MorphoTrust USA

The Identity Company

State of Nebraska
State Purchasing Bureau

PROPOSAL

In Response to:

RFI 52016
Nebraska Department of Motor Vehicles (State DMV) Vehicle Title and Registration System (VTR)

Submission Date:

June 30, 2016

ORIGINAL

Submitted to:

Teresa Fleming/Robert Thompson
State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, NE 68508

Submitted by:

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SAFRAN
MorphoTrust USA

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Our Mission

To simplify, protect and secure people's lives.

Request for Information Form

The following page contains a signed copy of the Request for Information Form as required per this RFI.

State of Nebraska (State Purchasing Bureau)

REQUEST FOR INFORMATION

RETURN TO:
State Purchasing Bureau
1526 K Street, Suite 130
Lincoln, Nebraska 68508
Phone: 402-471-6500
Fax: 402-471-2089

SOLICITATION NUMBER	RELEASE DATE
RFI 52016	**May 20, 2016**
OPENING DATE AND TIME	PROCUREMENT CONTACT
June 30, 2016 2:00 p.m. Central Time	**Teresa Fleming/Robert Thompson**

This form is part of the specification package and must be signed in ink and returned, along with information documents, by the opening date and time specified.

PLEASE READ CAREFULLY!

SCOPE OF SERVICE

The State of Nebraska, Administrative Services, Materiel Division, State Purchasing Bureau, is issuing this Request for Information (RFI) 52016 for the purpose of gathering information to modernize the Nebraska Department of Motor Vehicles (State DMV) Vehicle Title and Registration System (VTR).

Written questions are due no later than June 3, 2016, and should be submitted via e-mail to as.materielpurchasing@nebraska.gov. Written questions may also be sent by facsimile to (402) 471-2089.

Bidder should submit one (1) original of the entire RFI response. RFI responses should be submitted by the RFI due date and time.

Sealed RFI responses should be received in the State Purchasing Bureau by the date and time of RFI opening indicated above.

BIDDER MUST COMPLETE THE FOLLOWING

By signing this Request for Information form, the bidder guarantees compliance with the provisions stated in this Request for Information.

FIRM: MorphoTrust USA

COMPLETE ADDRESS: 296 Concord Road, Suite 300, Billerica, MA 01821

TELEPHONE NUMBER: 978-215-2400 FAX NUMBER: 978-215-2500

SIGNATURE: _____ DATE: 6/27/2016

TYPED NAME AND TITLE OF SIGNER: Leevi Raassina, Director of Proposal Management

Form A: Vendor Contact Sheet

The following page contains Form A: Vendor Contact Sheet as required per this RFI.

FORM A

VENDOR CONTACT SHEET

Request for Information Number 52016

Form A should be completed and submitted with each response to this solicitation document. This is intended to provide the State with information on the vendor's name and address, and the specific persons who are responsible for preparation of the vendor's response.

Preparation of Response Contact Information	
Vendor Name:	MorphoTrust USA, LLC
Vendor Address:	296 Concord Road, Suite 300 Billerica, Massachusetts 01821
Contact Person and Title:	James Trager, Proposal Manager
E-mail Address:	jtrager@morphotrust.com
Telephone Number (Office):	978-215-2876
Telephone Number (Cellular):	217-494-6179
Fax Number:	N/A

Each vendor shall also designate a specific contact person who will be responsible for responding to the State if any clarification of the vendor's response should become necessary. This will also be the person who the State contacts to set up a presentation/demonstration, if required.

Communication with the State Contact Information	
Vendor Name:	MorphoTrust USA, LLC
Vendor Address:	296 Concord Road, Suite 300 Billerica, Massachusetts 01821
Contact Person and Title:	Dino Redmond, Client Executive
E-mail Address:	dredmond@morphotrust.com
Telephone Number (Office):	260-496-7480
Telephone Number (Cellular):	260-438-2329
Fax Number:	N/A

Executive Summary

Proven Performance

"DPS has chosen MorphoTrust for its Modernization project, knowing the new system would be in place for the next 15 years, and given our successful track record on partnering with MorphoTrust for DL/ID services. We have been impressed with the depth of experience on their team – their JAD sessions, in particular, have really helped us to optimize the new business processes we will be implementing."

—Clay Johnston, IT Director
Mississippi DPS

MorphoTrust USA, LLC (MorphoTrust) is describing our CompleteMVA solution to modernize the Nebraska Department of Motor Vehicles (State DMV) Vehicle and Title Registration (VTR) system. Our approach is to combine our commercial off-the-shelf (COTS) technology solution, CompleteMVA, with a unique delivery approach that includes robust interoperability capabilities that allow for parallel operations, bi-directional data synchronization to provide value sooner, and an integrated customer support organization that has for more than 30 years been proven highly effective in supporting the State DMV operations.

MorphoTrust CompleteMVA

Our CompleteMVA solution delivers the comprehensive set of functionality requested by the State DMV. In addition to all required functionality, CompleteMVA includes optional functionality like: accounts receivable, inventory management, reporting and analysis, and data warehouse.

Table 1 details the the deliverables encompassing the MorphoTrust CompleteMVA solution.

Table 1: CompleteMVA Solution Deliverables

Project Core Solution Deliverables
Design, development, conversion, and phased implementation services to replace the following systems: • Vehicle Services (TARIS, IRP, Insurance Compliance) • Driver Enforcement System • Driver Licensing System (DLS) • Business Licensing System (BLS) • Point of Sale System (POS) • Accounts Receivable (ARS) – Optional • Inventory Management – Optional • Reporting and Analysis – Optional • Data Warehouse – Optional
External interfaces
Document storage

CompleteMVA is comprised of four major components that provide a customer-centric approach to solving State DMV business challenges. These components include the modules below:

- **Customer360**—provides base customer record functionality to create and manage the core customer record
- **Dealer360**—provides business licensing functionality for dealers and other third parties that work with vehicles and drivers
- **Driver360**—provides the application to complete and manage the customer's driving and identity status-related transactions
- **Vehicle360**—provides the application to complete and manage all vehicle-related transactions

Once a customer record is created through a set of compliant business rules in the Customer360 module, users can complete transactions in the other business modules. Dealer360, Driver360, and Vehicle360 derive all of their customer-related data from the Customer360 module, which provides a basis for delivering a "one customer, one record" solution.

Path to the Future

CompleteMVA is designed to embrace advances in technology with an architecture that facilitates expansion of customer service with out-of-the-box interfaces for mobile driver's licenses (mDL) and electronic identification (eID). The cloud-ready solution provides a service-oriented architecture (SOA) platform that presents functional capabilities in a modular, scalable manner.

We have fully integrated a mobile driver application that can be managed through CompleteMVA to control issuance, renewal, and validation of driver's licenses rendered on a mobile phone remotely. Currently, we are piloting the mDL application with the State of Iowa and are working with agency heads across the country to further mDL efforts in their states.

We are also working with other U.S. jurisdictions on an eID pilot project funded by a National Institute of Standards and Technology (NIST) grant. The pilot project will demonstrate how a trusted eID can significantly reduce instances of tax refund theft and identity fraud. The MorphoTrust eID leverages the highly trusted and secure systems of record to enable State taxpayers to lock their tax IDs, requiring the tax authority to authenticate their identities before a tax return is processed.

Modernizing the DMV system of record with CompleteMVA will enable State agencies to leverage the investment for these innovations and will enable the new system to provide the whole State of Nebraska with Identity Management Service. The design principles (illustrated in Figure 1) allow the application functionality to be moved to the cloud with minimal coding changes. Dynamics CRM offers on premise and cloud version functionality that are the same.

Figure 1: CompleteMVA Open Architecture

CompleteMVA's open architecture is designed to embrace future interfaces for improved customer services.

Summary

The State DMV requires a solution that will meet all stated requirements of today, delivered with a proven and effective methodology in a manner that is most cost effective in the near and long term. MorphoTrust is confident that our CompleteMVA product will exceed the State DMV's requirements and provide the DMV with a platform that provides the desired combination of COTS and Nebraska-specific components delivering the necessary flexibility for effective long-term management and development of the platform well into the future.

Information Sought

1. Approach and Possible Solution

a. What overall solution would you propose to replace the existing VTR system? Please specify commercial off the shelf (COTS), modified off the shelf (MOTS), or some other software design or approach. The State DMV is interested in any information you can provide about your high-level solution.

We propose our CompleteMVA solution consisting of a COTS platform designed for customer relationship management. The COTS products used in our CompleteMVA solution offer a solid base for deploying all of the functionality needed for a modernized vehicle title and registration (VTR) system. Our COTS approach also minimizes custom development, mitigating the risk of investing in technology platforms that may become obsolete.

Our solution is built using the following COTS products:

- .NET-based client/server technology that is primarily an IIS-based Web application, with users accessing the system via a Web browser. This product provides an extensible customer-focused data model.
- Integrated, adaptable business management solution that streamlines financial, customer relationship, and supply chain processes.
- Database technology that is proven to scale to the needs of large enterprises. All customer data and reporting will be maintained and managed within this product's relational database. By using an award-winning relational database, we leverage its power to provide real-time access to data using reports and dashboards. Data presented in meaningful ways using Key Performance Indicators (KPIs) can create

operational efficiencies for the State DMV that cannot be achieved with the current deployed system.

This product also is leveraged in a separate instance to provide data warehouse capabilities, used for storing and managing queries, reporting, and data analysis. Integrating data from one or more sources creates a central repository of data—a data warehouse. The data warehouse stores current and historical data and is used for creating trending reports or for performing ad hoc queries. The data stored in the warehouse is uploaded from the operational CompleteMVA systems on a nightly basis.

- External business rules engine that provides the capability for the development of plain language rules for workflow execution. This allows the State DMV to deploy new business logic without a system redesign. Business rules engines are the ideal bridge between subject matter experts (SMEs) and the technical development staff supporting large enterprise applications. The tool is designed to promote collaboration between SMEs and the traditional technical teams tasked with making business and legislative application changes. Traditional application architectures that do not employ a business rules engine cannot address this bottleneck in organizations. Our rules engine also allows for both a logical and physical separation of business logic from application logic.

  Using our rules engine, SME resources can use business language to drive functionality. While a developer is creating additional fields for an existing Web form, an SME can use the engine's authoring tool to specify the logic that meets the business requirement.

  By isolating the logic from the development tasks, the appropriate resource can perform the task best suited for their role in the organization and simple changes can be deployed quickly and accurately.

CompleteMVA integrates multiple user functions into a single Web browser application, resulting in improved customer self-service for the citizens of Nebraska. It is comprised two major components that provide a customer-centric approach to solving the State DMV's business challenges. These components include the modules below:

- **Customer360**—provides base customer record functionality to create and manage the core customer record; this also provides the foundation services that are shared across the different business modules
- **Vehicle360**—provides the application to complete and manage all vehicle-related transactions

Customer360

CompleteMVA provides a quick search feature which allows the user to search the State DMV's customer database based on multiple search parameters. If a matching customer record is found, that record automatically displays for the user. If no matching record is found, a new customer record can be created directly from the Quick Search screen. Multiple types of customers with multiple relationships can be defined and managed in our foundation Customer360 module.

All customer history is accessible through a single click from the Customer360 page. Users with appropriate permissions can view a listing of all events related to:

- Name and address history (including data on all AKAs and previous names as well as all previous addresses)
- Information for all vehicles owned and linked to the customer record

Users can click on a specific event to see its details. Authorized users can drill down as desired into all historic titling, registration, and lien activity related to a specific vehicle. Users can click on a specific event to see its details. In addition, users can select hyperlinks within the historical events and view all correspondence and documentation related to those events.

Relevant vehicle brands (such as "Flooded, Salvage, and Lemon"), any security stops, or potential fraud indicators will display prominently on the Customer360 page, eliminating the need for users to locate the specific vehicle within the database to find this important information.

Users initiate all transactions from the Customer360 page of the customer's record. Vehicle-related transactions derive the requisite customer-related data from the Customer360 module, which provides a basis for delivering a "one customer, one record" solution for the State DMV.

Vehicle360

Vehicle360 is the core application in CompleteMVA. This module includes title issuance and management, vehicle registrations and renewals, and motor vehicle records. It integrates with inventory management for title paper, plates, tags, permits, and stickers. Fleet management, vehicle-related fee management, and interfaces with insurance companies are included in this application module as well. In addition, this module integrates fully with the core capability of business rules and business workflows, as well as with the financial and cash/drawer components.

Titling

Vehicle360 fully supports all titling functions and title types using unique, configurable transaction workflows and associated business rules to ensure all transactions are processed consistently based on title type. These workflows also support the processing of security interest filings, recording and releasing liens based on business rules, and the issuance of salvage certificates.

Full integration with an accepted vehicle valuation guide such as the National Automobile Dealers Association (NADA) ensures that the reported sales price of the vehicle is in line with the current valuation guide for trade-in value. This feature results in the appropriate sales taxes assessment and collection for newly titled vehicles.

Full integration with a vehicle identification number (VIN) decoder package allows the solution to pre-populate many of the vehicle attributes fields by simply entering the VIN.

All titling transactions are integrated seamlessly with the National Motor Vehicle Title Information System (NMVTIS) and its interfaces to the National Crime Information Center (NCIC) and the National Insurance Crime Bureau (NICB) data. In addition, all titling transactions are integrated to local law enforcement entities as desired by the State. Real-time external checks with these entities as part of the titling transaction workflow ensure that stolen and recovered vehicle information is used to detect potential fraudulent titling activity and to flag records or place transactions "on hold" as needed based on the responses received. Additionally, the interface to NVMTIS updates the state of record pointers in the database automatically and supports the efficient processing of NMVTIS exceptions and errors.

Business rules ensure that brands from other states are carried forwarded to the new state of record automatically when this brand data is contained in NMVTIS responses. These rules verify that, as part of an in-state title transfer transaction, the system compares the odometer reading on the prior owner's record with what is recorded on the new owner's record to help detect odometer rollbacks. If suspected title washing or odometer rollbacks are detected, the system sends real-time alerts to the designated users and prevents the transactions from being completed until investigations are complete.

These automatic checks confirm that no titling transaction is completed and no electronic lien information is transmitted until the results of these checks have been received by the system and the responses are acceptable to the State DMV. Business rules define what responses should result in transaction deficiencies and prevent transactions from being completed.

In addition, seamless integration with the Electronic Lien and Title (ELT) interface and the Electronic Registration and Title Registration (ERT) interface via our External Interface Gateway (EIG) provides timely updates to the State DMV's vehicle and lienholder records. Vehicle360 can support electronic titling, from something as simple as flagging a customer's record that an "electronic" title is desired to implementing a full-fledged electronic titling transaction workflow.

Our solution stores both a title number and a corresponding document ID on the customer record, as well as providing the capability to receive and track electronic odometer disclosures from dealers and emissions inspection stations, providing greater control over fraudulent titles and attempted odometer rollbacks.

Requisite receipts for titling transactions will be provided through integration with CompleteMVA's financial module. Business rules will ensure that no paper title is printed as long as there are one or more active liens on the vehicle record. Paper titles can be printed individually for in-person transactions as well as in batch for any titling transactions where liens have been released that day or no liens were recorded at the time of titling. Integration with the shopping cart functionality of CompleteMVA will ensure that any requisite title fees are collected before the paper title is printed.

Registration

The Vehicle360 module of CompleteMVA provides all the functionality needed for new/initial, renewal, duplicate, and temporary registrations, as well as the provision and tracking of all plates, certificates, and decals issued as part of a registration transaction. Registration can be completed as a stand-alone transaction or as a component of a combined titling and registration transaction workflow.

Vehicle360's registration transactions verifies that the vehicle is titled before it is registered, ensuring all titling fees and taxes due the State are collected before the registration transaction is processed.

Registration transaction workflows are triggered directly from the Customer360 screen after selecting the related vehicle record. The user enters information on the type of registration as well as the desired registration validity period, if options are available. Business rules associated with the selected registration type will be used to ensure the customer and/or the vehicle meets all requirements for the request registration. If requirements are not met, the registration transaction will be placed on hold for a configurable period. If all

requirements are met, the business rules update the vehicle record with plate and decal information, trigger an order for any requested special or specialty plate, and make any needed adjustments in the inventory-tracking module of CompleteMVA. Business rules ensure the appropriate fees are applied and collected. The registration certificate and transaction receipt are generated using the correspondence shared service in CompleteMVA. In addition, transaction workflow business rules will ensure that customers receive the correct number of plates (i.e., one or two) based on vehicle information.

Initial proof of insurance for a specific vehicle is captured as part of the registration transaction workflow. As the first step in the transaction, any hard copy proof of insurance documents presented by the customer are scanned and linked to his or her record without manual indexing. Business rules allow the insurance data entered on the vehicle record to be validated in real time via the EIG and the State DMV's current external insurance verification system. This validation is an automatic component of the external checks transaction step in the registration workflow. If the insurance information cannot be validated through this query, a deficiency will be created, and the registration transaction will be placed on hold.

In addition, the EIG will allow insurance companies to send batch updates as frequently as required by the State DMV. This data will be used to update customer records automatically. Lapses in insurance coverage will be identified by running business rules against this updated data. If lapses in coverage are found, CompleteMVA will create cases within our case management module automatically and forward those cases electronically to designated DMV staff. Business rules will trigger the appropriate correspondence to the vehicle owner or insurance company automatically.

CompleteMVA supports establishing electronic queues for processing scanned copies of insurance submissions when they are mailed by vehicle owners in response to DMV correspondence. Business rules within case management will trigger subsequent notifications as required by the State DMV. In addition, business rules will trigger the relevant sanctions on registration, eliminating manual auditing of insurance coverage.

If the customer requests a personalized plate, the system allows the user to enter the order information, including the plate type and the desired personalized message. The system then checks the request against all active personalized plates to determine if it is available. If not, the system notifies the user that his or her selection is not available and prompts the user to enter a different personalized request. If the desired personalized plate is available, the system

then compares the request to the list of unacceptable words and determines whether to issue the requested plate. If the requested personalized plate can be issued, the system routes the order information to the State DMV's plate ordering application and updates the vehicle record with the plate type and personalization for the reserved plate. Based on applicable business rules, the system issues a receipt of temporary authority for use while the customer awaits the receipt of the personalized plates, decals, and registration certificate by mail.

If a customer requests special or specialty plates, business rules associated with registration transaction workflows will be used to ensure that the customer has met all qualification requirements before the plate can be issued. Vehicle360 can support sending authorization notifications to external agencies if needed to meet plate eligibility requirements and to receive these authorizations electronically. Business rules will be used to place a hold on registration transactions when these authorizations are required. Integration with our financial component ensures that the requisite portion of fees for specialty plates is tracked and disbursed to the sponsoring organizations.

Vehicle360 fully supports the management of temporary registrations through a separate transaction workflow. Business rules will govern issuance of temporary tags and registrations based on the reason for needing a temporary registration and any related requirements. Consistent workflows and business rules will be used regardless of whether the request for temporary registration was received by mail, in person, or through the ERT interface. In addition, business rules will be used to send temporary tag numbers to dealers requesting 60-day temporary tags; this information can be used to print temporary tags on site.

Vehicle360 also supports the issuance of temporary authority for any registration transaction in which the plates are not given to the customer immediately, such as a Web or Kiosk transaction. State DMV staff will have role-based access to issue temporary authority for any problematic dealer transactions. In addition, integration with the IRP component of CompleteMVA will issue temporary authority to commercial operators who are awaiting plates and stickers.

Vehicle360 provides the functionality to identify vehicles coming up for registration renewal and, using the correspondence shared service, generate and distribute appropriate renewal and non-renewal notices based on registration statues. These notices can be distributed in hard copy as well as via email or text message. Electronic renewal notifications can include a hyperlink for use in completing the registration renewal online.

Vehicle360 can support plate and decal return processes in real time and in batch. In addition, the registration transition workflows contain a step for

transferring a plate from one vehicle to another. Business rules associated with the transaction workflows will ensure that vehicle records are updated appropriately and that any needed notifications to insurance companies is generated.

Vehicle360 supports the State DMV's need to add and remove registrations enforcement actions such as suspensions and revocations. Business rules will be used to apply and remove flags for registration stops.

Our solution supports updates to registration records via the Web and through batch record updates when information is received regarding stolen, lost, or mutilated plates and decals.

CompleteMVA will track all orders for plates and track when plates are defective, destroyed, reproduced, or otherwise handled.

Vehicle records for vehicles that are titled to leasing companies are flagged as "lease" vehicles. These records contain information on both the lessor and lessee, linking the title owner to the designated authorized registrant or operator. Business rules will be used to route and assign violation information to the registrant of a leased vehicle. Vehicle360 supports options for mailing registration renewal notices to either the lessor or the lessee. Based on business rules, correspondence related to the suspension of registration privileges and flags can be directed to the lessor, lessee, or both. Lastly, business rules will be used to direct suspensions and flags to both the registrant and owner/leasing company records, depending upon the type of violation or offense.

CompleteMVA can be extended to contain the functionality needed to track all vehicles in Nebraska from "cradle to grave," whether they are actually titled or are on the lots of dealers, wholesale dealers, or auction houses. This functionality would ensure all vehicles are linked to the records of the individuals or businesses having physical possession of the vehicles. An electronic re-assignment transaction workflow would be used by manufacturers, dealers (including franchise, non-franchised, and wholesale) and auction houses to create new vehicle records in the core system for any vehicles added to the inventory on their respective lots. This transaction would be available through the External Interface Gateway.

When one of these vehicles is sold to an individual, business, or government customer by a dealer or auction house, an electronic titling transaction would be completed electronically as well. Business rules would be used to void the link to the dealer or auction house record and re-link the vehicle record to the buyer's customer record.

If desired, Vehicle360 can be fully integrated with an IRP and/or IFTA solution provided by a 3rd party.

Vehicle Records

The foundation of CompleteMVA is "one customer, one record." This concept supports the provision of certified and non-certified motor vehicle records to multiple types of requestors via various service delivery channels. It also supports the provision of record real-time inquiry capabilities to law enforcement and other government entities.

Business rules are used to determine what type of title and registration records the requestor is authorized to obtain (e.g., certified or non-certified) as well as to govern both the data elements that must be provided by the requestor in order to obtain the requested record and the data elements that can be returned. Business rules also ensure applicable fees are collected based on the requestor type. If desired, frequent requestors of title and registration records can set up user accounts, eliminating the need for State DMV staff to review and approve individual requests before they are processed.

In cases where the requested title or registration data can be pulled solely from data within CompleteMVA and/or images within the State DMV's document repository, these requests can be processed automatically in overnight batch and returned to the requestors electronically or via U.S. mail. If microfilm research is needed to fulfill the request (such as a request for a complete vehicle history), the request can be placed automatically in a work queue within Vehicle360. Online inquiries from law enforcement or other government agencies are processed in real time.

CompleteMVA provides the capability to include a certification statement and an electronic signature on certified records as part of the PDF responses returned. All record request transactions create unique transaction numbers and audit logs. Images of all responses are attached automatically to the application and are accessible through the customer history portion of the Customer360 record. These features ensure that DMV staff can:

- Determine which entities got title or registration records on which customers on which dates
- Reproduce the actual response, if needed

The provision of title and registration to bulk requestors such as R. L. Polk can be handled as electronic file transfers via the External Interface Gateway or through a third-party portal provider, as desired by the State DMV.

Shared General Services

Vehicle360 is supported by a set of general services, which are shared components across all application capabilities that comply with all State rules around vehicle transactions. These include correspondence management, document scanning and management, case management, auditing and logging, a data warehouse, ad hoc reporting and query capabilities, and a central repository for online help and frequently asked questions.

b. How many jurisdictions have adopted your VTR system solution?

To date, we have not implemented our CompleteMVA solution for only VTR.

However, we have three RFP responses currently being evaluated by three jurisdictions for a vehicle solution.

We are getting ready to enter the pilot phase of implementing CompleteMVA for driver services in one jurisdiction with two additional driver services projects under contract.

c. Can you share any plans for future releases or a product roadmap, and explain any anticipated future enhancements?

Below is the current product roadmap for Customer & Vehicle360.

Functionality
Search Customer (Individuals, Businesses, Government Entities)
Add Customer (Individuals, Businesses, Government Entities)
Customer 360 View (Facilitates responses to inquiries)
Record and Store Multiple Addresses (Residential, Mailing, Functional, One-time Mailing, etc.)
Address Validation
Customer History with Drill-down Capabilities (Facilitates responses to inquiries)
Integrated Document Scanning
Link multiple owners to a single vehicle record
New Title & Registration
New Title Only
Initial Registration Only
Renewal Registration (including staggered and variable registration periods)
Duplicate/Replacement Titles
Branded Titles
Transfer Title/Ownership

Compare Current and Previous Odometer Readings for Same Vehicle/Create Needed Alerts
Create Vehicle Record
Record Vehicle brands
Manage Confidential and Fictitious Titles, Registrations, and Plates
Proof of Insurance/Financial Responsibility
Electronic Title & Registration (Online dealers, Title Agents, Municipalities, etc.) (ETR)
Integration with IFTA Clearinghouse
Integration with IRP Clearinghouse
Manage Junk, Salvage and Total Loss Reporting
Issue Plates and Decals
Manage Inventory
Manage Fleets, Leased and Rental Vehicles
Electronic Liens and Manage Participating Lienholders (ELT)
NMVTIS/NCIC/NICB Checks and Pointer Updates
Local Law Enforcement Checks
Identify & Investigate Potential Fraud
Online Transactions
Online Portal for Individual Customers
Registration Refunds and Credits
Generate/Distribute Renewal Notices
Manage Registration Permissions (Flags/Stops)
Manage Compliance with Statutory Requirements for Special Plates
Manage Temporary Tag and Trip Permit Issuance
Create VINs and VIN plates
Manage Salvage/Rebuilt Inspections
Integration with VIN Validation Package
Integration with VIN Decoder Package
Integration with Vehicle Valuation Package
Generate Correspondence/Distribute via USPS, e-mail, text
Create/Update/Delete Business Rules
Integration with Remittance Processing Systems/Lockboxes
Provide Certified and Non-certified Motor Vehicle Records and Complete Vehicle Histories
Fee Calculation of Sales Tax, Registration Fees, etc.
Shopping Cart (Single Payment for Multiple Transactions)
Acceptance of Multiple Payment Methods

Allocate Fees Among Multiple Agencies/Funding Sources/Sponsoring Entities

2. Staff

a. What are your expected requirements of the State DMV, county treasurer offices, and other stakeholder involvement with the solution design? What specific roles would they have and what kind of availability would they need to provide?

We will use our systematic program approach to deliver this project on time, on budget, and with the agreed upon functionality. Further, our parallel operations approach to transitioning from the legacy solution to a new solution has proven to be a very effective method to manage the typical risks stemming from the replacement of a legacy system.

We have applied our extensive DL issuance and modernization system engineering expertise to develop a complete solution for the DMV. Our easily adaptable and scalable CompleteMVA solution will facilitate simple interactions for all stakeholders and respond to changing needs within an environment of governance and security. CompleteMVA will improve customer service dramatically by reducing wait times, ensuring consistent customer service, and providing better quality information to DMV customers.

We are expecting the State DMV business area "owners" to participate in SCRUM teams to provide their solution needs and guidance for expected functionality. Their participation will fluctuate during the project, we would expect an average quarter to half time per major business area.

b. What is your expectation for personnel and/or state staff to be dedicated to the transition from a legacy system to implementation of your solution (such as for testing, training, or conference room sessions)?

We believe in self-managed integrated Scrum teams. An integrated team that includes a State DMV process family champions/product owners, business SMEs, analysts, and testers combined with a MorphoTrust Scrum Master, business and solution architects (developers), and QA testers working together daily will build trust and allow developers and testers to solve problems and address requirements in innovative ways.

We also follow standard Scrum practices, including daily standups and Scrum teams estimating story size. Each Scrum team will include five, seven, or nine team members based on the complexity of the process and related user stories. Generally, our Scrum teams will consist of one Scrum master, process family champions/product owners, one lead developer, two to three configuration team members and developers, and one or two automation testers. The remaining one

or two team members will be specialists focused on a technology or capability to fit the development need.

Alternatively, we may need more configuration, testing support, business analyst support, database engineering, or architecture support. We will have a mix of senior, mid-level, and junior members. Some teams will have more senior-level members in order to address the most complex requirements more efficiently. We also will include accessibility and Section 508 testers to ensure compliance to these development standards. Typically, a more senior team may be used to address a more complex aspect of the solution or may be required to achieve higher productivity goals. We will provide the State DMV with the flexibility to tailor the team composition and bring the most appropriate resources to keep pace with the dynamism of the program requirements.

We use the following techniques to identify and develop our team members:

- Target the broad base of existing staff
- Provide each assigned team member with specific on-boarding training to provide lean baseline process understanding; both the MorphoTrust team and State DMV team members will participate
- Each MorphoTrust team and State DMV team member will receive hands-on technical training of the solution architecture and the environment to improve quality and increase productivity
- Each MorphoTrust team and State DMV team member will be assigned a technical mentor who will be an existing team member working on the project or the project's technical lead

We have used this staffing approach successfully on other large-scale implementation projects similar to the project. We have proven our approach on a program implemented for the State of Virginia. On that program, we grew from a few teams and ramped up to as many as 14 productive teams. In each case, we delivered the qualified and productive teams that were accountable for the delivery and code quality requirements of the customer's solution and exceeded that goal.

As described above, the participation of the DMV team is on-going, and it facilitates continuous learning / training of the business area leads, who then can train the operational staff as new system functions become available.

The detailed State DMV team dedication will to be determined during the two first months of the project.

c. What is your expectation of the State DMV's roles and responsibility, especially from a labor, staffing, or full-time equivalent (FTE) standpoint, with respect to data cleansing?

MorphoTrust has considerable experience performing data cleansing operations at customer sites. MorphoTrust can provide business analyst resources to the State DMV to identify and ratify a set of business processes for data cleansing, data matching, automatic conflict resolution, and data merging. These business processes can be configured and verified iteratively until the matching process provides optimal results, with the highest threshold of match percentage. The resulting Master Data Records will then be the most accurate.

The State DMV FTE needs will be assessed once the data quality has been evaluated in the beginning of the project.

d. What impact to State DMV personnel from an operation standpoint (post implementation) do you anticipate as a result of your solution's implementation?

We expect that implementation of our proposed solution will have far reaching impacts due to the improved efficiencies in performance of the new solution. This solution should help reduce operating costs due to a reduced amount of rework performed today. One example is that our sanctioning engine enables a high quality of transactions, significantly reducing the potential errors introduced to the system of record by validating the data before it is committed to record. This reduces the amount of rework experienced today. We also expect that the system will allow for improved workflow, which will allow the State to process more revenue-generating transactions per day, incrementally adding increased revenues.

e. What staff from your organization or a hired third-party integrator are typically involved in the implementation of your solution? The State DMV is interested in any information you can provide relative to the integration/implementation team around:

i. Key roles (such as project manager, lead technical analyst, etc.)

ii. Overall size of the team

We have organized our proposed personnel into integrated teams. These integrated teams would each have a specific charge and responsibility in achieving the goals and objectives of the project. Here we provide a description of each team.

- **Subject Matter Advisors** – The Subject Matter Advisors are charged with the responsibility of providing overall guidance and direction of the MorphoTrust team in the fulfillment of its contractual obligations for the project. The team encompasses the MorphoTrust CEO, senior coach, and MorphoTrust delivery leadership. They would provide oversight of operations of the MorphoTrust team. The team would leverage lessons

learned and industry leading practices from its years of experience with projects of similar scale, size, and complexity to work with the State DMV and the project governance to oversee that the project meets agreed upon objectives.

- **Program Management and PMO** – The program management and PMO teams are charged with the responsibility of providing overall management and oversight of the MorphoTrust team in the fulfillment of its contractual obligations for the project. This team manages day-to-day project activities including: deliverables, risks and issues, project status and project schedules and timelines. This team consists of the Program Manager and PMO Lead.
- **Foundation Team** – The Foundation Team is the integrated Scrum team responsible for the configuration and development of the foundational components of the solution. This team is comprised of a Scrum Master, business analyst, business subject matter experts (SMEs), Solution Architect, and quality analyst tester. In keeping with the project's delivery methodology, this team should not exceed nine team members.
- **Vehicle Services** – The vehicle services team is the integrated Scrum team responsible for the configuration and development of the Vehicle Services component of the solution. This team is comprised of Scrum master, business analyst, business subject matter experts (SMEs), solution architect, and quality analyst tester. In keeping with the project's delivery methodology, this team should not exceed nine team members.
- **Technology and Architecture** - The technology and architecture team is comprised of our technical architect, data conversion lead, configuration lead, lead developer, product development liaison, performance test lead, and security architect. They are charged with the tasks associated with the database environment design, data synchronization strategy, migration strategy, data warehouse gap analysis and development environment foundation support by providing a scalable technical infrastructure design for the solution. We bring resources that are deeply skilled specialists in the delivery of infrastructure, database design, product development and configuration and performance testing to this team. These resources would leverage lessons learned and industry leading practices to implement a scalable solution.

Key Personnel

Table 2 provides a summary of MorphoTrust key roles.

Table 2: MorphoTrust Key Roles

Role	Scope & Responsibility	Proposed Team	MA RMV Phase/ EPM - Deliverable
Program Manager	Manage MorphoTrust project team management and relationship with Program Management	Program Management	Program & Release Planning • Program/Project Delivery Plan • Risk Log • Work Plan/ Master Schedule Enterprise • Monthly status view of Sprint progress (historic) Go Live Implementation • Cutover
Functional Lead	Manage the alignment of the Project functional goals and objectives with solution activities	Cross Team Management Team	Lab • Business Process Design • Fit/Gap Analysis Enterprise • Sprint Retrospective Report • Product Backlog
Principle Business Architect	Develop and maintain solution capabilities	Cross Team Management Team	Lab • Business Process Design • Fit/Gap Analysis
Solution Architect	Define and manage the architecture of the solution	Cross Team Management Team	Program & Release Planning • Solution Plan • Application Architecture Specification Scale to Production • Service Introduction Approach
Technical Architect and Data Architect	Define and manage the Technical and Data components of the solution	Cross Team Management Team	Program & Release Planning • Technical Architecture Plan Lab • Application Technical Design • High Level Technical Design • Interface Design • Technical Design Plan
Business Architect	Develop and maintain solution capabilities	Foundation Team	Lab • Business Process Design • Fit/Gap Analysis

Role	Scope & Responsibility	Proposed Team	MA RMV Phase/ EPM - Deliverable
Data Conversion Lead	Define and manage data extraction and conversion execution activities for the solution	Technology and Architect Lead	Lab • Data Conversion & Migration Plan Scale to Production • Data Conversion & Migration Plan
Quality Assurance/ Testing Lead	Manage testing and quality assurance activities; report testing results, test case coverage, required resources, defects discovered and their status	Cross Team Management Team	Lab • Testing Strategy & Approach Enterprise • Defect Tracking Integration, Configuration & Model Office • Test Execution
Configuration Manager	Manage the maintenance of configuration Items	Technology & Architecture	Lab • Configuration Design
Lead Developer	Manage development activities across Scrum teams	Technology & Architecture	Lab • Product Backlog • Source Code
Deployment/ Release Manager	Plan, manage schedule and control software build through different stages and environments; Oversee deployment of releases	Cross Team Management Team	Enterprise • Sprint Metrics (Release Burndown Chart) Scale to Production • Go-Live Checklist • Release Strategy

f. What lessons learned from prior implementations of your system can you provide around staffing?

We have implemented a robust training element when kicking off new projects with a focus on enabling the product owners to make informed and timely decisions greatly reducing the amount of rework. Among lesson learned from our Mississippi Modernization project, MorphoTrust implemented our parallel operations bridge for the first time and found that we scheduled the end-to-end testing of this bridge later in the development cycle than we should have. This caused us to incur added rework and only find data cleansing issues (that the state had to correct) very late in the project. We have adjusted our approach to data conversion and parallel operations to work this effort up front greatly simplifying the data mapping and uncovering the need for data cleansing very early in the delivery cycle providing the State time to make the required changes.

This greatly reduced the amount of data we have to migrate and the number of records that need to be reconciled.

3. Training

a. What approaches to training for internal and external users do you suggest, given the size and complexity of the planned VTR system modernization?

MorphoTrust will lead the training, knowledge transfer, and skills development activity, in a collaborative environment using the CST structure working with State DMV-designated individuals, our teaming partners, and our engineering and program management organizations, synchronized with SLDC processes. This development activity will be based on analysis of staffing, complexity, and other solution details. Required documentation will be developed by MorphoTrust logistics and customer support personnel, with leadership and collaboration provided by the CST.

b. What training do you recommend for State DMV, OCIO or other technical staff who will maintain and/or troubleshoot the system?

Our current multi-pronged training approach leads to successful learning that transfers into effective ongoing operations through the entire lifecycle of the solution. We use e-learning training, video modules, and instructor-led classes to allow your staff to become self-sufficient by using this hybrid learning approach. Recently, we used this approach in successful deployments in Kentucky, Illinois, Indiana, Texas, and Montana.

Instructor-led training sessions use our uniquely developed adult learning method. Every training exercise is conducted with three students per system. One student will serve as the operator, another will serve as the applicant, and the third will observe. The team will execute the exercise, rotate roles, repeat the exercise, and then rotate again. Once completed, the exercise will be completed three times (at a minimum), and each student will have seen the operation three times from three angles. This addresses the adult learning methods of kinesthetic, visual, and auditory learning while attaching a repetitive learning mode to the sessions.

All of our training deliverables, courseware, and classroom materials are designed for adult learners and reflect the process shown in Figure 2.

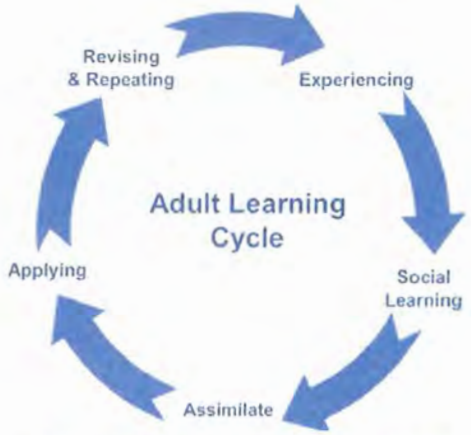

Figure 2: Adult Learning Cycle

Our training methods combine kinesthetic, visual, and auditory learning styles with repetition so each DMV student will be able to learn from our training sessions.

Our training documentation includes all participant guides, user operations manuals, technical documentation, training aides, and classroom handouts for instructor-led classes suitable for daily use as reference materials. We will provide the entire series of training classes on video for future use. Additionally, we will provide all materials as editable documents that will become the property of the State DMV to modify and reproduce as needed. We will provide support for content, knowledge, and expertise to assist in updating or modifying any course or materials, if requested.

For the training environment, we will provide an agreed-upon number of training machines; typically, we use a three-to-one (3:1) ratio for training events. For example, for an average class size of 15-20 individuals, we would provide about five or six training machines.

MorphoTrust will work with the State DMV to establish a training schedule that will cover all training events. For instance, pre-learning such as e-learning modules, UAT tester training, and dry run demonstrations are listed in the draft Training Plan with a tentative timeline to assist you in making decisions for staff training events.

4. Service Level Agreements (SLAs)

a. The State DMV requests any standard SLA information

We have included a sample SLA as Appendix A.

5. Network Configuration

a. Is there a minimum network bandwidth or capacity required, and what transaction rate will the minimum support? What networking challenges have you encountered when implementing your solution for clients similar to the Nebraska VTR?

The MorphoTrust solution is fully browser based requiring a minimum of T1 or 1.544 MB/S connection between the office location and main data center. However, we recommend 10MB/s from the physical location to the central IT data center where the application is hosted for optimal performance. MorphoTrust created a solution that supports a "Data Relay" capability which can monitor bandwidth throughout the day and can prioritize the upload of larger data files based on availability of the network. This was required in our first implementation and has proven very successful while the customer upgraded their networking to more modern infrastructure.

6. Hardware and Software Configuration

a. If Nebraska hosts your system on Nebraska owned, physical hardware: What is the minimum hardware required to operate your system? Please include any information about central hardware (primary servers, failover servers). For each server required in the solution, please provide the following information:

i. Server purpose or component description
ii. Processor requirements
iii. Storage capacity requirements
iv. Options for scaling the system component to meet growth needs
v. Options for achieving high availability for the system component

MorphoTrust can provide a base capacity planning document which can be adjusted to meet the needs of the Nebraska DMV. Our solution fully supports a virtualization approach that can be deployed on either VMware or Hyper-V. If a full server configuration of dedicated hardware is required then we can also provide the exact specifications for the required server side capacity. Without specific metrics we can only give a suggested configuration. Table 3 provides the hardware required for the production environment in Nebraska DMV.

Table 3: Hardware Requirements

INF ID	1	2	3	4	5
Infrastructure Type	Server	Storage Array	Storage Array	Storage Array	Server
Component Name	Server	Tier 1 Storage	Tier 2 Storage	Backup Storage	Server

Physical or Virtual	Physical	Physical	Physical	Physical	Virtual
Vendor/Maker	Dell	PureStorage	Compellent	50TB @ 2:1 Compression = 25TB	VMWare
Model/VMWare Version	R930 E7-8890	M20-FC-10/5	SC8040		VSphere 6 Enterprise Plus 1CPU
Operating System	Windows Server 2010				
CPU	72 Cores/144 Threads; total logical core 288 oversubscribed at 2:1 = 576 vcpus				
RAM	2133 RDIMM = 1TB RAM per host				
Disk/Storage-OS	43 VMs at 100GB Formatted Capacity				
Disk/Storage Application	10TB Tier 1/40TB Tier 2				
Application Disk IO	Tier1: Fast/SSD; Tier 2: Fast/SAS				
Environment	Production	Production	Production	Production	Production
Number of Units	2	1	1	1	4 Servers, 4 sockets per server = 16

b. If Nebraska hosts your system on Nebraska owned virtual infrastructure: What is the minimum system requirements to operate your system? What virtual environment(s) is/are your solution supported on? Please include information about all system components (primary servers, failover servers). For each component required in the solution, please provide the following information:

   i. Server purpose or component description

   ii. Processor requirements

   iii. Storage capacity requirements

   iv. Options for scaling the system component to meet growth needs

   v. Options for achieving high availability for the system component

MorphoTrust can provide a base capacity planning document which can be adjusted to meet the needs of the Nebraska DMV. Our solution fully supports a virtualization approach that can be deployed on either VMware or Hyper-V. If a

full server configuration of dedicated hardware is required then we can also provide the exact specifications for the required server side capacity. Without specific metrics we can only give a suggested configuration.

c. If your system were to be installed in Nebraska on vendor owned physical hardware:
   i. How many servers would be installed?
   ii. Would you provide the rack(s) required for the installation?

MorphoTrust can provide a base capacity planning document which can be adjusted to meet the needs of the Nebraska DMV. Our solution fully supports a virtualization approach that can be deployed on either VMware or Hyper-V. If a full server configuration of dedicated hardware is required then we can also provide the exact specifications for the required server side capacity. Without specific metrics we can only give a suggested configuration. Table 4 is a sample virtualization capacity map from another customer:

Table 4: Sample Virtualization Capacity Map

Purpose of Server	HA Type	HA Month	Current # of vCPUs	Current Memory	Current Hard Disk (GB) (other than 40 GB base)	Operating System	Software	Special Backup Requirement	PII Data Present
CRM Back End #1	NLB	Pilot	8	32	100gb - C Drive 100gb - D Drive	WinServer 2008 R2 Enterprise	CRM	Daily w/ tape	Yes
CRM Back End #2	NLB + Vmotion	Pilot	8	32	100gb - C Drive 100gb - D Drive	WinServer 2008 R2 Enterprise	CRM	Daily w/ tape	Yes
CRM Front End #1	NLB	Pilot	8	32	100gb - C Drive 100gb - D Drive	WinServer 2008 R2 Enterprise	CRM	Daily w/ tape	Yes
CRM Front End #2	NLB + Vmotion	Pilot	8	32	100gb - C Drive 100gb - D Drive	WinServer 2008 R2 Enterprise	CRM	Daily w/ tape	Yes

D360 Software #1	NLB	Pilot	8	32	100gb - C Drive 100gb - D Drive	WinServer 2008 R2 Enterprise	CRM	Daily w/ tape	Yes
D360 Software #2	NLB + Vmotion	Pilot	8	32	100gb - C Drive 100gb - D Drive	WinServer 2008 R2 Enterprise	CRM	Daily w/ tape	Yes
Domain Controller	Native	Month 0	2	8	155	WinServer 2008 R2 Enterprise	None	Daily w/ tape	No
Backup Domain Controller	Native	Month 0	2	8	155	WinServer 2008 R2 Enterprise	None	None	No
Data Conversion & Parallel Ops	Vmotion		8	32	100gb - C Drive 100gb - D Drive			Weekly w/ tape	Yes
MoveIT Central			2	8	200	WinServer 2008 R2 Enterprise	None	Weekly w/ tape	No
System Center Configuration Manager (SCCM)			4	16	270	WinServer 2008 R2 Enterprise	MS System Center	Weekly w/ tape	No
Security VM	Native		2	8	205	WinServer 2008 R2 Enterprise	None	Monthly w/ tape	No
SQL Server 11	Native	Month 0	8	32	System - 100 GB SQL - 100gb SQL Logs - 100gb	WinServer 2008	SQLServer 2012	None	Yes

					TempDB - 50gb TempDB Log - 25gb LDFs - 100gb MDFs - 250gb	R2 Enterprise	Enterprise		
SQL Server 12	Native	Month 0	8	32	System - 100 GB SQL - 100gb SQL Logs - 100gb TempDB - 50gb TempDB Log - 25gb LDFs - 100gb MDFs - 250gb	WinServer 2008 R2 Enterprise	SQLServer 2012 Enterprise	None	Yes
SQL Server 13	Native	Month 0	8	32	System - 100 GB SQL - 100gb SQL Logs - 100gb TempDB - 50gb TempDB Log - 25gb LDFs - 100gb MDFs - 250gb	WinServer 2008 R2 Enterprise	SQLServer 2012 Enterprise	None	Yes
SQL Server 14	Native	Month 0	8	32	System - 100 GB SQL - 100gb SQL Logs - 100gb TempDB - 50gb TempDB Log - 25gb LDFs - 100gb MDFs - 250gb	WinServer 2008 R2 Enterprise	SQLServer 2012 Enterprise	Daily w/ tape	Yes
SQL Server 1	Native	Month 0	8	32	1000	WinServer 2008 R2 Enterprise	SQLServer 2008 R2	None	Yes
SQL Server 2	Native	Month 0	8	32	380	WinServer 2008 R2 Enterprise	SQLServer 2008 R2	None	Yes
SQL Server 3	Native	Month 0	8	32	2000	WinServer 2008 R2 Enterprise	SQLServer 2012 Enterprise	None	Yes
SQL Server 4	Native	Month 0	8	32	1000	WinServer 2008 R2	SQLServer 2012	None	Yes

						Enterprise	Enterprise		
SQL Server 5	Native	Month 0	8	32	1000	WinServer 2008 R2 Enterprise	SQLServer 2012 Enterprise	None	Yes
SQL Server 6	Native	Month 0	8	32	1000	WinServer 2008 R2 Enterprise	SQLServer 2012 Enterprise	Daily w/ tape	Yes
SQL Server 7	Native	Month 0	4	16	250	WinServer 2008 R2 Enterprise		None	
CRM SSRS #1	NLB + Vmotion	Pilot	8	32	100gb - C Drive 100gb - D Drive	WinServer 2008 R2 Enterprise	CRM	Daily w/ tape	Yes
System Center Operations Manager (SCOM)	A/A	Pilot	4	16	210	WinServer 2008 R2 Enterprise	MS System Center	Weekly w/ tape	No
TreeHouse (Data Conversion)	Vmotion	Pilot	4	16	465	WinServer 2008 R2 Enterprise	Treehouse	None	Yes
UNI UMR	Active / Standby	Pilot	4	16	100gb - C Drive 50gb - D Drive	WinServer 2008 R2 Enterprise	IIS 7.5	Daily w/ tape	Yes
Driver 360 Address Validation	Active / Standby	Pilot	4	8	100gb - C Drive 100gb - D Drive	WinServer 2008 R2 Enterprise	CRM	None	Yes

d. What is the minimum county treasurer office or State DMV end-user hardware needed to conduct the business of registering and titling vehicles:

i. User hardware: Does your system require specific or proprietary hardware?

ii. User peripherals: What minimum hardware set up is required per workstation?

The minimum specifications for the county workstations are presented in Figure 3.

Item	Minimum requirements
Computer/processor	Computer with a 1 gigahertz (GHz) 32-bit (x86) or 64-bit (x64) processor
Operating system	Windows 8 (32-bit or 64-bit) Windows® 7 Service Pack 1 (SP1) (32-bit or 64-bit) Windows Server 2012 Windows Server 2008 R2 with SP1 (64-bit only)

Figure 3: Workstation Specifications

e. Based on the information provided in Section III C of this RFI, what hardware configuration incompatibilities between your solution and the State's existing environment, or other DMV systems, do you foresee (such as the State Mainframe)?

MorphoTrust does not see any major incompatibilities with the defined infrastructure contained this Section III C. We provide all the necessary tools to connect to legacy system and use these tools to create a parallel operations bridge for transitioning from legacy to the new MorphoTrust solution.

7. Database Requirements

a. What database structure does your system utilize? Are there any requirements or prerequisites for your solution's database or database structure?

MorphoTrust's solution supports the Microsoft SQL Server relational database management system. There are no specific requirements or prerequisites beyond the described minimum hardware requirements.

8. Data Cleansing and Conversion

a. What experience do you have consolidating separate county and state databases into a single statewide title and registration database?

Our team has significant experience converting large volumes of complex data in a secure manner, including biometric data, images, and PII. In addition, our team also has extensive experience deploying systems to large numbers of remote

office locations such as branch offices. This experience has taught us that a "big bang" approach (i.e., a single data conversion and deployment to the entire State network of operating branches at once) is extremely risky and should be avoided. Not only is the data conversion and system support at risk, it constrains training options as well. Training the end users for a single deployment can result in users trained long before deployment and no longer prepared at go-live.

In order to reduce overall project risk, we have developed an approach that does not rely on a single data migration event. We have implemented a unique approach to data conversion that not only converts data to the new system but parallel operations to keep the data synchronized with the legacy solution throughout the deployment phase. This approach allows any given transaction to take place on either system, up until the time the legacy systems are completely retired. This allows for a phased and orderly transition from the old system to the new, providing appropriate time for data cleansing, data migration, testing, training, and the multitude of other tasks that are required to assure successful operational readiness of the new solution.

Today more than ever, data is recognized as a key business asset that must be accurately carried forward. MorphoTrust will assume primary responsibility for the data conversion effort. We bring a combination of experience with prior DMV implementations and our proven conversion methodology and approach. Members of our team have additional experience in successful data conversions for a number of mission-critical public and private sector entities.

b. Are there specific tools or techniques you use for consolidating registration and title data?

MorphoTrust uses proven tools that are highly integrated with both the Mainframe and Windows platforms, as well as other environments. We fully understand variances in data formats and types across these platforms as well as protocols and security models. We have chosen the Treehouse tcVision product because of its proven ability to replicate and synchronize data between mainframe and external systems and SQL Server. After the conversion and migration is complete, it will be retired with the Mainframe and will not remain a part of the modernized production system.

All conversions have unique aspects based on the specific source systems and customizations to those systems. Our team has extensive experience and we understand that customer conversions will have unique requirements and considerations based upon the following:

- Cleansing and archiving legacy data

- Converting and merging customer records from multiple legacy data stores to create one common customer view
- Determining how much history to convert from various legacy source systems and how much should be archived
- Converting legacy data in stages to reduce risk and minimize impact to the organization
- Building driving history from legacy data—for example, it is imperative customers are not mistakenly sanctioned due to an incorrectly converted driving record
- Creating a data replication/synchronization strategy encompassing mainframe data and other stores and an implementation that reduces risk and allows for iterative rollout and adoption of the modernized system, while creating safeguards

These are just a few examples of the types of conversion challenges we have faced and managed. To minimize risk and ensure a successful conversion, it is crucial to create a well thought-out conversion strategy and plan, and to follow a methodology that addresses these early in the program.

c. Are there specific tools or techniques you use for cleansing registration and title data? For example, in Nebraska's current environment, data for the same vehicle may be contained in separate county databases, such as when a customer moves from one county to another. The expectation is having multiple records opens the possibility customer and/or vehicle information in those records may contain discrepancies. How would you recommend the State DMV approach resolving this issue?

MorphoTrust will complete a full data analysis and provide the profiling results to the Nebraska DMV. These profile results will allow the collaboration between MorphoTrust and Nebraska DMV to make determinations on how best to clean identified data. MorphoTrust leverages SQL Server capabilities, Master Data Management functionality, and standard Extract, Transform, and Load techniques to insure the identified data is cleansed. If the discovery phase requires more robust tools to speak with the existing legacy data structure, MorphoTrust employs a product called TreeHouse tcVision to help with the process.

d. In your experience what specific data elements have caused the biggest issue(s) with conversion?

MorphoTrust, through our experience, find that the non-relational data structures can lead to many orphaned data fields. Identifying and connecting the primary keys from the corresponding tables can assist in a more comprehensive data analysis. Many fields like Customer ID and Vehicle ID are prone to

transformation over time and understanding the relationship between these IDs are critical in creating a trusted system of record moving forward. Address information often did not go through any type of verification process creating a difficult way to correspond with your customers. Addressing these areas first make the rest of the conversion challenges simpler.

e. What timeline should the State DMV plan for with respect to data cleansing?

A full cleansing approach and plan will be provided after a completed data analysis and discovery stage has been completed. Typically the data cleansing activity will continue until full production system is in place and the data fully meets the compliance requirements of the new system. The data analysis and discovery phase typically takes 2-4 months then cleansing efforts can begin.

9. Fees and Taxes

a. Are you aware of modernized solutions to ensure tax situs location is accurately determined and/or improve collection and distribution of local revenue?

CompleteMVA includes integration with the Experian Data Quality product which is used in validating all addresses recorded for a customer or a vehicle. This software is also used to identify the correct county or city related in which the address exists and is used to pre-populate that information on the record.

Vehicle360 also provides the ability to identify all owner/vehicle relationships that might occur during a tax year and use this data to send local treasurers the information needed to generate tax bills based on the specific location of the vehicle during the tax year. This information is valuable in pro-rating tax bills as needed.

b. Does your solution include a point-of-sale (POS) or cash drawer component to manage collections?

i. How are electronic and credit card payments handled in the system?

ii. How are refunds and credits handled in the system?

iii. If you are providing a POS, what are its inventory tracking and management capabilities?

The finance module of CompleteMVA contains full cash drawer functionality. This module supports the point of sale for collecting all associated fees, an inventory management module, and the ability to process payments and perform financial allocations for all fees collected. This module contains a "shopping cart" capability to consolidate all transactions into one payment across multiple business transactions. Global fee management and fee allocations are managed here as well.

Our Cash Drawer and Finance module provides financial management, point of sale, revenue tracking, and integration with the State DMV's financial system. The solution is integrated into CompleteMVA's workflows and business rules. It provides the POS and cash drawer services for all business units, including open-of-day and end-of-day activities as well as reconciliation of all funds throughout the day. The information gathered during payment processing will be available for tracking of all revenue and relevant expenses. Through our business rules engine, the system can be configured to manage fee, fine, surcharge, and interest allocations.

The customer will be able to complete more than one transaction in a single visit and using the shopping cart, he or she can place all fees and payments into a single financial transaction. This provides an excellent customer service level and simplifies the overall financial processing within the system.

As part of the shopping cart review step, the examiner can edit items in the cart as desired and even delete cart items if he or she does not wish to pay for them. If the customer cannot pay the total amount due, then his or her entire cart or individual transactions can be placed on hold for a configurable period. Business rules can be used to prevent some transactions from being placed on hold based on State DMV requirements.

- For point of sale payments, when "checkout and "pay is selected from within the shopping cart, the user enters the payment type information and the amount. The application provides the ability to designate cash, check, and credit card or debit card. In addition, fee payments can be split between the various payment methods.

  When credit card information is entered manually or collected by swiping the card, this information is used to determine if the charge is permitted by the financial institution. A payment confirmation notification is sent back to CompleteMVA and stored on the transaction record.

  For electronic funds transferred received, the payment information is received through the solutions external interface gateway and automatically posted to the appropriate financial records, etc.

- Case management is used to process a refund or customer credit request because these actions typically require some sort of higher level approval before being granted.

- CompleteMVA features a robust inventory-management solution that tracks inventory movement in real time. It maintains chain of custody and leverages business analytics and advanced predictive analysis to forecast inventory

usage accurately. At any given time, the State DMV locations can identify inventory levels, shipment statuses, in process receiving, or any discrepancies related to defined inventory;

To simplify some of the typical inventory management challenges, our solution provides many capabilities that make the processes easier. One example of that is the ability to use barcode scanners to capture and process information from the barcodes attached to inventory items. For example, when a shipment of license plates is received, the person receiving this inventory can scan any barcodes on the box housing the license plates and on the individual plates themselves. This information will be captured and stored in the inventory-management system. The box and/or individual license plate levels can be associated with a physical location and subsequently distributed to individuals working in that facility if required.

Beyond license plates, other examples of controlled inventory items supported through this inventory management system are titles, registration forms, handicapped placards, registration decals, and temporary operating permits. Our solution provides the State DMV with the extensibility needed to adapt to any new or changing of existing items managed by the inventory-management system.

The inventory-management system also can provide a mechanism to order certain inventory items automatically when particular thresholds are met. The system can reallocate certain inventory items to other physical locations to accommodate temporary low stock.

Inventory can be issued during open of day activities at a physical location and can be checked in at the end of the day. Reconciliation reports can be created to ensure any loss of inventory is identified and actions to recover can be executed immediately. All of the inventory management capabilities will be executed electronically.

Data can be provided per window, physical location, or region or on a global view of all inventories across all DMV locations. Certain inventory items will need to be marked with undercover status to facilitate certain public safety activities. This robust inventory-management system is designed to meet or exceed the needs of Nevada drivers' services solutions.

10. Electronic Transactions/Interfaces

a. How does your system incorporate:

i. Electronic Lien and Title (ELT)

ii. National Motor Vehicle Title Information System (NMVTIS)

iii. Dealer and fleet processing

iv. VIN/HIN validation

v. MSRP values

vi. Address validation

vii. Other third-party data providers and stakeholders?

MorphoTrust provides an External Interface Gateway which acts as the intermediary to all third party and external business relationships the Nebraska DMV maintains. The EIG contains an Enterprise Service Bus with a set of 14 pre-configured connectors designed to simplify and secure all data exchanges. The listed items in this question would be managed through the EIG and would go through thorough testing to insure all compliance and certifications were met with the identified business partner. MorphoTrust has a dedicated line to our development offices to build and pre-test all AAMVA interfaces like NMVITIS and ELT plus we have already integrated Address Verification into the core product. All required interfaces to business partners needed to achieve full compliant transactions, will be evaluated and designed to leverage the solution's EIG.

b. Does your system include a document management and imaging solution? If so, please provide a brief explanation?

To remain compliant with State rules, it is critical that the solution capture electronic images of physical documents, attach those images to a customer record, and store them in a document management system. When a customer purchases a vehicle, one of the business workflow steps an examiner must complete is to obtain and scan the bill of sale or a surrendered title. Within the workflow steps, the examiner must select the document type on a screen and perform the scan. Once the document is scanned and saved, the scanning shared general service will send a copy to the document-management system repository along with captured Meta data. A link will be created within the customer record indicating the document was scanned and any metadata entered is updated on the customer's record.

By leveraging a shared general service in our architecture, all user interfaces (UIs) will employ the same steps for scanning and linking documents to customers and ultimately storing these documents in the document management system. Reusing general services significantly reduces the complexity of doing simple transaction steps and reduces training needs by providing a simple and intuitive user experience for scanning.

c. Are there best practices or interface standards the State DMV should be considering?

MorphoTrust supplies an External Interface Gateway that follows all interface standards related to the industry best practices. The DMV should follow the use of web services and secure file based exchanges to drive their data exchanges with their business partners. MorphoTrust's EIG can allow the DMV to configure the system rather than create custom developed interfaces hard to maintain and support.

d. Are there other interfaces your solution requires/provides which are not identified in the CER?

A full discovery of required interfaces will be part of the gaps analysis phase of deployment process. We will compare our results to the provided CER and insure no missing interfaces or data exchanges exist. We will help the DMV fill any missing discrepancies with configurable integration options leveraging the MorphoTrust External Interface Gateway.

11. Customer Relationship Management (CRM)

a. Does your solution include a CRM function for tracking correspondence and customer touch points?

The Customer Management functionality of CompleteMVA integrates all aspects of customer relationship management including correspondence and communication with the customer as well as case management for customer-related investigations and hearings, resulting in a true 360-degree view of the customer.

Having a central correspondence management tool will allow the State to have one set of templates to ensure consistency across all business application capabilities. Based on a set of business rules and workflows, correspondence will be generated automatically, attached to customer records, and distributed via the method of communication prescribed by the system.

For example, if a customer's registration renewal privilege is suspended for non-payment of personal property taxes, the results of this action will create a dynamically designed notification that includes the sanction and compliance steps for that individual. This letter will be prepared and distributed to the customer, and a copy will be attached to the customer record.

Central management of correspondence will reduce errors significantly, create efficiencies for the customers, and provide a single point of access for State DMV users to increase their level of service. As a result, the customer's communications with the State DMV will be managed more efficiently. Correspondence includes support for alternate methods of communication such

as email and text and has the extensibility to adopt newer communication forms as they become business viable.

The Customer360 screen will provide single-click access for the DMV to answer any customer's questions about his or her account. For example, if the customer received correspondence from the State DMV and cannot understand it, the examiner can click on the correspondence section of Customer360 screen to immediately see all letters, emails, or any type of correspondence that has been sent to or received from customer. This access to information will allow the staff to provide answers to the customer immediately without switching screens or applications or involving other individuals in the organization.

Business rules will ensure that correspondence related to any type of transaction is triggered without manual intervention. For example, the External Interface Gateway (EIG) will receive batch updates from most insurance providers and will update customer records automatically. Lapses in insurance coverage will be identified using this updated data, and business rules trigger the appropriate correspondence to the vehicle owner or insurance company automatically.

In terms of returned correspondence, CompleteMVA can scan and assign them to a special electronic queue, where they can then be associated to a specific customer record. This scanned document will be stored in the document management system and notice of the return will be stored as data on the customer record. From the Customer360 screen, an examiner can access the image of any returned mail using hyperlinks to the documents. Returned electronic correspondence will automatically be assigned to a queue for similar processing.

12. General

a. What timeline would you suggest the State DMV and its stakeholders plan for each of the following:
   i. Planning
   ii. Development
   iii. Implementation
   iv. Integration

MorphoTrust's solution for the State DMV is based on our COTS-based CompleteMVA solution, a common platform encompassing our Driver360 and Vehicle360 products. Development of MorphoTrust's commercial product will proceed in parallel along with activities specific to Nebraska. Major releases are planned once a year and will provide a significant set of new features desired by our array of CompleteMVA customers. Minor releases are planned once a year,

offset from major releases, and will provide additional features that were not able to be included in the most recent major release.

State DMV will be provided with the latest product release at the time that user acceptance testing (UAT) is planned to start. Depending on State requirements and complexity of the target solution, the implementation time is typically 24-30 months from kick-off. Table 5 lists a sample preliminary 30-month milestone schedule for implementing CompleteMVA in Nebraska.

Table 5: Preliminary Milestone Schedule

Vehicle360	Milestone Normal Baseline
Project Kick-off	1 Days After Kick-off (ARO)
Planning Phase Complete	30 Days ARO
Discovery and Use Case Development Complete	3 Months ARO
Vehicle360 Prototyping Complete	7 Months ARO
Gap Analysis Phase Complete	10 Months ARO
Program Re-baseline Complete	11 Months ARO
Product Configuration, Data Migration, Parallel Ops	
Major Release Complete	16 Months ARO
Minor Release Complete	19 Months ARO
Data Migration Environment Ready & Initial Conversion Complete	21 Months ARO
Parallel Operations Begin	24 Months ARO
UAT Complete/Pilot Start	26 Months ARO
Pilot Approved by DMV	28 Months ARO
Rollout Approved by DMV	30 Months ARO

b. What three things about your solution make it different/unique from other solutions/your competition?

CompleteMVA uses Microsoft Dynamics CRM, which offers a non-proprietary, customer-centric approach to addressing all of the business needs of the DMV. This platform is used by thousands of customers worldwide to create a single customer record approach to business and offer the highest level of customer service. MorphoTrust uses this platform as our launch pad to offer the same benefits to the DMV.

The ability to make changes to the business process or to adjust business functionality is simplified through our use of the InRule Business Rules Engine.

Through use of an intuitive rule-authoring tool, the InRule allows privileged users and subject matter experts to adjust business rules to adapt quickly to the changing needs of the organization. In most cases, business rules can be configured, developed, and tested independently of deploying a new version of the application. Unlike other vendors, InRule is a true external business rules engine, providing a discrete separation of the application from the business logic.

Our External Interface Gateway (EIG) simplifies the development of additional internal and external interfaces and significantly reduces redundant manual data entry across core and non-core business functions. All of functionality is driven through the EIG, which is the hub for over 100 critical interfaces that are required by the DMV to conduct business. EIG simplifies and standardizes these interfaces, allowing the DMV to be more secure and offering a layer of protection by enabling message governance to protect them against outside hackers gaining access to the core database. EIG is instrumental in helping keep the transition from legacy interfaces to modern ones smooth, and it puts the DMV in the power position to work more efficiently with business partners to offer real-time access to data versus batch or file-based delivery.

We have developed a delivery model that operates the legacy system and new system in parallel with bi-directional data synchronization, assuring that there is no disruption in service. Customarily, we run the new system and the legacy system in parallel until our joint project group and steering committee approves the final cut over to the new system. This flexible parallel operations deployment approach mitigates risks, accommodates enhanced training plans, and has minimal impact on ongoing operations. It enhances QA through testing during a gradual cutover from the legacy system to the new system—something that is not possible with competing solutions. This avoids many of the quality issues encountered by other jurisdictions during their implementation of competing solutions—issues that have included re-printing thousands of cards due to data issues on the cards, to the customer's annoyance and at the jurisdiction's expense. Deploying complex systems all at once creates high risk and there is often no ability to roll back if something goes wrong. MorphoTrust has developed a robust toolset that allows a phased deployment in "waves" of offices rather than all offices in the State at once in a "big bang" approach.

c. What do you often hear are the three most common complaints/weaknesses of the system you propose?

Moving from a legacy, mainframe-based application can be a big change. Legacy applications are typically keyboard driven, and it takes time for employees to

transition to a modern, point and click based application. This is why MorphoTrust stresses the importance of proper training in its solutions.

Legacy applications are also typically mono-functional, e.g.: each application serves a single purpose. Because of this, employees in most jurisdictions are required to master several dozen applications in order to perform their duties. CompleteMVA combines all functions into a single, customer-centric view, which can at first be overwhelming. However, because all functions in CompleteMVA operate in the same, intuitive manner, training and transition to the new application is kept to a minimum.

Lastly, CompleteMVA is a highly configurable system. And like all such systems, this level of configurability can be overwhelming. But with proper training and assistance, MorphoTrust will ensure that the DMV gets the training required to configure the system according to its business needs, and also to manage the system properly and effectively.

13. Budget

a. The State DMV requests the following information for budgeting purposes:
   i. One Time
      a) Solution Design
      b) Implementation
   ii. Annual, Recurring
      a) Ongoing Maintenance
      b) Ongoing Support

The estimated cost ranges are approximately:

One time:

From $15 million to $25 million depending on agreed scope and schedule.

Annual, Recurring:

From $1 million to $3 million per year depending on agreed scope, response times etc.

Appendix A

The following pages contain a sample Service Level Agreement that could be used in a contact with the State DMV.

MORPHOTRUST USA, LLC
ANNUAL SOFTWARE MAINTENANCE TERMS AND CONDITIONS
for use with
End User Customers
covering
MorphoTrust® Software Products

I. GENERAL SCOPE OF COVERAGE

Subject to payment in full of the applicable annual support fees for the software ("**Software**") described in MorphoTrust USA, LLC's ("**MorphoTrust**") current Maintenance Terms and Conditions Addendum ("**Addendum**") with customer ("**Customer**"), MorphoTrust, or its authorized agents or subcontractors, shall provide the Software support services ("**Services**") set forth and in accordance with the terms herein (this "**Agreement**") and the Addendum. The terms of the Addendum are hereby incorporated into this Agreement by this reference.

This Agreement is entered into in furtherance of the parties' written agreement for MorphoTrust's delivery of the Software to Customer, as is subject to the terms of such written agreement. In the event of any conflict or inconsistency between the terms of this Agreement and the parties' written agreement for MorphoTrust's delivery of the Software to Customer, the latter shall control.

II. HELP DESK SUPPORT SERVICES

The Services provided by MorphoTrust are as follows:

A. Unlimited telephone and email support for reporting Software issues to the MorphoTrust Support Center (the "**Help Desk**") via telephone or email (see Section IV herein). MorphoTrust's Help Desk is available on a 24/7 basis for the reporting of Software issues. MorphoTrust's Help Desk is staffed with trained Software support specialists during MorphoTrust's standard business hours of 6:00 AM to 6:00 PM CST, five days per week (Monday through Friday), excluding MorphoTrust's recognized holidays. Customer will receive a telephone or e-mail response, as appropriate, within four (4) business hours from the time the Customer's request for support was logged by the MorphoTrust Help Desk during MorphoTrust's standard business hours. *[By way of illustration only, a Customer call placed at 7:00 a.m. CST on a MorphoTrust work day would be returned by no later than 11:00 a.m. CST that same day. By way of further illustration, a Customer call placed at 5:30 p.m. Central on a weekday would be returned no later than 9:30 a.m. Central the next MorphoTrust work day.]*

B. MorphoTrust shall provide Customer with reasonable technical assistance concerning the following via telephone, e-mail or facsimile:

(i) MorphoTrust will determine if the problems the Customer is encountering are attributable to errors in the Software;

(ii) MorphoTrust will answer questions concerning installation of the Software in the form originally delivered and installed, if applicable, by MorphoTrust; and

(iii) MorphoTrust will seek to resolve Customer's problems that occur during normal usage of the Software.

Notwithstanding the foregoing, if MorphoTrust determines that Customer requires ongoing help with a particular problem which is not caused by errors in the Software, or is outside the scope of the original Statement of Work, MorphoTrust may, in its sole discretion, refer Customer to MorphoTrust's professional services support group for which MorphoTrust may require an additional fee.

C. MorphoTrust will use reasonable commercial efforts to remedy any programming error in the Software covered hereunder which is solely attributable to MorphoTrust and prevents the Software from substantially conforming to MorphoTrust's specifications for the Software. Such remedy may consist of correcting portions of the Software, or communication to Customer of a workaround which gives Customer the ability to achieve substantially the same functionality as would be obtained without the programming error, as determined by MorphoTrust.

D. MorphoTrust shall make available to Customer one (1) copy of any Software Updates in object code and one (1) set of user manual Updates (if applicable) for each copy of the Software licensed by Customer, as the Updates become available for general release and to the

extent such Updates apply to Software covered by this Agreement. The term "**Updates**" means modifications, corrections, bug fixes, or additions to the Software or documentation (which is generally denoted by MorphoTrust as a change to one or more numbers to the right of the decimal point) for which MorphoTrust does not charge an additional fee to licensees who are similarly situated to Customer. The term "Updates" does not include any upgrades to the Software (which is generally denoted by MorphoTrust as a change to one or more numbers to the left of the decimal point).

E. The Customer shall have the following responsibilities under this Agreement:

(1) Customer's request for support shall describe the problem with the Software in sufficient detail to enable MorphoTrust to understand and duplicate or recreate the problem. Customer shall provide the following information to MorphoTrust when submitting its request for support:

(a) Customer installed address, account number, product and serial number (as may be shown on the front page of the Addendum), product registration number, license number or incident number, if applicable;

(b) name and version number of Software;

(c) exact wording of error messages;

(d) recital of steps taken by Customer before the problem occurred;

(e) a list of steps taken by Customer in attempting to resolve the problem; and

(f) appropriate log files as may be requested by MorphoTrust.

MorphoTrust reserves the right to request such further information as MorphoTrust reasonably deems necessary.

(2) Customer agrees to incorporate the Updates as soon as practicable and acknowledges that failure to incorporate such Updates may make subsequent Updates unusable.

(3) Customer shall designate a named contact person per installation who will receive all corrections, Updates, correspondence, and other communications concerning the Software, and will notify MorphoTrust in writing of any change in the contact person.

III. EXCLUSIONS FROM SERVICES

The Services consist of those services that are expressly described herein. In no event shall the Services include any of the following:

- MorphoTrust's obligations of support are limited to the current and two (2) previous updated versions of the Software.
- MorphoTrust's obligations of support shall only apply for one (1) year after MorphoTrust's notification of its intent to obsolete or end-of-life the Software.
- MorphoTrust's obligations are dependent upon Customer providing MorphoTrust with sufficient information to enable MorphoTrust to reproduce the reported errors with the Software.
- MorphoTrust shall have no obligation for the correction of errors that are due to a breach by Customer of the terms of Customer's Software license, or which cannot be remedied due to either the operational characteristics of the computer equipment on which the Software is used or to any modifications to the Software made by Customer.
- In the event MorphoTrust agrees to correct any errors not covered by this Agreement, Customer shall pay MorphoTrust for all such work at MorphoTrust's then-current standard time and materials charges and terms and conditions.
- MorphoTrust shall have no obligation of supporting Customer with errors that are reported with items other than the Software itself.
- Additional services beyond the level of Service originally ordered by Customer.
- Support or troubleshooting for Customer provided communication networks.
- Support required due to failures caused by Customer or Customer's software or other software, hardware or products not licensed by MorphoTrust to Customer.
- Providing or installing updates or upgrades to any third party (i.e., Microsoft, Oracle, etc.) software.
- Support required due to failures resulting from software viruses, worms, Trojans, and any other forms of destructive or interruptive means.

IV. SERVICE CALLS

Customer may contact MorphoTrust's TouchCare Support Center by calling **1-888-HELP-IDX (888-435-7439)** in the U.S. and Canada, or outside the U.S. and Canada at **952-945-5512**, e-mailing idxsupport@L1id.com or faxing MorphoTrust's Help Desk at 952-945-5500. MorphoTrust's Help Desk will place the Customer's call in the escalated support queue for response by the appropriate MorphoTrust support personnel during MorphoTrust's normal business hours.

V. TERM AND TERMINATION

This term of this Agreement shall commence upon MorphoTrust's receipt of the annual support fee reflected in the Addendum and shall continue for a period of one (1) year. This Agreement may be renewed for additional one (1) year terms upon the parties' mutual agreement and Customer's execution of an updated Addendum and MorphoTrust's receipt of the applicable annual support fee reflected in the updated Addendum. Either party may terminate this Agreement in the event of a material breach by the other party that remains uncured for a period of thirty (30) days from the date the non-breaching party provided the other with written notice of such breach.

VI. FEES FOR SERVICES

A. The initial fee for Services under this Agreement shall be the amount set forth in the Addendum. The annual support fee during any renewal term will be MorphoTrust's current rates in effect at the time of renewal. Customer agrees to pay the total of all charges for Services annually in advance within thirty (30) days of the date of MorphoTrust's invoice for such charges. Customer shall pay any municipal, state or federal taxes, however designated, levied or based on the charges payable under this Agreement that may be paid or be payable by MorphoTrust, excluding taxes on MorphoTrust's income.

B. If Customer does not pay MorphoTrust's fees for Services provided hereunder when due: (i) MorphoTrust may suspend performance of its obligation to provide Services until the account is brought current; and (ii) MorphoTrust may, at its discretion, provide the Services at current "non contract/per call" rates on a COD basis. Customer agrees to pay MorphoTrust's costs and expenses of collection including the maximum attorneys' fee permitted by law (said fee not to exceed 25% of the amount due hereunder).

VII. LIMITED WARRANTY / DISCLAIMER / LIMITATION OF LIABILITY

MorphoTrust shall provide the Services hereunder in a professional and workmanlike manner by duly qualified personnel. EXCEPT FOR THIS LIMITED WARRANTY, MORPHOTRUST HEREBY DISCLAIMS ALL WARRANTIES, EXPRESS AND IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN REGARD TO THE SERVICES, SOFTWARE, UPDATES AND ANY OTHER GOODS PROVIDED HEREUNDER. IN NO EVENT SHALL MORPHOTRUST'S AGGREGATE LIABILITY TO CUSTOMER ARISING OUT OF, OR RELATED TO, THIS AGREEMENT, UNDER ANY CAUSE OF ACTION OR THEORY OF RECOVERY, EXCEED THE NET FEES FOR MORPHOTRUST'S SERVICES ACTUALLY PAID BY CUSTOMER TO MORPHOTRUST UNDER THE APPLICABLE ADDENDUM TO THIS AGREEMENT DURING THE TWELVE (12) MONTHS PRIOR TO THE DATE THE CUSTOMER'S CAUSE OF ACTION AROSE. IN NO EVENT SHALL MORPHOTRUST BE LIABLE TO CUSTOMER FOR ANY INDIRECT, SPECIAL, INCIDENTIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES (INCLUDING, BUT NOT LIMITED TO, LOST PROFITS OR REVENUE; LOSS, INACCURACY, OR CORRUPTION OF DATA OR LOSS OR INTERRUPTION OF USE; OR FOR ANY MATTER BEYOND MORPHOTRUST'S REASONABLY CONTROL, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NO ACTION, REGARDLESS OF FORM, MAY BE BROUGHT BY CUSTOMER MORE THAN TWO (2) YEARS AFTER THE DATE THE CAUSE OF ACTION AROSE.

VIII. LIMITED LICENSE TO UPDATES

The terms of the license agreement between MorphoTrust and Customer for the Software shall govern Customer's use of any Updates.

IX. U.S. GOVERNMENT REQUIRED FLOW DOWNS.

MorphoTrust operates its business under the terms of a National Security Agreement with the United States Government. The following provisions are required to be included in MorphoTrust's agreements with licensees of its Software:

A. If the Customer supplies any hardware or hardware components to MorphoTrust under this Agreement, such hardware shall: (1) not include any software or firmware; or (2) unless agreed in advance and in

writing by MorphoTrust's Chief Security Officer or Chief Compliance Officer, only include software or firmware that is either (i) generally available to the public (sold from stock at retail selling points without restriction by means of over-the-counter transactions, mail order transactions, electronic transactions, or telephone transactions) and designed for installation by the user without further substantial support by the Customer; or (ii) in the public domain (not protected by patent or copyright and subject to use and appropriation by anyone). Notwithstanding the foregoing, if Customer is a Safran or Morpho company that is affiliated with MorphoTrust, such Safran or Morpho company shall not supply MorphoTrust with hardware containing any software or firmware unless agreed in advance and in writing by MorphoTrust's Chief Security Officer or Chief Compliance Officer.

B. If Customer is a vendor, consultant, subcontractor, placement service, or any other manner of service provider to MorphoTrust, then unless agreed in advance and in writing by MorphoTrust's Chief Security Officer or Chief Compliance Officer, Customer shall ensure that all of the personnel that Customer makes available to MorphoTrust shall be only United States citizens who have passed a background check by MorphoTrust's trusted third party background check service provider. The term "United States citizen" does not include dual nationals, i.e., U.S. citizens who are also citizens of another country are not "U.S. citizens" for purposes of this requirement. MorphoTrust will provide the required background check forms that Customer personnel shall return to MorphoTrust's Chief Security Officer, and MorphoTrust's Chief Security Officer will notify Customer in writing whether a Customer personnel has or has not passed the background check. Customer shall not make such personnel available to MorphoTrust until after MorphoTrust's Chief Security Officer or Chief Compliance Officer have notified Customer in writing that its personnel have passed the background check. It shall be a material breach of this Agreement by Customer if any of Customer's personnel begin to render services to or on behalf of MorphoTrust before passing MorphoTrust's required background check. All Customer U.S. citizen personnel that visit MorphoTrust's facilities shall be escorted by MorphoTrust personnel at all times.

C. If under this Agreement, MorphoTrust provides Customer with MorphoTrust developed software in furtherance of Customer's contract with any U.S. federal, state or local government entity, then unless agreed in advance and in writing by MorphoTrust's Chief Security Officer or Chief Compliance Officer, Customer shall not provide, share, allow access to, or otherwise disclose any such MorphoTrust developed software to anyone not employed by MorphoTrust or the U.S. federal, state or local government entity customer of Customer.

D. Any consulting services that are provided by third parties to MorphoTrust require the advance written approval of the United States Government. If Customer is being engaged by MorphoTrust to provide consulting services, then Customer agrees that it shall not begin to provide consulting services to or on behalf of MorphoTrust unless and until MorphoTrust's Chief Security Officer or Chief Compliance Officer provides Customer with written notice that Customer may begin to provide such services, and that Customer's commencement of services before such MorphoTrust notification shall constitute a material breach of this Agreement by Customer. If Customer receives written notice from MorphoTrust of the U.S. Government's approval, such notice may include additional terms and conditions that the U.S. Government requires be imposed upon MorphoTrust and Customer for Customer's rendering of the consulting services. Customer agrees that its acceptance of these additional terms and conditions is made by either (1) Customer commencing performance of its consulting services at any time after receiving such notice from MorphoTrust, or (2) notifying MorphoTrust in writing that Customer accepts such additional terms and conditions.

E. In the course of the Customer's rendering of services to or on behalf of MorphoTrust, no Customer U.S. citizen personnel using individual or collective DMV (or equivalent agency) records or other U.S. federal, state or local government entity databases may make data inquiries, compilations, or cross-references of any U.S. government contract information (including, but not limited to, all data and information obtained or accessed pursuant to the government contract, law enforcement information, U.S. and foreign citizen personally identifiable information, software, source code, technology and trade secrets, passport and border crossing card stock or other security features and related consumable items), unless directly requested by the local, state, or federal entities themselves. Any data inquiries, compilations, or cross-references of U.S. government contract

information across more than one state database shall require the approval in writing of the U.S. Government. If Customer learns of any unauthorized disclosure of such U.S. government contract information to any third party, such breach or suspected breach shall be immediately reported by Customer to MorphoTrust's Chief Compliance Officer or Chief Security Officer.

X. MISCELLANEOUS

In no event shall MorphoTrust be responsible for delays in the performance of Services when the same are the result of any cause beyond MorphoTrust's control, including but not limited to fires, floods, strikes or other labor disputes, acts of sabotage, riots, precedents or priorities granted at the request or for the benefit, directly or indirectly, of the federal or any state government or any subdivision or agency thereof, delay in transportation or lack of transportation, facilities, restrictions imposed by federal, state or other governmental legislation or rules or regulations thereof.

This Agreement shall be governed by and construed according to the laws of the State of Maryland, excluding its conflict of laws provisions. This Agreement and the written agreement between the parties concerning MorphoTrust's delivery of the Software to Customer constitutes the entire agreement between the parties regarding the subject matter described herein and may not be modified except in writing signed by duly authorized representatives of MorphoTrust and the Customer. Customer's purchase orders and other documents issued by Customer subsequent to the execution of this Agreement shall not supplement or amend the terms of this Agreement. This Agreement may not be assigned by Customer without the prior express written consent of MorphoTrust.