vendor shall turn over all State-Owned Documents, State Data, material, reports, and work in progress relating to this Contract to the State at no additional cost to the State. State-Owned Documents must be provided in both printed and electronic format.
3.6.7 Intellectual Property

Upon successful completion and/or termination of the Implementation of the Project, the Vendor shall own and hold all, title, and rights in any Software Configurations or Modifications developed in connection with performance of obligations under the Contract, or modifications to the Vendor provided Software, and their associated Documentation including any and all performance enhancing operational plans and the Vendors’ special utilities. The Vendor shall license back to the State the Statewide, perpetual, irrevocable, non-exclusive, non-transferable, limited right to produce, publish, or otherwise use such software, source code, object code, modifications, reports, and Documentation created under the Contract for the sole use of the State.

In no event shall the Vendor be precluded from developing for itself, or for others, materials that are competitive with, or similar to Custom Software, modifications developed in connection with performance of obligations under the Contract. In addition, the Vendor shall be free to use its general knowledge, skills, experience, and any other ideas, concepts, know-how, and techniques that are acquired or used in the course of its performance under this agreement.

3.6.8 IT Required Work Procedures

All work done must conform to standards and procedures established by the Department of Information Technology (DoIT) and the State. These standards and procedures will be provided to the selected Vendor upon contract initiation.

3.6.9 Computer Use

In consideration for receiving access to and use of the computer facilities, network, licensed or developed software, software maintained or operated by any of the State entities, systems, equipment, Documentation, information, reports, or data of any kind (hereinafter “Information”), Vendor understands and agrees to the following rules:

a. Every Authorized User has the responsibility to assure the protection of Information from unauthorized access, misuse, theft, damage, destruction, modification, or disclosure.

b. That information shall be used solely for conducting official State business, and all other use or access is strictly forbidden including, but not limited to, personal, or other private and non-State use and that at no time shall Vendor access or attempt to access any information without having the express authority to do so.

c. That at no time shall Vendor access or attempt to access any information in a manner inconsistent with the approved policies, procedures, and /or agreements relating to system entry/access.

d. That all software licensed, developed, or being evaluated by the State cannot be copied, shared, distributed, sub-licensed, modified, reverse engineered, rented, or sold, and that at all times Vendor must use utmost care to protect and keep such software strictly confidential in accordance with the license or any other Agreement executed by the State. Only equipment or software owned, licensed, or being evaluated by the State, can be used by the Vendor. Personal software (including but not limited to palmtop sync software) shall not be installed on any equipment.

e. That if the Vendor is found to be in violation of any of the above-stated rules, the User may face removal from the State Contract, and/or criminal or civil prosecution, if the act constitutes a violation of law.
3.6.10 Email Use
Mail and other electronic communication messaging systems are State of New Hampshire property and are to be used for business purposes only. Email is defined as “internal Email systems” or “State-funded Email systems”. Vendors understand and agree that use of email shall follow State standard policy (available upon request).

3.6.11 Internet/Intranet Use
The Internet/Intranet is to be used for access to and distribution of information in direct support of the business of the State of New Hampshire according to State standard policy (available upon request).

3.6.12 Regulatory/Governmental Approvals
Any Contract awarded under the RFP shall be contingent upon the Vendor obtaining all necessary and applicable regulatory or other governmental approvals.

3.6.13 Force Majeure
Neither Vendor nor the State shall be responsible for delays or failures in performance resulting from events beyond the control of such party and without fault or negligence of such party. Such events shall include, but not be limited to, acts of God, strikes, lock outs, riots, and acts of War, epidemics, acts of Government, fire, power failures, nuclear accidents, earthquakes, and unusually severe weather.

Except in the event of the foregoing, Force Majeure events shall not include Vendor’s inability to hire or provide personnel needed for the Vendor’s performance under the Contract.

3.6.14 Confidential Information
In performing its obligations under the Contract, the Vendor may gain access to information of the State, including Confidential Information. “State Confidential Information” shall include, but not be limited to, information exempted from public disclosure under New Hampshire RSA Chapter 91-A: Access to Public Records and Meetings (see e.g. RSA Chapter 91-A: 5 Exemptions). The Vendor shall not use the State Confidential Information developed or obtained during the performance of, or acquired, or developed by reason of the Contract, except as is directly connected to and necessary for the Vendor’s performance under the Contract.

The Vendor agrees to maintain the confidentiality of and to protect from unauthorized use, disclosure, publication, and reproduction (collectively “release”), all State Confidential Information of the State that becomes available to the Vendor in connection with its performance under the Contract, regardless of its form.

Subject to applicable federal or State laws and regulations, Confidential Information shall not include information which: (i) shall have otherwise become publicly available other than as a result of disclosure by the receiving party in breach hereof; (ii) was disclosed to the receiving party on a non-confidential basis from a source other than the disclosing party, which the receiving party believes is not prohibited from disclosing such information as a result of an obligation in favor of the disclosing party; (iii) is developed by the receiving party independently of, or was known by the receiving party prior to, any disclosure of such information made by the disclosing party; or (iv) is disclosed with the written consent of the disclosing party. A receiving party also may disclose Confidential Information to the extent required by an order of a court of competent jurisdiction.
Any disclosure of the State’s information shall require prior written approval of the State. The Vendor shall immediately notify the State if any request, subpoena or other legal process is served upon the Vendor regarding the State’s Confidential Information, and the Vendor shall cooperate with the State in any effort it undertakes to contest the request, the subpoena or other legal process, at no additional cost to the State.

In the event of unauthorized use or disclosure of the State’s Confidential Information, the Vendor shall immediately notify the State, and the State shall immediately be entitled to pursue any remedy at law and in equity, including, but not limited to injunctive relief.

Insofar as the Vendor seeks to maintain the confidentiality of its confidential or proprietary information, the State shall follow the procedure outlined in RFP Section 5.3.7: Public Disclosure.
4. GENERAL CONTRACT REQUIREMENTS

4.1 Contract Award

The State plans to execute a not to exceed Contract as a result of this RFP. The award will be based upon criteria, standards, and weighting identified in this RFP.

Any resulting Contract from this RFP will be a non-exclusive Contract. The State reserves the right, at its discretion, to retain other Vendors to provide any of the Services or Deliverables identified under this procurement or make an award by item, part or portion of an item, group of items, or total Proposal.

If a Contract is awarded, the Vendor must obtain written consent from the State before any public announcement or news release is issued pertaining to any Contract award. Such permission, at a minimum, will be dependent upon approval of the Contract by Governor and Executive Council of the State of New Hampshire.

4.2 Contract Term

Time is of the essence in the performance of a Vendor’s obligations under the Contract.

The Vendor shall be fully prepared to commence work within thirty days, after full execution of the Contract by the parties, and the receipt of required governmental approvals, including, but not limited to, Governor and Executive Council of the State of New Hampshire approval (“Effective Date”).

The Vendor’s initial term will begin on the Effective Date and extend through June 30, 2021. The term may be extended up to two years (“Extended Term”) at the sole option of the State, subject to the parties’ prior written agreement on applicable fees for each extended term.

The Vendor shall commence work upon issuance of a Notice to Proceed by the State.

The State does not require the Vendor to commence work prior to the Effective Date; however, if the Vendor commences work prior to the Effective Date and a Notice to Proceed, such work shall be performed at the sole risk of the Vendor. In the event that the Contract does not become effective, the State shall be under no obligation to pay the Vendor for any costs incurred or Services performed; however, if the Contract becomes effective, all costs incurred prior to the Effective Date shall be paid under the terms of the Contract.

4.3 Subcontractors

The Vendor shall identify all Subcontractors to be provided to deliver required Services subject to the terms and conditions of this RFP, including but not limited to, in Section 4: GENERAL CONTRACT REQUIREMENTS herein and APPENDIX F: STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37 of this RFP.

The Vendor shall remain wholly responsible for performance of the entire Contract regardless of whether a Subcontractor is used. The State will consider the Vendor to be the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from any Contract.
4.4 **State of NH Terms and Conditions and Contract Requirements**

The Contract requirements set forth in Section 4: *GENERAL CONTRACT REQUIREMENTS* herein and APPENDIX F: *STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37* shall constitute the core for any Contract resulting from this RFP.

4.5 **Vendor Responsibilities**

The Vendor shall be solely responsible for meeting all requirements, and terms and conditions specified in this RFP, its Proposal, and any resulting Contract, regardless of whether or not it proposes to use any Subcontractor.

The Vendor may subcontract Services subject to the RFP, including but not limited to, the terms and conditions in Section 4: *GENERAL CONTRACT REQUIREMENTS* herein and APPENDIX F: *STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37*. The Vendor must submit with its Proposal all information and documentation relating to the Subcontractor necessary to fully respond to the RFP, which must include terms and conditions consistent with this RFP.

4.6 **Project Budget/Price Limitation**

The State has operational funds budgeted for this Project, subject to the terms and conditions contained in APPENDIX F: *STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37*, Section 5. *CONTRACT PRICE/PRICE LIMITATION/PAYMENT*.

4.7 **State Contracts**

The State of New Hampshire intends to use, wherever possible, existing statewide software and hardware Contracts to acquire supporting software and hardware.

4.8 **Change Orders**

The State may make changes or revisions at any time by written Change Order. Within five (5) business days of a Vendor’s receipt of a Change Order, the Vendor shall advise the State, in detail, of any impact on cost (e.g., increase or decrease), the Schedule, or the Project Schedule.

A Vendor may request a change within the scope of the Contract by written Change Order, identifying any impact on cost or the Project Schedule. The State shall attempt to respond to a Vendor’s requested Change Order within five (5) business days. The State must approve all change orders in writing. The State shall be deemed to have rejected the Change Order if the parties are unable to reach an agreement in writing.

All Change Order requests from a Vendor to the State and the State acceptance of a Vendor’s estimate for a State requested change, will be acknowledged and responded to, either acceptance or rejection, in writing. If accepted, the Change Order(s) shall be subject to the Contract amendment process, as determined to apply by the State.

4.9 **Deliverables**

The Vendor shall provide the State with the Deliverables and Services in accordance with the time frames in the Project Schedule. All Deliverables shall be subject to the State’s acceptance as set forth in Section 3.3.1: *Testing and Acceptance* herein.
Upon its submission of a Deliverable, the Vendor represents that it has performed its obligations under the Contract associated with the Deliverable.

By unconditionally accepting a Deliverable, the State reserves the right to reject any and all Deliverables in the event the State detects any Deficiency in the System, in whole or in part, through completion of all Acceptance Testing, including but not limited to, Software/System Acceptance Testing, Stress Testing and Tuning, and any extensions thereof.

For each denial of Acceptance, the Acceptance Period may be extended, at the option of the State, by the corresponding time required to correct the Deficiency, retest or Review.

4.9.1 Written Deliverables Review

The State will review the Written Deliverables for an Acceptance Period of ten (10) business days after receiving written Certification from the Vendor that the Written Deliverable is final, complete, and ready for review. The State will notify the Vendor in writing of its Acceptance or Non-Acceptance of a Deliverable by the end of the ten (10) day Review Period. If any Deficiencies exist, the State will notify the Vendor in writing of the Deficiency and the Vendor must correct the Deficiency within five (5) business days of receiving notice from the State at no charge to the State. Upon receipt of the corrected Deliverable, the State will have ten (10) business days to review the corrected Written Deliverable and notify the Vendor in writing of its Acceptance or rejection thereof.

4.9.2 Software Deliverables Review

Described in Section 3.3.1: Testing and Acceptance.

4.9.3 Non-Software Deliverables Review

The State will Review Non-Software Deliverables to determine whether any Deficiency exists and notify the Vendor in writing of its Acceptance or non-acceptance of the Non-Software Deliverable. The Vendor must correct the Deficiencies within five (5) business days, or within the period identified in the Project Schedule, as applicable. Following correction of the Deficiency, the State will notify the Vendor in writing of its Acceptance or rejection of the Deliverable.

4.10 Licenses

It’s the vendor’s responsibility to ensure that any software provided in this contract is appropriately licensed for use by the state of New Hampshire.

4.10.1 Restrictions

Except as otherwise permitted under the Contract, the State agrees not to:

a. Remove or modify any program markings or any notice of Vendor’s proprietary rights;
b. Make the programs or materials available in any manner to any third party for use in the third party’s business operations, except as permitted herein; or
c. Cause or permit reverse engineering, disassembly or recompilation of the programs.
4.11 Termination

4.11.1 Termination for Default

Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder (“Event of Default”):

a. Failure to perform the Services satisfactorily or on schedule;

b. Failure to submit any report required; and/or

c. Failure to perform any other covenant, term or condition of the Contract

Upon the occurrence of any Event of Default, the State may take any one or more, or all, of the following actions:

a. Unless otherwise provided in the Contract, the State shall provide the Vendor written notice of default and require it to be remedied within, in the absence of a greater or lesser specification of time, within thirty (30) days from the date of notice, unless otherwise indicated within by the State (“Cure Period”). If the Vendor fails to cure the default within the Cure Period, the State may terminate the Contract effective two (2) days after giving the Vendor notice of termination, at its sole discretion, treat the Contract as breached and pursue its remedies at law or in equity or both.

b. Give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under the Contract and ordering that the portion of the Contract price which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default shall never be paid to the Vendor.

c. Set off against any other obligations the State may owe to the Vendor any damages the State suffers by reason of any Event of Default;

d. Treat the Contract as breached and pursue any of its remedies at law or in equity, or both.

e. Procure Services that are the subject of the Contract from another source and the Vendor shall be liable for reimbursing the State for the replacement Services, and all administrative costs directly related to the replacement of the Contract and procuring the Services from another source, such as costs of competitive bidding, mailing, advertising, applicable fees, charges or penalties, and staff time costs; all of which shall be subject to the limitations of liability set forth in the Contract.

In the event of a default by the State, the Vendor shall provide the State with written notice of default, and the State shall cure the default within thirty (30) days.

No remedy conferred under the Contract is intended to be exclusive of any other remedy, and each remedy is cumulative and in addition to every other remedy in the Contract. The State’s election or non-election of any or more remedies shall not constitute a waiver of its right to pursue other available remedies.

4.11.2 Termination for Convenience

The State may, at its sole discretion, terminate the Contract, in whole or in part, by thirty (30) days written notice to the Vendor. In the event of such termination for convenience, the State shall pay the Vendor the agreed upon price, if separately stated, for Deliverables for which Acceptance has been given by the State. Amounts for Services or Deliverables provided prior to
the date of termination for which no separate price is stated will be paid, in whole or in part, generally in accordance with APPENDIX C: PRICING WORKSHEETS.

During the thirty (30) day period, the Vendor shall wind down and cease its Services as quickly and efficiently as reasonably possible, without performing unnecessary Services or activities and by minimizing negative effects on the State from such winding down and cessation of Services.

4.11.3 Termination for Conflict of Interest

The State may terminate the Contract by written notice if it determines that a conflict of interest exists, including but not limited to, a violation by any of the parties hereto of applicable performance of Contracts.

In such case, the State shall be entitled to a pro-rated refund of any current implementation, support and maintenance costs. The State shall pay all other contracted payments that would have become due and payable if the Vendor did not know, or reasonably did not know, of the conflict of interest.

In the event the Contract is terminated as provided above pursuant to a violation by the Vendor, the State shall be entitled to pursue the same remedies against the Vendor as it could pursue in the event of a default of the Contract by the Vendor.

4.11.4 Termination Procedure

Upon termination of the Contract, the State, in addition to any other rights provided in the Contract, may require the Vendor to deliver to the State any property, including without limitation, Software and Written Deliverables, for such part of the Contract as has been terminated.

After receipt of a notice of termination, and except as otherwise directed by the State, Vendor shall:

a. Stop work under the Contract on the date, and to the extent specified, in the notice;

b. Promptly, but in no event longer than thirty (30) days after termination, terminate its orders and subcontracts related to the work which has been terminated and settle all outstanding liabilities and all claims arising out of such termination of orders and subcontracts, with the approval or ratification of the State to the extent required, which approval or ratification shall be final for the purpose of this section;

c. Take such action as the State directs, or as necessary to preserve and protect the property related to the Contract which is in the possession of Vendor and in which State has an interest;

d. Deliver in the manner, at the times, and to the extent directed by the State, any property which is required to be furnished to State and which has been accepted or requested by the State; and

e. Provide written certification to the State that Vendor has surrendered to the State all said property.
4.12 Limitation of Liability

4.12.1 State

Subject to applicable laws and regulations, in no event shall the State be liable for any consequential, special, indirect, incidental, punitive, or exemplary damages. Subject to applicable laws and regulations, the State’s liability to the Vendor shall not exceed the total Contract price set forth in Contract Agreement Section 1.8 of Part 1. Identification - STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37 located in APPENDIX F.

Notwithstanding the foregoing and any provision of this Contract to the contrary, in no event does the State waive its sovereign immunity or any applicable defenses or immunities.

4.12.2 The Contractor

Subject to applicable laws and regulations, in no event shall the Vendor be liable for any consequential, special, indirect, incidental, punitive or exemplary damages and the Vendor’s liability to the State shall not exceed two times (2X) the total Contract price set forth in the Contract Agreement Section 1.8 of the STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37 in APPENDIX F. Notwithstanding the foregoing, the limitation of liability shall not apply to the Vendor’s indemnification obligations set forth in the STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37, Section 13: Indemnification and confidentiality obligations in Section 3.6.14: Confidential Information, which shall be unlimited.

4.12.3 State’s Immunity

Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive termination or Contract conclusion.

4.12.4 Survival

This Contract Agreement - Section 4.12: Limitation of Liability shall survive termination or Contract conclusion.

4.13 Change of Ownership

In the event that the Vendor should change ownership for any reason whatsoever, the State shall have the option of continuing under the Contract with the Vendor, its successors or assigns for the full remaining term of the Contract; continuing under the Contract with the Vendor, its successors or assigns for such period of time as determined necessary by the State; or immediately terminate the Contract without liability to the Vendor, its successors or assigns.

4.14 Assignment, Delegation and Subcontracts

The Vendor shall not assign, delegate, subcontract, or otherwise transfer any of its interest, rights, or duties under the Contract without the prior written consent of the State. Such consent will not be unreasonably withheld. Any attempted transfer, assignment, delegation, or other transfer made without the State’s prior written consent shall be null and void.

The Vendor shall remain wholly responsible for performance of the entire Contract regardless of whether assignees, delegates, Subcontractors or other transferees (“Successor”) are used, unless otherwise agreed to in writing by the State and the Successor fully assumes in writing any and all obligations and liabilities under the Contract. In the absence of a written assumption of full obligations and liabilities of the
Contract, any permitted assignment, delegation, subcontract or other transfer shall neither relieve the Vendor of any of its obligations under the Contract nor shall it affect any remedies available to the State against the Vendor that may arise from any event of default of the provisions of the Contract. The State will consider the Vendor to be the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from the Contract.

The Vendor may employ Subcontractors (on or offsite with prior State approval) to deliver required services subject to the terms and conditions of this RFP, including but not limited to, in Section 4: GENERAL CONTRACT REQUIREMENTS herein and APPENDIX F: STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37 of this RFP. The Vendor shall remain wholly responsible for performance of the entire Contract regardless of whether a Subcontractor is used. The State will consider the Vendor to be the sole point of contact with regard to all contractual matters, including payment of any and all charges resulting from any contract.

4.15 Dispute Resolution

Prior to the filing of any formal proceedings with respect to a dispute (other than an action seeking injunctive relief with respect to intellectual property rights), the party believing itself aggrieved (the "Invoking Party") shall call for progressive management involvement in the dispute negotiation by written notice to the other party. Such notice shall be without prejudice to the Invoking Party's right to any other remedy permitted by this Agreement.

The parties shall use all reasonable efforts to arrange personal meetings and/or telephone conferences as needed, at mutually convenient times and places, between negotiators for the parties at the following successive management levels, each of which shall have a period of allotted time as specified below in which to attempt to resolve the dispute:

Dispute Resolution Responsibility and Schedule Table

<table>
<thead>
<tr>
<th>Level</th>
<th>Vendor</th>
<th>State</th>
<th>Cumulative Allotted Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>NAME, TITLE</td>
<td>Tom Chagnon, State Project Manager (PM)</td>
<td>5 Business Days</td>
</tr>
<tr>
<td>First</td>
<td>NAME, TITLE</td>
<td>Richard C. Bailey Jr. State Project Sponsor</td>
<td>10 Business Days</td>
</tr>
<tr>
<td>Second</td>
<td>NAME, TITLE</td>
<td>John J. Barthelmes, Commissioner</td>
<td>15 Business Days</td>
</tr>
</tbody>
</table>

The allotted time for the first level negotiations shall begin on the date the Invoking Party's notice is received by the other party. Subsequent allotted time is days from the date that the original Invoking Party's notice is received by the other party.

4.16 Venue and Justification

Any action on the Contract may only be brought in the State of New Hampshire Merrimack County Superior Court.
4.17 Contract Security/Performance Bond

The Vendor shall furnish the State with a Performance Bond in an amount $1,000,000 within ten (10) business days of receipt of notice of intent to award a Contract. The Vendor shall bear the full expense of both the initial expense and the annual premiums for the Performance Bond. If such is not provided, the award may be nullified.

The Performance Bond shall be in a form and substance satisfactory to the State. The Performance Bond shall be maintained by the Vendor in full force and effect for 18 months from the commencement of work. The Vendor or any of its sureties shall not be released from their obligations under the Performance Bond from any change or extension of time, or termination of this Contract. The Performance Bond shall contain a waiver of notice of any changes to this Contract or the Deliverables or the Specifications, or of any Change Orders.

Payments shall not be due to the Vendor until the Performance Bond is in place and approved by the State in writing. A licensed insurance company authorized to do business in the State of New Hampshire and made payable to the State of New Hampshire shall issue the Performance Bond. The Performance Bond shall contain the Contract number and dates of performance. The Vendor shall extend the validity and enforcement of the Performance Bond for said periods if the State exercises an option to extend the Contract for any additional period(s).

The Performance Bond shall secure the performance of the Vendor, including without limitation performance of the Services in accordance with the Project Schedule and providing Deliverables in accordance with the Specifications, and shall secure any damages, cost or expenses resulting from the Vendor’s default in performance or liability caused by the Vendor. The Performance Bond shall become payable to the State for any outstanding damage assessments made by the State against the Vendor if there is a termination for default. An amount up to the full amounts of the Performance Bond may also be applied to the Vendor’s liability for any administrative costs and/or excess costs incurred by the State in obtaining similar Software, Deliverables, other products, and Services to replace those terminated as a result of the Vendor’s default. In addition to this stated liability, the State may seek other remedies.

The State reserves the right to review the Performance Bond and to require the Vendor to substitute a more acceptable Performance Bond in such form(s) as the State deems necessary prior to Acceptance of the Performance Bond.
5. RESPONSE PROCEDURE

5.1 Vendor Questions

5.1.1 Proposal Inquiries

All inquiries concerning this RFP, including but not limited to, requests for clarifications, questions, and any changes to the RFP, shall be emailed, citing the RFP title, RFP number, page, section, and paragraph and submitted to the following RFP State Point of Contact:

Robert Lussier  
Department of Safety, Division of Motor Vehicles  
23 Hazen Drive  
Concord, New Hampshire, 03305-0001  
Telephone: (603) 227-4050  
Email: robert.lussier@dos.nh.gov

Vendors are encouraged to submit questions via email; however, the State assumes no liability for assuring accurate/complete email transmission/receipt and is not responsible to acknowledge receipt.

Inquiries must be received by the RFP State Point of Contact (see above) no later than the conclusion of the Vendor Inquiry Period (see Section 1.2: Schedule of Events). Inquiries received later than the conclusion of the Vendor Inquiry Period shall not be considered properly submitted.

The State intends to issue official responses to properly submitted inquiries on or before the date specified in Section 1.2: Schedule of Events; however, this date may be subject to change at the State’s discretion. The State may consolidate and/or paraphrase questions for sufficiency and clarity. The State may, at its discretion, amend this RFP on its own initiative or in response to issues raised by inquiries, as it deems appropriate. Oral statements, representations, clarifications, or modifications concerning the RFP shall not be binding upon the State. Official responses will be made in writing.

5.1.2 RFP Addendum

The State reserves the right to amend this RFP at its discretion, prior to the Proposal submission deadline. In the event of an Addendum to this RFP, the State, at its sole discretion, may extend the Proposal submission deadline, as it deems appropriate.

5.2 Vendor Conference

An optional Vendor Conference will be held at the following location on the date and at the time identified in Section 1.2: Schedule of Events:

Department of Safety  
Division of Motor Vehicles  
23 Hazen Drive  
Stephen E. Merrill Building Auditorium  
Concord, New Hampshire 03305

All Vendors who intend to submit Proposals are encouraged to attend the Vendor Conference. Vendors are required to RSVP to Robert Lussier via email (robert.lussier@dos.nh.gov) by the date identified in Section 1.2: Schedule of Events, indicating the number of individuals who will attend the Vendor Conference.
Vendors will have an opportunity to ask questions about the RFP and the State will make a reasonable attempt to answer questions deemed appropriate. Questions may include, without limitation, a request for clarification of the RFP; a request for changes to the RFP; suggestions or changes to the RFP that could improve the RFP competition or lower the offered price; and to review any applicable Documentation.

Vendors are encouraged to email inquiries at least forty eight (48) hours prior to the Vendor Conference. No responses will be given prior to the Vendor Conference. Oral answers provided during the Vendor Conference will not be binding on the State. Although the State will attempt to transcribe and answer questions posed during the Vendor Conference those questions shall not be considered properly submitted until they are emailed to the State Point of Contact. The State’s final response to Vendor inquiries and any requested changes to terms and conditions raised during the Vendor Inquiry Period will be emailed, by the date specified, as the final State responses to Vendor inquiries as detailed in Section 1.2: Schedule of Events. Vendors are responsible for any costs associated with attending the Vendor Conference.

5.2.1 Site Tour Schedule:

<table>
<thead>
<tr>
<th>Event</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Session</td>
<td>9:30 AM to 11:30 AM</td>
</tr>
<tr>
<td>Individual Vendor DMV Walk Through</td>
<td>11:30 AM to 1:00 PM</td>
</tr>
<tr>
<td>Lunch (not provided)</td>
<td>1:00 PM to 2:00 PM</td>
</tr>
<tr>
<td>Group Wrap up</td>
<td>2:00 PM to 3:00 PM</td>
</tr>
</tbody>
</table>

5.3 Submission Procedure

5.3.1 Proposal Submission, Deadline, and Location Instructions

Proposals submitted in response to this RFP must be received by the Department of Safety Division of Motor Vehicles no later than the date and time specified in Section 1.2: Schedule of Events. Proposals must be addressed to:

State of New Hampshire  
Department of Department of Safety  
Division of Motor Vehicles  
23 Hazen Drive  
Concord, New Hampshire 03305

Cartons containing Proposals must be clearly marked as follows:

STATE OF NEW HAMPSHIRE  
DEPARTMENT OF SAFETY  
DIVISION OF MOTOR VEHICLES  
RESPONSE TO DOS RFP 2015-072  
DMV CCS PROJECT

Late submissions will not be accepted and will remain unopened. Delivery of the Proposals shall be at the Vendors’ expense. The time of receipt shall be considered when a Proposal has been officially documented by the Department of Administrative Services, in accordance with its established policies, as having been received at the location designated above. The State accepts no responsibility for mislabeled mail. Any damage that may occur due to shipping shall be the Vendor’s responsibility.

Vendors are permitted to submit one (1) Proposal in response to this RFP.
All Proposals submitted in response to this RFP must consist of:

a. **One (1) original and nine (9) clearly identified copies of the Proposal, including all required attachments;**

b. **One (1) copy of the Proposal Transmittal Form Letter** (described in Section 5.3.15.2: *Transmittal Form Letter*, herein) shall be signed by an official authorized to legally bind the Vendor and shall be marked “ORIGINAL”;

c. **Ten (10) clearly marked and sealed envelopes containing the cost portion of the proposal;** and

d. **One (1) electronic copy on CD ROM in MS WORD format.**

The original and all copies shall be bound separately, delivered in sealed containers, and permanently marked as indicated above. A Vendor’s disclosure or distribution of its Proposal other than to the State will be grounds for disqualification.

5.3.2 **Alteration of RFP**

The original RFP document is on file with the State of New Hampshire, Department of Administrative Services. Vendors are provided an electronic version of the RFP. Any alteration to this RFP or any file associated with this RFP is prohibited. Any such changes may result in a Proposal being rejected.

5.3.3 **Non-Collusion**

The Vendor’s signature on a Proposal submitted in response to this RFP guarantees that the prices, terms and conditions, and Services quoted have been established without collusion with other Vendors and without effort to preclude the State from obtaining the best possible competitive Proposal.

5.3.4 **Validity of Proposal**

Proposals must be valid for one hundred and eighty (180) days following the deadline for submission of Proposals in Section 1.2: *Schedule of Events*, or until the Effective Date of any resulting Contract.

5.3.5 **Property of the State**

All material received in response to this RFP shall become the property of the State and will not be returned to the Vendor. Upon Contract award, the State reserves the right to use any information presented in any Proposal.

5.3.6 **Confidentiality of a Proposal**

A Proposal must remain confidential until the Effective Date of any resulting Contract as a result of this RFP. A Vendor’s disclosure or distribution of Proposals other than to the State will be grounds for disqualification.

5.3.7 **Public Disclosure**

Subject to applicable law or regulations, the content of each Vendor’s Proposal shall become public information upon the Effective Date of any resulting Contract.
Any information submitted as part of a response to this request for proposal (RFP) may be subject to public disclosure under RSA 91-A. In addition, in accordance with RSA 9-F:1, any contract entered into as a result of this RFP will be made accessible to the public online via the website Transparent NH (http://www.nh.gov/transparentnh/). Accordingly, business financial information and proprietary information such as trade secrets, business and financial models and forecasts, and proprietary formulas may be exempt from public disclosure under RSA 91-A:5, IV. If you believe any information being submitted in response to a request for proposal, bid or information should be kept confidential as financial or proprietary information; you must specifically identify that information in a letter to the agency, and should mark/stamp the materials as such. Marking of the entire Proposal or entire sections of the Proposal (e.g. pricing) as confidential will neither be accepted nor honored. Notwithstanding any provision of this RFP to the contrary, Vendor pricing will be subject to disclosure upon approval of the contract by Governor and Council.

Generally, each Proposal shall become public information upon the approval of Governor and Council of the resulting contract, as determined by the State, including but not limited to, RSA Chapter 91-A (Right to Know Law). The State will endeavor to maintain the confidentiality of portions of the Proposal that are clearly and properly marked confidential. If a request is made to the State to view portions of a Proposal that the Vendor has properly and clearly marked confidential, the State will notify the Vendor of the request and of the date and the State plans to release the records. A designation by the Vendor of information it believes exempt does not have the effect of making such information exempt. The State will determine the information it believes is properly exempted from disclosure. By submitting a Proposal, Vendors agree that unless the Vendor obtains a court order, at its sole expense, enjoining the release of the requested information, the State may release the requested information on the date specified in the State’s notice without any liability to the Vendors.

5.3.8 Security

The State must ensure that appropriate levels of security are implemented and maintained in order to protect the integrity and reliability of its information technology resources, information, and services. State resources, information, and services must be available on an ongoing basis, with the appropriate infrastructure and security controls to ensure business continuity and safeguard State networks, systems and data. The State will evaluate the degree to which the proposed system is designed and architected to ensure the confidentiality and integrity of its valued asset, data.

5.3.9 Non-Commitment

Notwithstanding any other provision of this RFP, this RFP does not commit the State to award a Contract. The State reserves the right, at its sole discretion, to reject any and all Proposals, or any portions thereof, at any time; to cancel this RFP; and to solicit new Proposals under a new acquisition process.

5.3.10 Proposal Preparation Cost

By submitting a Proposal, a Vendor agrees that in no event shall the State be either responsible for or held liable for any costs incurred by a Vendor in the preparation of or in connection with the Proposal, or for work performed prior to the Effective Date of a resulting Contract.
5.3.11 **Oral Presentations, Interviews and Discussion**

The State reserves the right to require Vendors to make oral presentations of their Proposals and/or to make available for oral presentations/interviews the key Project Staff to implement the Proposal. All costs associated with oral presentations/interviews shall be borne entirely by the Vendor. Vendors will be requested to provide demonstrations of their proposed Systems as part of their presentations.

5.3.12 **Required Contract Terms and Conditions**

By submitting a Proposal, the Vendor agrees that the State of New Hampshire terms and conditions, contained in APPENDIX F: STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37 and Section 4: GENERAL CONTRACT REQUIREMENTS, herein, shall form the basis of any Contract resulting from this RFP. In the event of any conflict between the State’s Terms and Conditions and any portion of the Vendor’s Proposal, the State’s Terms and Conditions shall take precedence and supersede any and all such conflicting terms and conditions contained in the Vendor’s Proposal.

5.3.13 **Proposal Format**

Proposals should follow the following format:

- The Proposal should be provided in a three-ring binder.
- The Proposal should be printed on white paper with dimensions of 8.5 by 11 inches with right and left margins of one (1) inch.
- The Proposal should use Times New Roman font with a size no smaller than eleven (11) point size.
- Each page of the Proposal should include a page number and the number of total pages and identification of the Vendor in the page footer.
- Tabs should separate each section of the Proposal.

Exceptions for paper and font sizes are permissible for: graphical exhibits, which may be printed on white paper with dimensions of 11 by 17 inches; and material in appendices.

5.3.14 **Proposal Organization**

Proposals should adhere to the following outline and should not include items not identified in the outline.

- Cover Page
- Transmittal Form Letter
- Table of Contents
- **Section I**: Executive Summary
- **Section II**: Glossary of Terms and Abbreviations
- **Section III**: Responses to Requirements and Deliverables
- **Section IV**: Narrative Responses
- **Section V**: Corporate Qualifications
- **Section VI**: Qualifications of Key Vendor Staff
- **Section VII**: Cost Proposal (Delivered in marked and sealed envelopes)
• **Section VIII**: Copy of the RFP and Any Signed Addendum (a) - *required in original Proposal only.*

5.3.15 **Proposal Content**

5.3.15.1 **Cover Page**

The first page of the Vendor’s Proposal should be a cover page containing the following text:

```
STATE OF NEW HAMPSHIRE  
DEPARTMENT OF SAFETY  
DIVISION OF MOTOR VEHICLES  

RESPONSE TO DOS RFP 2014-XXX  
DMV DL FULFILLMENT PROJECT  
```

The cover page should also include the Vendor’s name, contact person, contact telephone number, address, city, state, zip code, fax number, and email address.

5.3.15.2 **Transmittal Form Letter**

The Vendor must submit signed Transmittal Form Letter with their response using the Transmittal Form Letter Template provided herewith. Any electronic alteration to this Transmittal Form Letter is prohibited. Any such changes may result in a Proposal being rejected.
State of New Hampshire Proposal Transmittal Form Letter

Company Name___________________________________
Address_________________________________________

TO:    NH DOS Point of Contact: Robert Lussier
       Telephone (603) 227-4050
       Email: robert.lussier@dos.nh.gov

RE:    Proposal Invitation Name: DMV VISION CARD CREATION SYSTEM
       Proposal Number: DOS RFP 2015-072
       Proposal Due Date and Time: March 3, 2015 at 2:30 PM

Dear Sir:

Company Name: _________________________ hereby offers to sell to the State of New Hampshire the Services indicated in DOS RFP 2015-072 - DMV VISION CARD CREATION SYSTEM at the price(s) quoted in Vendor Response Section VII: Cost Proposal, and APPENDIX C: PRICING WORKSHEETS, in complete accordance with all conditions of this RFP and all Specifications set forth in the RFP and in the State of New Hampshire Terms and Conditions outlined in RFP Section 4: GENERAL CONTRACT REQUIREMENTS and APPENDIX F: STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37.

Company Signor: ____________________________ is authorized to legally obligate Company Name: __________________.

We attest to the fact that:

The company has reviewed and agreed to be bound by all RFP terms and conditions including but not limited to the STATE OF NEW HAMPSHIRE TERMS AND CONDITIONS P-37 in APPENDIX F: and GENERAL CONTRACT REQUIREMENTS in Section 4, which shall form the basis of any Contract resulting from this RFP; No new terms and conditions have been added and no existing terms and conditions have been deleted in this RFP Proposal.

The Proposal is effective for a period of 180 days or until the Effective Date of any resulting Contract.

The prices quoted in the Proposal were established without collusion with other eligible Vendors and without effort to preclude the State of New Hampshire from obtaining the best possible competitive price; and The Vendor has read and included a copy of DOS RFP 2015-072 and any subsequent signed Addendum (a).

Our official point of contact is _________________________________________________
Title _____________________________________________________________________
Telephone_____________________________, Email______________________________
Authorized Signature Printed _________________________________________________
Authorized Signature ________________________________________________________
5.3.15.3 Table of Contents

The Vendor must provide a table of contents with corresponding page numbers relating to its Proposal. The table of contents must conform to the outline provided in Section 5.3.14: Proposal Organization, but should provide detail, e.g., numbering, level of detail.

5.3.15.4 Section I: Executive Summary

The executive summary, which must not exceed five (5) pages, must identify how the Vendor satisfies the minimum standards for consideration, which are described in Section 6.1: Minimum Standards for Proposal Consideration, to this Request for Proposal. The executive summary will also provide an overview of the Vendor’s proposed Solution and Services. Vendors are encouraged to highlight those factors that they believe distinguish their Proposal.

5.3.15.5 Section II: Glossary of Terms and Abbreviations

The Vendor must provide a glossary of all terms, acronyms, and abbreviations used in its Proposal.

5.3.15.6 Section III: Responses to System Requirements and Deliverables

System requirements are provided in APPENDIX A: DETAILED SYSTEM AND INTERFACE REQUIREMENTS, APPENDIX E: DETAILED BUSINESS REQUIREMENTS (MANDATORY).

Using the Vendor Response Checklists located in APPENDIX A-2: General Requirements Checklist table A-3, APPENDIX E: DETAILED BUSINESS SUBSYSTEM REQUIREMENTS (MANDATORY) tables E-1 through E-8 the Vendor must document the ability to meet the Requirements and Deliverables of this RFP.

5.3.15.7 Section IV: Narrative Responses

Section IV should contain narrative responses describing the System Architecture and Operation, Service topics and Project Management topics defined for this RFP Project. APPENDIX D: TOPICS FOR MANDATORY NARRATIVE RESPONSES is organized into sections, which correspond to the different deliverables or aspects of the scoring process of the Proposal. Discussion of each topic must begin on a new page.

5.3.15.8 Section V: Corporate Qualifications

Section V should provide corporate qualifications of all firms proposed to participate in the Project. Specific information required is described in Section 5.4.1: Required Information on Corporate Qualifications.

5.3.15.9 Section VI: Qualifications of Key Vendor Staff

This Proposal section must be used to provide required information on key Vendor staff. Specific information required is described in Sections 5.4.2: Team Organization and Designation of Key Vendor Staff; 5.4.4: Candidates for Project Manager; and 5.4.5: Candidates for Key Vendor Staff Roles.
5.3.15.10 Section VII: Cost Proposal

All pricing information must be delivered in marked and sealed envelopes. The Cost Proposal must include the following:

- Mandatory Implementation Services for On Site New Hampshire Print Farm using the worksheet found in APPENDIX C: PRICING WORKSHEETS, Table C-1A: Annual Service and Support Pricing Worksheet
- Optional Services On Site New Hampshire Print Farm extension for 2 Years using the worksheet found in APPENDIX C: PRICING WORKSHEETS, Table C-1B: Optional Extension Annual Service and Support Pricing Worksheet
- Mandatory Implementation Services using Vendor Site Print Farm using the worksheet found in APPENDIX C: PRICING WORKSHEETS, Table C-2A: Annual Service and Support Pricing Worksheet
- Optional Services for 2 Years using Vendor Site Print Farm using the worksheet found in APPENDIX C: PRICING WORKSHEETS, Table C-2B: Optional Extension Annual Service and Support Pricing Worksheet

5.3.15.11 Section VIII: Copy of the RFP and any signed Addendum (a) - required in original Proposal only

5.4 Standards for Describing Vendor Qualifications

Vendor qualifications are important factors in selecting DMV Application Software and accompanying Implementation and follow on support Services. To facilitate evaluation of Vendor qualifications, the State seeks information about:

1. Corporate qualifications of each Vendor proposed to participate in the Project,
2. Proposed team organization and designation of key staff,
3. Individual qualifications of candidates for the role of Project Manager, and
4. Individual qualifications of candidates for other key staff roles.

5.4.1 Required Information on Corporate Qualifications

Information is required on all Vendors who will participate in the Project. The Vendor submitting a Proposal for this Project must provide the following information:

5.4.1.1 Corporate Overview (2 page limit)

Identify the proposed role of the firm on the Project. Describe the major business areas of the firm. Provide a high-level description of the firm’s organization and staff size. Discuss the firm’s commitment to the public sector, experience with this type of project implementation and experience in New Hampshire.

5.4.1.2 Financial Strength

Provide at least one of the following:

1. The firm’s two most recent audited financial statements; and the firm’s most recent un-audited, quarterly financial statement; or
2. The firm's most recent income tax return. For example, either a copy of the IRS Form 1065, U.S. Return of Partnership Income or Schedule E (IRS Form 1040) Supplemental Income and Loss (for partnerships and S corporations) or IRS Form 1120, U.S. Corporation Income Return. These forms are typically submitted when a Vendor does not have audited financial statements.

Financial information will not be shared and is protected under FOIA.

5.4.1.3 Litigation

Identify and describe any litigation filed by clients during the last ten (10) years. Discuss merits, current status and, if available, outcome of each matter.

5.4.1.4 Prior Project Descriptions (3 limited to 3 pages each)

Provide descriptions of similar projects completed. Each project description should include:

1. An overview of the project covering type of client, objective, project scope, role of the firm and outcome;
2. Description of the similarities of the project to the needs of New Hampshire and the timeframe in which the project was started and completed;
3. Project measures including proposed cost, actual project cost, proposed project schedule and actual project schedule;
4. Names and contact information (name, title, address and current telephone number) for one or two references from the client; and
5. Names and project roles of individuals on the proposed team for the New Hampshire Project that participated in the project described.

5.4.1.5 Subcontractor Information

Vendors submitting a Proposal must identify any Subcontractor(s) to be used. Vendors must provide information on any Subcontractors proposed to work on this Project. Required information shall include but not be limited to:

1. Identification of the proposed Subcontractor and a description of the major business areas of the firm and their proposed role on the Project.
2. A high-level description of the Subcontractor’s organization and staff size.
3. Discussion of the Subcontractor’s experience with this type of Project;
4. Resumes of key personnel proposed to work on the Project; and
5. Two references from companies or organizations where they performed similar services (if requested by the State).

5.4.2 Team Organization and Designation of Key Vendor Staff

Provide resumes of key personnel proposed to work on the Project and an organizational chart depicting the Vendor Project Team. This chart should identify key staff required from the Vendor, any Subcontractors, and the State.
Define the responsibilities and length of assignment for each of the roles depicted in the organizational chart. Identify the positions that should be designated key staff. A single team member may be identified to fulfill the experience requirement in multiple areas.

### 5.4.3 State Staff Resource Worksheet

Append a completed State Staff Resource Worksheet to coverage of organization. The State needs to know the time the vendor is expecting from State workers. The purpose of the worksheet below is to allow the vendor to communicate these expectations. Project phases and positions should be customized by vendor to represent the way they need State business and IT staff to fit into the Project Plan.

#### Table 5-1: Proposed State Staff Resource Hours Worksheet

<table>
<thead>
<tr>
<th>State Role</th>
<th>Initiation</th>
<th>Configuration</th>
<th>Implement</th>
<th>Project Close Out</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
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<td>Position 2</td>
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<td>Position 3</td>
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<td>Position 4</td>
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<tr>
<td>Position 5</td>
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<tr>
<td>State Total</td>
<td></td>
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</tr>
</tbody>
</table>

### 5.4.4 Candidates for Project Manager

Although the State recognizes that staff availability is somewhat uncertain, qualifications of the Project Manager are particularly critical. Therefore, the State requires that the Project Manager be identified with certainty.

The State requires that the Project Manager be assigned full time, on site for the duration of the Project. For the Project Manager candidate, provide a resume not to exceed five (5) pages in length addressing the following:

- The candidate’s educational background;
- An overview of the candidate’s work history;
- The candidate’s project experience, including project type, project role and duration of the assignment;
- Any significant certifications held by or honors awarded to the candidate; and
- At least three (3) references, with contact information, that can address the candidate’s performance on past projects.

### 5.4.5 Candidates for Key Vendor Staff Roles

Provide a resume (actual not representative) not to exceed three (3) pages for each key Vendor staff position on the Project Team. Each resume should address the following:

- The individual’s educational background;
• An overview of the individual’s work history;
• The individual’s project experience, including project type, project role and duration of the assignment;
• Any significant certifications held by or honors awarded to the candidate; and
• At least three (3) references, with contact information, that can address the individual’s performance on past projects.

5.5 Required Certificates

As a condition of Contract award, the Vendor, must furnish a Corporate Certificate of Vote and, if required by law, must furnish a Certificate of Authority/Good Standing from the New Hampshire Secretary of State.

5.5.1 New Hampshire Certificate of Authority or Certificate of Good Standing

If your company is not registered as a business in New Hampshire, an application form may be obtained from the Secretary of State at the following address:

Secretary of State
State House Annex
25 Capitol Street
Concord, New Hampshire 03301
603-271-3244

If your company is registered as a business in New Hampshire, a Certification of Authority may be obtained from the Secretary of State at the address above. The Vendor must furnish a Certificate of Authority/Good Standing dated after April 1, 2015, from the Office of the Secretary of State of New Hampshire.

Note: Sovereign states or their agencies may be required to submit suitable substitute documentation concerning their existence and authority to enter into a Contract.

5.5.2 Certificate of Vote

The Vendor must furnish a Certificate of Vote specifying authority to enter into a Contract with the State. This authorization notification must be consistent with the Vendor’s corporate structure and must accompany the signed Contract.

An officer of the company, name and title, must certify that the person signing the Contract has been given the authority to do so. That authority must be in effect the day the Contract is signed. The certifying official must not be certifying him or herself, unless it is a sole proprietorship.

The document must certify that:

1. The signature of the specified officer of the company affixed to any Contract instrument or document shall bind the company to the terms and conditions of the Contract instrument or document.

2. The foregoing signature authority has not been revoked, annulled or amended in any manner whatsoever, and remains in full force and effect as of the date of the Contract.
5.5.3 Sample Certificate of Vote

CERTIFICATE
(Corporation Without Seal)

I, _____________________, do hereby represent and certify that:

(1) I am _____________________ of __________________________________________,
    (Position of the Certifier)     (Corporation/Company Name)
    a(n)________________________Corporation (the Corporation).
    (Describe Corporate Type)

(2) I maintain and have custody of and am familiar with the Seal and the minutes of the Corporation.

(3) I am duly authorized to issue certificates with respect to the contents of such books.

(4) The following statements are true and accurate based on the resolutions adopted by the Board of Directors of the Corporation at a meeting of the said Board of Directors held on ________________,
    (Date of Meeting)
    which meeting was duly held in accordance with ______________ law and the by-laws of the
    (State)
    Corporation.

(5) The signature of _________________________________________________ of this Corporation
    (name and position of the signor of the contract)
    affixed to any Contract instrument or document shall bind the corporation to the terms and conditions
    of the Contract instrument or document.

(6) The foregoing signature authority has not been revoked, annulled or amended in any manner
    whatsoever, and remains in full force and effect as of the date hereof.

(7) This corporation has no seal.

IN WITNESS WHEREOF, I have hereunto set my hand as _____________________ of the Corporation.

Dated: _______________________
    (Current Date)

_________________________________________________________________
    (Certifier Signature and Title)

STATE OF ________________________
COUNTY OF ________________________
6. EVALUATION PROCEDURE

6.1 Minimum Standards for Proposal Consideration

Information is requested in Section 5.3.15: Proposal Content, to enable the State to contract for project implementation with an experienced Vendor. Coverage in Section 6.1: Minimum Standards for Proposal Consideration is limited to specific minimum requirements. A proposal that fails to satisfy the requirements in this section may be rejected without further consideration.

6.1.1 Proposal Submission

The Proposal must be submitted on time, as defined in this RFP in Section 1.2: Schedule of Events and include the properly completed Transmittal Form Letter contained in Section 5.3.15.2: Transmittal Form Letter.

6.1.2 Compliance with Requirements

Requirements and Deliverables are listed in APPENDIX A: DETAILED SYSTEM AND INTERFACE REQUIREMENTS in this RFP. Use of Proposed Vendor Software

The core components of the proposed software must be functional and be ready for a live interactive demonstration as part of the proposal review process. Software actually delivered to meet the requirements of the proposal, may upon approval from the State, incorporate technological and functional upgrades.

6.1.3 Vendor Implementation Service Experience

The selected Vendor must have prior experience performing software implementation for other clients comparable in size and complexity to the State of New Hampshire within the last three (3) years. The specific Vendor proposed solution and functionality must be described.

6.1.4 Proposed Project Team

Vendor key personnel for this project are defined as one (1) Project Manager and one (1) Lead Business Analyst. These key personnel will comprise the selected Vendor’s core team. No subsequent substitutions may be made to the key personnel designated in the Vendor’s proposal made in response to this RFP without the prior approval of DOS.

The Vendor project manager will have overall project responsibility for all Vendor project management and development staff and their activities. The Vendor project manager will work closely with members of the DOS project management team.

It is highly recommended that each of the Vendor personnel resources proposed by the Vendor possess the qualifications and experience noted below. The project manager in particular should have had significant responsibility for managing projects similar in size, scope and complexity of functionality. Experience with the management, development and support of State or federal projects are preferred. The intention of the following table is to define the roles and responsibilities the State is expecting, rather than the discreet number of individuals.
### Key Personnel | Qualifications
--- | ---
**Project Manager** | • Minimum seven (7) years of information technology experience, including three (3) years of project management experience on complex client server and/or web based applications managing the cost, schedule, and status analysis and risk reduction.  
• Responsibilities must have included systems analysis, development, maintenance, enhancement, and implementation.  
• The project manager should also have had significant responsibility for a project similar in size, functionality and scope.  
• Project Management Professional (PMP) Certification.

**Lead Business Analyst** | • Minimum of six (6) years’ experience as a Business Analyst associated with a late generation DMV registration and inventory development projects.  
• Knowledge of the tool set used for the development and operation of the proposed solution.

---

#### 6.2 Scoring

**6.2.1 Scoring Proposals**

The State will select a Vendor based upon the criteria and standards contained in this RFP. Each vendor will be evaluated using a 1,000 point maximum scoring method as described below.

Each Proposal will be evaluated and considered with regard to the Solution and Services proposed, qualifications of the Vendor and any Subcontractors, experience and qualifications of proposed candidates, and cost.

The State will issue an “Intent to Award” letter to a Vendor based on these evaluations. Should the State be unable to reach agreement with the Vendor during Contract discussions, the State may then undertake Contract discussions with the second preferred Vendor and so on. Such discussions may continue at the sole option of the State, until an agreement is reached, or all Proposals are rejected.

The State will use a scoring scale of 1,000 points, which shall be applied to the Solution as a whole. Points will be distributed among four (3) factors:

- 250 points - Proposed Software for mandatory functionality
- 250 points - Vendor’s technical, service, and project management approach;
- 500 points - Software Solution Cost (Rates and Pricing);
- 1,000 points - Total Possible Score.

**6.2.1.1 Scoring of the Proposed Software Solution**

The Vendor’s Proposed Software Solution will be allocated a maximum score of 250 points. These points will be distributed among the following sub-factors for the software Solution:

- Vendor’s responses to software requirements
- Vendor’s demonstration of software functionality
- Flexibility/maintainability of software
• Technical architecture

6.2.1.2 Scoring of Vendor’s Technical, Service, and Project Management Approach

Vendor Project Approach will be allocated a maximum score of 250 points, which will be based on the following: Implementation, Data Conversion, Testing, Training, Overall Project Management and Staffing Approach.

6.2.1.3 Scoring the Software Solution Cost

Vendor proposed Software Solution cost will be allocated a maximum score of 500 points which will be based on the following. The State will consider both implementation and optional two (2) year extension costs, provided in Table C-1A: Annual Service and Support Pricing Worksheet and Table C-1B: Optional Extension Annual Service and Support Pricing Worksheet for an On-Site DMV Print Farm. Additionally, The State will consider both implementation and optional two (2) year extension costs, provided in Table C-2A: Annual Service and Support Pricing Worksheet and Table C-2B: Optional Extension Annual Service and Support Pricing Worksheet for Vendor Site Print Farm. Cost information required in a Proposal is intended to provide a sound basis for comparing costs.

Vendor’s Cost Score = (Lowest Proposed Cost / Vendor’s Proposed Cost) times (NUMBER OF maximum points for Solution costs defined in Section 6.2: Scoring Proposals.)

For the purpose of this formula, the lowest proposed cost is defined as the lowest cost proposed by a Vendor who fulfills the minimum requirements.

6.2.2 Rights of the State in Evaluating Proposals

The State reserves the right to:

• Consider any source of information in evaluating Proposals;
• Omit any planned evaluation step if, in the State’s view, the step is not needed;
• At its sole discretion, reject any and all Proposals at any time; and
• Open Contract discussions with the second highest scoring Vendor, if the State is unable to reach an agreement on Contract terms with the highest scoring Vendor.

6.2.3 Planned Evaluations

The State plans to use the following process to evaluate proposals:

1. Initial screening;
2. Assessment of the proposals based on:
   • Oral interviews and product demonstrations
   • Evaluation of written proposals and reference and background checks
3. Final evaluation of Proposals.

6.2.3.1 Initial Screening

The State will conduct an initial screening step to verify Vendor compliance with submission requirements and to confirm that the Proposal satisfies the conditions
defined in Section 6.1: Minimum Standards for Proposal Consideration. A Proposal that fails to satisfy either submission requirements or minimum standards may be rejected without further consideration. Vendors that successfully pass the Initial Screening phase will be invited to attend oral interviews and product demonstrations.

6.2.3.2 Oral Interviews and Product Demonstrations

The purpose of oral interviews and product demonstrations is to clarify and expound upon information provided in the written Proposals. Vendors are prohibited from altering the basic substance of their Proposals during the oral interviews and product demonstrations. The Vendor must be able to demonstrate existing system functionality.

The oral interview and product demonstrations will be conducted over a two (2) day period and focus on the demonstration of the proposed software. Time will be allocated for each Vendor to demonstrate their software functionality and to allow State staff to enter predetermined simulated transactions to include the Opening (beginning of day) and Closeout (end of day) processes. Information gained from oral interviews and product demonstrations will be used to refine scores assigned from the initial review of the Proposals.

6.2.3.3 Evaluation of written proposals and reference and background checks

The State Proposal Evaluation Team will evaluate Proposals, and conduct reference and background checks after oral interviews and product demonstrations have been completed.

6.2.3.4 Final Evaluation

The State will conduct final evaluations as a culmination of the entire process of reviewing Vendor Proposals, oral interviews, product demonstrations and information gathering. After making a preliminary determination of award, the State reserves the right to conduct site visits to a Vendor location and/or government/customer site(s) that utilizes the Vendor’s Software.
7. DEFINITIONS

The following general contracting terms and definitions apply except as specifically noted elsewhere in this document.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAMVA</td>
<td>American Association of Motor Vehicle Administrators</td>
</tr>
<tr>
<td>AAMVAnet</td>
<td>American Association of Motor Vehicle Administrators Network</td>
</tr>
<tr>
<td>Acceptance</td>
<td>Notice from the State that a Deliverable has satisfied Acceptance Test or Review.</td>
</tr>
<tr>
<td>Acceptance Letter</td>
<td>An Acceptance Letter provides notice from the State that a Deliverable has satisfied Acceptance Tests or Review.</td>
</tr>
<tr>
<td>Acceptance Period</td>
<td>The timeframe during which the Acceptance Test is performed</td>
</tr>
<tr>
<td>Acceptance Test and Review</td>
<td>Tests performed to determine that no Defects exist in the application Software or the System</td>
</tr>
<tr>
<td>Acceptance Test Plan</td>
<td>The Acceptance Test Plan provided by the Vendor and agreed to by the State that describes at a minimum, the specific Acceptance process, criteria, and Schedule for Deliverables.</td>
</tr>
<tr>
<td>Access Control</td>
<td>Supports the management of permissions for logging onto a computer or network</td>
</tr>
<tr>
<td>ADLT</td>
<td>Automated Driver Licensing Test</td>
</tr>
<tr>
<td>Agreement</td>
<td>A contract duly executed and legally binding.</td>
</tr>
<tr>
<td>ALS</td>
<td>Administrative License Suspension</td>
</tr>
<tr>
<td>AMIE</td>
<td>AAMVA Message Interchange Envelope</td>
</tr>
<tr>
<td>AOC</td>
<td>Administrative Office of the Courts within the New Hampshire Judicial Branch</td>
</tr>
<tr>
<td>AP</td>
<td>Accounts Payable</td>
</tr>
<tr>
<td>AR</td>
<td>Accounts Receivable</td>
</tr>
<tr>
<td>Audit Trail Capture and Analysis</td>
<td>Supports the identification and monitoring of activities within an application or system</td>
</tr>
<tr>
<td>BAC</td>
<td>Blood Alcohol Content</td>
</tr>
<tr>
<td>Breach or Breach of Security</td>
<td>Unlawful and unauthorized acquisition of unencrypted computerized data that materially compromises the security, confidentiality or integrity of personal information maintained by a person or commercial entity</td>
</tr>
<tr>
<td>CA-IDMS</td>
<td>Computer Associates – Integrated Data Management System</td>
</tr>
<tr>
<td>CASS</td>
<td>Coding Accuracy Support System</td>
</tr>
<tr>
<td>CCP</td>
<td>Change Control Procedures</td>
</tr>
<tr>
<td>CCS</td>
<td>Card Creation System</td>
</tr>
<tr>
<td>CDLIS</td>
<td>Commercial Driver License Information System - Version 5.3 (AAMVA)</td>
</tr>
<tr>
<td>Certification</td>
<td>The Vendor’s written declaration with full supporting and written Documentation (including without limitation test results as applicable) that</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
</tr>
<tr>
<td>the Vendor has completed development of the Deliverable and certified its readiness for applicable Acceptance Testing or Review.</td>
<td></td>
</tr>
<tr>
<td>Change Control</td>
<td>Formal process for initiating changes to the proposed solution or process once implementation has begun.</td>
</tr>
<tr>
<td>Change Order</td>
<td>Formal documentation prepared for a proposed change in the Specifications.</td>
</tr>
<tr>
<td>CICS</td>
<td>Customer Information Control System</td>
</tr>
<tr>
<td>CM</td>
<td>Configuration Management</td>
</tr>
<tr>
<td>Completion Date</td>
<td>End date for the Contract</td>
</tr>
<tr>
<td>Confidential Information</td>
<td>Information required to be kept Confidential from unauthorized disclosure under the Contract</td>
</tr>
<tr>
<td>Configurable</td>
<td>The software can be configured to accommodate a process, meet a requirement without internal coding changes to the application.</td>
</tr>
<tr>
<td>Configuration</td>
<td>The proposed System contains the functionality but it must be configured for the State.</td>
</tr>
<tr>
<td>Contract</td>
<td>This Agreement between the State of New Hampshire and a Vendor, which creates binding obligations for each party to perform as specified in the Contract Documents.</td>
</tr>
<tr>
<td>Contract Conclusion</td>
<td>Refers to the conclusion of the Contract, for any reason, including but not limited to, the successful Contract completion, termination for convenience, or termination for default.</td>
</tr>
<tr>
<td>Contract Documents</td>
<td>Documents that comprise a Contract</td>
</tr>
<tr>
<td>Contract Managers</td>
<td>The persons identified by the State and the Vendor who shall be responsible for all contractual authorization and administration of the Contract. These responsibilities shall include but not be limited to processing Contract Documentation, obtaining executive approvals, tracking costs and payments, and representing the parties in all Contract administrative activities.</td>
</tr>
<tr>
<td>Contracted Vendor</td>
<td>The vendor whose proposal or quote was awarded the Contract with the State and who is responsible for the Services and Deliverables of the Contract.</td>
</tr>
<tr>
<td>Conversion Test</td>
<td>A test to ensure that a data conversion process correctly takes data from a legacy system and successfully converts it to a form that can be used by the new system.</td>
</tr>
<tr>
<td>COTS</td>
<td>Commercial-Off-The-Shelf</td>
</tr>
<tr>
<td>CPI</td>
<td>Computer Projects of Illinois</td>
</tr>
<tr>
<td>CR</td>
<td>Change Request</td>
</tr>
<tr>
<td>CRMS</td>
<td>Crash Record Management System</td>
</tr>
<tr>
<td>CSR</td>
<td>Customer Service Representative</td>
</tr>
<tr>
<td>Cure Period</td>
<td>The thirty (30) day period following written notification of a default within which a contracted vendor must cure the default identified.</td>
</tr>
<tr>
<td><strong>Custom Code</strong></td>
<td>Code developed by the Vendor specifically for this project for the State of New Hampshire</td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Custom Software</strong></td>
<td>Software developed by the Vendor specifically for this project for the State of New Hampshire</td>
</tr>
<tr>
<td><strong>CVISN</strong></td>
<td>Commercial Vehicle Information Systems and Networks</td>
</tr>
<tr>
<td><strong>Data</strong></td>
<td>State’s records, files, forms, Data and other documents or information, in either electronic or paper form, that will be used/converted by the Vendor during the Contract Term</td>
</tr>
<tr>
<td><strong>DBA</strong></td>
<td>Database Administrator</td>
</tr>
</tbody>
</table>
| **Deficiencies/Defects** | A failure, deficiency or defect in a Deliverable resulting in a Deliverable, the Software, or the System, not conforming to its Specifications.  
Class A Deficiency – Software - Critical, does not allow System to operate, no work around, demands immediate action, if encountered during UAT will preclude Acceptance; Written Documentation - missing significant portions of information or unintelligible to State; Non Software - Services were inadequate and require re-performance of the Service.  
Class B Deficiency – Software - important, does not stop operation and/or there is a work around and user can perform tasks; Written Documentation - portions of information are missing but not enough to make the document unintelligible; Non Software - Services were deficient, require reworking, but do not require re-performance of the Service.  
Class C Deficiency – Software - minimal, cosmetic in nature, minimal effect on System, low priority and/or user can use System; Written Documentation - minimal changes required and of minor editing nature; Non Software - Services require only minor reworking and do not require re-performance of the Service.  |
| **Deliverable**       | A Deliverable is any Written, Software, or Non-Software Deliverable  
(letter, report, manual, book, other), provided by the Vendor to the State or under the terms of a Contract requirement. |
<p>| <strong>Department</strong>        | An agency of the State                                                                   |
| <strong>Department of Information Technology (DoIT)</strong> | The Department of Information Technology established under RSA 21-R by the Legislature effective September 5, 2008. |
| <strong>Digital Signature</strong> | Guarantees the unaltered state of a file                                                |
| <strong>Documentation</strong>     | All information that describes the installation, operation, and use of the Software, either in printed or electronic format. |
| <strong>DOB</strong>               | Date of Birth                                                                           |
| <strong>DOC</strong>               | Department of Corrections within the State of New Hampshire                              |
| <strong>DOS</strong>               | Department of Safety within the State of New Hampshire                                   |
| <strong>DOS/VSE</strong>           | IBM Mainframe Disk Operating System/Virtual Storage Extended                             |
| <strong>DMV</strong>               | State of New Hampshire, Department of Safety, Division of Motor Vehicles                 |
| <strong>Effective Date</strong>    | Following Governor and Executive Council approval, the date on which the Contract takes effect |</p>
<table>
<thead>
<tr>
<th>ELT</th>
<th>Electronic Lien Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encryption</td>
<td>Supports the encoding of data for security purposes</td>
</tr>
<tr>
<td>Enhancements</td>
<td>Updates, additions, modifications to, and new releases for the Software, and all changes to the Documentation as a result of Enhancements, including, but not limited to, Enhancements produced by Change Orders</td>
</tr>
<tr>
<td>Firm Fixed Price Contract</td>
<td>A Firm-Fixed-Price Contract provides a price that is not subject to increase, i.e., adjustment on the basis of the Vendor’s cost experience in performing the Contract</td>
</tr>
<tr>
<td>FOIA</td>
<td>Freedom of Information Act</td>
</tr>
<tr>
<td>FTP</td>
<td>File Transfer Protocol</td>
</tr>
<tr>
<td>Fully Loaded</td>
<td>Rates are inclusive of all allowable expenses, including, but not limited to: meals, hotel/housing, airfare, car rentals, car mileage, and out of pocket expenses</td>
</tr>
<tr>
<td>GAAP</td>
<td>Generally Accepted Accounting Principles</td>
</tr>
<tr>
<td>GL</td>
<td>General Ledger</td>
</tr>
<tr>
<td>Governor and Executive Council</td>
<td>The New Hampshire Governor and Executive Council.</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>HTTPS</td>
<td>Hypertext Transfer Protocol Secure</td>
</tr>
<tr>
<td>Identification and Authentication</td>
<td>Supports obtaining information about those parties attempting to log on to a system or application for security purposes and the validation of those users</td>
</tr>
<tr>
<td>IDMS</td>
<td>Integrated Data Management System</td>
</tr>
<tr>
<td>Implementation</td>
<td>The process for making the System fully operational for processing the Data.</td>
</tr>
<tr>
<td>Implementation Plan</td>
<td>Sets forth the transition from development of the System to full operation, and includes without limitation, training, business and technical procedures.</td>
</tr>
<tr>
<td>Information Technology (IT)</td>
<td>Refers to the tools and processes used for the gathering, storing, manipulating, transmitting, sharing, and sensing of information including, but not limited to, Data processing, computing, information systems, telecommunications, and various audio and video technologies.</td>
</tr>
<tr>
<td>Input Validation</td>
<td>Ensure the application is protected from buffer overflow, cross-site scripting, SQL injection, and canonicalization</td>
</tr>
<tr>
<td>Intrusion Detection</td>
<td>Supports the detection of illegal entrance into a computer system</td>
</tr>
<tr>
<td>Invoking Party</td>
<td>In a dispute, the party believing itself aggrieved</td>
</tr>
<tr>
<td>IRP</td>
<td>International Registration Plan</td>
</tr>
<tr>
<td>JDBC</td>
<td>Java Database Connectivity</td>
</tr>
<tr>
<td>JXDD</td>
<td>Justice XML Data Dictionary</td>
</tr>
<tr>
<td>Key Project Staff</td>
<td>Personnel identified by the State and by the contracted vendor as essential</td>
</tr>
<tr>
<td><strong>Licensee</strong></td>
<td>The State of New Hampshire</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td><strong>MA</strong></td>
<td>Municipal Agent</td>
</tr>
<tr>
<td><strong>MAAP</strong></td>
<td>Municipal Agent Automation Project</td>
</tr>
<tr>
<td><strong>MIDS</strong></td>
<td>Marquis ID Systems</td>
</tr>
<tr>
<td><strong>Modification</strong></td>
<td>The core System does not contain the functionality and it must be added to meet the requirements of the RFP</td>
</tr>
<tr>
<td><strong>MOTS</strong></td>
<td>Modifiable-Off-The-Shelf</td>
</tr>
<tr>
<td><strong>NCIC</strong></td>
<td>National Crime Information Center</td>
</tr>
<tr>
<td><strong>NH</strong></td>
<td>New Hampshire or State of New Hampshire</td>
</tr>
<tr>
<td><strong>NHDMV</strong></td>
<td>New Hampshire Division of Motor Vehicles</td>
</tr>
<tr>
<td><strong>NH RSA</strong></td>
<td>New Hampshire Revised Statutes Annotated - The codified law of the state subordinate to the New Hampshire State Constitution.</td>
</tr>
<tr>
<td><strong>NCS</strong></td>
<td>Network Control Software (AAMVA)</td>
</tr>
<tr>
<td><strong>NMVTIS</strong></td>
<td>National Motor Vehicle Title Information System (AAMVA)</td>
</tr>
<tr>
<td><strong>Non Exclusive Contract</strong></td>
<td>A contract executed by the State that does not restrict the State from seeking alternative sources for the Deliverables or Services provided under the Contract.</td>
</tr>
<tr>
<td><strong>Non-Software Deliverables</strong></td>
<td>Deliverables that are not Software Deliverables or Written Deliverables, e.g., meetings, help support, services, other</td>
</tr>
<tr>
<td><strong>Normal Business Hours</strong></td>
<td>Normal Business Hours – 8:00 AM to 5:00 PM (ET), Monday through Friday excluding State of New Hampshire holidays. State holidays are: New Year’s Day, Martin Luther King Day, President’s Day, Memorial Day, July 4th, Labor Day, Veterans Day, Thanksgiving Day, the day after Thanksgiving Day, and Christmas Day. Specific dates will be provided</td>
</tr>
<tr>
<td><strong>Notice to Proceed (NTP)</strong></td>
<td>The State Contract Manager’s written direction to the Vendor to begin work on the Contract on a given date and time</td>
</tr>
<tr>
<td><strong>ODLR</strong></td>
<td>Online Driver License Renewal</td>
</tr>
<tr>
<td><strong>Operating System</strong></td>
<td>System is fully functional, all Data has been loaded into the System, is available for use by the State in its daily operations.</td>
</tr>
<tr>
<td><strong>Operational</strong></td>
<td>The System is operating and fully functional, all Data has been loaded; the System is available for use by the State in its daily operations, and the State has issued an Acceptance Letter.</td>
</tr>
<tr>
<td><strong>Order of Precedence</strong></td>
<td>The order in which Contract/Documents control in the event of a conflict or ambiguity. A term or condition in a document controls over a conflicting or ambiguous term or condition in a document that is lower in the Order of Precedence</td>
</tr>
<tr>
<td><strong>OWASP</strong></td>
<td>Open Web Application Security Project</td>
</tr>
<tr>
<td><strong>PA-DSS</strong></td>
<td>Payment Application Data Security Standard is the global security standard created by the Payment Card Industry Security Standards Council (PCI SSC).</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>PCI-DSS</td>
<td>Payment Card Industry - Data Security Standard is a proprietary information security standard created by the Payment Card Industry Security Standards Council (PCI SSC).</td>
</tr>
<tr>
<td>PDPS</td>
<td>Problem Driver Pointer System (AAMVA)</td>
</tr>
<tr>
<td>POS</td>
<td>Point of Sale</td>
</tr>
<tr>
<td>Project</td>
<td>The planned undertaking regarding the entire subject matter of an RFP and Contract and the activities of the parties related hereto.</td>
</tr>
<tr>
<td>Project Management Plan</td>
<td>A document that describes the processes and methodology to be employed by the Vendor to ensure a successful project.</td>
</tr>
<tr>
<td>Project Managers</td>
<td>The persons identified who shall function as the State’s and the Vendor’s representative with regard to Review and Acceptance of Contract Deliverables, invoice sign off, and review and approval of Change Requests (CR) utilizing the Change Control Procedures (CCP).</td>
</tr>
<tr>
<td>Project Schedule</td>
<td>The overall schedule of activities for the Project created in accordance with the Contract. The plan and delineation of tasks, activities and events to be performed and Deliverables to be produced under the Project as specified in Section 3.1.3: Project Schedule. The Project Schedule shall include a detailed description of the Schedule, tasks/activities, Deliverables, critical events, task dependencies, and the resources that would lead and/or participate on each task.</td>
</tr>
<tr>
<td>Project Staff</td>
<td>State personnel assigned to work with the Vendor on the project</td>
</tr>
<tr>
<td>Project Team</td>
<td>The group of State employees and contracted Vendor’s personnel responsible for managing the processes and mechanisms required such that the Services are procured in accordance with the Project Schedule on time, on budget and to the required specifications and quality</td>
</tr>
<tr>
<td>Proposal</td>
<td>The Vendor’s response submitted to the State’s request for a proposal or statement of work.</td>
</tr>
<tr>
<td>Regression Test Plan</td>
<td>A plan integrated into the Project Schedule used to ascertain whether fixes to defects have caused errors elsewhere in the application/process.</td>
</tr>
<tr>
<td>Review</td>
<td>The process of reviewing Deliverables for Acceptance</td>
</tr>
<tr>
<td>Review Period</td>
<td>The period set for review of a Deliverable. If none is specified then the review period is five (5) business days.</td>
</tr>
<tr>
<td>RFP (Request for Proposal)</td>
<td>A Request For Proposal solicits Proposals to satisfy State functional requirements by supplying data processing product and/or Service resources according to specific terms and conditions</td>
</tr>
<tr>
<td>Role/Privilege Management</td>
<td>Supports the granting of abilities to users or groups of users of a computer, application or network</td>
</tr>
<tr>
<td>SAVE</td>
<td>Systematic Alien Verification for Entitlements (AAMVA)</td>
</tr>
<tr>
<td>Schedule</td>
<td>The dates described in the Project Schedule for deadlines for performance of Services and other Project events and activities under the Contract</td>
</tr>
<tr>
<td>Scheduler</td>
<td>Road Test Scheduling Software</td>
</tr>
<tr>
<td>Service Level Agreement</td>
<td>A signed agreement between the Vendor and the State specifying the level</td>
</tr>
<tr>
<td><strong>SLA</strong></td>
<td>of Service that is expected of, and provided by, the Vendor during the term of the Contract.</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Sequential Implementation</strong></td>
<td>Implementation of software modules one after the other until completion.</td>
</tr>
<tr>
<td><strong>Services</strong></td>
<td>The work or labor to be performed by the Vendor on the Project as described in the Contract.</td>
</tr>
<tr>
<td><strong>Software</strong></td>
<td>All custom Software, COTS, and MOTS Software provided by the Vendor under the Contract</td>
</tr>
<tr>
<td><strong>Software Deliverables</strong></td>
<td>COTS and MOTS Software and Enhancements</td>
</tr>
<tr>
<td><strong>Software License</strong></td>
<td>Licenses provided to the State under this Contract</td>
</tr>
<tr>
<td><strong>Solution</strong></td>
<td>The Solution consists of the total Solution, which includes, without limitation, Software and Services, addressing the requirements and terms of the Specifications. The off-the-shelf Software and configured Software customized for the State provided by the Vendor in response to this RFP.</td>
</tr>
<tr>
<td><strong>SP</strong></td>
<td>New Hampshire State Police</td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td>The written Specifications that set forth the requirements which include, without limitation, this RFP, the Proposal, the Contract, any performance standards, Documentation, applicable State and federal policies, laws and regulations, State technical standards, subsequent State-approved Deliverables, and other Specifications and requirements described in the Contract Documents. The Specifications are, by this reference, made a part of the Contract as though completely set forth herein.</td>
</tr>
<tr>
<td><strong>SPOTS</strong></td>
<td>State Police Online Telecommunication System</td>
</tr>
<tr>
<td><strong>SSL</strong></td>
<td>Secure Socket Layer</td>
</tr>
<tr>
<td><strong>SSN</strong></td>
<td>Social Security Number</td>
</tr>
<tr>
<td><strong>SSOLV</strong></td>
<td>Social Security Online Verification System (AAMVA)</td>
</tr>
</tbody>
</table>
| **State** | State is defined as:  
State of New Hampshire  
Department of Safety  
33 Hazen Drive  
Concord, NH 03301  
Reference to the term “State” shall include applicable agencies |
<p>| <strong>State Data</strong> | Any information contained within State systems in electronic or paper format. |
| <strong>State Fiscal Year (SFY)</strong> | The New Hampshire State Fiscal Year extends from July 1st through June 30th of the following calendar year. |
| <strong>Statement of Work (SOW)</strong> | A Statement of Work clearly defines the basic requirements and objectives of a Project. The Statement of Work also defines a high level view of the architecture, performance and design requirements, the roles and responsibilities of the State and the Vendor. The SOW defines the results that the Vendor remains responsible and accountable for achieving. |
| <strong>State Project Leader</strong> | State’s representative with regard to Project oversight. |
| <strong>State Project Manager</strong> | State’s representative with regard to Project management and technical |
| <strong>PM</strong> | matters. Agency Project Managers are responsible for review and Acceptance of specific Contract Deliverables, invoice sign off, and Review and approval of a Change Proposal (CP). |
| <strong>State’s Confidential Records</strong> | State’s information regardless of its form that is not subject to public disclosure under applicable state and federal laws and regulations, including but not limited to RSA Chapter 91-A |
| <strong>SQL DB</strong> | Structured Query Language Database |
| <strong>Subcontractor</strong> | A person, partnership, or company not in the employment of, or owned by, the Vendor, which is performing Services under this Contract under a separate Contract with or on behalf of the Vendor |
| <strong>System</strong> | All Software, specified hardware, and interfaces and extensions, integrated and functioning together in accordance with the Specifications. |
| <strong>TBD</strong> | To Be Determined |
| <strong>TCP/IP</strong> | Transmission Control Protocol/Internet Protocol |
| <strong>Technical Authorization</strong> | Direction to a Vendor, which fills in details, clarifies, interprets, or specifies technical requirements. It must be: (1) consistent with Statement of Work within statement of Services; (2) not constitute a new assignment; and (3) not change the terms, documents of specifications of the SOW. |
| <strong>Term</strong> | Period of the Contract from the Effective Date through the conclusion of all work and warranty periods. |
| <strong>Test Plan</strong> | A plan, integrated in the Project Schedule, to verify the code (new or changed) works to fulfill the requirements of the Project. It may consist of a timeline, a series of tests and test data, test scripts and reports for the test results as well as a tracking mechanism. |
| <strong>Transition Services</strong> | Services and support provided when the contracted vendor is supporting system changes. |
| <strong>UAT</strong> | User Acceptance Test |
| <strong>UNI</strong> | Unified Network Interface (AAMVA) |
| <strong>Unified Implementation</strong> | Implementation of all software modules together at one time. |
| <strong>Unit Test</strong> | Vendor creates their own test data and test scenarios to verify the software they have configured or modified functions properly as defined. |
| <strong>User Acceptance Testing</strong> | Tests done by knowledgeable business users who are familiar with the scope of the Project. They create/develop test cases to confirm the System was configured according to specific user requirements. The test cases and scripts/scenarios should be mapped to business requirements outlined in the user requirements documents. |
| <strong>User Management</strong> | Supports the administration of computer, application and network accounts within an organization |
| <strong>Vendor/Contractor</strong> | The contracted individual, firm, or company that will perform the duties and Specifications of the contract. |
| <strong>Verification</strong> | Supports the confirmation of authority to enter a computer system, application or network |</p>
<table>
<thead>
<tr>
<th><strong>VISION Project</strong></th>
<th>Vehicle Information System In an On-line Network</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Walk Through</strong></td>
<td>A step-by-step review of a specification, usability features before it is handed off to the technical team for implementation</td>
</tr>
<tr>
<td><strong>Warranty Period</strong></td>
<td>A period of coverage during which the contracted vendor is responsible for providing a guarantee for products and services delivered as defined in the contract.</td>
</tr>
<tr>
<td><strong>Warranty Releases</strong></td>
<td>Software releases that are done during the Warranty Period.</td>
</tr>
<tr>
<td><strong>Warranty Services</strong></td>
<td>The Services to be provided by the Vendor during the Warranty Period.</td>
</tr>
<tr>
<td><strong>Work For Hire</strong></td>
<td>Work created or prepared by contracted personnel within the scope of their employment, or a work specially ordered or commissioned for use as a contribution to a collective work. Such work is considered the sole property of the State</td>
</tr>
<tr>
<td><strong>Work Hours</strong></td>
<td>Vendor personnel shall work normal business hours between 8:00 AM and 5:00 PM, eight (8) hour days, forty (40) hour weeks, excluding State of New Hampshire holidays. Changes to this schedule may be made upon agreement with the State Project Manager. However, the State requires an unpaid lunch break of at least thirty (30) minutes be taken after five (5) consecutive hours of work.</td>
</tr>
<tr>
<td><strong>Written Deliverables</strong></td>
<td>Non-Software written deliverable Documentation (letter, report, manual, book, other) provided by the Vendor either in paper or electronic format.</td>
</tr>
<tr>
<td><strong>XML</strong></td>
<td>Extensible Markup Language</td>
</tr>
</tbody>
</table>
APPENDIX A: DETAILED SYSTEM AND INTERFACE REQUIREMENTS

A-1 System Requirements
The purpose of this Request for Proposal (RFP) is to procure a full set of services that will capture images, produce AAMVA compliant credentials and integrate with VISION our Driver Licensing management system. The project is known as VISION Card Creation System (CCS).

The CCS project is funded as an operational expenditure and may result in a contract based on the responses to this RFP. The success and acceptance of this project will be based on the Vendor meeting NH DMV requirements as well as the details identified and documented in the design phase of this project.

The checklist in this section has been structured to ease preparation of the Proposal. All requirements listed in this appendix are mandatory.

A-2 General Requirements Checklist
Vendors shall complete a checklist based on the format detailed in Table A-2. A response is indicated by checking one of the two columns marked as Y or N. Checking one of these columns indicates:

Y = Yes ......................... The proposed System can fulfill the requirement “out of the box” without modification.

N = Not Included........... The proposed system does not provide for the requested functionality.

All Requirements are Mandatory and the Vendor must indicate a response for each requirement listed in the table. If modifications are needed to meet the requirements, those modifications must be included in the cost, otherwise check “Not Included” if the requirement cannot be met.

The Vendor Comments column is to be used to describe how the Vendor’s solution meets the requirement or to describe the effort/timeframe necessary for the solution to be configured or modified to meet the requirement.

Table A-2 General Mandatory Requirements and Deliverables - Vendor Response Checklist

<table>
<thead>
<tr>
<th>Section</th>
<th>No.</th>
<th>Description</th>
<th>Y</th>
<th>N</th>
<th>Vendor Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>A-2-1</td>
<td>System administration must limit the number of people with security access that can grant or change authorizations. Authorize users and client applications to prevent access to inappropriate or confidential data or services.</td>
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<tr>
<td>Architecture</td>
<td>A-2-2</td>
<td>Technology transition shall be a major vendor responsibility throughout the contract and during all phases of implementation and development. In preparing State Staff to use the product the vendor shall include State personnel in all team meetings and shall ensure State personnel are given functional/configuration walkthroughs on the system</td>
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<tr>
<td>Section</td>
<td>No.</td>
<td>Description</td>
<td>Y</td>
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<td>Vendor Comments</td>
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<td></td>
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<td>especially NH unique system configurations.</td>
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<tr>
<td>Changes</td>
<td>A-2-3</td>
<td>Vendor must propose a survivable architecture to automatically transfer operations to failover equipment in the event of production systems failure. A description of the approach for high availability in this application environment must be provided.</td>
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<tr>
<td>Conversion</td>
<td>A-2-4</td>
<td>The Vendor must include all identified legislative changes during the requirements definition phase of this contract as part of the original system requirements.</td>
<td></td>
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</tr>
<tr>
<td>Conversion</td>
<td>A-2-5</td>
<td>Import existing data from current system and test sufficiently to ensure timing and results of data into new data repository. Verify that the data meets all current business rules and requirements.</td>
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<tr>
<td>A-2-6</td>
<td>Data migration from old system to new system: extract/import, not to exceed 48 hours.</td>
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<tr>
<td>A-2-7</td>
<td>The conversion validation testing must replicate the entire flow of the converted data through the new system software solution. Conversion consists of two (2) separate testing phases. First the legacy data must be migrated to the new database and then validated that the data has been committed to the correct fields in the new database. In addition, all reports prior to the conversion on the legacy database should match similar reports run against the data after migration to ensure all information has been converted correctly.</td>
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<tr>
<td>A-2-8</td>
<td>Vendor must test creation of extract file and verify that the data was extracted correctly.</td>
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<tr>
<td>A-2-9</td>
<td>Migration plan must address all the issues associated with data migration including but not limited to data field mapping between systems, data cleanup on legacy system, data migration timelines to ensure availability for appropriate testing schedules.</td>
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<tr>
<td>Data</td>
<td>A-2-10</td>
<td>Data exchange between the external interface and VISION system must be encrypted via a secured transmission.</td>
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<tr>
<td>A-2-11</td>
<td>Vendor must test and demonstrate data sharing among common data components of their system.</td>
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<tr>
<td>Section</td>
<td>No.</td>
<td>Description</td>
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<td>Vendor Comments</td>
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<tr>
<td>Design</td>
<td>A-2-12</td>
<td>Procedures to archive and purge data must be updated based on the processing requirements of the new environment. The vendor, in collaboration with DOS and DoIT, will be responsible for documenting and implementing those revised procedures prior to the implementation date of the new infrastructure; however the new software infrastructure must be configurable to the extent that this requirement can be met.</td>
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<tr>
<td>Disaster Recovery Plan</td>
<td>A-2-13</td>
<td>All documentation must include full, as built, system documentation, user administration documentation, and documentation of any unique NH DMV specific configuration. All documentation must be in Microsoft Word format.</td>
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<tr>
<td></td>
<td>A-2-14</td>
<td>Vendor must provide a Disaster Recovery plan and a Business Continuity plan. This plan must detail how services will be continued if major problems are encountered anywhere in the technology infrastructure or in the event of a disaster at any point in time during the project or post-implementation. The Disaster Recovery procedures must be provided in a check list format. 99.999% (hours of use) uptime is paramount in this environment.</td>
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<tr>
<td></td>
<td>A-2-15</td>
<td>The State team along with the Vendor team must test the Disaster Recovery plan as directed by the State.</td>
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<tr>
<td>Documentation</td>
<td>A-2-16</td>
<td>Vendor must provide end user documentation and shortcut sheets if applicable. Documentation must be in Microsoft Word format.</td>
<td></td>
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<tr>
<td></td>
<td>A-2-17</td>
<td>Vendor must provide a document providing procedures for maintenance including system and data backup, log maintenance and any other procedures identified must be provided.</td>
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<tr>
<td></td>
<td>A-2-18</td>
<td>All user, technical and System Documentation as well as Project Schedules, plans, status reports, and correspondence must be maintained. The response shall describe the formats that will be used to produce the Project Documentation.</td>
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<tr>
<td>Edits</td>
<td>A-2-19</td>
<td>Apply appropriate edits and crosschecks of data to maintain data integrity.</td>
<td></td>
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<tr>
<td>Encryption</td>
<td>A-2-20</td>
<td>Use Secure Sockets Layer (SSL) or equivalent for all sensitive pages traveling on the Intranet/Internet.</td>
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<tr>
<td>Environment</td>
<td>A-2-21</td>
<td>System must have a properly tuned production environment along with end-user training environment and User Acceptance Testing environment.</td>
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<td>Section</td>
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<td>A-2-22</td>
<td></td>
<td>The Vendor is responsible for the installation and configuration of all system and application software required for the development, CERT, UAT, SIT testing and production environments. The Vendor shall work collaboratively with the Department of Information Technology (DoIT) staff to implement, install and configure the required software in accordance with DoIT standard methods. Any variations from the DoIT standards that are required for successful system implementation will be explained and documented by the vendor.</td>
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<tr>
<td>GUI</td>
<td>A-2-23</td>
<td>The Vendor will provide screens that are user friendly and easily maneuverable for displaying information.</td>
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<td></td>
<td>A-2-24</td>
<td>The application shall not display cryptic or error and exception handling when not executing as designed in the production environment. The system shall display user friendly, common terminology as agreed to between the Vendor and State during System Design and UAT testing. All errors shall be recorded to error logs for further use.</td>
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<td></td>
<td>A-2-25</td>
<td>Any modifications, outside of the current State safety standards, to Internet Explorer or printer settings must be provided to the State and should not affect the use of any other Department of Safety standard applications.</td>
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<tr>
<td>Interface</td>
<td>A-2-26</td>
<td>The vendor must provide specification documentation for all interfaces incorporated into the new system. The interface documentation must provide instructions for connectivity and communication with the new system.</td>
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<tr>
<td>Performance</td>
<td>A-2-27</td>
<td>Average response time must be two seconds or less.</td>
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<td></td>
<td>A-2-28</td>
<td>The technology solution must meet the current service level. The solution must provide an average response time of three seconds or less for each service tested during Tuning and Stress testing. Those which fail to meet this requirement shall require approval by the State or shall be required to be re-worked until the objective is met.</td>
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<tr>
<td>Plan</td>
<td>A-2-29</td>
<td>Vendor must provide a detailed implementation plan to be incorporated into the VISION project plan.</td>
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<td></td>
<td>A-2-30</td>
<td>The Implementation plan must be reviewed and approved by the State Technical Team.</td>
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<td></td>
<td>A-2-31</td>
<td>Vendor must provide a systems backup plan that minimizes downtime.</td>
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<tr>
<td>Section</td>
<td>No.</td>
<td>Description</td>
<td>Y</td>
<td>N</td>
<td>Vendor Comments</td>
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<tr>
<td>Project Management</td>
<td>A-2-32</td>
<td>The Vendor will provide detailed biweekly status reports on the progress of the Project, which will include but not limited to expenses, implementation effort and progress to date.</td>
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<td></td>
<td>A-2-33</td>
<td>The application must provide methods to enforce constraints and limitation for customized queries and reports to prevent the degradation of the performance of the production system.</td>
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<td></td>
<td>A-2-34</td>
<td>The application must provide both predefined and custom ad-hoc reports. These reports must be capable of being processed and validated with NH DMV data both on a scheduled basis or as requested on demand.</td>
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<td></td>
<td>A-2-35</td>
<td>Vendor must execute and verify accuracy of all reports at various intervals throughout testing.</td>
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<tr>
<td>Rollback</td>
<td>A-2-36</td>
<td>Provide a rollback process to the legacy system if serious problems arise during implementation</td>
<td></td>
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<tr>
<td>Security</td>
<td>A-2-37</td>
<td>Provide screens that allow the users, with appropriate levels of security, to perform corrective actions on data being captured that may have been reported in error, while maintaining appropriate audit trail of who made the change, when it was made, and comments/remarks as to why a change was necessary. System should be configurable to send all logs to a centralized log server for security purposes.</td>
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<td></td>
<td>A-2-38</td>
<td>Single sign-on (SSO) must be used for system solution per authorization tables.</td>
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<td></td>
<td>A-2-39</td>
<td>Password must not be readable on the user screen.</td>
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<tr>
<td></td>
<td>A-2-40</td>
<td>Users must change their password a minimum of once every 90 days and edit rules to comply with State strong password standards.</td>
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<td></td>
<td>A-2-41</td>
<td>The password lifecycle must be a configurable parameter.</td>
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<td></td>
<td>A-2-42</td>
<td>The number of logon attempts before lockout must be a configurable parameter.</td>
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<td></td>
<td>A-2-43</td>
<td>System must prevent a user from accessing the system when the user has not logged on for a period of time. The timeout period must be a configurable parameter.</td>
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<td></td>
<td>A-2-44</td>
<td>System must include an automatic log off feature to log the user off the system after a specified timeout period of inactivity. The automatic log off feature must be a configurable parameter that represents an amount of time.</td>
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<tr>
<td>Section</td>
<td>No.</td>
<td>Description</td>
<td>Y</td>
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<td>Vendor Comments</td>
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<tr>
<td>A-2-45</td>
<td></td>
<td>System must provide security access utilizing unique user roles or needs based on these roles as authorized and identified by the State.</td>
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<tr>
<td>A-2-46</td>
<td></td>
<td>Application code must prevent single user simultaneous logins based on user profiles. Simultaneous logins must be a configurable level of security for authorized individuals.</td>
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<tr>
<td>A-2-47</td>
<td></td>
<td>System must enforce complex passwords of ten characters or more in accordance with DoIT’s statewide User Account and Password Policy. System must track use and report on stale accounts per the State Policy. (This policy will be made available to the vendor once the contract has been awarded.)</td>
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<tr>
<td>A-2-48</td>
<td></td>
<td>A database audit log must record all modifications and inquiries to data.</td>
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<tr>
<td>A-2-49</td>
<td></td>
<td>Enforce unique user names.</td>
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<tr>
<td>A-2-50</td>
<td></td>
<td>Encrypt passwords in transmission and at rest within the database.</td>
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<tr>
<td>A-2-51</td>
<td></td>
<td>The application shall not store authentication credentials or sensitive data in its code. At a minimum, the application shall be tested as outlined in the Open Web Application Security Project (OWASP) Top Ten (<a href="http://www.owasp.org/index.php/OWASP_Top_Ten_Project">http://www.owasp.org/index.php/OWASP_Top_Ten_Project</a>) with the results provided to the State upon completion.</td>
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<tr>
<td>A-2-52</td>
<td></td>
<td>The application must allow a user to explicitly terminate a session. No remnants of the prior session should then remain on the user workstation. The application shall log all activities.</td>
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<tr>
<td>A-2-53</td>
<td></td>
<td>Subsequent application enhancements, upgrades and any customization shall not remove or degrade security requirements.</td>
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<tr>
<td>A-2-54</td>
<td></td>
<td>Ensure application has been tested and hardened to prevent critical application security flaws.</td>
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</table>
A-3 Deliverables and Milestones

Table A-3 indicates the major deliverables and milestones for the Project. The milestones may be modified to some extent to reflect the Vendor’s project deployment strategy. These stages represent receipt and acceptance points for major deliverables.

Just as Table A-3 may be customized with respect to milestones, it may also be customized to reflect the way the Vendor will sequence deployment of the subsystems. Vendors may submit a single Table A-3, a separate Table A-3 for each deliverable or a Table A-3 for each group of deliverables the vendor wishes the state to treat as a unit.

Table A-3 Project Activity and Deliverable/Milestone Table

<table>
<thead>
<tr>
<th>Name of Mandatory Project Activity and Deliverable/Milestone</th>
<th>Delivery Type</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Management Plan</td>
<td>Written</td>
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<tr>
<td>Initiation Phase (Conduct Kickoff)</td>
<td>Non-Software</td>
<td></td>
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<tr>
<td>Communications Plan to be added to the VISION Implementation Plan</td>
<td>Written</td>
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<tr>
<td>Change Management Plan to be added to the VISION Implementation Plan</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Interface Plan and Design/Capability</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Data Conversion Plan and Design</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Risk and Issue Management Plan</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Implementation Plan to be added to the VISION Implementation Plan</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Comprehensive Training Plan, Materials, and Curriculum to be added to the VISION Training Plan</td>
<td>Written</td>
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</tr>
<tr>
<td>On-Site Technical Support Plan</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Documentation of Operational Procedures</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Software Configured to Satisfy State Requirements</td>
<td>Software</td>
<td></td>
</tr>
<tr>
<td>Conduct Volume / Stress Testing &amp; Tuning</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Support User Acceptance Testing</td>
<td>Written</td>
<td></td>
</tr>
<tr>
<td>Support Training</td>
<td>Non-Software</td>
<td></td>
</tr>
<tr>
<td>System Acceptance</td>
<td>Non-Software</td>
<td></td>
</tr>
<tr>
<td>Project Close Out</td>
<td>Written</td>
<td></td>
</tr>
</tbody>
</table>
A-4 Detailed Interface Requirements

This section identifies the interfaces to the VISION system.

VISION will implement both Online and Batch interfaces with CCS product.

Please see Attachment 1 which is the online batch interface document (911a CIS (online) Interface HLD for Interface details).

**Online Interfaces**

Online interface will be implemented as web services.

CCS will expose web services for:

- Image Capture Process
- Temporary Credential Issuance Process

For the Image Capture Process, VISION will call a web service on CCS server to initiate the process of capturing the photo and signature images. Only basic customer data will be passed to create the CIS record.

For the Temporary Credential Creation Process, VISION will call a web service on CCS server to initiate the process of creating the temporary credential. The photo/signature previously captured by the CCS will be used. The additional demographics data required for credential production will be provided.

VISION will expose web service:

- Post Images Process

After the Image Capture Process is completed, CCS will call a web service on VISION server to pass the captured photo and signature images. VISION will also store these images internally.

Please see Attachment 2 which is the batch interface document (911b CIS (batch) Interface HLD for Interface details).

**Batch Interfaces**

Batch interfaces will be implemented as an FTP file exchanges between VISION server and CCS server.

File exchange processes:

- Permanent Credential Creation Process
- Image Removal Process

For Permanent Credential Issuance Process, VISION will pass a file with records for each permanent credential to be produced. CCS will use the photo/signature images on file. CCS will return a response file back to VISION with date/time and status of the credential production.

For Image Removal Process, VISION will pass a file with records for each credential record that will have the photo images removed from the CCS server. CCS will return a response file back to VISION with date/time and status of image removal.
APPENDIX B: DETAILED TESTING REQUIREMENTS

B-1 Testing Requirements

All testing and acceptance addressed herein shall apply to testing the System. This shall include planning, test scenario development, Data, and System preparation for testing, and execution of unit testing, system integration testing, conversion/migration testing, installation testing, performance and stress testing, and support of the State during user Acceptance Testing (UAT). All of these areas must include the following testing requirements:

- State resources shall participate in all testing including but not limited to CERT, SIT, UAT and Performance while it is underway.
- The State IT resources and user community shall conduct UAT testing.
- Vendor must provide UAT test cases (test scenarios) to cover all features/functions defined for each subsystem. State users will also provide UAT test cases.
- Vendor is responsible to provide UAT assistance at no additional cost, primarily for coordination, bug tracking, issue resolution, status preparation, and analysis.
- System testing requires test connections current or proposed that become active to all system interfaces as identified in APPENDIX A-4: Detailed Interface Requirements. At no time will un-sanitized production data leave the premises.
- Performance Tuning and Stress testing must be performed on a copy of populated production formatted database utilizing a predetermined agreed upon simulation which contains transaction types normally found in the normal workload in relatively accurate proportions.
- Performance Tuning and Stress testing must be done on a copy of populated production formatted database.
- Quality assurance testing must be performed to determine how the software interacts with the other modules and other interfaces. Vendor shall provide Independent Verification and Validation of QA.
- Pre-implementation testing (parallel testing, UAT etc.) must be performed using a copy of migrated database.
- Vendor must provide UAT test cases (test scenarios) to cover all features/functions defined for each subsystem. State users will also provide UAT test cases.
- The new system must be able to support the use of automated test scripts to validate the UAT, SIT and production business rules.
- Compatibility of different pre-approved State browsers must be tested to make sure the application behaves in the same way in these browsers.
- Vendor is responsible to provide results of all application security tests, both manual and automated, to the Department of Safety. Such tests shall be done at no additional cost to the State.

B-2 Test Planning and Preparation

The Test Plan will guide all testing. The Vendor provided, State-approved, Test Plan will include, at a minimum, identification, preparation, and documentation of planned testing, a requirements traceability matrix, test variants, test scenarios, test cases, test scripts, test data, test phases, unit tests, expected results, and a tracking method for reporting actual versus expected results as well as all errors and problems identified during test execution.

It is crucial that training and testing activities not be abbreviated in order to meet Project Implementation Schedules. Therefore, the State requires that the testing activities be represented both in terms of effort and duration.
Vendors must disclose in their proposals the scheduling assumptions used in regard to the Client resource efforts during testing.

State testing will commence upon the Vendor Project Manager’s certification, in writing, that the Vendor’s own staff has successfully executed all prerequisite Vendor testing, along with reporting the actual testing results, prior to the start of any testing executed by State staff.

The State will commence its testing within five (5) business days of receiving Certification from the Vendor that the State’s personnel have been trained and the System is installed, configured, complete, and ready for State testing. The testing will be conducted by the State in an environment independent from the Vendor’s test environment. The Vendor must assist the State with testing in accordance with the Test Plan and the Project Schedule, utilizing test and live Data to validate reports, and conduct stress and performance testing, at no additional cost.

**B-3 Testing**

Testing begins upon completion of the Software configuration as required and user training according to the Project Schedule. Testing ends upon issuance of a letter of UAT Acceptance by the State.

Vendor must demonstrate that their testing methodology can be integrated with the State standard methodology.

**B-3.1 Unit Testing**

Application components are tested on an individual basis to verify that the inputs, outputs, and processing logic of each application component functions without errors. Unit Testing is performed in either the development environment or a testing environment.

The goal is to find errors in the smallest unit of Software. If successful, subsequent integration testing should only reveal errors related to the integration between application components.

**B-3.2 System Integration Testing**

a) Validates the integration between the individual unit application components and verifies that the new System meets defined requirements and supports execution of interfaces and business processes. The Systems Integration Test is performed in a test environment.

b) Emphasizes end-to-end business processes and the flow of information across applications (IF APPROPRIATE). It includes all key business processes and interfaces being implemented, confirms data transfers with external parties, and includes the transmission or printing of all electronic and paper documents.

c) The State will conduct System Integration Testing, utilizing scripts developed, as identified in the Test Plan, to validate the functionality of the System and its interfaces. The State will also use System Integration Testing to validate modifications, fixes and other System interactions with the Vendor supplied Software Solution.

**B-3.3 Conversion /Migration Validation Testing**

The Conversion/Migration Validation Testing should replicate the entire flow of the converted data through the Software Solution. As the Software Solution is interfaced to legacy or third-party applications, the testing verifies that the resulting converted legacy data performs correctly. This approach must be demonstrated and agreed upon within the first 60 days.
B-3.4 **Installation Testing**

Application components are installed in the System test environment to test the installation routines and are refined for the eventual production environment. This activity serves as a dry run of the installation steps in preparation for configuring the production System.

B-3.5 **User Acceptance Testing (UAT)**

The User Acceptance Test (UAT) is a verification process performed in a copy of the production environment. The User Acceptance Test verifies System functionality against predefined Acceptance criteria that support the successful execution of approved business processes.

a.) The Vendor’s Project Manager must certify in writing, that the Vendor’s own staff has successfully executed all prerequisite Vendor testing, along with reporting the actual testing results prior to the start of any testing executed by State staff.

b.) The State will be presented with a State approved Test Plan coordinated with the VISION user acceptance testing plan, test scenarios, test cases, test scripts, test data, and expected results, as well as written Certification of the Vendor’s having completed the prerequisite tests, prior to the State staff involvement in any testing activities.

c.) UAT will also serve as a performance and stress test of the System. It may cover any aspect of the new System, including administrative procedures such as backup and recovery. The results of the UAT provide evidence that the new System meets the User Acceptance criteria as defined in the Project Schedule.

B-3.6 **Performance Tuning and Stress Testing**

1. **Scope**

The scope of performance testing shall measure the system level metrics critical for the development of the applications infrastructure and operation of the applications in the production environment. It will include the measurement of response rates of the application for end-user transactions and resource utilization (of various servers and networks) under various load conditions. These response rates shall become the basis for changes and retesting until optimum system performance is achieved.

The application transactions shall be identified with specific roles and selected transactions shall be recorded for the performance measurements. These will be compared to baselines to determine if object and/or system performance increases as changes are made.

Performance testing shall consider the full scope of the application infrastructure with emphasis on the most heavily used or shared transactions. Performance testing of the application will profile the identified user transactions and assist in identifying performance gaps to improve the most critical parts of the applications.

Performance testing and tuning shall occur in the final production environment and shall use a copy of the final production database to provide the best results.

Vendor must lead this effort. Responsibilities include identifying appropriate tunable parameters and their default and recommended settings, developing scripts which accurately reflect business load and coordinating reporting of results.
2. Test Types

Performance testing shall use two different types of tests to determine the stability of the application. They are baseline tests and load tests.

3. Baseline Tests

Baseline tests shall collect performance data and load analysis by running scripts where the output is broken down into business transactions or functions. The test is like a single user executing a defined business transaction. During baseline testing, each individual script is run to establish a baseline for transaction response time, throughput and other user-based metrics. Usually each business transaction is executed multiple times during a single test run to obtain an average for the user-based metrics required for the performance testing evaluations. It must be noted that changes made to the code after baseline testing is completed will skew the results collected to date. All effort will be made to provide a code test base that is tested in the environment for problems prior to the establishment of the baseline which is used in future testing and tuning efforts. Any changes introduced into the environment after performance testing has started can compromise the accuracy of the results and will force a decision to be made whether baseline results need to be recreated.

4. Load Tests

Load testing will determine if the behavior of a system can be sustained over a long period of time while running under expected conditions. Load test helps to verify the ability of the application environment under different load conditions based on work load distribution. System response times and utilization is measured and recorded.

5. Tuning

Tuning will occur during both the development of the application and load testing. Tuning is the process whereby the application performance is maximized. This can be the result of making code more efficient during development as well as making tuning parameter changes to the environment.

For infrastructure tuning, parameters will be identified for all components prior to undertaking the load testing effort. This should include a list of the variables, their definitions, the default settings, range of acceptable settings and the settings as testing begins. This will permit the team to identify the areas of most potential gain and a starting point. Tuning is a process which is repeated until the team feels that the systems are running at or near optimum performance.

6. Implementing Performance and Stress Test

Performance and Stress testing tools used by the State of New Hampshire are IBM Rational Performance Tester software. The Vendor is open to use any other product including open source product with the approval of the State Team. Consideration must be given to licensing with respect to continued use for regression testing if tools, other than those which we are licensed for, are being recommended for this part of the project.

7. Scheduling Performance and Stress Testing

Vendor shall perform test planning. The steps for planning include identification of application functionality as well as what percentage of normal daily use is represented by
each function. This information will become the foundation for scripting so that tests closely represent what loads in production will look like.

Vendor shall provide definition and expectations from testing. This definition should include who is in charge of testing and coordinating results, anticipated run times, logs required for tracking, their locations and which technician is responsible to track and provide them following each test to the team.

Initial test runs shall be completed to establish that the tests and data sets can be run to completion without errors. The ratio of types of transactions which makeup the test shall be reviewed prior to the beginning of testing and then again once testing has begun to make sure that testing accurately reflects the system performing in production.

Initial tests shall be used to establish a baseline from which all subsequent tests will be compared. Tests will be considered for baseline status once two tests have been run within 2% of each other in key and overall performance areas. No changes to the test scripts or data sets, with the exception of restores after each test, can be performed to the test environment once tuning has begun so as not to damage the comparison to baseline results. The systems must be restarted prior to each test run to assure all cache is cleaned out. All effort will be made to run these tests at a time when system and network infrastructure utilization doesn’t impact the results. Tests will be run in close proximity to our infrastructure so as to eliminate the public network from our environment.

Post-test reporting and result assessment will be scheduled following each test. The team will compare these results to the baseline and a determination must be made to make additional changes to the parameter being tuned or return to the prior configuration and select another parameter to tune while keeping in mind that significant changes to any one parameter may require the retesting of some others. Careful work on identifying dependencies up front should minimize this impact.

If defects are identified in the application during testing they will be recorded; however, changes to the application code should be avoided if possible so as not to affect baseline comparisons. If a change to the application is required new baselines will be established (and possibly the execution of prior tests to validate changes with the new application) before testing can continue.

When performing capacity testing against a GUI the focus will be on the ability of the interface to respond to user input.

During stress/load testing the tester will attempt to stress or load an aspect of the system to the point of failure. The goal is to determine any weak points in the system architecture. The tester will identify peak load conditions at which the program will fail to handle required processing loads within required time spans.

During Performance testing the tester will design test case scenarios to determine if the system meets the stated performance criteria (i.e. A Login request shall be responded to in 1 second or less under a typical daily load of 1000 requests per minute.). In both cases the tester will determine the capacity of the system under a known set of conditions.

8. Regression Testing

As a result, of the user testing activities, problems will be identified that require correction. The State will notify the Vendor of the nature of the testing failure in writing. The Vendor
will be required to perform additional testing activities in response to State and/or user problems identified from the testing results.

Regression testing means selective re-testing to detect faults introduced during the modification effort, both to verify that the modifications have not caused unintended adverse effects, and to verify that the modified and related (possibly affected) System components still meet their specified requirements.

a) For each minor failure of an Acceptance Test, the Acceptance Period shall be extended by corresponding time defined in the Test Plan.

b) The Vendor shall notify the State no later than <five (5) business days> from the Vendor’s receipt of written notice of the test failure when the Vendor expects the corrections to be completed and ready for retesting by the State. The Vendor will have up to five (5) business days to make corrections to the problem unless specifically extended in writing by the State.

c) When a programming change is made in response to a problem identified during user testing, a regression Test Plan should be developed by the Vendor based on the understanding of the program and the change being made to the program. The Test Plan has two objectives:

1. Validate that the change/update has been properly incorporated into the program; and
2. Validate that there has been no unintended change to the other portions of the program.

d) The Vendor will be expected to:

1. Create a set of test conditions, test cases, and test data that will validate that the change has been incorporated correctly;
2. Create a set of test conditions, test cases, and test data that will validate that the unchanged portions of the program still operate correctly; and
3. Manage the entire cyclic process.

e) The Vendor will be expected to execute the regression test, provide actual testing results, and certify its completion in writing to the State prior to passing the modified Software application to the users for retesting.

In designing and conducting such regression testing, the Vendor will be required to assess the risks inherent to the modification being implemented and weigh those risks against the time and effort required for conducting the regression tests. In other words, the Vendor will be expected to design and conduct regression tests that will identify any unintended consequences of the modification while taking into account Schedule and economic considerations.

In the Proposal the Vendor must acknowledge their responsibilities for regression testing as described in this section.


IT Security involves all functions pertaining to the securing of State Data and Systems through the creation and definition of security policies, procedures and controls covering such areas as identification, authentication and non-repudiation.
All components of the Software shall be reviewed and tested to ensure they protect the State’s hardware and software and its related Data assets.

<table>
<thead>
<tr>
<th>Service Component</th>
<th>Defines the set of capabilities that:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification and Authentication</td>
<td>Supports obtaining information about those parties attempting to log onto a system or application for security purposes and the validation of users.</td>
</tr>
<tr>
<td>Access Control</td>
<td>Supports the management of permissions for logging onto a computer or network.</td>
</tr>
<tr>
<td>Encryption</td>
<td>Supports the encoding of data for security purposes.</td>
</tr>
<tr>
<td>Intrusion Detection</td>
<td>Supports the detection of illegal entrance into a computer system.</td>
</tr>
<tr>
<td>Verification</td>
<td>Supports the confirmation of authority to enter a computer system, application or network.</td>
</tr>
<tr>
<td>Digital Signature</td>
<td>Guarantees the unaltered state of a file.</td>
</tr>
<tr>
<td>User Management</td>
<td>Supports the administration of computer, application and network accounts within an organization.</td>
</tr>
<tr>
<td>Role/Privilege Management</td>
<td>Supports the granting of abilities to users or groups of users of a computer, application or network.</td>
</tr>
<tr>
<td>Audit Trail Capture and Analysis</td>
<td>Supports the identification and monitoring of activities within an application or system.</td>
</tr>
<tr>
<td>Input Validation</td>
<td>Ensures the application is protected from buffer overflow, cross-site scripting, SQL injection, and unauthorized access of files and/or directories on the server.</td>
</tr>
</tbody>
</table>

In their proposal, the Vendors must acknowledge their responsibilities for security testing. Tests shall focus on the technical, administrative and physical security controls that have been designed into the System architecture in order to provide the necessary confidentiality, integrity and availability. Tests shall, at a minimum, cover each of the service components. Test procedures are to include Penetration Tests (pen test) or code analysis and review. All security testing shall be performed by a third party vendor in a means approved by the Vendor, the Department of Information Technology and the Department of Safety.

Prior to the System being moved into production the Vendor shall provide results of all security testing to the Department of Information Technology for review and acceptance. All Software and hardware shall be free of malicious code.

10. System Acceptance

Upon successful conclusion of all required testing and successful System deployment, the State will issue a letter of System Acceptance and the respective Warranty Period shall commence as described in Section 3.4.7: Warranty Period.
APPENDIX C: PRICING WORKSHEETS

A Vendor’s Cost Proposal must be based on the worksheets formatted as described in this Appendix.

All costs for all equipment and services must be represented in a fully loaded per card cost. Card production over the last 5 years is as follows:

FY 2014 – 344,427
FY 2013 – 356,816
FY 2012 – 348,803
FY 2011 – 203,869
FY 2010 – 304,673

C-1 Annual Service and Support Pricing Worksheet

Table C-1A: YEARS 1 THROUGH 5 PER CARD COST ON SITE DMV PRINT FARM

<table>
<thead>
<tr>
<th>Features</th>
<th>Year 1 Cost</th>
<th>Year 2 Cost</th>
<th>Year 3 Cost</th>
<th>Year 4 Cost</th>
<th>Year 5 Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Card (includes support, maintenance, annual card design review, and ongoing licensing costs for 2 level 1, 2 level 2 and 1 level 3 security features)</td>
<td></td>
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<td></td>
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<tr>
<td>Temporary Card</td>
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<tr>
<td>Additional Work Station</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Optional Additional Level 1 security feature</td>
<td></td>
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<tr>
<td>Optional Additional Level 2 security feature</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Total–Per Card Cost</td>
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</table>

Table C-1B: OPTIONAL 2 YEAR EXTENSION – PER CARD COST ON SITE DMV PRINT FARM

<table>
<thead>
<tr>
<th>Features</th>
<th>Year 6 Cost</th>
<th>Year 7 Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Card (includes support, maintenance, annual card design review, and ongoing licensing costs for 2 level 1, 2 level 2 and 1 level 3 security features)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temporary Card</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Optional Additional Level 2 security feature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total–Per Card Cost</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table C-2A:  YEARS 1 THROUGH 5 PER CARD COST VENDOR SITE PRINT FARM

<table>
<thead>
<tr>
<th>Features</th>
<th>Year 1 Cost</th>
<th>Year 2 Cost</th>
<th>Year 3 Cost</th>
<th>Year 4 Cost</th>
<th>Year 5 Cost</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Optional Additional Level 2 security feature</td>
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<tr>
<td>Total–Per Card Cost</td>
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Table C-B:  OPTIONAL 2 YEAR EXTENSION – PER CARD COST VENDOR SITE PRINT FARM

<table>
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<tr>
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<tr>
<td>Total–Per Card Cost</td>
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</table>
APPENDIX D TOPICS FOR MANDATORY NARRATIVE RESPONSES

Vendors must limit narrative responses describing the Software, Technical, Services and Project Management topics defined for this RFP project. The following table identifies specific topics for narratives. A page limit is identified for each topic. If a response to a topic exceeds the page limit, the State will limit its consideration to the prescribed page limit.

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<td>Topic 2 - Software Releases</td>
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<td>Topic 6 - Data Assurance</td>
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<td>Topic 8 - Support and Administration Approach</td>
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<td>Topic 20 - Volume Stress Testing and Tuning</td>
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<tr>
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<tr>
<th>D-4 General Topics</th>
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</tr>
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<tr>
<td>Topic 31 – Credential and Letter Insertion</td>
<td>3</td>
</tr>
</tbody>
</table>
D-1 System Architecture and Operation

This section provides a series of topics related to the proposed system that the State of New Hampshire will consider in the VISION Card Creation System (CCS).

Topic 1 - Software Architecture

Provide a description of the technical architecture of the proposed solution. The following topics, at a minimum, should be addressed:

- Is the proposed software based upon an n-tiered, browser-based architecture?
- Does any part of the proposed solution require software (other than a browser) to be installed on the client workstation? If yes, describe the software that must be installed and the access authorization level required to install it.
- If you are proposing a browser based solution, describe what browsers your application works with and any future plans for additional browsers in the next eighteen (18) months.
- Are there any components of the System that must reside on another platform?
- What components of the software, such as middleware, are proprietary?
- What is the timeframe for technical obsolescence of the proposed software? (For the purpose of this question, the version of the proposed software would be considered obsolete when support is no longer available.)
- Describe the software, plug-ins or drivers that must be installed on the workstation to support the required functionality.

Topic 2 – Software Releases

The State will evaluate the degree to which the software appears likely to evolve and the burden, if any, of keeping pace with the expected evolution.

Discuss the following aspects of anticipated future releases of the proposed software. Coverage should include but not limited to the following:

- What types (maintenance, enhancement, other) of release are planned?
- What is the historical (past 3 years) and expected frequency of each type of new release?
- What is the current version of the current release?
- How is the content of future releases determined?
- How is the content of a release communicated to the client?
- Do government clients have input through a users’ group or some other mechanism?
- Are enhancements made for specific clients included in future releases?
- What specific enhancements are planned for release within the next 24 months?
- What resources, planning, and technical skills are required to install a release of each type?
- Can components of a release be applied individually or by module without adversely affecting the overall functionality of the system?
- Do configuration settings carry forward from one release to the next or must they be reinstalled?
- Do patches carry forward from one release to the next, or must they be reinstalled?
- How long is a release supported?
Topic 3 – VISION and MAAP Software Updates

VISION is based on a Microsoft Dynamics CRM platform with the Tech Mahindra MOVES framework. A description of VISION is found in the Overview section 1. MAAP is our Vehicle Registration system. A description of MAAP is in the Overview section 1. Please discuss how your solution will co-exist with VISION and MAAP. Please discuss at a minimum:

- What is your approach to accommodating routine MS patches and upgrades?
- What is your approach to accommodating emergency MS patches and upgrades?
- What is the proposed software distribution method for components required by your solution? Can your distribution requirements be met by IBM Endpoint Manager (IEM)?
- What testing is done on vendor patches and upgrades?
- What browser settings are required to support your application?
- Does the application require any group policy settings in order for the application to function with the States standard MS internet explorer?
- Will the CCS application be fully function in a Firefox, Chrome or Safari environment?

Topic 4 - System Security

The State will evaluate the degree to which system issues can be avoided.

Software systems must be reliable, regardless of how they are delivered. The State’s employees and customers expect government services and information to be reliable and available on an ongoing basis to ensure business continuity and record accountability. Describe the system security design and architectural features incorporated into the proposed software. At a minimum, discuss the following:

- The identification and authentication methods used to ensure that users and any interfacing applications are identified and that their identities are properly verified.
- The authorization methods used to ensure that users and client applications can only access data and services for which they have been properly authorized.
- The immunity methods used to ensure that unauthorized malicious programs (e.g., viruses, worms and Trojan horses) do not infect the application.
- The methods used to ensure that communications and data integrity are not intentionally corrupted via unauthorized creation, modification or deletion.
- The methods used to ensure that the parties to interactions with the application cannot later repudiate or rebut those interactions.
- The intrusion detection methods used to ensure the detection and recording of attempted access or modification by unauthorized individuals.
- The privacy methods used to ensure that confidential data and sensitive communications are kept private.
• The system maintenance methods used to ensure that unauthorized system maintenance does not unintentionally disrupt the security mechanisms of the application or supporting hardware.

• The testing methods conducted to load and stress test your software to determine its ability to withstand Denial of Service (DoS) attacks.

• The software patch schedule employed to protect the software from new security vulnerabilities as they arise.

• The ability of the software to be installed in a “locked-down” fashion so as to turn off unnecessary features (user accounts, operating system services, etc.) thereby reducing the software’s security vulnerabilities and attack surfaces available to system hackers and attackers.

Describe the system assurance provisions incorporated into the proposed Software. At a minimum, discuss the following:

• What process or methodology is employed within the proposed software to ensure data integrity?
• To what degree does the approach rely on system assurance capabilities of the relational database management system (RDMS)?
• If multiple databases are employed, what extra procedures are employed to ensure synchronization among databases?
• What out-of-the-box system assurance reports are provided for online and offline processing?

Topic 5 - Environment Setup

The State will evaluate whether proposed environments are sufficient to satisfy project needs, including phased implementation.

• Describe the different software and hardware environments required for the concurrent development, testing, and production of the proposed solution. Discuss how the proposed environments support the implementation of the COTS software system, including all necessary training.

• The State believes that additional software license fees related to establishing environments for normal activities would be inappropriate. If the Proposal differs from this standard, describe and provide rationale for the difference.

Topic 6 - Data Assurance

Describe the assurance provisions incorporated into the proposed Software. At a minimum, discuss the following:

• What process or methodology is employed within the proposed software to ensure data integrity?
STATE OF NEW HAMPSHIRE
DEPARTMENT OF SAFETY DIVISION OF MOTOR VEHICLES
VISION Card Creation System (CCS)
DOS – RFP 2015-072

- To what degree does the approach rely on assurance capabilities of the relational database management system (RDMS)?
- If multiple databases are employed, what extra procedures are employed to ensure synchronization among databases?

Topic 7 - Interface Approach

APPENDIX A-4: Interface:

The CCS must be tightly integrated with the VISION system to provide an efficient and easy to complete workflow for CSRs. The State expects the CCS workstation component to have the capability to be initiated during a VISION transaction. The CCS workstation software is expected to capture the customer image and signature, allow for corrections and any required image enhancements and then transfer the final image and signature to VISION for historical record and maintain the signature and image for card production.

Attachment’s 1 and 2 contain the VISION interface specification.

Please describe:

1) How the CCS workstation component will work with interact with VISION.
2) The workflow for a CSR to capture an image and signature.
3) What image enhancement technologies and quality control methods are included in your software.
4) The process for retaking images if the customer is not satisfied with the image.
5) Any changes or enhancements to the VISION interface Specification that you would recommend.

Topic 8 - Support and Administration Approach

Response Page Limit: 4

The State of NH expects the vendor to provide an on-site presence to support both the production facility and CSR counters. Please discuss the approach to system operation to meet this expectation.

Topic 9 - Backup and Recovery

The State seeks a sound backup and recovery provision as part of the solution that minimizes downtime. Describe the tools used for backup and recovery of applications and data. Describe the impact of the proposed backup process on the operation of the System. Also, address the following:

- Use of and method for logging and journalizing;
- Single points of failure and recommended approaches for their elimination;
- Approach to redundancy/high availability;
- Estimated size of a daily back up;
- How recovery is accomplished and how much if any transaction data can be lost.
- What is the time to regain full system recovery?
The State believes that additional software license fees solely related to redundancy for backup and recovery would be inappropriate. If the Proposal differs from this standard, describe and provide rationale for the difference.

The State will evaluate the degree to which proposed backup and recovery processes protect mission-critical data, ease of use of these processes, and impact of these processes on operation of the system.

**Topic 10 - Continuity of Business Operations**

VISION CCS will be a mission critical system being used at multiple customer facing locations across the state. The ability for the system to continue operations in the event of component failures is critical. Please discuss how the systems architecture is designed to be survivable and address the following:

- What is the inherent survivability of the primary production environment?
- What opportunity does the system provide for a hot, warm or cold backup system at a secondary site to enhance survivability?

**Topic 11 - Supporting Documentation Management**

All customer transactions have supporting hard copy documentation. Please discuss the following:

The CCS workstation must provide documents scanning capabilities. Passports, Drivers Licenses and Social Security cards must be captured, reviewed for authenticity and passed to VISION for permanent retention. Supporting documents (Applications, Birth Certificates, etc.) must be captured and passed to VISION for permanent retention. These images should not be retained in the CCS.

Please describe:

- How documents are reviewed for authenticity?
- What document types can be reviewed for authenticity?
- How will images of supporting documents be captured?
- How do you envision moving the images to VISION?

**Topic 12 - Reporting**

Please describe in full detail the out-of-the-box canned and adhoc reporting capabilities of your solution for all aspects of each software subsystem and in addition to the following areas:

Please provide samples of all reports requested above as an appendix to this topic.

**Topic 13 - Driver License Data**

Currently specific driver’s license data (facial images, document images, signatures) is captured and stored on the Marquis front end capture and card production system. The Marquis system interfaces with our current IDMS driver licensing system sharing similar data. This system also produces all of the license and ID cards.

Please describe in full detail the capabilities of your solution to perform the following functions?

- Capturing of images and signatures
- Capturing of the dates that all permanent card types are processed, printed and mailed.
Capturing of document image scanning Please describe how the data contained in our current Marquis system could be integrated into your solution?

**Topic 14 – Annual Card Redesign/Review Approach**

- The State expects an annual card redesign and or review of its current credentials. Also the State may be required to add additional credential types throughout the life of this contract. Please describe your approach to accommodating for such changes.

**D-2 Service Topics**

**Topic 15 - Implementation Approach**

The State will evaluate the quality of analysis, reasonableness, and flexibility evident in the proposed implementation approach.

- The implementation approach must be closely coordinated with VISION. The implementation must be coordinated with the VISION go-live date. VISION is expected to go-live in the 4th quarter of 2015. The state will set the exact date no later than September 15, 2015. Consequently, the State seeks suggestions on an implementation approach.

- Provide a basic implementation plan.

**Topic 16 - Acceptance Testing**

Response Page Limit: 6 - Appendix Required

State staff will conduct Acceptance Testing, but support from the selected Vendor is required; refer to Section 3.3.1: Testing and Acceptance and APPENDIX B: DETAILED TESTING REQUIREMENTS to define the type of support that will be provided, address the following questions:

The user acceptance testing must be coordinated with the VISION user acceptance testing. Final stages of UAT will require the demonstration of the full interaction between VISION and CCS.

- How much time should the State plan to complete User Acceptance Testing of CCS?
- What test management and test driver tools will be employed in quality assurance testing prior to delivery of code to the State, and will these tools be available to the State for use in Acceptance Testing?
- What support will be provided to prepare the State staff to conduct acceptance testing?
- How will members of the testing team be prepared to test the configured software?
- What documentation of configured software will be available to the testing team?
- How will on-site support for the State testing team be provided?
- Based on experience in similar projects, how many and what types of defects are likely to be encountered in Acceptance Testing? (Include metrics from other projects to support this response.)
- How quickly will a suspected defect be investigated, and what classifications are planned for suspected defects?
- What specific software tools will be used to isolate performance problems?
• The vendor is expected to use the States TFS environment to track defects. Does your team have experience using TFS?
• What role will the State play in classification of suspected defects?
• How quickly will software defects be corrected?
• How will the State participate in defining priorities for defect correction?

Provide a sample User Acceptance Test plan from a completed project as an appendix to this topic.

**Topic 17 - Migration Strategy**

The State will evaluate the degree to which the Vendor will ensure that data conversion is effective and burdens State staff to the minimum extent possible.

• What approach would the vendor recommend to ensure that transactions that were completed in our legacy system prior to being approved for production (printing) in the Marquis system be managed?

**Topic 18 - User Training Approach**

The State will evaluate whether the training approach is likely to prepare users adequately to use the new system from the day of implementation, including maximum knowledge transfer to allow the State to conduct its own training in the future.

User Training must be coordinated with the VISION training. It is expected the vendor will provide training materials that can be incorporated in the Driver Licensing module in VISION.

**Topic 19 - Help Desk Support**

Please describe your approach to help desk support that will be required both during implementation and lifespan of the CCS. Define the type of support that will be provided and address the following questions:

• Explain how you will provide for coordination of Help Desk with change management;
• Suggested escalation procedures;
• Development of a Help Desk knowledge base; and
• Metrics based on Help Desk inquiries
• Please describe how the State will submit problems?
• How will the helpdesk manage the response of the on-site staff?
• Describe your approach to prioritization of responses/issues in collaboration with both DMV and DoIT staff.
**Topic 20 - Volume Stress Testing and Tuning**

It is important to verify the system is capable of support peak user loading prior to “go live.” The state is responsible for Wide Area Network connectivity and throughput and the vendor is responsible to ensure that the server environment is appropriately configured and tuned to support peak load. Please discuss the following:

- Proposed methodology for volume stress testing and system tuning.
- What tools do you propose to use to assist in this process?
- What key performance factors will be measured?
- How will results be presented to the state and verified?
- What role do you envision state resources play in the process?

**D-3 Project Management Topics**

This subsection provides a series of topics related to management of the project that the State of New Hampshire will consider in selecting the Software and VISION Development Vendor. A maximum length of response for each topic is defined.

**Topic 21 - Project Staffing Approach**

The State looks for a solution that will be staffed efficiently but will deliver effective services. Please discuss the following:

- The basic approach to “on-site” and “off-site” staffing?
- How will you ensure there is effective communication with any “off-site” resources?
- What will the maximum “on site” staffing be and when will it occur?

**Topic 22 - Status Meetings and Reports**

The State places great importance on concise and effective status meetings and reporting. However, too many meetings or too much reporting can become a waste of resource on both the vendor and State sides of the project team. To prevent this waste or resources the State expects the vendor to implement a sound methodology to ensure efficiency in the project. Please discuss the following:

- The standing meetings that are regularly scheduled, who is expected to attend them and the expected outcome of each.
- Are standard templates used for agendas and minutes?
- What regular reports are generated, who is the audience?
- How are “off-site” participants included in the process?
- How will Tech Mahindra staff be updated and included in the status meetings?

Provide an example of status reports prepared for another project as an appendix to this topic. Names of the project and of any individuals involved may be removed.

**Topic 23 - Risk and Issue Management**

Provide proposed methodologies for risk and issue management. Discuss State and Vendor responsibilities. The State seeks a clear means to compare planned versus actual status, including percentages, at a sufficiently detailed level to ensure the State can adequately monitor the progress of the
project. Be sure to identify any essential time constraints on State actions. Escalation procedures will be defined in a contract between the State and the Vendor.

**Topic 24 - Acceptance Criteria**

Propose measurable criteria for State final acceptance of the system. Discuss how the proposed criteria serve the interest of the State.

**Topic 25 - Scope Control**

Suggest an approach for scope control.

- Describe how the approach has been employed effectively on another project.
- Describe your change management approach.

**Topic 26 - Preparation of State Staff on the Project Team**

Describe how State staff assigned to the Project Team will be prepared to contribute. Provide an overview of interactions and dependencies between functions.

**Topic 27 - Quality Assurance Approach**

Describe the methodology that will be employed to assure that the deliverables are of high quality before submission for State consideration. Discussion should include but not limited to:

- Provision for State input to the general content of a written deliverable prior to production;
- The standard for Vendor internal review of a written deliverable prior to formal submission; and
- Testing of software deliverables prior to submission for acceptance testing.

**Topic 28 - Project Schedule**

The project schedule must be coordinated with the VISION project. The VISION project schedule is Attachment 3.

Describe all deliverables to be produced in the project. Ensure that all Deliverables and milestones are identified in the Project Schedule. Identify and discussion of the following:

- All assumptions upon which the Project Schedule is based;
- Descriptions of recommended roles by activity and time required for both State and vendor members of the Project Team;
- Assignments of members of the vendor’s team identified by role to specific tasks; and
- Critical success factors for the project.

Discuss how this Project Schedule will be used and the State access to plan details, including resource allocation. Also, discuss frequency for updating the plan, at a minimum bi-weekly, and for every status meeting. Explain how the State will know whether the project is on schedule and within budget.
D-4  General Topics

**Topic 29 – Enhanced Driver’s License**

Do you have the capability of producing an Enhanced Driver’s License (EDL) which is compliant with the AAMVA 2013 standard? Is there additional equipment needed to produce the EDL credential? If so what would be the cost associated with producing such a credential?

**Topic 30 – Ergonomic Equipment Layout**

Space at each CS counter is at a premium. The CSR workstation must comfortably support the CSR while not becoming an obstacle to the interaction with the customer. All cabling must be safely secured and not visually distracting. Please describe how your solution is designed to efficiently utilize space and allow an efficient workflow for the CSR.

**Topic 31 – Card and Letter Insertion**

A critical portion of the production process is the creation of a cover letter explaining why the recipient is receiving the enclosed credential. Please address the following:

- How your solution creates cover letters?
- How the cover letter content can vary based on the credential type?
- How the credential and the letter are inserted into the mailer?
- Currently the cover letter contains the mailing address for the credential which is inserted into a windowed envelope. Please describe how your mailer is addressed.
- Is there capacity to insert additional documents into the mailer?
APPENDIX E: DETAILED BUSINESS SUBSYSTEM REQUIREMENTS (Mandatory)

The Vendor will be responsible for all aspects of the project, including, but not limited to:

- Provide 60 CSR Workstations for all DMV locations as identified in APPENDIX E (Future System Environment)
- Provide for the printing of temporary Driver Licenses/ Identification Cards at 60 DMV CSR workstations
- Provide for the centralized printing and insertion of permanent driver licenses, special ID cards and badges in Concord or at the vendors off-site location
- Provide Hardware and Software as necessary to interface with DOS network and the VISION System
- Provide a seamless real time software interface with the DOS VISION system
- Perform preventive maintenance & upgrades for all Hardware and Software provided
- Supply advice and artistic support for the design of various license and identification cards that must be AAMVA compliant throughout the term of the contract
- Install all Hardware and Software
- Maintain software capable of running with current MS operating system and IE browser within six months of the release from MS.

Current process

The purpose of the current system is to accurately, efficiently and securely produce credentials for the Division of Motor Vehicles on behalf of the citizens of New Hampshire. The current configuration, including equipment, captures applicant photographs, signatures and scans all documentation used during the course of a transaction to include the scanning and authentication of passports, social security cards and driver licenses from other jurisdictions.

The state has 60 customer service workstations located throughout the State. Of which 46 are equipped with cameras and the peripherals identified below:

- HP LaserJet 2015P – Paper temporary license printer
- Facial Image Capture, camera
- Signature Capture Device- Topaz
- Documentation Scanning – Panasonic KV-S1025C
- Documentation authentication and scanning – Assuretech, I-Identify
- Dell OptiPlex 755 w/Windows XP
- 2 - Dell 15” monitors, one customer facing for image acceptance.

The current fulfillment system captures signatures, facial images and scanned documentation only. The current process also allows a customer to confirm that their name and address has been correctly captured as displayed via the Topaz signature pad. All other information processed during driver license transactions is retained in our Legacy environment. The interface between the two environments happens at the point of data entry during the issuance process. During the counter transaction a paper temporary credential is printed on special paper and given to the customer at the conclusion of the transaction.

The card production center is housed onsite, centrally in our Concord facility. The production of driver licenses, non-driver ID cards and Voter ID’s is handled by four (4) Zebra ZXP Series 8 card printers with laminating
functionality built in. The inserting of the above named credentials are handled by an HP LaserJet 4250 and CIM 3000 inserting device which is located onsite as well. The CIM inserter is fed by the printer which produces a card carrier letter that cards are adhered to via the inserting device.

The current contract provides an in state resource to provide support for all vendor provided equipment and software. A “spares” model is used to provide equipment that can be swapped in at CSR workstations if repairs or reconfiguration would disrupt the customer flow.

The current financial model uses a per card fee to cover all costs of manufacturing the cards as well as all services, equipment, software and maintenance required under the contract. Billing occurs on a monthly basis.

**Future Systems Environment**

In combination with the VISION system, the DMV desires to enhance functionality with the procurement of a new fulfillment solution. The VISION system offers the opportunity to have more of a real time interactive interface than the current systems allow. The State plans to have the new system:

1. Provide access to the images so the VISION system can display them as part of the customer data.
2. Allow VISION transactions to initiate the fulfillment system transactions so the CSR does not have to switch between systems.
3. Allow a customer to confirm that their name and address has been correctly captured and displayed via the signature pad.
4. Allow VISION to query the status of license production to determine if the license has been created and mailed.
5. Use Microsoft Active Directory integration for user authentication.
6. Provide 60 customer facing credentialing systems with equipment to include:
   a. Microsoft Windows PC.
   b. Dell Professional P2414H VGA/DP 24-inch Widescreen or equivalent
   c. Flat Panel Monitor 19 inch customer facing monitor or equivalent for customer photo review
   d. Epson TM-H6000IV (C31CB25074) Multifunction Printer with Validation or equivalent
   e. Lexmark MS710dn monochrome laser printer or equivalent three drawer printer with one drawer reserved for temporary card stock
   f. Document verification scanner
   g. Panasonic KB-S1046C document scanner or equivalent
   h. Customer image camera must meet AAMVA image quality standards
   i. Topaz systems SignatureGem LCD 4x3 dual USB Signature capture device (T-LBK755SE-BHSB-R) or equivalent
   j. All required power supplies and cabling

7. The state intends to implement an image early approach to Driver License Credentialing. The image capture solution must have the ability to capture the image early on in the transaction. The solution must also have the ability to host our existing MAAP Registration and Titling software solution. System must allow the state the flexibility to utilize other business software for use in its daily operations.
8. The vendor must coordinate design sessions with the state to develop all existing and proposed card type designs.

9. The vendor must also provide for an annual evaluation and potential implementation of a card redesign and or creation of additional card types. This cost should be included in the fully loaded per card cost in Appendix C.

10. The vendor must provide a process for an expedited card from the vendor site print farm.

Required number and locations of CSR workstations

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of CSR Workstations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claremont</td>
<td>3</td>
</tr>
<tr>
<td>Colebrook</td>
<td>1</td>
</tr>
<tr>
<td>Concord</td>
<td>15</td>
</tr>
<tr>
<td>Dover Point</td>
<td>7</td>
</tr>
<tr>
<td>Epping</td>
<td>4</td>
</tr>
<tr>
<td>Gorham</td>
<td>2</td>
</tr>
<tr>
<td>Keene</td>
<td>3</td>
</tr>
<tr>
<td>Manchester</td>
<td>7</td>
</tr>
<tr>
<td>Milford</td>
<td>2</td>
</tr>
<tr>
<td>Nashua</td>
<td>6</td>
</tr>
<tr>
<td>North Haverhill</td>
<td>1</td>
</tr>
<tr>
<td>Salem</td>
<td>5</td>
</tr>
<tr>
<td>Tamworth</td>
<td>2</td>
</tr>
<tr>
<td>Twin Mountain</td>
<td>2</td>
</tr>
</tbody>
</table>

Vendors must complete each of the Detailed Business Requirements checklists located in APPENDIX E: DETAILED BUSINESS REQUIREMENTS (MANDATORY) for every mandatory DL/ID Card Data Element tables in table E-1, Card Body Design Features table E-2, Security Design, Resistant to Reproduction Features table E-3, Security Ink/Pigment Features table E-4, Protecting Personalized Data Features table E-5, PDF 417 Bar Code Compliance, 2D symbols header format table E-6, Subfile designator format table E-7, 2D Mandatory data elements table E-8. Vendors shall complete a checklist based on the following format and must indicate a response for each and every requirement listed on each of the subsystem checklists.

A response is indicated by checking one of the columns for each requirement as follows:

- **AMMVA compliant Product** - The proposed “out of the box” base product along with specific configuration changes to the product will allow for the requirement to be met.

- **Not Capable** - The proposed software is not capable of meeting the requirement.

- **Comments** - This area is for a vendor to provide any explanation that may be necessary to allow for a better understanding of the capability of the software product and the ability to meet the requirement.
Describe the effort/timeframe necessary for the solution to be configured or modified to meet the requirement.

**DL/ID Card Data Element table**

Table 1 in section E-1 describes the mandatory data elements that must visually appear on DL/ID documents. Proposals may go beyond these minimum mandatory requirements, as long as each mandatory requirement is met. Table 2 in section E-2 describes optional data elements that may visually appear on DL/ID documents. Jurisdictions may include additional data elements and features on their compliant DL/ID document. However, if any of the optional data elements are included on the document, they should appear as described by the rules in this AAMVA standard.

Column 1 (**Data Ref.**): serves as a reference indicator for citation elsewhere in this standard and in other documents.

Column 2 (**On card reference**): The reference number shall be visibly included as text on the DL/ID to identify the data element for purposes of interpreting the data and other international interchange requirements. If no on card reference number is listed in this standard, then no number should be used.

Column 3 (**Zone placement**): indicates the location on the DL/ID where the data element must be placed. Location of the zones is provided in Annex A of this standard. In some cases, data elements may appear in a choice of zones, or be repeated in another zone. Such data elements are marked with the appropriate multiple zone placements. If no zone is listed for a data element, it may be placed anywhere on the card as long as it does not interfere with the required placement of other data elements.

Column 4 (**Data element**): common name or phrase that designates what information is to be inscribed on the card. These data elements, if used, must be labeled using text on the card (If the jurisdiction uses French, the French translations of the data elements and their abbreviations are provided). When abbreviations are provided in bold, they are available for use by jurisdictions. If a jurisdiction uses an abbreviation to designate a data element, the abbreviation must conform to the bold abbreviations when provided. Unless otherwise specifically stated, formatting rules of *ANSI D20 Data Dictionary for Traffic Record Information Systems* must be followed.

Column 5 (**Definition**): description of the data element, including any exceptions.

Column 6 (**Card type**): identifies the applicability of the data element. DL = driver license only; ID = non-driver identification card only; Both = both the driver license and the non-driver identification card.

Column 7 (**Field maximum length/type**): valid field length (i.e., the number of characters and type) for each data element. The following refer to the valid characters or image used (A=alpha A-Z, N=numeric 0-9, S=special, F=fixed length, V=variable length).
### E-1 Mandatory DL/ID Card Data Element tables

<table>
<thead>
<tr>
<th>Data ref.</th>
<th>On card reference</th>
<th>Zone placement</th>
<th>Data element</th>
<th>Definition</th>
<th>Card type</th>
<th>Field maximum length/type</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>1</td>
<td>Zone II</td>
<td>Family Name</td>
<td>Family name (commonly called surname or last name), or primary identifier, of the individual that has been issued the driver license or identification document. If the individual has only one name, it will be placed in this data element. Collect full name for record, print as many characters as possible on portrait side of DL/ID.</td>
<td>Both</td>
<td>V40ANS</td>
</tr>
<tr>
<td>b.</td>
<td>2</td>
<td>Zone II</td>
<td>Given names</td>
<td>Given name or names (includes all of what are commonly referred to as first and middle names), or secondary identifier, of the individual that has been issued the driver license or identification document. If Suffix is used, the Given Names and the Suffix must be separated by a comma and a space. Collect full name for record, print as many characters as possible on portrait side of DL/ID.</td>
<td>Both</td>
<td>V80ANS</td>
</tr>
<tr>
<td>c.</td>
<td>3</td>
<td>Zone II</td>
<td>Date of birth</td>
<td>Month, day, year (If unknown, approximate DOB). Format: MM/DD/CCYY U.S.</td>
<td>Both</td>
<td>F10NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>DOB</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>4a</td>
<td>Zone II</td>
<td>Date of Issue</td>
<td>Date DL/ID was issued. Format: MM/DD/CCYY U.S.</td>
<td>Both</td>
<td>F10NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Iss</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>4b</td>
<td>Zone II</td>
<td>Date of expiry</td>
<td>Date DL/ID expires. Format: MM/DD/CCYY U.S.</td>
<td>Both</td>
<td>F10NS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Exp /</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data ref.</td>
<td>On card reference</td>
<td>Zone placement</td>
<td>Data element</td>
<td>Definition</td>
<td>Card type</td>
<td>Field maximum length/type</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------</td>
<td>----------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>f.</td>
<td>4d</td>
<td>Zone II</td>
<td>Customer identifier</td>
<td>NH DL/ID number</td>
<td>Both</td>
<td>V25ANS</td>
</tr>
<tr>
<td>g.</td>
<td>5</td>
<td>Zone II</td>
<td>Document discriminator DD</td>
<td>Number must uniquely identify a particular document issued to that customer from others that may have been issued in the past. This number may serve multiple purposes of document discrimination, audit information number, and/or inventory control.</td>
<td>Both</td>
<td>V25ANS</td>
</tr>
<tr>
<td>h.</td>
<td></td>
<td>Zone III</td>
<td>Portrait</td>
<td>A reproduction of the cardholder’s photograph/image. The portrait must be in color unless laser engraving card production is used.</td>
<td>Both</td>
<td>(Image)</td>
</tr>
<tr>
<td>i.</td>
<td></td>
<td>Zone II / III</td>
<td>Signature</td>
<td>A reproduction of the cardholder’s signature. The signature may overlap the portrait image. If the signature overlaps the portrait, it may be in Zone III. Otherwise, it must be in Zone II.</td>
<td>Both</td>
<td>(Image)</td>
</tr>
<tr>
<td>j.</td>
<td>8</td>
<td>Zone II</td>
<td>Cardholder Address</td>
<td>The place where the cardholder resides and/or may be contacted (street/house number, municipality etc.). The issuing jurisdiction may choose to use either the mailing or physical address. If a mailing address such as a P.O. Box is used on portrait side of document, the residence address must be collected for the electronic record.</td>
<td>Both</td>
<td>V108ANS</td>
</tr>
<tr>
<td>k.</td>
<td>9</td>
<td>Zone II / Zone IV</td>
<td>Vehicle classifications / categories</td>
<td>Vehicle types the driver is authorized to operate. Each vehicle classification / category denoted on the DL/ID must be described or illustrated in Zone IV.</td>
<td>DL</td>
<td>V6ANS or image</td>
</tr>
<tr>
<td>Data ref.</td>
<td>On card reference</td>
<td>Zone placement</td>
<td>Data element</td>
<td>Definition</td>
<td>Card type</td>
<td>Field maximum length/type</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>l.</td>
<td>9a</td>
<td>Zone II / Zone IV</td>
<td>Endorsements End /</td>
<td>Jurisdiction-specific codes denoting additional privileges granted to the cardholders, such as hazardous materials, passengers, doubles/triples trailers, motorcycle, chauffeur, emergency vehicles, and farm vehicles. Each endorsement denoted on the DL/ID must be described or illustrated in Zone IV.</td>
<td>DL</td>
<td>V5ANS or image</td>
</tr>
<tr>
<td>m.</td>
<td>12</td>
<td>Zone II / Zone IV</td>
<td>Restrictions / conditions / information codes</td>
<td>Jurisdiction-specific codes used by the issuing jurisdiction to indicate restrictions or conditions that apply to the cardholder (shown as alphanumeric codes or pictographs). Other medical, administrative, or legal limitations applying to the cardholder are also to be displayed in this area. Restrictions or conditions denoted in Zone II must be described in Zone IV. If no restrictions or other conditions apply to the cardholder, &quot;NONE&quot; shall be indicated.</td>
<td>DL</td>
<td>V12ANS (Image)</td>
</tr>
<tr>
<td>n.</td>
<td>15</td>
<td>Zone II</td>
<td>Cardholder sex</td>
<td>Cardholder's sex: M for male, F for female.</td>
<td>Both</td>
<td>F1A</td>
</tr>
<tr>
<td>o.</td>
<td>16</td>
<td>Zone II</td>
<td>Height</td>
<td>U.S.: feet and inches ex. 6 foot 1 inch = &quot;6'-01&quot; Canada: centimeters (cm), number of centimeters followed by &quot; cm&quot; ex. 181 centimeters=&quot;181 cm&quot;</td>
<td>Both</td>
<td>F6ANS</td>
</tr>
<tr>
<td>p.</td>
<td>18</td>
<td>Zone II</td>
<td>Eye color Eyes</td>
<td>Blue, brown, black, hazel, green, gray, pink, maroon, dichromatic. If the issuing jurisdiction wishes to abbreviate colors, the three-character codes provided in ANSI D20 must be used.</td>
<td>Both</td>
<td>V12A</td>
</tr>
</tbody>
</table>
E-2 Card Design

The main ideology for defining the design of the DL/ID is the minimum acceptable set of requirements that must be met (existing standards, data contents, security elements, etc.).

Dimensions and character set

The dimensions of the DL/ID shall be in conformance with ISO/IEC7810 ID-1.

All mandatory human readable data elements shall be printed in ANS characters.

Functions

The basis of the visual card design is to meet the minimum common mandatory set of data elements in the following areas of function:

- Common recognition of the DL/ID document by law enforcement agencies and users outside of the jurisdiction of issue.
- Layout of the human readable data elements and the machine-readable components.
- Text and or pictographs of the human readable data elements.
- Security of the card as a separate topic to avoid confusion between common recognition and integrity issues.

Common recognition

To assist law enforcement agencies in recognizing a driver license presented by a driver outside the jurisdiction or country of issue as a DL/ID, the following apply:
Background color

Distinctly different colors should be used for the background of Zone 1 of the driver license and non-driver identification cards. The Zone 1 background color should be predominantly a high security color chosen to make copying or duplication of the document difficult. The background of Zone 1 may utilize any type of design. The use of the following colors for the background of Zone 1 is recommended, but not required:

- For DL documents, it is recommended that the background color of Zone 1 be predominantly a 30% tint of Pantone reference 198 as specified in ISO/IEC CD18013-1 for ISO Compliant Driver Licenses.
- For ID cards, it is recommended that the background color be predominantly a 30% tint of Pantone reference 368.

Portrait position

The reproduction of the portrait of the cardholder of the license shall be depicted on the left side on the portrait side of the card as shown by the position of Zone III in figure A.2 and A.3.

Layout

Flexibility is built into the standard to accommodate the needs of the many issuing jurisdictions. There are two principal formats – vertical (under 21, mandatory for U.S., optional for Canada) and horizontal. Within both of these formats, zones divide the layout and options for the zones are delineated in this Annex. Zone placement will vary between the two formats for the portrait side of the cards. The non-portrait sides will be the same for the two formats.

The portrait and non-portrait side of the vertical and horizontal cards shall display the following:

Portrait side

Zones I, II and III

Non-portrait side

Zones IV and V

Contents of the zones

General

This section addresses the placement of data elements in various zones on the card. In some cases, it is mandatory that a data element be placed in the given zone. In other cases, the placement of a data element may be optional for the given zone. The issue of the mandatory or optional placement of data elements is different than the issue of whether the data element is required to appear on the card at all. For example, the use of a data element, e.g., date of expiry of each vehicle category, may be optional, but if it is used it is mandatory to place it in the given zone.
Zone 1

Document type indicator

For driver licenses and identification cards, the following options exist:

DRIVING LICENSE

DRIVING LICENCE (ISO-compatible)

DRIVER LICENSE

DRIVER’S LICENSE

DRIVER LICENCE

COMMERCIAL DRIVER’S LICENSE; COMMERCIAL DRIVER LICENSE; or CDL

NON-DOMICILED COMMERCIAL DRIVER’S LICENSE or NON-DOMICILED CDL

IDENTIFICATION CARD

The words "DRIVING LICENSE" or “DRIVER LICENSE” may be incorporated in the background graphic design of Zone I.

Pursuant to Title 49 CFR Subpart J – Commercial driver’s license document, §383.153 Information on the document and application, (a) All CDLs shall contain the following information: (a)(1) The prominent statement that the license is a “Commercial Driver’s License” or “CDL,” except as specified in §383.153(b).

(b) If the CDL is a Non-domiciled CDL, it shall contain the prominent statement that the license is a “Non-domiciled Commercial Driver’s License” or “Non-domiciled CDL.” The word “Non-domiciled” must be conspicuously and unmistakably displayed, but may be noncontiguous with the words “Commercial Driver’s License” or “CDL.”

For ID cards, the words "IDENTIFICATION CARD" must be included as text or, alternatively, the words "IDENTIFICATION CARD" may be incorporated in the background graphic design of Zone I.

Issuing Jurisdiction information

The name of the issuing jurisdiction (New Hampshire) must be included as text (full name or abbreviation). The distinguishing sign of the issuing country (USA), as prescribed below, must be included in Zone I:
Zone II

Zone II contains the following data elements:

- Table 1/Ref. a. Family name (or concatenated Name)
- Table 1/Ref. b. Given name(s) (or concatenated Name)
- Table 2/Ref. g. Suffix (optional)
- Table 1/Ref. c. Date of birth
- Table 1/Ref. d. Date of issue
- Table 1/Ref. e. Date of expiry
- Table 1/Ref. f. Customer number
- Table 1/Ref. g. Document discriminator
- Table 1/Ref. i. Signature (unless in Zone III)
- Table 1/Ref. j. Cardholder address
- Table 1/Ref. k. Vehicle classifications (if codes are used, they should be explained in Zone IV; overflow information may be placed in Zone IV)
- Table 1/Ref. l. Vehicle restrictions and endorsements (if codes are used, they should be explained in Zone IV; overflow information may be placed in Zone IV)
- Table 1/Ref. n. Cardholder sex
- Table 1/Ref. o. Cardholder height
- Table 2/Ref. h Audit information (optional)
- Table 2/Ref. a. Cardholder hair color (optional)
- Table 2/Ref. b. Cardholder place of birth (optional)
- Table 2/Ref. c. Date of expiry per vehicle classification / category (optional – may be in Zone IV instead)
- Table 2/Ref. d. Date of first issue per vehicle classification / category (optional – may be in Zone IV instead)
- Table 2/Ref. i. Issuing jurisdiction – two character code (optional)
- Table 2/Ref. j. Under 18 until date (optional)
- Table 2/Ref. k. Under 19 until date (optional)
- Table 2/Ref. l. Under 21 until date (optional)
- Table 2/Ref. m. Organ donor indicator (optional)
- Table 2/Ref. n. Veteran indicator (optional – may be in Zone IV instead)

Other data fields for national or jurisdictional purposes in human readable format (optional).
Zone III

Zone III contains the following:

Table 1/Ref. h. Portrait
Table 1/Ref. i. Signature (May be in Zone II instead)

Zone IV

Zone IV contains the following:

- Explanations of codes used in Zone II categories, restrictions, and/or endorsements
- Overflow from categories, restrictions, and/or endorsements in Zone II
- Table 2/Ref. e. Date of expiry of each vehicle category (if used)
- Table 2/Ref. d. Date of first issue of each vehicle category (if used)
- Optical character recognition text & RFID for enhanced DL/ID (if used)

Jurisdiction-specific information in human-readable format for purposes of administration of the license or related to road safety may also be included in this zone.

Zone V

The PDF417 2-dimensional bar code must be included in Zone V – details can be found in Annex D. Other optional machine-readable technologies may co-exist with the PDF417 2-dimensional bar code in Zone V. This standard contains additional details concerning how to use 3-track magnetic stripes, optical memory cards, and optical character recognition text & RFID for enhanced DL/ID. Issuing authorities wishing to implement other non-proprietary technologies, such as integrated circuit cards (also known as "smart cards") beyond how that technology is reflected for the enhanced DL/ID, are asked to work with AAMVA prior to implementation, so that future iterations of this standard will properly include these technologies to ensure future interoperability with other jurisdictions.

The positions of the zones for the optional jurisdiction-specific human readable fields and optional machine-readable technologies are presented in figures A.4 and A.5. The position and size of Zones IV and V may be adjusted in accordance with the machine-readable technologies incorporated on the card.

Truncation of name

If information has to be truncated to fit in the available space then this is the way to do it. For all name fields, characters are eliminated from a field in the following order until the name fits into the field:

- Starting from the right and moving to the left, eliminate spaces adjacent to hyphens
- Starting from the right and moving to the left, eliminate apostrophes
- Starting from the right and moving to the left, eliminate any remaining characters, excluding:
  - Hyphens
  - Remaining spaces
  - Characters immediately following a hyphen or a space
For example, in the case where a person's middle names are "V'Erylongmiddlename01 V'Erylongmiddlename02 Marie - Louise" (58 characters), the truncation sequence will progress as follows:

- Remove spaces adjacent to hyphens, resulting in "V'Erylongmiddlename01 V'Erylongmiddlename02 Marie-Louise" (56 characters)
- Remove apostrophes, resulting in "VErylongmiddlename01 VErylongmiddlename02 Marie-Louise" (54 characters)
- Remove other characters as allowed, resulting in "VErylongmiddlename01 VErylongmi M-L" (35 characters)

Reproduction of Images

Portrait

The digitally printed reproduction of the portrait of the cardholder on the card is resistant to forgery and substitution. The portrait shall meet the following requirements:

**Pose.** The portrait shall depict the face of the rightful cardholder in a full-face frontal pose with both eyes visible; i.e. captured perpendicular to an imaginary plane formed parallel to the front surface of the face. The portrait may only show the cardholder with headgear, if the cardholder is a member of a religion requiring the wearing thereof and provided that the headgear does not present as an obstruction or present a shadow and render the portrait inadequate for the identification of the cardholder. Jurisdictions that incorporate facial recognition biometric technology may wish to ensure eyeglasses are removed as well, to aid in consistent identification of the cardholder.

**Depth of Field.** The full-face frontal pose shall be in-focus from the crown (top of the hair) to the chin and from the nose to the ears.

**Orientation.** The crown (top of the hair) shall be nearest the top edge of Zone III as defined in figure A.2 and A.3; i.e. the crown to chin orientation covering the longest dimension defined for Zone III.

**Face Size.** The crown to chin portion of the full-face frontal pose shall be 70 to 80 percent of the longest dimension defined for Zone III, maintaining the aspect ratio between the crown-to-chin and ear-to-ear details of the face of the cardholder.

**Lighting.** Adequate and uniform illumination shall be used to capture the full-face frontal pose; i.e. appropriate illumination techniques shall be employed and illumination used to achieve natural skin tones (and avoid any color cast) and a high level of detail, and minimize shadows, hot spots and reflections (such as sometimes caused by spectacles).

**Background.** A uniform light blue color or white background shall be used to provide a contrast to the face and hair. Note: Preference is for uniform light blue color, such as Pantone 277 (though the specific Pantone color is not a requirement – a uniform light blue color or white background is a requirement).

**Centering.** The full-face frontal pose shall be centered within Zone III.

**Border.** A border or frame shall not be used to outline the digitally printed reproduction of the portrait.
Color. The digitally printed reproduction of the portrait shall be a true color representation of the cardholder, unless laser engraving is used to produce the DL/ID document. If laser engraving is used, a true color representation of the cardholder must be stored by the issuing jurisdiction with the cardholder's record.

Printing resolution. The digitally printed reproduction shall yield an accurate recognizable representation of the rightful cardholder of the license. The quality of a digitally reproduced portrait shall be visually comparable to an acceptable photograph. To achieve this comparable quality in a digital reproduction, care must be given to the image capture, processing, digitization, compression and printing technology and the process used to reproduce the portrait on the card, including the final preparation of the DL/ID.

Signature

The signature of the cardholder shall be a digitally printed reproduction of an original. Measures shall be taken by the issuing authority to ensure that the digitally printed reproduction of the signature is resistant to forgery and substitution. The signature displayed shall meet the following requirements:

Orientation. The digitally printed reproduction of the signature shall be displayed in either Zone II or Zone III with its A-dimension parallel to the Top Reference Edge of the horizontal format cards identified in figure A.2. In the case of vertical format cards, the A-dimension will be perpendicular to the top reference edge. (See figure A.2.1 for an example of the horizontal format and figure A.3.1 for an example of the vertical format.)

Size. The signature displayed shall be of such dimensions as to be discernible by the human eye and maintain the aspect ratio (A-dimension to B-dimension) of the original signature.

Scaling. In the event the signature displayed is scaled-up or scaled-down, the aspect ratio (A-dimension to B-dimension) of the original signature shall be maintained. In the case of a scaled-down image, the image shall not be reduced to a size where it is no longer a discernible representation of the original. The resulting signature must be a smooth representation of the original signature without such distortions such as stair stepping, stretching and/or squishing being apparent to the human eye.

Cropping. The issuing authority should take steps to eliminate or minimize cropping.

Color. The digital reproduction of the signature shall be printed or laser engraved in definite contrast to the background color of the license. Either use a light signature on a dark background or a dark signature on a light background if printed. The ink of the signature must be printed entirely in the same shade or of a color, not varying shades (i.e., grey scale printing).
Borders. Borders or frames shall not be used to outline the digitally printed reproduction of the signature.

Printing resolution. The digitally printed reproduction shall yield an accurate recognizable representation of the signature of the rightful cardholder of the license. To achieve this comparable quality in a digital reproduction, care must be given to the image capture, processing, digitization, compression and printing technology and the process used to reproduce the signature on the card, including the final preparation of the DL/ID.

Security

Aspects such as a specific background pattern, rainbow printing, holograms and special inks relate to the minimum security requirements of the card and should not be confused with common recognition of the DL/ID. The security requirements are addressed in Annex B.
2013 AAMVA DL/ID Card Design Standard

Portrait side of Horizontal DL/ID (not to scale)\(^8\)

Dimensions in millimeters

NOTE  Overlap is allowed, and expected, between zones.

\(^8\) The top reference edge is noted for horizontal oriented documents only.
HORIZONTAL DL/ID - INFORMATIVE EXAMPLES (NOT TO SCALE) – INTENDED TO SHOW WHAT COULD BE DONE WITHIN THIS STANDARD.
2013 AAMVA DL/ID Card Design Standard
Portrait side of Vertical DL/ID (not to scale)
Vertical DL/ID - Informative examples (not to scale) – intended to show what could be done within this standard

NOTE: The background colors in Zone 1 of the sample cards (which are specified as Pantone reference 198 and 368) may not appear as the true shade due to variations between individual monitors and printers on which they are viewed or printed. It is for this reason the Pantone reference numbers are used to specify the colors to be used on the actual cards.

Non-portrait side of Horizontal and Vertical DL/ID
Informative Example

Note: Pictographs / icons used in this informative example are samples taken from the ISO/IEC standard for ISO compliant driving licenses (ISO/IEC 18013-1). Jurisdictions may wish to consider the use of icons to convey driving privileges, endorsements, and restrictions, and use appropriate vehicle class codes.
Physical Security

The rapid growth in identity fraud has led to increasing concerns over the security of DL/ID cards and many other types of documents used to confirm identity. DL/ID cards are often accepted not only as proof of having earned the privilege to drive a motor vehicle, but also as confirmation of the identity of the holder for obtaining access to a wide variety of other services, for example opening bank accounts, withdrawing or transferring funds etc. Of particular concern is the opportunity DL/ID cards have to serve as evidence of identity to assist in building a false identity and providing a pathway to obtain other documents, such as passports, all in an assumed identity. For these reasons DL/ID is a target for the fraudster making it important to ensure that DL/IDs are adequately protected from the various forms of fraud to which they may be subject.

The entire card including all the security features should afford protection for the lifetime of a DL/ID. All security features should maintain their function for the planned service life of the card.

Vendors may introduce other functions to a DL/ID provided that it does not interfere with the driver license or ID card function and the requirements in this standard are not compromised.

Security classification

Security features can be classified into three categories, depending on the security level required for verification. The three security levels are Level 1 (first line inspection), Level 2 (second line inspection) and Level 3 (third line inspection).

Level 1: first line inspection

Examination without tools or aids that involves easily identifiable visual or tactile features for rapid inspection at point of usage.

Level 2: second line inspection

Examination requires the use of a tool or instrument (e.g., UV light, magnifying glass, or scanner) to discern.
Level 3: third line inspection

Examination done at a forensic level and not specifically addressed by this standard. In addition, four (4) families of security features are defined:
1. Card body design
2. Security design, resistant to reproduction
3. Security inks/pigments
4. Protecting personalized data

To be compliant with this standard, a DL/ID shall contain a minimum set of security features providing protection across all families and Levels 1 and 2, as defined in the above security classification.

At least one Level 3 security feature is required. Specifics are not considered in this standard because level 3 security features are generally disclosed and only discussed between experts on a need to know basis. Issuing authorities may add additional security features to bolster security against any specific threats, provided such features do not have an adverse impact on other security features or personalized information.

Document related identity fraud

Document related identity fraud can be categorized in the following categories of threats:

- Counterfeiting – producing a simulation of the genuine document
- Falsification – altering the holders details on a genuine document or harvesting/repurposing genuine document parts
- Misuse of a genuine document – e.g. posing as the rightful holder

In order to ensure that a DL/ID is well protected against these threats it should contain a balanced set of security features selected to combat all three types of fraud. Fraudsters are generally resourceful and pragmatic people who will look to exploit the weakest point in the overall process. So, a DL/ID that contains a number of strong anti-counterfeiting features is unlikely to be fraudulently reproduced, but if the holder’s data printed on the card is not well secured then falsification will be the more likely form of attack. Concentrating on one type of threat to security, whilst paying insufficient attention to another, will leave a DL/ID vulnerable to attack and this is why it is necessary to select a balanced set of security features offering protection against all perceived threats.

NOTE: Care should be taken when applying a security feature or the combination of features that these do not interfere with the legibility of the personalized portrait, signature, text or machine readable data.

Similarly, it is strongly recommended not to place too much reliance upon any single security feature. Even if a security feature appears to be very difficult to reproduce or to falsify, there can be no guarantee it will not become compromised during the validity period of the document. If this happens the security of a DL/ID may be significantly damaged resulting in serious consequences. The preferred approach is to select a set of security features that work together in combination, such that even if one feature becomes compromised the others will continue to provide protection. For the fraudster, having to overcome multiple security features has an important deterrent effect, significantly increasing the time, cost and the risk of detection in perpetrating the fraud.
and probably turning him to other easier targets.

Different kinds of threats are given in the informative Annex C. In summary, the following threats, listed in no particular order of importance, are defined (** = threat):

- **A.1**: Document design attacks
- **A.2**: Substitute material/personalization attacks
- **B.1**: Falsification by physical modification of existing valid documents
- **B.2**: Falsification by recycling
- **B.3**: Falsification of logical data
- **C.1**: Misuse of genuine valid DL/IDs
- **C.2**: Misuse of genuine invalid documents
- **C.3**: Misuse by theft of original blank documents
- **C.4**: Misuse through the fraudulent issue of genuine documents

It should be noted that only security threats related to the physical document are covered in this section. The following threats are excluded:

- Falsification of logical data (**B.3**)
- Misuse of genuine valid documents (**C.1**)
- Misuse of a genuine but invalid documents (**C.2**)
- Misuse through fraudulent issue of a genuine documents (**C.4**)

**Security feature requirements**

While remaining open to future solutions and technology independent, AAMVA:

- specifies a minimum set of mandatory security features and a non-exhaustive list of optional security features with no preferential order, and
- shows which security feature addresses the various type of frauds, the security level and the family of security features. Issuing authorities are free to make appropriate selections.

The minimum number of security features per family is specified in B.4.2.1, B.4.2.2, B.4.2.3, and B.4.2.4.

The combination of security features shall be chosen to ensure they work together, without conflict, to support the security of the DL/ID. Security features can address more than one type of threat. Security features can also be classified into more than one security level provided they are designed to function at each of the intended levels.

**Security features per family**
The next sections of this annex classify some security features according to which family they belong. All four families of features contain one or more mandatory security elements. For each of the four families there is also a set of optional security features from which issuing authorities are free to make their selection, subject to including the required minimum number of mandatory and optional features in a DL/ID. Issuing authorities may also include other optional security features not listed in each section, provided they are included in addition to the minimum number of optional elements per family.

Card body design

Card body design refers to the security of the card construction and in particular to the properties of the materials used in the manufacture of card blanks.

It should be noted that the chosen card construction cannot be determined in isolation and must also take into account the operational profile of the card. For example the construction of the card must be suitable for the intended method of personalization, also, if a chip is to be included within the card body the construction must allow either for an inlay (contactless interface) or for milling and embedding (contact interface) of the card body.

The available features are listed in Table E-2. In addition to the mandatory feature (M), at least 2 optional security features (O) shall be included.

Table E-2 — Card Body Design Features

<table>
<thead>
<tr>
<th>#</th>
<th>Security feature</th>
<th>M/O</th>
<th>*A.1</th>
<th>*A.2</th>
<th>*B.1</th>
<th>*B.2</th>
<th>*C.3</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>UV-A dull substrate material</td>
<td>M</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1.2</td>
<td>Fixed printed and/or dynamic data on different layers</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1.3</td>
<td>Tamper evident card body</td>
<td>O</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1.4</td>
<td>Taggant substances for genuine authentication</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>1.5</td>
<td>Look through element (transparent) such as window element</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1.6</td>
<td>Look through element comprising grey levels</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1.7</td>
<td>Card core inclusions</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1.8</td>
<td>Pre-printed serial number on card blanks</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1.9</td>
<td>Embossed surface pattern</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>1.10</td>
<td>Embedded thread, fiber or planchette</td>
<td>O</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Security design, resistant to reproduction
The requirements of the following section relate to the security background design and not to the personalized data. DL/IDs shall be printed with a security background design that cannot be easily reproduced using publically available design systems and production equipment. No single security feature can provide protection against counterfeiting a DL/ID. A combination of features is required.

In addition to the two mandatory features (M), at least 2 optional features (O) shall be included from Table E-3.

**Table E-3 — Security Design, Resistant to Reproduction Features**

<table>
<thead>
<tr>
<th></th>
<th>Security feature</th>
<th>M/O</th>
<th>*A.1</th>
<th>*A.2</th>
<th>*B.1</th>
<th>*B.2</th>
<th>*C.3</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1</td>
<td>No CMYK colors and at least 2 special colors</td>
<td>M</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Guillioche design</td>
<td>M</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Anti-scan pattern</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Micro printed text</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Duplex security pattern</td>
<td>O</td>
<td>X</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.6</td>
<td>Rainbow printing</td>
<td>O</td>
<td>X</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.7</td>
<td>Deliberate error into the design or microprint</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.8</td>
<td>Use of non-standard type-fonts</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.9</td>
<td>Front to back (see through) register</td>
<td>O</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.10</td>
<td>Micro Optical Imaging</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Security inks / pigments**

A DL/ID shall contain inks or pigments with special properties by which the document may be authenticated and differentiated from fraudulent DL/IDs. The purpose of these inks/pigments is to include properties in a DL/ID that can serve as authentication features, either directly by visual inspection or through the use of simple verification equipment, for example an ultra violet lamp. These properties shall not be present in inks that are commercially available to the public or pigment printing systems. This allows for the differentiation of a genuine DL/ID from a fraudulent one.

UV fluorescent ink (visible or invisible) with a spectral response in the 365 nm wavelength shall be used as the mandatory feature. The UV element included in the background printing of the DL/ID shall be located in a specific area or areas of the DL/ID to protect vulnerable data or other elements of the DL/ID that may be particular targets to fraud.

NOTE 1 Where inks providing a short-wave UV response are used, care should be taken that these are compatible with the card construction and personalization (e.g. are not rendered ineffective by laminate UV absorption).

NOTE 2 IR-fluorescent ink and IR-drop out ink shall not be used where the personalized data is intended to be read in the B900 part of the spectrum.
In addition to the mandatory feature (M), at least 2 optional features (O) shall be added from Table E.4.

Table E-4 — Security Ink/Pigment Features

<table>
<thead>
<tr>
<th>#</th>
<th>Security feature</th>
<th>M/O</th>
<th>*A.1</th>
<th>*A.2</th>
<th>*B.1</th>
<th>*B.2</th>
<th>*C.3</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1</td>
<td>Security background printing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.1</td>
<td>UV fluorescent ink in security background printing</td>
<td>M</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>3.1.2</td>
<td>Optical effect pigments (other than UV or IR pigments)</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>X</td>
</tr>
<tr>
<td>3.1.3</td>
<td>IR-fluorescent ink</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3.1.4</td>
<td>IR-drop out inks</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3.1.5</td>
<td>Non-optical effect pigments</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1.6</td>
<td>Metameric Ink</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3.1.7</td>
<td>Phosphorescent Ink</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>3.1.8</td>
<td>Tagged Ink</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3.2</td>
<td>Personalized data</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2.1</td>
<td>Optical effect pigments (other than UV or IR pigments)</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>3.2.2</td>
<td>IR-fluorescent ink</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3.2.3</td>
<td>IR-drop out inks</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3.2.4</td>
<td>Non-optical effect pigments</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>3.2.5</td>
<td>UV fluorescent ink in personalized data</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3.2.6</td>
<td>Chemically reactive</td>
<td>O</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2.7</td>
<td>Metameric Ink</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2.8</td>
<td>Phosphorescent Ink</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>3.2.9</td>
<td>Tagged Ink</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Protecting personalized data

One type of attack on a DL/ID involves the removal of the portrait image from a stolen or illegally obtained document and its replacement with the portrait image of a different person. To counter this attack, a security feature shall overlap the portrait area without obstructing the visibility of the portrait.

The application of the dynamic data elements including the portrait shall be by one of the digital imaging technologies or a process offering equivalent security, since a DL/ID with a physically attached photograph is particularly susceptible to photo-substitution.
To ensure that data is properly secured against attempts at forgery the dynamic data elements shall be integrated into the layers of a DL/ID. A variety of technologies are available for applying the data in this way, including the following examples, which are listed in no particular order of importance:

- Electro-photographic printing
- Thermal transfer printing
- Ink-jet printing
- Photographic process
- Laser engraving

The development and availability of digital imaging techniques and their resulting potential for fraud means that high grade security features in the form of optically variable elements or other equivalent devices are the preferred optional security features for protecting against copying and scanning.

Appropriate integration of optically variable element components or other equivalent devices in an appropriate position in the structure of the DL/ID also protects the DL/ID from counterfeiting.

Dynamic data elements shall be protected against abrasion over time and against fraudulent tampering either by a final assembly including a transparent element (layer, varnish, overlay) securely bonded or by the use of a technology which is by design adapted to afford the related protection such as laser engraving inside the card body. Although these precautions relate primarily to the dynamic data elements on the portrait side of the DL/ID, appropriate protection against tampering of the data in on the non-portrait side (Zones IV,V) of the DL/ID shall also be included.
In addition to the four mandatory features (M), at least 1 optional security feature (O) shall be included from Table E.5.

### Table E-5 — Protecting Personalized Data Features

<table>
<thead>
<tr>
<th>#</th>
<th>Security feature</th>
<th>M/O</th>
<th>*A.1</th>
<th>*A.2</th>
<th>*B.1</th>
<th>*B.2</th>
<th>*C.3</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1</td>
<td>Printing dynamic data elements using digital imaging technologies</td>
<td>M</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2</td>
<td>Laminate, overlay or coating for surface printed data and portrait</td>
<td>M</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>PDF 417 Barcode</td>
<td>M</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>Security background overlapping the portrait image area</td>
<td>M</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y/N</td>
</tr>
<tr>
<td>4.5</td>
<td>Embedded data in the portrait image</td>
<td>O</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.6</td>
<td>Redundant personalized data</td>
<td>O</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.7</td>
<td>Optical Variable Element</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.8</td>
<td>Areas of different surface reflection</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.9</td>
<td>Personalized tactile elements</td>
<td>O</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.10</td>
<td>Lenticular patterns such as variable laser element (CLI/MLI)</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.11</td>
<td>Random pattern resulting in unique codes</td>
<td>O</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.12</td>
<td>Fine Line Foreground</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.13</td>
<td>Ghost image</td>
<td>O</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.14</td>
<td>Covert Device – Readable and Storage Technology</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.15</td>
<td>Covert variable pixel manipulation</td>
<td>O</td>
<td>x</td>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.16</td>
<td>Digital seal</td>
<td>O</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.17</td>
<td>Visible security device overlapping the portrait</td>
<td>O</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.18</td>
<td>Magnetic media fingerprinting</td>
<td>O</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.19</td>
<td>Optical media fingerprinting</td>
<td>O</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Document Security Management

Production of a DL/ID, including the personalization processes, shall be undertaken in a secure environment with appropriate security measures in place to protect the premises against unauthorized access. Centralized DL/ID production and personalization is recommended wherever possible. If the personalization process is decentralized, or if personalization is carried out in a location geographically separated from where card blanks are made, care shall be taken to transport blank cards and security sensitive materials by secure means to safeguard their security in transit.

There shall be full accountability over all the security materials used in the production of good and spoiled DL/IDs and a full reconciliation at each stage of the production process, with records maintained to account for all material usage (including waste). The audit trail shall be to a sufficient level of detail to account for secure materials used in the production and shall be independently audited by persons who are not directly involved in the production. Certified records shall be kept of the destruction of all security waste material and spoiled DL/IDs.

The specifications of all secure material used in the production of a DL/ID should be carefully controlled and should be quality assured to ensure consistency from one batch to another. Security feature components of a DL/ID should be obtained only from bona fide security suppliers who can demonstrate that they have appropriate security procedures in place to safeguard the security of the supply chain.

Security design experts shall use specialized security design software packages for at least part of the security background and not general graphics software packages that are commercially available to the public for originating the entire security background.

Main Threats to the security of a DL/ID

Introduction

This section looks at the main threats to DL/ID security in terms of the ways in which a DL/ID, its issuance and its use may be fraudulently attacked. The purpose of this section is to provide a context for the recommendation of security features in the subsequent sections.

The threats are split into three primary categories according to characteristics of the underlying attacks: Counterfeiting, Falsification and Misuse.

Counterfeiting Threats

*Document design Attacks

*A.1.1 Re-creating the basic document look and feel including such as the background pattern, flags, and other fixed motives.

- Copying and printing a valid document for physical manipulation
- Scanning a valid document for modification using computer software
- Re-creating of the document using computer software
*A.1.2 Adding personalized information

- Image and text editing with computer software (re-origination)

*A.2 Substitute Material/Personalization attacks

*A.2.1 Substitute Materials

- Using substitute materials to imitate original documents
- Paper vs Teslin vs PVC vs PET vs PC
- Using original material that may be commercially available

*A.2.2 Substitute Printing Methods

- Reproduction of background and logos using alternative technologies
- Screen printing vs offset printing vs dye sublimation vs laser
- Reproduction of text and images using alternative technologies
- Inkjet vs dye sublimation vs laser vs laser engraving

*A.2.3 Alternate Finishing

- Final lamination of the document using commercial laminates

*B.1 Falsification Threats

*B.1.1 Text attacks

- Printing directly on document, e.g. manipulation (erasing, modifying, adding) of data such as card holder

*B.1.2 Image Attacks

- Complete substitution of the license holder’s portrait image
- Masking the original portrait by overlaying another photo
- Changing the original portrait to alter the appearance of the person

*B.1.3 Delaminating Attacks
Partly delaminating to remove genuine features and inserts forged ones (e.g. exchanging data by replacing the data carrying layers)

Insert forged data or security features after adding, removing or damaging genuine ones during partial delaminating

*B.2 Falsification by Recycling

*B.2.1 Extraction of genuine security features

• Removal of security features from genuine cards (e.g. a hologram) for reuse in a falsified document

*B.2.2 Use of recycled genuine security features in a new falsification

• Applying original document parts including data storage elements into forged document

*B.3 Falsification of logical data

*B.3.1 Logical data denial of service attack

• Destruction of data storage elements to circumvent logical security features

*B.3.2 Logical data substitution attack

• Substitution of data storage elements such as IC’s, magnetic stripes and laser recording

C.4 Misuse attacks

*C.1 Misuse of genuine valid documents

*C.1.1 Identity theft

• An unauthorized person using a valid genuine physical document of another similar looking person

*C.2 Misuse of invalid documents

*C.2.1 Invalid documents

• Use of registered lost or stolen documents by look-alikes of the real document holder

*C.2.2 Cloned documents

• Cloning of logical data from a similar looking person

*C.3 Misuse by theft of original blank documents
This category of threats deals with the theft of original blank documents at some stage during the document life cycle up, until the point of personalization. This can be during the production of the document, during document transport, or during subsequent storage of the document at the personalization location.

*C.3.1 Theft of blank cards at the card production site

- Misappropriated during the production process
- Cards removed for quality assurance purposes
- Reject blank cards
- Taken from the intermediate production storage

*C.3.2 Theft of blank cards during the transportation process

- During card packaging
- During card transportation
- During intermediate storage

*C.3.3 Blank cards are removed from the personalization site

- From where they are stored
- During the stock issuance process
- During the personalization process
- Reject/Lost cards
- Intermediate storage

*C.3.4 Stolen blank documents personalized using alternative personalization methods that are available to the attacker

*C.3.5 Stolen documents personalized using the official equipment or using test personalization equipment

*C.4 Misuse through the fraudulent issue of genuine documents

*C.4.1 An attacker makes a fraudulent application for a DL/ID credential

- Identity theft using genuine breeder documents
- Fraudulent breeder documents
C.4.2 Employee at the issuing authority makes unauthorized requests for DL/ID credential

- Employee bribed by an attacker
**Mandatory PDF417 Bar Code**

**Functional Requirements**

The primary function of the driver license document is to provide evidence of driving privileges and restrictions. The remaining functions of the DL/ID documents are to aid in: identity and age verification, automation of administrative processing, and address verification. The mandatory and optional data elements defined in this annex, and the mapping of the elements to the machine-readable technology, flow from these functional requirements. This standard primarily seeks to support the needs of the law enforcement community and their interaction with DL/ID documents.

All mandatory and optional data must be unencrypted. Issuing jurisdictions may encrypt jurisdiction-specific data in a separate subfile or within a different storage media.

**Mandatory machine-readable technology – PDF417**

The PDF417 two dimensional bar code symbology is the minimum mandatory machine-readable technology that must be present on compliant DL/ID documents.

**Conformance**


**Symbology**

The PDF417 symbology shall be used for the Driver’s License applications.

The following PDF417 symbology variants shall NOT be used.

- Compact PDF417
- MicroPDF417
- MacroPDF417

**Symbology Characteristics**

The symbology characteristics shall conform to ISO/IEC

**Dimensions and Print Quality**

**Narrow Element design**

The narrow element dimension (X dimension) range shall be from .170mm (.0066 inch) to .380mm (.015 inch) as determined by the printing capability of the supplier/printer. Symbols with narrow elements at the lower end of this range, i.e., .170mm (.0066 inch) to .250mm (.010 inch), may require special care to meet the print quality requirements of this standard.

**Row Height**

The PDF417 symbol shall have a minimum row height (height of the symbol element) of three (3) times the width of the narrow element (“X” dimension). Increasing the row height may improve scanning performance but will reduce the number of characters that can be encoded in a given space.
Quite Zone

The PDF417 symbol shall have a minimum quiet zone of 1X (X = the narrow element dimension) above, below, to the left, and to the right. The quiet zone is included within the calculation of the size of the symbol.

Print Quality

The AIMUSA Uniform Symbology Specification PDF417 and ISO/IEC 15415 Information technology – Automatic identification and data capture techniques – Bar code symbol print quality test specification – Two dimensional symbols - shall be used to determine the print quality of the PDF417 symbol.

The minimum symbol grade shall be 2.5/6/660, where:

Recommended Print Quality grade 2.5 (B) at the point of printing the symbol before lamination and a Print Quality Grade of 1.5 (C) after lamination. Measurement Aperture = 6 mil (0.060 inch)

Light Source Wavelength = 660 nanometers (nm) ± 10 nm

The above symbol quality and measurement parameters assure scanability over a broad range of scanning environments.

It is important that the bar code be decodable throughout the system of use. For this reason, quality tests should not be limited to production inspection but also should be followed through to the end use.

Error Correction

PDF417 symbols shall use a minimum Error Correction Level of 3. Where space allows, an Error Correction Level of 5 is recommended. Error correction is important for decoding the bar code because certain security laminates interfere with the readability of bar codes, and higher error correction levels help to ensure the prolonged usability of the bar code as abrasions and other damage are incurred over time.

Character Sets

The AAMVA community shall use the 256 character table known as ASCII/ISO 8859-1 as the character set table when generating Hi-Density symbols and for efficiency shall use the 128 character subset text compaction table.

Compression

No specific recommendation is presented at this time. The AAMVA community has no need to employ specific Compression techniques beyond the field truncation constructs incorporated into the overall Data Structure option recommended in this standard.

Sampling

To ensure that printed on-demand bar code symbols meet the above Print Quality specification, it is recommended that a sample set of symbols, produced in their final form, be verified a minimum of once per day.

Military Standard, Sampling Procedures and Tables for Inspection by Attributes (ANSI/ASQC Z1.4),
provides useful guidelines for statistically valid sampling plans. Acceptable quality levels (AQL) may be established prior to quality control inspection.

Symbology Durability

If bar code symbol durability is required, then the test method in Annex E, Table E.1 (NCITS 322 5.10), should be used.

Bar Code Area

The bar code area shall be located in Zone V of the DL/ID document. The maximum width of the PDF417 symbol shall be 75.565 mm (2.975”). The maximum height of the PDF417 symbol shall be 38.1 mm (1.50”).

Orientation and Placement

PDF417 Orientation

All PDF417 symbols shall have the same orientation. The bars of the PDF417 symbol shall be perpendicular to the natural bottom of the card. (see Figure D.1).

The symbol skew shall not be more than ±5 degrees.

Designing the Card Layout

Figure D.1 — Orientation of PDF417 symbol on bottom

Plan for the maximum amount of data:

Determine the required and optional fields that will be required and the maximum anticipated length of each field. Add in the additional characters needed for formatting.

Plan for the maximum “X” dimension(s) that may be used:

Since the supplier/printer of the card ultimately determines the “X” dimension at which the symbol will be printed, it is possible that a PDF417 symbol could be printed at any “X” dimension from .0066 inch to .015 inch. The largest “X” dimension that allows all the data to fit in the maximum area available should be used when printing the symbol.

Data Encoding Structures

Structure Options

A compliant 2D symbol shall employ either the encoding structure set out in D.12.2 to D12.5 or the encoding structure set out in Annex I.
Overview

All compliant 2D symbols shall employ a file header that allows interested parties to interpret the encoded data. Subfiles shall be employed to carry the specific information. The combination of a header and one or more subfile designators shall make up a compliant 2D symbol.

Each 2-dimensional bar code shall begin with a file header that will identify the bar code as complying with this standard. The header shall be followed by a subfile designator “DL” to identify the DL/ID data type stored in the file. Each data element contained in a subfile shall be prefaced by a data element identifier (Element ID) as defined in Tables D.3 and D.4. The use of a field separator character shall serve to both terminate a field and indicate the presence of a following field identifier.

Header

Compliant 2D symbols must begin with a Fixed Header in the following format (Note: The number of bytes for each field is fixed and must be present. The numbers must be zero filled.):

<table>
<thead>
<tr>
<th>Field</th>
<th>Bytes (Fixed)</th>
<th>Contents</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td><strong>Compliance Indicator:</strong> A 2D symbol encoded according to the rules of this standard shall include a Compliance Indicator. The Compliance Indicator as defined by this standard is the Commercial At Sign (“@”) (ASCII/ISO 646 Decimal “64”) (ASCII/ISO 646 Hex “40”). The Compliance Indicator is the first character of the symbol.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td><strong>Data Element Separator:</strong> The Data Element Separator is used in this standard to indicate that a new data element is to follow, and that the current field is terminated. Whenever a Data Element Separator is encountered (within a Subfile type which uses Data Element Separators), the next character(s) shall either be a Segment Terminator or shall define the contents of the next field according to the template of the specific Subfile. The Data Element Separator as defined by this standard is the Line Feed character (“LF” ASCII/ISO 646 Decimal “10”) (ASCII/ISO 646 Hex “0A”). The Data Element Separator is the second character of the symbol.</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td><strong>Record Separator:</strong> The Record Separator as defined by this standard is the Record Separator character (“RS” ASCII/ISO 646 Decimal “30”) (ASCII/ISO 646 Hex “1E”). As this report is presented for ratification, there is no special case defined for when this field will be used. It is embodied within the recommendation for future growth. The Record Separator is the third character of the symbol and shall always be reflected within the header in a compliant symbol.</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td><strong>Segment Terminator:</strong> As used in this standard the Segment Terminator is used to end Subfiles where Field Identifiers are employed. The Segment Terminator as defined by this standard is the Carriage Return character (“CR” ASCII/ISO 646 Decimal “13”) (ASCII/ISO 646 Hex “0D”). The Segment Terminator is the fourth character of the symbol.</td>
<td></td>
</tr>
<tr>
<td>Field</td>
<td>Bytes (Fixed)</td>
<td>Contents</td>
<td>Y/N</td>
</tr>
<tr>
<td>-------</td>
<td>--------------</td>
<td>----------</td>
<td>-----</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td><strong>File Type:</strong> This is the designator that identifies the file as an AAMVA compliant format. The designator is defined as the 5 byte upper character string “ANSI “, with a blank space after the fourth character.</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td><strong>Issuer Identification Number (IIN)</strong>: This number uniquely identifies the issuing jurisdiction and can be obtained by contacting the ISO Issuing Authority (AAMVA). The full 6 digit IIN should be recorded.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td><strong>AAMVA Version Number:</strong> This is a decimal value between 00 and 99 that specifies the version level of the PDF417 bar code format. Version “0” and &quot;00&quot; is reserved for bar codes printed to the specification of the American Association of Motor Vehicle Administrators (AAMVA) prior to the adoption of the AAMVA DL/ID-2000 standard. All bar codes compliant with the AAMVA DL/ID-2000 standard are designated Version “01”. All barcodes compliant with AAMVA Card Design Specification version 1.0, dated 09-2003 shall be designated Version “02”. All barcodes compliant with AAMVA Card Design Specification version 2.0, dated 03-2005 shall be designated Version “03”. All barcodes compliant with AAMVA Card Design Standard version 1.0, dated 07-2009 shall be designated Version “04”. All barcodes compliant with AAMVA Card Design Standard version 1.0, dated 07-2010 shall be designated Version “05”. All barcodes compliant with AAMVA Card Design Standard version 1.0, dated 07-2011 shall be designated Version “06”. All barcodes compliant with AAMVA Card Design Standard version 1.0, dated 06-2012 shall be designated Version “07”. All barcodes compliant with this current AAMVA standard shall be designated “08”. Should a need arise requiring major revision to the format, this field provides the means to</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2</td>
<td><strong>Jurisdiction Version Number:</strong> This is a decimal value between 00 and 99 that specifies the jurisdiction version level of the PDF417 bar code format. Notwithstanding iterations of this standard, jurisdictions implement incremental changes to their bar codes, including new jurisdiction-specific data, compression algorithms for digitized images, digital signatures, or new truncation conventions used for names and addresses. Each change to the bar code format within each AAMVA version (above) must be noted, beginning with Jurisdiction Version 00.</td>
<td></td>
</tr>
</tbody>
</table>
**Subfile Designator**

All compliant 2D bar code symbols must contain the “DL” or “ID” subfile structure as defined below immediately after the Header as defined in D.12.1. The subfile designator is a fixed element, as well as the number of bytes, and the numbers must be zero-filled. All sub file headers must follow one another.

**Table E-7 – Subfile designator format**

<table>
<thead>
<tr>
<th>Field</th>
<th>Bytes (Fixed)</th>
<th>Contents</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>2</td>
<td><strong>Number of Entries:</strong> This is a decimal value between “01 and 99” that specifies the number of different Subfile types that are contained in the bar code. This value defines the number of individual subfile designators that follow. All subfile designators (as defined below) follow one behind the other. The data related to the first subfile designator follows the last Subfile Designator.</td>
<td></td>
</tr>
</tbody>
</table>

**Subfile Type:** This is the designator that identifies what type of data is contained in this portion of the file. The 2-character uppercase character field “DL” is the designator for DL subfile type and “ID” is the subfile type for non-DLs containing mandatory and optional data elements as defined in tables D.3 and D.4. Jurisdictions may define a subfile to contain jurisdiction-specific information. These subfiles are designated with the first character of “Z” and the second character is the first letter of the jurisdiction's name. For example, "ZC" would be the designator for a California or Colorado jurisdiction-defined subfile; "ZQ" would be the designator for a Quebec jurisdiction-defined subfile. In the case of a jurisdiction-defined subfile that has a first letter that could be more than one jurisdiction (e.g. California, Colorado, Connecticut) then other data, like the IIN or address, must be examined to determine the jurisdiction.

**Offset:** These bytes contain a 4 digit numeric value that specifies the number of bytes from the head or beginning of the file to where the data related to the particular sub-file is located. The first byte in the file is located at offset 0.

**Length:** These bytes contain a 4 digit numeric value that specifies the length of the Subfile in bytes. The segment terminator must be included in calculating the length of the subfile. A segment terminator = 1. Each subfile must begin with the two-character Subfile Type and these two characters must also be included in the length.
Data Elements

Table E-8 define mandatory and optional data elements that are accommodated in the “DL” and “ID” subfile types. Jurisdiction-specific data elements may also be encoded, provided the bar code ID is a 3-character uppercase character field beginning with “ZX” where ”X” is the first letter of the jurisdictions name. Each data element field within the jurisdiction-defined subfile should follow consecutively in alphabetic order. For example, data elements in a Virginia subfile would be ZVA, ZVB, etc.; a Delaware subfile would be ZDA, ZDB, etc.).

Mandatory data elements for which no data exists for a given cardholder are to be encoded with the word "NONE". In the event data is not available for a mandatory data element, "unavl" is to be encoded.

Minimum Mandatory Data Elements

Column 1: (Data Ref.): serves as a reference indicator for citation elsewhere in this standard and in other documents.

Column 2: (Element ID): three letter bar code element identifier corresponding to the data element. The three letter identifier must precede the encoded data element.

Column 3: (Data element): common name or phrase that designates what information is to be encoded in the 2D bar code.

Column 4: (Definition): description of the data element, including any exceptions.

Column 5: (Card type): identifies the applicability of the data element. DL = driver license only; ID = non-driver identification card only; Both = both the driver license and the non-driver identification card.

Column 6: (Length/type): valid field length (i.e., the number of characters) for each data element. The following refer to the valid characters or image used (A=alpha A-Z, N=numeric 0-9, S=special, F=fixed length, V=variable length). Use of padding for variable length fields is optional.

Table E-8 – 2D Mandatory data elements

<table>
<thead>
<tr>
<th>Data Ref.</th>
<th>Element ID</th>
<th>Data Element</th>
<th>Definition</th>
<th>Card type</th>
<th>Length/type</th>
<th>Y/N</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>DCA</td>
<td>Jurisdiction-specific vehicle class</td>
<td>Jurisdiction-specific vehicle class / group code, designating the type of vehicle the cardholder has privilege to drive.</td>
<td>DL</td>
<td>V6ANS</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td>DCB</td>
<td>Jurisdiction-specific restriction codes</td>
<td>Jurisdiction-specific codes that represent restrictions to driving privileges (such as airbrakes, automatic transmission, daylight only, etc.).</td>
<td>DL</td>
<td>V12ANS</td>
<td></td>
</tr>
<tr>
<td>Data Ref.</td>
<td>Element ID</td>
<td>Data Element</td>
<td>Definition</td>
<td>Card type</td>
<td>Length type / Y/N</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
<td>------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>DCD</td>
<td>Jurisdiction-specific endorsement codes</td>
<td>Jurisdiction-specific codes that represent additional privileges granted to the cardholder beyond the vehicle class (such as transportation of passengers, hazardous materials, operation)</td>
<td>DL</td>
<td>V5ANS</td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td>DBA</td>
<td>Document Expiration Date</td>
<td>Date on which the driving and identification privileges granted by the document are no longer valid. (MMDDCCYY for U.S., CCYYMMDD for Canada)</td>
<td>Both</td>
<td>F8N</td>
<td></td>
</tr>
<tr>
<td>e.</td>
<td>DCS</td>
<td>Customer Family Name</td>
<td>Family name of the cardholder. (Family name is sometimes also called “last name” or “surname.”) Collect full name for record, print as many characters as possible on portrait side of DL/ID.</td>
<td>Both</td>
<td>V40ANS</td>
<td></td>
</tr>
<tr>
<td>f.</td>
<td>DAC</td>
<td>Customer First Name</td>
<td>First name of the cardholder.</td>
<td>Both</td>
<td>V40ANS</td>
<td></td>
</tr>
<tr>
<td>g.</td>
<td>DAD</td>
<td>Customer Middle Name(s)</td>
<td>Middle name(s) of the cardholder. In the case of multiple middle names they shall be seperated by a comma “,”.</td>
<td>Both</td>
<td>V40ANS</td>
<td></td>
</tr>
<tr>
<td>h.</td>
<td>DBD</td>
<td>Document Issue Date</td>
<td>Date on which the document was issued. (MMDDCCYY for U.S., CCYYMMDD for Canada)</td>
<td>Both</td>
<td>F8N</td>
<td></td>
</tr>
<tr>
<td>i.</td>
<td>DBB</td>
<td>Date of Birth</td>
<td>Date on which the cardholder was born. (MMDDCCYY for U.S., CCYYMMDD for Canada)</td>
<td>Both</td>
<td>F8N</td>
<td></td>
</tr>
<tr>
<td>j.</td>
<td>DBC</td>
<td>Physical Description – Sex</td>
<td>Gender of the cardholder. 1 = male, 2 = female.</td>
<td>Both</td>
<td>F1N</td>
<td></td>
</tr>
<tr>
<td>k.</td>
<td>DAY</td>
<td>Physical Description – Eye Color</td>
<td>Color of cardholder's eyes. (ANSI D-20 codes)</td>
<td>Both</td>
<td>F3A</td>
<td></td>
</tr>
<tr>
<td>l.</td>
<td>DAU</td>
<td>Physical Description –</td>
<td>Height of cardholder. Inches (in): number of inches followed by &quot; in&quot;</td>
<td>Both</td>
<td>F6AN</td>
<td></td>
</tr>
<tr>
<td>Data Ref.</td>
<td>Element ID</td>
<td>Data Element</td>
<td>Definition</td>
<td>Card type</td>
<td>Length / type</td>
<td>Y/N</td>
</tr>
<tr>
<td>----------</td>
<td>------------</td>
<td>-------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------</td>
<td>---------------</td>
<td>-----</td>
</tr>
</tbody>
</table>
|          |            | Height                        | ex. 6'1" = "073 in"  
Centimeters (cm): number of centimeters followed by " cm"  
ex. 181 centimeters="181 cm" |           |               |     |
| m.       | DAG        | Address – Street 1            | Street portion of the cardholder address.                                                                                                    | Both      | V35ANS        |     |
| n.       | DAI        | Address – City                | City portion of the cardholder address.                                                                                                      | Both      | V20ANS        |     |
| o.       | DAJ        | Address – Jurisdiction Code   | State portion of the cardholder address.                                                                                                     | Both      | F2A           |     |
| p.       | DAK        | Address – Postal Code         | Postal code portion of the cardholder address in the U.S. and Canada. If the trailing portion of the postal code in the U.S. is not known, zeros will be used to fill the trailing set of numbers up to nine (9) digits. | Both      | F11AN         |     |
| q.       | DAQ        | Customer ID Number            | The number assigned or calculated by the issuing authority.                                                                                   | Both      | V25ANS        |     |
| r.       | DCF        | Document Discriminator        | Number must uniquely identify a particular document issued to that customer from others that may have been issued in the past. This number may serve multiple purposes of document discrimination, audit information number, and/or inventory control. | Both      | V25ANS        |     |
| s.       | DCG        | Country Identification        | Country in which DL/ID is issued.  
U.S. = USA, Canada = CAN.                                                                                                                     | Both      | F3A           |     |
| t.       | DDE        | Family name truncation        | A code that indicates whether a field has been truncated (T), has not been truncated (N), or – unknown whether truncated (U).                | Both      | F1A           |     |
| u.       | DDF        | First name truncation         | A code that indicates whether a field has been truncated (T), has not been truncated (N), or – unknown whether truncated (U).                | Both      | F1A           |     |
| v.       | DDG        | Middle name                   | A code that indicates whether a field has been truncated (T), has not been truncated (N), or – unknown whether truncated (U).                | Both      | F1A           |     |
Example of Raw PDF417 Data

The following represents the data stream of a compliant PDF417 bar code. For this example AAMVA chose Virgina and the IIN found in the header; the jurisdiction specific classification, restriction, endorsement codes; address jurisdiction; and jurisdiction specific field use data as though it was a Virginia document.

ANSI 636000080002DL00410278ZV03190008DLDAQT64235789LA
Header Fields:

- Compliance Indicator: @
- Data Element Separator: Line Feed character (\F)
- Record Separator: Record Separator character (\S)
- Segment Terminator: Carriage Return character (\R)
- File Type: ‘ANSI ’ (Note: ANSI followed by a SPACE).
- Issuer Identification Number (IIN): 6-digit IIN: ‘636000’
- AAMVA Version Number: ‘08’
- Jurisdiction Version Number: ‘00’
- Number of Entries: ‘02’ (numeric value for # of sub-files in the barcode)

Sub-file Designator:

- Sub-file Type: DL – DL data
- Offset: 0041
- Length: 0278
- Sub-file Type: ZV – Jurisdiction Specific data
- Offset: 0319
- Length: 0008

Mandatory Fields:

- Customer Number - DAQ
- Family Name - DCS
- Family Name Truncation - DDE
- First Names – DAC
- First Names Truncation - DDF
- Middle Names - DAD
- Middle Names Truncation - DDG
- Virginia Specific Class - DCA
- Virginia Specific Restrictions - DCB
- Virginia Specific Endorsements - DCD
- Issue Date - DBD
- Date of Birth - DBB
- Expiration Date - DBA
- Sex - DBC
- Height - DAU
Card Use Environment and Durability Requirements

The materials and manufacturing process used for the production of DL/ID cards shall be of such a quality that a DL/ID card shall stay intact and shall not delaminate, deform, chip, tear, disintegrate or become illegible or otherwise dysfunctional under conditions of normal wear and tear from the point where it is produced until the expiry of the validity period of the DL/ID card. In particular, all details, including the photograph/image, signature images, machine-readable data and security features, shall not fade, and shall remain clearly legible/readable/distinguishable for the validity period of the DL/ID card.

As with the general requirements, conditions of normal wear and tear will be differ between issuing authorities. The list below can be used as basis to compile issuing-authority specific conditions:

1. Carrying a DL/ID card in a wallet, or loose in a pocket (along with keys or coins), in all weather conditions, for 12 hours at a time, on a daily basis, including in dusty, dirty and gritty environments.

2. Leaving a DL/ID card in a motor vehicle on the dashboard, during which time it could daily be subject to direct sunlight and high temperatures (up to 90°C) for a continuous period of up to one month.

3. Leaving a DL/ID card in a motor vehicle at night in cold conditions, during which time it could be subject to temperatures as low as -5°C, followed by an increase in temperature up to 20°C (when the vehicle is in use again), associated with manual handling of the DL/ID card (at any temperature).

4. Leaving a DL/ID card in a piece of clothing during which time it will be subject to water with high temperatures, washing and abrasion (e.g. in a washing machine or dryer) and/or dry cleaning chemicals.

5. Occasional exposure to the following:
   a. Water, rain, hail and snow.
b. Matter such as mud, oil, grease and fuel.

c. Magnetic fields.

d. X-Rays.
Subject: AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

**GENERAL PROVISIONS**

1. IDENTIFICATION.

<table>
<thead>
<tr>
<th>1.1 State Agency Name</th>
<th>1.2 State Agency Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.3 Contractor Name</th>
<th>1.4 Contractor Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.5 Contractor Phone Number</th>
<th>1.6 Account Number</th>
<th>1.7 Completion Date</th>
<th>1.8 Price Limitation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.9 Contracting Officer for State Agency</th>
<th>1.10 State Agency Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.11 Contractor Signature</th>
<th>1.12 Name and Title of Contractor Signatory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.13 Acknowledgement: State of</th>
<th>County of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On [date], before the undersigned officer, personally appeared the person identified in block 1.12, or satisfactorily proven to be the person whose name is signed in block 1.11, and acknowledged that s/he executed this document in the capacity indicated in block 1.12.

<table>
<thead>
<tr>
<th>1.13.1 Signature of Notary Public or Justice of the Peace</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Seal]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.13.2 Name and Title of Notary or Justice of the Peace</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>1.14 State Agency Signature</th>
<th>1.15 Name and Title of State Agency Signatory</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.16 Approval by the N.H. Department of Administration, Division of Personnel (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>By:</td>
</tr>
<tr>
<td>Director, On:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.17 Approval by the Attorney General (Form, Substance and Execution)</th>
</tr>
</thead>
<tbody>
<tr>
<td>By:</td>
</tr>
<tr>
<td>On:</td>
</tr>
</tbody>
</table>
2. EMPLOYMENT OF CONTRACTOR/SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT A which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.
3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, this Agreement, and all obligations of the parties hereunder, shall not become effective until the date the Governor and Executive Council approve this Agreement ("Effective Date").
3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed. Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.
Notwithstanding any provision of this Agreement to the contrary, all obligations of the State hereunder, including, without limitation, the continuance of payments hereunder, are contingent upon the availability and continued appropriation of funds, and in no event shall the State be liable for any payments hereunder in excess of such available appropriated funds. In the event of a reduction or termination of appropriated funds, the State shall have the right to withhold payment until such funds become available, if ever, and shall have the right to terminate this Agreement immediately upon giving the Contractor notice of such termination. The State shall not be required to transfer funds from any other account to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/PAYMENT.
5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT B which is incorporated herein by reference.
5.2 The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance hereof, and shall be the only and the complete compensation to the Contractor for the Services. The State shall have no liability to the Contractor other than the contract price.

5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.
5.4 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/ EQUAL EMPLOYMENT OPPORTUNITY.
6.1 In connection with the performance of the Services, the Contractor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the Contractor, including, but not limited to, civil rights and equal opportunity laws. In addition, the Contractor shall comply with all applicable copyright laws.
6.2 During the term of this Agreement, the Contractor shall not discriminate against employees or applicants for employment because of race, color, religion, creed, age, sex, handicap, sexual orientation, or national origin and will take affirmative action to prevent such discrimination.
6.3 If this Agreement is funded in any part by monies of the United States, the Contractor shall comply with all the provisions of Executive Order No. 11246 ("Equal Employment Opportunity"), as supplemented by the regulations of the United States Department of Labor (41 C.F.R. Part 60), and with any rules, regulations and guidelines as the State of New Hampshire or the United States issue to implement these regulations. The Contractor further agrees to permit the State or United States access to any of the Contractor’s books, records and accounts for the purpose of ascertaining compliance with all rules, regulations and orders, and the covenants, terms and conditions of this Agreement.

7. PERSONNEL.
7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.
7.2 Unless otherwise authorized in writing, during the term of this Agreement, and for a period of six (6) months after the Completion Date in block 1.7, the Contractor shall not hire, and shall not permit any subcontractor or other person, firm or corporation with whom it is engaged in a combined effort to perform the Services to hire, any person who is a State employee or official, who is materially involved in the procurement, administration or
performance of this Agreement. This provision shall survive termination of this Agreement.

7.3 The Contracting Officer specified in block 1.9, or his or her successor, shall be the State’s representative. In the event of any dispute concerning the interpretation of this Agreement, the Contracting Officer’s decision shall be final for the State.

8. EVENT OF DEFAULT/REMEDIES.

8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder (“Event of Default”):

8.1.1 failure to perform the Services satisfactorily or on schedule;
8.1.2 failure to submit any report required hereunder; and/or
8.1.3 failure to perform any other covenant, term or condition of this Agreement.

8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:

8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this Agreement, effective two (2) days after giving the Contractor notice of termination;
8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor;
8.2.3 set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or
8.2.4 treat the Agreement as breached and pursue any of its remedies at law or in equity, or both.

9. DATA/ACCESS/CONFIDENTIALITY/ PRESERVATION.

9.1 As used in this Agreement, the word “data” shall mean all information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

9.2 All data and any property which has been received from the State or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.

9.3 Confidentiality of data shall be governed by N.H. RSA chapter 91-A or other existing law. Disclosure of data requires prior written approval of the State.

10. TERMINATION. In the event of an early termination of this Agreement for any reason other than the completion of the Services, the Contractor shall deliver to the Contracting Officer, not later than fifteen (15) days after the date of termination, a report (“Termination Report”) describing in detail all Services performed, and the contract price earned, to and including the date of termination. The form, subject matter, content, and number of copies of the Termination Report shall be identical to those of any Final Report described in the attached EXHIBIT A.

11. CONTRACTOR’S RELATION TO THE STATE. In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers’ compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS. The Contractor shall not assign, or otherwise transfer any interest in this Agreement without the prior written consent of the N.H. Department of Administrative Services. None of the Services shall be subcontracted by the Contractor without the prior written consent of the State.

13. INDEMNIFICATION. The Contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based or resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Contractor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

14.1 The Contractor shall, at its sole expense, obtain and maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:

14.1.1 comprehensive general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than $250,000 per claim and $2,000,000 per occurrence; and
14.1.2 fire and extended coverage insurance covering all property subject to subparagraph 9.2 herein, in an amount not less than 80% of the whole replacement value of the property.

14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.

14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or his or her successor, a certificate(s) of insurance for all insurance required under this Agreement. Contractor shall also furnish to the Contracting Officer identified in block 1.9, or his or her successor, certificate(s) of insurance for all renewal(s) of insurance required under this Agreement no later than fifteen (15) days prior to the expiration date of each of the insurance policies. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference. Each certificate(s) of insurance shall contain a clause requiring the insurer to endeavor to provide the Contracting Officer identified in block 1.9, or his or her successor, no less than ten (10) days prior written notice of cancellation or modification of the policy.

15. WORKERS’ COMPENSATION.
15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from, the requirements of N.H. RSA chapter 281-A (“Workers’ Compensation”).
15.2 To the extent the Contractor is subject to the requirements of N.H. RSA chapter 281-A, Contractor shall maintain, and require any subcontractor or assignee to secure and maintain, payment of Workers’ Compensation in connection with activities which the person proposes to undertake pursuant to this Agreement. Contractor shall furnish the Contracting Officer identified in block 1.9, or his or her successor, proof of Workers’ Compensation in the manner described in N.H. RSA chapter 281-A and any applicable renewal(s) thereof, which shall be attached and are incorporated herein by reference. The State shall not be responsible for payment of any Workers’ Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers’ Compensation laws in connection with the performance of the Services under this Agreement.

16. WAIVER OF BREACH. No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event of Default, or any subsequent Event of Default. No express failure to enforce any Event of Default shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other Event of Default on the part of the Contractor.

17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire.

19. CONSTRUCTION OF AGREEMENT AND TERMS. This Agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.

20. THIRD PARTIES. The parties hereto do not intend to benefit any third parties and this Agreement shall not be construed to confer any such benefit.

21. HEADINGS. The headings throughout the Agreement are for reference purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

22. SPECIAL PROVISIONS. Additional provisions set forth in the attached EXHIBIT C are incorporated herein by reference.

23. SEVERABILITY. In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.

24. ENTIRE AGREEMENT. This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire Agreement and understanding between the parties, and supersedes all prior Agreements and understandings relating hereto.