PROPOSAL IN RESPONSE TO:

Nevada Department of Wildlife Business Support System

RFP # 3432

Part IA – Technical Proposal

Vendor:
KALKOMEY ENTERPRISES, LLC
14086 Proton Rd, Dallas, TX 75244

Opening Date: May 31, 2017
Opening Time: 2 p.m.

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Section III – Vendor Information Sheet

V1	Company Name	***Kalkomey Enterprises, LLC***

V2	Street Address	***14086 Proton Rd.***

V3	City, State, ZIP	***Dallas, TX 75244***

V4	Telephone Number		
	Area Code: ***972***	Number: ***715-7011***	Extension: ***n/a***

V5	Facsimile Number		
	Area Code: ***214***	Number: ***351-6429***	Extension: ***n/a***

V6	Toll Free Number		
	Area Code: ***800***	Number: ***830-2268***	Extension: ***n/a***

V7	***Contact Person for Questions / Contract Negotiations, including address if different than above***
	Name: ***Mitch Strobl***
	Title: ***VP of Agency Relations***
	Address: ***14086 Proton Rd, Dallas, TX 75244***
	Email Address: ***contracts@kalkomey.com***

V8	Telephone Number for Contact Person		
	Area Code: ***972***	Number: ***715-7011***	Extension: ***n/a***

V9	Facsimile Number for Contact Person		
	Area Code: ***214***	Number: ***351-6429***	Extension: ***n/a***

V10	***Name of Individual Authorized to Bind the Organization***	
	Name: ***Jason Alexander***	Title: ***CEO***

V11	Signature ***(Individual shall be legally authorized to bind the vendor per NRS 333.337)***	
	Signature:	Date: 5/24/17

Section IV – State Documents

A. SIGNATURE PAGE FROM AMENDMENTS

The signature page from Amendment 1 is included on the following page.

Does the State require that the replacement database adhere to the same database design/schema, e.g., tables names, column names, data types and sizes, etc.?

No.

ALL ELSE REMAINS THE SAME FOR RFP 3432.

Vendor must sign and return this amendment with proposal submitted.

Vendor Name: Kalkomey Enterprises, LLC

Authorized Signature:

Title: CEO Date: 5/24/17

This document must be submitted in the "State Documents" section/tab of vendors' technical proposal.

B. ATTACHMENT A – CONFIDENTIALITY AND CERTIFICATION OF INDEMNIFICATION

ATTACHMENT A – CONFIDENTIALITY AND CERTIFICATION OF INDEMNIFICATION

Submitted proposals, which are marked "confidential" in their entirety, or those in which a significant portion of the submitted proposal is marked "confidential" **shall not** be accepted by the State of Nevada. Pursuant to NRS 333.333, only specific parts of the proposal may be labeled a "trade secret" as defined in NRS 600A.030(5). All proposals are confidential until the contract is awarded; at which time, both successful and unsuccessful vendors' technical and cost proposals become public information.

In accordance with the submittal instructions of this RFP, vendors are requested to submit confidential information in separate files marked "**Part IB Confidential Technical**" and "**Part III Confidential Financial**".

The State shall not be responsible for any information contained within the proposal. If vendors do not comply with the labeling and packing requirements, proposals shall be released as submitted. In the event a governing board acts as the final authority, there may be public discussion regarding the submitted proposals that shall be in an open meeting format, the proposals shall remain confidential.

By signing below, I understand it is my responsibility as the vendor to act in protection of the labeled information and agree to defend and indemnify the State of Nevada for honoring such designation. I duly realize failure to so act shall constitute a complete waiver and all submitted information shall become public information; additionally, failure to label any information that is released by the State shall constitute a complete waiver of any and all claims for damages caused by the release of the information.

This proposal contains Confidential Information, Trade Secrets and/or Proprietary information.

Please initial the appropriate response in the boxes below and provide the justification for confidential status.

Part IB – Confidential Technical Information			
YES		NO	***JA***
Justification for Confidential Status			
Kalkomey has not included any confidential technical information.			

Part III – Confidential Financial Information			
YES	***JA***	NO	
Justification for Confidential Status			
Documents included as requested in solicitation.			

Kalkomey Enterprises, LLC

Company Name

Signature

Jason Alexander	5/24/17
Print Name	Date

C. ATTACHMENT B – VENDOR CERTIFICATIONS

ATTACHMENT B – VENDOR CERTIFICATIONS

Vendor agrees and shall comply with the following:

(1) Any and all prices that may be charged under the terms of the contract do not and shall not violate any existing federal, State or municipal laws or regulations concerning discrimination and/or price fixing. The vendor agrees to indemnify, exonerate and hold the State harmless from liability for any such violation now and throughout the term of the contract.

(2) All proposed capabilities can be demonstrated by the vendor.

(3) The price(s) and amount of this proposal have been arrived at independently and without consultation, communication, agreement or disclosure with or to any other contractor, vendor or potential vendor.

(4) All proposal terms, including prices, shall remain in effect for a minimum of 180 days after the proposal due date. In the case of the awarded vendor, all proposal terms, including prices, shall remain in effect throughout the contract negotiation process.

(5) No attempt has been made at any time to induce any firm or person to refrain from proposing or to submit a proposal higher than this proposal, or to submit any intentionally high or noncompetitive proposal. All proposals shall be made in good faith and without collusion.

(6) All conditions and provisions of this RFP are deemed to be accepted by the vendor and incorporated by reference in the proposal, except such conditions and provisions that the vendor expressly excludes in the proposal. Any exclusion shall be in writing and included in the proposal at the time of submission.

(7) Each vendor shall disclose any existing or potential conflict of interest relative to the performance of the contractual services resulting from this RFP. Any such relationship that might be perceived or represented as a conflict shall be disclosed. By submitting a proposal in response to this RFP, vendors affirm that they have not given, nor intend to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant or any employee or representative of same, in connection with this procurement. Any attempt to intentionally or unintentionally conceal or obfuscate a conflict of interest shall automatically result in the disqualification of a vendor's proposal. An award shall not be made where a conflict of interest exists. The State shall determine whether a conflict of interest exists and whether it may reflect negatively on the State's selection of a vendor. The State reserves the right to disqualify any vendor on the grounds of actual or apparent conflict of interest.

(8) All employees assigned to the project are authorized to work in this country.

(9) The company has a written equal opportunity policy that does not discriminate in employment practices with regard to race, color, national origin, physical condition, creed, religion, age, sex, marital status, sexual orientation, developmental disability or handicap.

(10) The company has a written policy regarding compliance for maintaining a drug-free workplace.

(11) Vendor understands and acknowledges that the representations within their proposal are material and important, and shall be relied on by the State in evaluation of the proposal. Any vendor misrepresentations shall be treated as fraudulent concealment from the State of the true facts relating to the proposal.

(12) Vendor shall certify that any and all subcontractors comply with Sections 7, 8, 9, and 10, above.

(13) The proposal shall be signed by the individual(s) legally authorized to bind the vendor per NRS 333.337.

Kalkomey Enterprises, LLC

Vendor Company Name

Vendor Signature

Jason Alexander

Print Name

5/24/17

Date

D. Attachment J – Certification Regarding Lobbying

ATTACHMENT J – CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or shall be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federally appropriated funds have been paid or shall be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all sub awards at all tiers (including subcontracts, sub grants, and contracts under grants, loans, and cooperative agreements) and that all sub recipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

By: _____ 5/24/17
Signature of Official Authorized to Sign Application — Date

For: ***Kalkomey Enterprises, LLC***
Vendor Name

Nevada Department of Wildlife Business Support System, RFP #3432
Project Title

E. VENDOR LICENSING AGREEMENTS

Kalkomey uses open-source software and commercially available hardware as the basis for product development. As such, Kalkomey does not utilize any software or hardware requiring licensing agreements.

F. APPLICABLE CERTIFICATIONS AND LICENSES

Kalkomey does not have any applicable certifications and licenses.

Section V – System Requirements

3.1 VENDOR RESPONSE TO SYSTEM REQUIREMENTS

Vendors must explain in sufficient detail how they will satisfy the Nevada Department of Wildlife's project requirements described below. If subcontractors will be used for any of the tasks, vendors must indicate what tasks and the percentage of time subcontractor(s) will spend on those tasks.

Kalkomey was founded in 1995 as a company dedicated to providing solutions and materials for state natural resources agencies and advancing participation in outdoor recreation.

Kalkomey currently offers some of the most widely used data and process management and automation solutions in the industry. Bundled together as a single, integrated, cloud-hosted, Software-as-a-Service solution, Kalkomey's Agency Management Solutions (AMS) include systems for:

- ***state certification data management;***
- ***certification fulfillment;***
- ***event management;***
- ***instructor and volunteer management;***
- ***hunt and fish license automation;***
- ***customer outreach management; and***
- ***magazine subscription management.***

In addition, Kalkomey provides online education for boating, hunting (including muzzle-loader and trapping specialties), safari, bowhunting, handgun safety, and off-road vehicle and snowmobile operation. Kalkomey also publishes more than 240 unique manuals, handbooks, field guides, hardback books, and education supplements. We offer hundreds of classroom teaching aids, including award-winning videos, posters, presentation slide decks, exams, and exam keys.

Kalkomey is dedicated to our agency partners, who sustain and strengthen our natural resources. We are committed to providing solutions to enhance agency operations and enable agencies to provide high-quality outdoor recreation, educate present and future generations of outdoor enthusiasts, and promote conservation and enjoyment of the environment.

Kalkomey's core competencies revolve around agency data and process management. Specifically, Kalkomey hosts commercial-off-the-shelf, Software-as-a-Service solutions for:

- ***safety education***
- ***student safety certification data***
- ***in-person training and outreach event management***
- ***instructor and volunteer data and process management***
- ***permitting and registration solutions***
- ***magazine subscription management and fulfillment***

- ***a consumer marketplace for hats, shirts, patches and other items the agency may offer to the public***

Within our suite of solutions, we offer a diverse set of functional capabilities all built with state-specific configuration in mind.

Throughout this response, Kalkomey will provide detail about how AMS will satisfy Nevada Department of Wildlife (NDOW) project requirements. In short, Kalkomey will utilize a suite of applications designed specifically to support agency processes and data management, allowing Nevada to leverage a commercial, managed solution configured for both Nevada's unique needs and for the broader needs of agencies as a whole. Kalkomey's products are developed and supported by individuals with over 20 years of experience in licensing automation, state agency process, education, and data management.

3.2 COMPUTING PLATFORM

3.2.1 Vendors shall submit a list of hardware (excluding NDOW desktop hardware) that will be used to provide the services required under this RFP, and shall state whether each item will be dedicated exclusively to those services or shared by all systems with other applications. Each bidder must document how the listed hardware will be sufficient to provide all the services required under this RFP. The solution must be at minimum Tier 3 data management standard or above and preferably located in Nevada. Note that the current configuration includes various servers, network devices, data lines, phone system hardware, continuous power supplies, work stations, a postage machine, fax machines, and printers.

<u>Physical Hardware</u>
The following physical hardware will be provided to Sales Agents and NDOW sales agent staff.

- ***Datamax E-4205A Mark III printer***
- ***Elo E Series POS Terminal***

The Datamax E-4205A Mark III printer has an open window design that allows the Sales Agent to see if the paper is aligned correctly or jammed without having the open the unit. The Datamax printer comes with easy-to-use guide bars and a simple drop-in loading procedure, making changing paper simple and efficient.

- ***Datamax E-4205A Mark III***
  - ***Direct thermal***
  - ***203 DPI***
  - ***5 IPS***
  - ***64MB flash***
  - ***32MB Dram***
  - ***Adjustable sensor***

- ***Parallel/Serial/USB/LAN***
- ***Cutter with LED/button***
- ***Label sensor***
- ***Netira***
- ***US power cord***

The Elo E class terminal have a 15" touch display, which provides ample screen room for enlarged text and buttons and makes it easier for the Sales Agent to navigate the application and quickly issue licenses. In addition, it comes with a back (customer-facing) display that allows the Sales Agent to show the customer the listed address for validation, show the list of items selected in the cart for review before checkout, and, if applicable, allow the customer to sign the document electronically before printing.

In addition, the Elo has a built-in, automatic (meaning always on and ready to scan) barcode scanner. Providing all of this attached to the terminal itself saves Sales Agent counter space.

<u>Software</u>
Kalkomey's licensing server system runs on AWS GovCloud, a managed services provider. Through AWS GovCloud, Kalkomey will provision the following services:

- ***Firewalls: A firewall cluster ensures only authorized access is allowed for each system. By utilizing multiple firewalls, the possibility of a single-point-of-failure is eliminated.***
- ***Load Balancers: A load balancer cluster ensures traffic is evenly distributed to healthy application server nodes in the ecosystem. Again, by utilizing a cluster, no single load balancer failure can disrupt system performance. Additionally, the load balancers are node aware, providing automated rerouting in the event of a failed node.***
- ***Application Servers: Multiple application servers prevent single-point-of-failure and allow for even distribution of application load across multiple devices.***
- ***Database servers: The production database runs on a fault-tolerant, clustered database system.***

Amazon AWS is the largest managed services provider in the world. Additionally, AWS GovCloud is an isolated AWS environment designed for sensitive data and designed to meet U.S. Government compliance requirements, including ITAR and FedRAMP. AWS operates in alignment with Tier III+ guidelines. While network devices and internal AWS infrastructure is not publicly disclosed, by aligning with Tier III+ guidelines, all devices are fault tolerant, with continuous power supplies. Additionally, all the above infrastructure is exponentially scalable to ensure consistent, exceptional performance is maintained across the entire licensing system.

Additionally, Kalkomey uses CloudFlare for Distributed Denial of Service protection. CloudFlare offers an additional layer of protection, in front of the AWS Firewalls, mitigating scaled, bot attacks through sophisticated real-time analysis to prevent disruption to the licensing system for actual customers.

Cloud based infrastructure is a proven solution for hosting large-scale, enterprise applications. Currently, Kalkomey utilizes a fewer than 20 servers to handle over 1600 requests per minute (70MM over the last 30 days). The proposed computing platform will be capable of similar performance, and is scalable linearly to handle increased needs.

3.3 TECHNICAL REQUIREMENTS

The System Introduction manual describes the NWDS and provides user information to NDOW headquarters and field staff, NDOW license agents, and vendor staff for operating the system. This manual will be provided to the awarded vendor.

Kalkomey acknowledges that NDOW will submit the manual to Kalkomey upon the contract award.

3.3.1 Database Requirements

> 3.3.1.1 Vendors must provide a description and system, application, and process diagrams of the conceptual design or architecture of the proposed solution so it is clear how transactions from all sources will be processed simultaneously. This should include the major functions to be provided by the vendor as well as how they interact. Vendors should describe each component included in their design and indicate the location of facilities involved in the system. In addition, if the processing and/or database servers are shared with other clients, the Vendors should identify the other clients and provide data indicating how Nevada business could be impacted, and all other client's peak transaction processing dates. List and reference specific equipment, service providers, systems, and data management and application software being proposed.

Agency Management Solutions (AMS) is a configurable, off-the-shelf solution and a multi-Channel eCommerce System designed to facilitate the sales and financial reconciliation of agency product offerings and the management of related processes and data.

AMS offers everything from education to licensing:

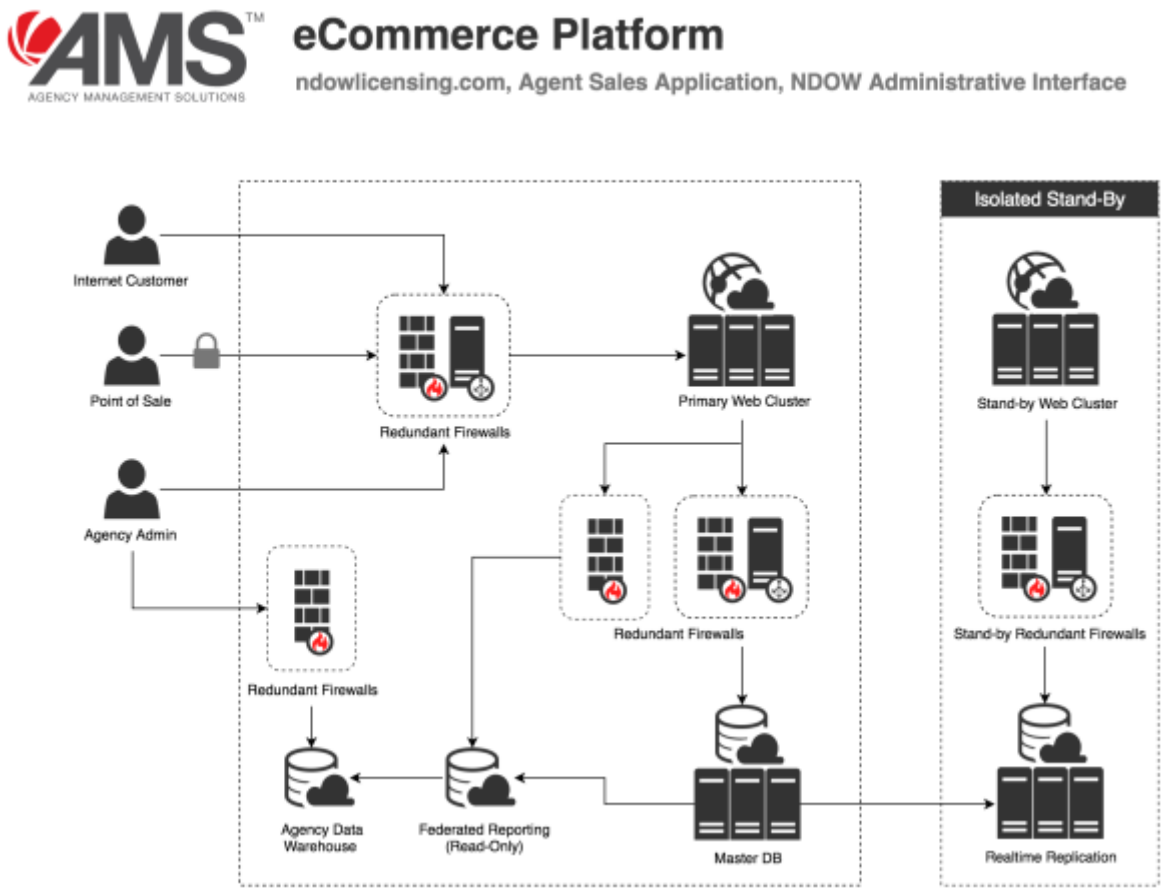
- ***Recreational licenses, tags and permits.***
- ***Draw applications, complete with customizable lottery implementation.***
- ***Online stores including subscription, donations, and merchandise.***
- ***Vehicle registrations to fit all your needs, whether it's titling, decals, or basic registration.***
- ***Full service reporting suite to identify trends and patterns.***
- ***Online outdoor recreation safety education and certification data management.***
- ***Certification card fulfillment and replacement services.***
- ***Event management for in-person education and outreach including:***
    - ***event registration and fee collection;***
    - ***roster management; and***
    - ***volunteer tracking for US Fish and Wildlife reporting.***
- ***Volunteer management supports volunteer application and vetting, volunteer training events, time tracking, and awards processes.***
- ***Outreach Management facilitates recruitment, retention and reactivation services by allowing administrative users to set up automated workflows delivering personalized messages triggered by demographic and behavioral traits.***

Kalkomey anticipates sharing processing and database servers with other subscribers. Depending on the date of implementation, NDOW could be hosted on dedicated servers. Kalkomey will notify NDOW if and when other subscribers are added to shared resources and will share details of theses subscribers (other agency partners).

Kalkomey has a great deal of experience in multi-tenant (shared resource), SaaS solutions. Every data and process management system managed by Kalkomey utilizes a multi-tenant, SaaS model and is optimized so that subscribers do not interfere with or have any access to the data or processes provided to other subscribers.

Kalkomey's current business supports over 600,000 transactions per day, with average server response times under 500ms and browser load times under 4 seconds. Kalkomey has more than 900 million data points in our current systems.

The following diagram illustrates the architecture of AMS.



AMS features three interfaces: ndowlicensing.com (Internet sales), the Agent Sales Application (for Sales Agent locations), and the NDOW Administrative Interface (for NDOW staff).

Transactions from all three sources (excepting Agency Data Warehouse requests; see above diagram) are routed through firewalls to a cloud-hosted web cluster hosting the AMS application modules, where they are processed simultaneously.

The AMS web application cluster accesses a primary database cluster for transactional processing and utilizes a read-only reporting database that uses real-time replication. The primary reporting database utilizes log shipping from the master database cluster and is a truly real-time replicated copy of the master database. This database allows reporting requests from potentially impacting transactional processing and allows Kalkomey to maintain redundant database in the same hosting facility as the master database.

Kalkomey utilizes automated provisioning and deployment process that ensure consistent, fault-tolerant system builds. These processes are used to maintain an isolated standby system in a second, geographically disparate enterprise class hosting facility that can be brought online very quickly should the primary facility suffer a significant outage. The stand-by system

is a mirror image of the primary system and also uses real-time replication to maintain a copy of the master database.

Finally, Kalkomey provides a nightly process that exports the data for each subscriber from the multi-tenant solution. Subscribers will be provided an Entity Relationship Diagram of this database. In the diagram above, Kalkomey shows a hosted database that is directly accessible by NDOW. NDOW may alternatively request a data file that can be loaded into a state-managed database.

This database is designed to give state departments direct access to all their data for any reporting and integration needs that can be satisfied by querying near-real-time system data. For real-time needs, Kalkomey provides integration and interface support for NDOW, similar to what is required in Section 3.3.13 [page 32].

3.3.1.2 Vendors should identify how the processing and database servers (including any at subcontractor locations) will accommodate the estimated system transaction volume and the volume of users of the System Administration tools.

Kalkomey leverages cloud-hosted, clustered web and database servers that allow for near-instantaneous scalability to support NDOW peak transaction periods. As the leading provider of outdoor recreational education, Kalkomey has proven expertise handling seasonal demand.

Kalkomey operates and provides support for e-commerce systems that experience demand ramp-up for boating and hunting seasons. Around the Fourth of July, Kalkomey's servers experience more than double transactional volume than the average volume for the rest of the year. In the fall, as boating demand begins to wane, hunters generate a second peak in transactional volume.

Kalkomey manages these peak seasons and has seasonal processes in place for support teams and software systems. Kalkomey begins adding capacity through the summer and reduces capacity for systems as the winter and spring seasons change demand.

Active management of system capacity is essential to providing an efficient system. Too little capacity can provide for a bad user experience as servers struggle to keep up with demand. Too much capacity can also cause problems. When idle, some software components will have processing priority and memory freed for other server tasks and may require "spin-up" before they are ready to respond to user requests.

Kalkomey actively manages server capacity to ensure the best possible user experience.

Kalkomey will prepare a capacity plan for NDOW seasonality based on historic sales trends and adjust plans as demand necessitates.

3.3.1.3 The awarded vendor must import all historical data from each module into the proposed database. The database must be accessible to all users of the system with appropriate access controls. The proposed system must allow customers to continue to use their existing customer ID, allow viewing of current and previous transaction history. The awarded vendor must convert existing data to pre-populate the new system's database with 100% accuracy from the following areas:

A. Hunting and Fishing Licenses

B. Vessel Titling/Registrations

C. Conservation Education/Programs

D. Law Enforcement Citations/Revocations

E. Harvest Information Reporting

F. Application Hunt/Tags and Draw/Bonus Point/Eligibility

G. The Volunteer Program

H. Special Licenses and Permits

Kalkomey is prepared to import NDOW data files from various sources as part of the implementation of AMS. Kalkomey will use existing and new data migration processes to import NDOW's data into AMS. These import processes also ensure data accuracy and precision. Programmatic quality checks that confirm data is imported accurately include the following:

- ***Total record counts for each data type should match***
- ***Subset record counts should match***
    - ***Examples of this include:***
        - ***Number of products in a specific category***
        - ***Number of historical licensees from a specific postal code***
        - ***Number of historical licensees with a specific date of birth***

In addition to programmatic checks for accuracy and completeness, random data checks will also occur prior to system launch to ensure all data from NDOW is included in AMS.

All data files provided initially will be duplicated and stored separately from the import process to ensure no data loss can occur. Developers writing new import processes will not have access to the full dataset; they will work with an obfuscated subset of data to ensure personally identifiable information is secured. Additionally, the credentials used to import data will not have delete permissions, ensuring no data can be deleted during the import process.

3.3.2 Fulfillment:

The proposed solution must be able to provide the customer a receipt or confirmation of purchase for any transactions that are fee based. The solution must include deliverable of documents (licenses, permits, vessel registrations, etc.) where applicable.

AMS provides customer receipts for all transactions. These receipts may be printed immediately from the application where the purchase took place (*ndowlicensing.com *or Sales Agent location) and receipts are also emailed to customers who provide an email address.

Kalkomey will manage fulfillment for any deliverable that cannot be printed directly from the application. Customers have the option to select their delivery method, which includes regular postal delivery or FedEx overnight shipping, with appropriate charges for shipping method and location.

3.3.3 Support and Training:

The proposed solution must include remote support for devices and agents and provide details training method for agents. The solution must meet all support and training requirements.

Kalkomey's support team will provide remote support for devices and agents. Kalkomey's process includes replacement hardware; Kalkomey provides hardware accompanied by training documentation and a video support library as well as live support to ensure Sales Agents can set up and use any hardware such as terminals and printers.

Kalkomey utilizes various methods to provide training for subscription systems. For this project, Kalkomey will tailor instruction based on the user type. For NDOW Staff and Sales Agents, Kalkomey will provide multiple short, business process-based training videos in an organized catalog to assist each type of user in performing the various business processes for which they will be responsible. In addition to online videos, Kalkomey will provide downloadable, printable user guides for those who learn better through reading and hands-on experience than watching instruction and attempting to repeat the processes presented.

For NDOW Staff and Sales Agents, Kalkomey will develop instruction for the business processes to be performed by each user type. Sales Agents, for example, will be presented with an organized outline of courses covering:

- ***logging in;***
- ***administering a client at vendor location;***
- ***creating NDOW customer accounts;***
- ***searching for and verifying accounts;***
- ***the product catalog and rules;***
- ***shopping for products;***
- ***issuing products;***

- ***replacing products;***
- ***voiding sales;***
- ***reversing sales; and***
- ***performing draw entries.***

In addition to online training videos, Kalkomey will provide printable training guides that follow the organization and content of the online videos. Instructional videos and guides will also be developed for NDOW Staff to cover all system operations they have access to perform.

Clients accessing the online systems will be provided user-friendly, on-screen prompts to help them perform relevant processes such as:

- ***creating an account;***
- ***performing draw entry or harvest reporting; and***
- ***shopping for products.***

By utilizing short videos, Kalkomey can easily update training content as functionality, requirements, and products change. Should any of the training materials become outdated, Kalkomey will produce new versions of the outdated videos, update the downloadable materials, and republish the videos and guides to the training catalog.

Kalkomey proposes to host training materials and videos on Kalkomey-managed web servers that are available 24 hours a day, every day of the year.

3.3.4

The proposed solution must include remote monitoring capability that can notify the contractor of existing or potential operational malfunctions. Monitoring should include, but is not limited to: issues with connectivity, display, printer, input device, or power.

Kalkomey provides point of sales (POS) solutions that are based on Microsoft Windows touchscreen computers, commercial-grade printers, and standard Internet browsers. The POS will report key performance indicators and log information back to the host system. AMS will be able to report on the health status of POS solutions that have reported in and, more importantly, indicate any POS solutions that have not reported in as expected.

AMS also tracks key events such as user and customer logins, sales agent print confirmations, and sales transactions. NDOW staff and Sales Agent staff with appropriate permissions may run reports on users and agents that do not seem to be active and may take the necessary actions such as removing account access from inactive Sales Agent staff and contacting Sales Agents who have not made a sale in some time.

3.3.5 Hardware

3.3.5.1 Housing: The housing must be durable, convenient, compact and intuitive. Provide detail to the dimensions, shape and a proposed design to the device. Hardware must be intuitive current technology. Vendors must propose the solution to this. Indicate the solution's method of input (touch screen, keyboard, etc.).

Kalkomey proposes using a ELO E class retail touchscreen system as a Point-of-Sale device for NDOW (example image below). The device uses an on-screen keyboard to reduce the number of peripherals attached to the device; however, for accessibility reasons, Kalkomey can also provide a QWERTY keyboard to all Sales Agents that request one.

3.3.5.2 Display: Provide details to the display including size, functionality, accessibility, and durability.

The ELO E class incorporates a 15" HD touchscreen display. The display is designed to be anti-glare and anti-fingerprint to offer a high-quality experience without the need for constant cleaning.

Kalkomey's Agent Sales Application interface coupled with the high-quality screen on the ELO E class provides adequate contrast for users with low vision. Users with mobility or serious vision impairments may use available add-on peripherals such as a physical keyboard to aid in use of the terminal.

Kalkomey follows industry standards for software navigation design, ensuring optimal usability and compliance with current industry standards. All of Kalkomey's applications are optimized for any electronic device and screen size used by End Users or administrators—from mobile phones to tablets and desktop computer monitors. Our applications are designed specifically for any screen size and any mobile or handheld device: no zooming or side-scrolling required, and buttons are appropriately sized for easy navigation. We utilize the best responsive design standards, including fluid, proportion-based grids, flexible images, and CSS3 media queries as an extension of the @media rule.

Users may access Kalkomey's applications from a variety of browsers. Our applications do not require any additional plug-ins, application frameworks, virtual machines, or interpreter or software augmentation to their browser. All of Kalkomey's applications can be accessed via a standards-compliant browser.

Kalkomey includes the following accessibility standards when developing software:

- ***adjustable text size***
- ***accessible images***
- ***color and contrast***
- ***common look and feel***
- ***keyboard navigation (where applicable)***
- ***logical hierarchy***
- ***media alternatives***
- ***skip navigation***

3.3.5.3 Printer: Provide details to the printer required for output of materials. Include information of printer model, size, durability, functionality and ease of access (for support).

Kalkomey proposes that NDOW use the Datamax E-4205A Mark III printer for printing license and tag documents. This printer (or the earlier version of this printer) have been in use in the hunt and fish licensing industry for over 15 years by more than 10 different states. This printer will print direct thermal to Quik Tag G material, which is also currently used in multiple states. The Datamax printer has an open window design, which allows the user to easily see if the printer is loaded properly and in alignment, and a simple I button feed/fault light option that can quickly tell the user and support if and what the issue is in case of an error.

- ***Datamax E-4205A Mark III***
  - ***Direct thermal***
  - ***203 DPI***
  - ***5 IPS***
  - ***64MB flash***
  - ***32MB Dram***
  - ***Adjustable sensor***
  - ***Parallel/Serial/USB/LAN***

- ***Cutter with LED/button***
- ***Label sensor***
- ***Netira***
- ***US power cord***

Additional information about this printer is available at:
https://www.datamax-oneil.com/do/fr/en-us/home/printers-software/stationary-printers/desktop-printers/e-class-mark-iii

3.3.5.4 Network Interface: Provide details to the available network interfaces. Indicate if the device is capable of dial-up or wireless network interfaces.

The ELO E class terminal comes pre-configured with a standard RJ45 ethernet port for wired ethernet. At the request of NDOW, wireless LAN capability is available as an optional, internal add-on. The ELO E class standard configuration is not capable of dial-up connection. If this is a necessity for NDOW, Kalkomey will offer additional options.

3.3.6 Device Requirements

3.3.6.1 NDOW is interested in exploring the possibility of providing a variety of device solutions, especially mobile, to our license agents as well as our customers.

AMS utilizes web-based interfaces that are accessible from any modern browser with an Internet connection.

It is possible to leverage Kalkomey's proposed print solution, barcode scanner and signature pad from a variety of device solutions, so many Sales Agents will be able to utilize existing devices with the Kalkomey AMS Agent Sales Application.

Kalkomey was one of the first providers in the industry to move to a mobile-first design philosophy. All our public-facing solutions are accessible natively from mobile browsers and all new systems are developed with mobile usage in mind. Kalkomey now sees greater than 50% of all web traffic originating from mobile devices.

3.3.6.2 The state must have the ability to control which business components each agent, location, or device is authorized to access.

AMS supports a robust user management module that allows for role definition through permission sets. Distinct permission sets can be assigned based on what type of user will be acting in the Agent Sales Application (NDOW Staff, Sales Agent, End User) and what modules they should be able to use. There is no limit to the number of user roles that NDOW can define.

Each Sales Agent terminal goes through an authorization process so that the particular Sales Agent location is not accessible from outside Sales Agent locations. New terminals must be authorized before any Sales Agent access is granted.

3.3.7

The awarded vendor must at a minimum provide a Point of Sale component for the automated licensing system and a browser-based solution for vessel registration.

Kalkomey offers a Point of Sale solution for Sales Agents (the Agent Sales Application) and a browser-based solution for vessel registration.

3.3.8

The vendor's proposal must identify each hardware configuration, including the life expectancy of the proposed hardware. The licensing point of sale solution must be flexible to allow for agents to utilize their own PC solution or vendor provided hardware and software. The proposed solution shall allow agents to input data and must produce customer license documents.

Kalkomey offers a Microsoft Windows touch-screen POS solution that leverages a modern browser and a custom print solution that will allow agents to input data and produce customer license documents.

The ELO terminal has a life expectancy of 3 to 5 years; the Datamax printer has a life expectancy of 5 to 7 years. Kalkomey guarantees the POS solutions for the duration of the contract.

The Agent Sales Application is completely web-based and the POS printer, scanner and signature pad support a variety of hardware and operating system platforms. It is likely that many agents will be able to utilize their own PC solution with the Agent Sales Application.

3.3.8.1 Device Footprint - Device is expected to reside on a counter top or desktop for use in areas with limited space.

Kalkomey's POS solution is web-based and utilizes Microsoft Windows touch-screen hardware, POS 7 OS. This solution is designed to require minimum space in a Sales Agent's facilities.

3.3.8.2 Device and Printer Durability - Devices and printers must be able to withstand the adverse conditions and transaction volumes that may exist in the agents' place of business.

The Kalkomey Agent Sales Application for NDOW sales agents utilizes small, commercial-grade thermal printers. The printers can print up to 6 inches per second and are designed for high-volume, frequent-use environments with high-quality, legible printing.

3.3.8.3 Device and Printer Specifications - Devices and printers must meet or exceed FCC specifications for use in residential environments and be UL approved.

The Kalkomey Agent Sales Application POS devices provided by Kalkomey meet or exceed FCC specifications for use in residential environments and is UL approved.

3.3.9 Enhancements to Proposal for Point of Sale Equipment

3.3.9.1 Additional Equipment Options – Vendors must propose a pricing structure for equipment and support for agents wishing to acquire additional point of sale devices above and beyond NDOW's inventory. All devices must be tracked and recorded in an inventory system that NDOW has access to.

Kalkomey will make available to any Sales Agent a full set of license sales equipment, including the ELO E class terminal, Datamax Printer, and all attached peripheral devices, at a cost of $2,350.00 per set, excluding applicable sales tax.

This equipment will be tracked, warrantied, and maintained in the same manner as all other NDOW equipment; the only difference will be that the Sales Agent themselves will own the equipment rather than Kalkomey.

3.3.9.2 Bar Code Scanners – The solution may include a bar code scanner capable of reading the State's two-dimensional (2D) bar code driver's license and ID cards and bar codes printed on license documents. POS devices may be required to read 2D bar code licenses encoded in the American Association of Motor Vessel Administrators (AAMVA) encoding standard.

Kalkomey's solution allows Sales Agents and NDOW staff to scan barcode-equipped driver's licenses, ID cards, and license documents, if desired by NDOW.

Kalkomey has implemented barcode printing that adheres to the latest AAMVA specifications. Our current AAMVA barcodes have been reviewed by law enforcement agencies (NH DMV and NH Marine Patrol) and have been tested on police cruiser scanners. Barcodes are rendered in a digital image format to be displayed on various I/O displays as well as printed in many different print mediums.

Kalkomey currently prints AAMVA bar codes on safety certification cards and will print similar bar codes on license documents from AMS.

3.3.9.3 Digitally Captured Signature Devices – the solution may include a signing device to capture the customer's signature at the point of sale. This signature image must be transmitted and related to the individual transaction for a defined period.

AMS supports the ability for customers to electronically sign their license documents. When setting up privilege print document configurations, a setting on the document template indicates whether a signature is required.

3.3.10 Deployment, Installation and Training for Use of Point of Sale Equipment

3.3.10.1 The awarded vendor shall provide visual aids, a quick reference guide, a video, and a user manual.

Kalkomey will provide visual aids, a quick reference guide, a video library, and a user manual to support the use of Point of Sale equipment. Additionally, Kalkomey will offer helpdesk support for any sales agent or end customer that needs assistance in completing a license sale or purchase.

3.3.10.2 Vendors shall provide an installation plan that details all activities required to successfully install and operate the equipment.

Kalkomey will provide a final installation plan as part of the implementation of the system.

Sales Agents utilizing the Kalkomey point of sales solution will receive a shipment of hardware including a security-tagged terminal with touch screen, scanner, and signature pad, as well as a printer.

The shipment will also include a quick-start guide with links to online video and print documentation. (See next section for more detail.)

A. Utilize equipment validation and diagnostic tests as prescribed by vendor to verify that the equipment functions properly.

The guide referenced in 3.3.10.1 and 3.3.10.2 will refer the Sales Agent to contact the Kalkomey support team to acknowledge shipment, to activate the primary vendor manager account, and authorize the system to access the Sales Agent's AMS Agent Sales Application account. During this process, the Sales Agent will boot the system, connect hardware to the system, connect to the online Agent Sales Application, and access the diagnostic and test system provided by Kalkomey.

The Sales Agent staff person who sets up the point of sale solution will look up a sample account or create a new test account, make a simple product purchase, and print a sample test license document. The printed license document can then be scanned to ensure that all hardware is functional.

Once this process is done, the system will be ready to be used with the production environment. At that time, the Sales Agent may create additional staff accounts for use on that point of sale system. A Sales Agent may request and configure multiple terminals per location.

B. Automated notification of contractor of any operational problems with the equipment.

The point of sales solution reports key health and log information back to the host system. AMS will be able to report on the health status of Sales Agent locations that have reported in and, more importantly, indicate any Sales Agent locations that have not reported in as expected.

AMS also tracks key events such as Sales Agent user logins, Sales Agent print confirmations, and sales transactions. NDOW staff and Sales Agent staff with appropriate permissions may run reports on users and Sales Agent locations that do not seem to be active and may take the necessary actions, such as removing account access from inactive vendor staff and contacting Sales Agents who have not made a sale in some time.

3.3.11 Maintenance of Point of Sale Equipment

3.3.11.1 Contractor will render maintenance service to keep equipment in, or restore equipment to good working order (referred to as "Equipment Repair/Replacement Service" or "ERS").

Should any of Kalkomey's provided equipment need maintenance, Kalkomey will restore equipment to good working order to ensure continued sales abilities.

3.3.12 Data Access – Replication Services

3.3.12.1 The contractor must provide secured access to a real-time copy of the production data. Vendors should identify hardware, software and connectivity proposed as well as the data replication process and recommend the frequency that the data replication should occur. Vendors should identify the reporting tools NDOW staff will use to perform queries and also describe the various levels of security established on the replicated server.

Kalkomey maintains three specific databases for AMS:

- ***The production transactional system runs on a multi-tenant, cloud-based MySQL database cluster. This database is replicated in real time using log shipping so that every production transaction is replicated in real time to the replication server.***
- ***The replicated server is the second database and mirrors the production system but is read-only and is used by the analytics systems inside of AMS to provide built-in and ad hoc reporting. This replicated database can be used to quickly recover the master database in emergencies.***
- ***The third database is a subscriber-reporting database (as specified in this requirement) that is created from the replicated database on a nightly basis. A set of custom jobs exports subscriber data to a reporting schema directly accessible by appropriate state staff. In the diagram in section 3.3.1.1 [page 18], this database is called Agency Data Warehouse. Kalkomey can host this database on behalf of the subscriber. Alternatively, Kalkomey may provide a data file via FTPS or other secure option allowing NDOW to import data to a self-hosted system.***

AMS utilizes a cloud-hosted, clustered MySQL database and uses MySQL replication for a federated reporting database and stand-by database. The Agency Data Warehouse is produced through custom jobs that run in batch processes on a nightly basis.

Analytics and reports within AMS will utilize role-based permissions within AMS to grant access to the reports. If the Agency chooses for Kalkomey to host the Agency Data Warehouse (versus a self-hosted option), the Agency Data Warehouse will utilize MySQL users (MySQL-level authentication) and the server will only be accessible only from whitelisted IP addresses provided by NDOW. NDOW may request/create individual and/or system accounts that will be able to make queries directly against the reporting database.

All databases hosted by Kalkomey utilize disk-level encryption meaning that all data in the database is encrypted at rest.

3.3.13 Interfaces to the purposed system

3.3.13.1 State Accounting System Interface - includes creating the financial interface file on a regular (weekly) basis, and making it available to NDOW staff so it can be added into the State of Nevada accounting system.

AMS will allow NDOW the flexibility to define first the chart of accounts for each license sold, as well as assign individual funding from the chart of accounts to each license.

In the accounting chart NDOW will be able to designate, dynamically, the number of "segments" as well as the length for each of these segments. Once the segments are created, you can then assign the possible values for each of these segments. Once these values are established, NDOW can then combine these values into each individual fund code.

Once all the funds are established, NDOW can then assign these funds) to the individual licenses. This can be done in whole, split by percentage, or split by a fixed amount.

All of this will be done for NDOW as part of the initial onboarding of the contract into AMS by Kalkomey's Implementation Lead, with NDOW's supervision and approval.

Once Kalkomey has these funds established and assigned, we will provide an import file to the NDOW accounting system each month to coincide with the money swept from the individual agent accounts.

3.3.13.2 Department of Children and Families Support Enforcement Revocations Interface – The solution will provide an interface with State Department of Welfare for inquiry purposes.

Kalkomey will work with the Department of Children and Families Support Enforcement to create an automated interface that will both place and, if appropriate, remove suspensions from the End User record, based on the receipt of revocation information.

Kalkomey utilizes the most appropriate of three different options to validate customer eligibility in AMS. Based on the capabilities of the Department of Children and Families Support Enforcement Revocations Interface, AMS could utilize real-time queries, receive regular updates, or utilize a batch process to check sales after-the-fact.

- ***Under the real-time query option, a customer would provide a source data key identifier such as SSN. AMS would query the source data using the key identifier to make a real-time call to the source system before allowing a license purchase. To utilize a real-time option, the source system must have proven load capabilities evidenced by historic requests/sec the system is able to handle and must provide a history of sub-second response times.***
- ***If a real-time query is not viable, AMS may be configured to receive regular updates (daily or weekly) from the source provider and update violations in AMS. Under this option, a file is received from the source system (full or incremental) and AMS updates violators or creates a suspension reference record so that purchases by ineligible customers may be disabled. Utilizing this option allows AMS to provide a complete report of all customers currently ineligible to make a purchase.***
- ***If a data download is not possible from the source system and real-time queries are not viable, a batch process may be developed that checks all daily purchases against the source system to check for any ineligible purchases. A report is generated so that Enforcement or some other group may handle communications and void sales after the fact.***

Kalkomey prefers to do real-time integration but may not choose this option unless the source system is able to handle high -volume, efficient queries with fast response times. Without these requirements, real-time integration could degrade the buying process and cause significant customer experience and support problems. Kalkomey will choose the best integration method to create an excellent customer experience.

3.3.13.3 Department of Justice Link System Interface – The awarded vendor will be required to coordinate with the Department of Justice to develop a web services interface to ensure that the law enforcement Justice System is capable of querying databases hosted by the contractor. This interface will require 24 x 7 x 365 support.

The Department of Justice will be provided with logins to the administrative application with roles tailored to their query needs. These roles will be specific to quick customer searches, allowing dispatch to support field officers with anything they need to know about the customer.

In addition, Kalkomey will also provide a phone number specific to law enforcement so that law enforcement officers can get to the front of the line for ANY support calls to Kalkomey's helpdesk, which is staffed 24 hours a day, 365 days a year.

3.3.13.4 Nevada Circuit Court Interface – The awarded vendor will be required to coordinate with the Nevada Office of Justice Assistance to develop a web services interface to accommodate the receipt of adjudication information from Nevada circuit courts.

Kalkomey will work with the Nevada Office of Justice Assistance to create an automated interface that will both place and, if appropriate, remove suspensions from the customer record, based on the receipt of adjudication information.

3.3.13.5 Federal Duck Stamp Interfaces – The awarded vendor will be required to supply the federal Fish and Wildlife Service vendor with a file of customers who have purchased an electronic federal duck stamp.

Kalkomey will provide a regular file to the Federal Duck Stamp fulfillment vendor, Amplex, of those customers who purchase an electronic federal duck stamp. This file will be transferred in the manner and frequency dictated by the appropriate stakeholder.

3.3.13.6 Department of Motor Vehicles Driver's License Interface – The Department of Motor Vehicles may provide the awarded vendor with a link to Nevada Driver's License database proposed solution to be used to verify customer identity and residency.

Kalkomey will seek to perform a real-time integration with the Nevada Driver's License database if the system provides adequate load and response time capabilities. However, if the driver's license database is not prepared or able to handle real-time transactional queries,

Kalkomey will create a process to download the data at regular intervals and perform validation for residency and identity on our own servers.

3.3.13.7 Harvest Information Program (HIP) Extraction - includes creating and appending HIP survey records to the Federal HIP file, and the creation of the HIP audit report. NDOW is responsible for the actual submission of the information to USFWS.

Kalkomey will create, log, and send the bi-monthly HIP file to the USFW FTP server.

3.3.13.8 Spillman- A computer aided dispatch (CAD) system that is specifically designed and engineered for full multi-disciplinary and multi-jurisdictional dispatching capabilities. This is what is required by Law Enforcement at NDOW.

Kalkomey will create an interface to deliver data on a regularly scheduled basis to Nevada's Spillman system.

3.3.14 Redundancy / Failover

3.3.14.1 The proposed solution must include redundancy in all major components. Adequate back-up resources are required in order to minimize any risk of system failure, lost transactions (sales revenue) or data corruption. Vendors should describe exactly what redundancy and back-up is provided with the proposed system.

Kalkomey maintains redundancy in all aspects of our hosted solutions. First, the primary components of the hosting infrastructure (web servers and database servers) are clustered so that a single server failure will not cause a disruption in service. Not only that, but Kalkomey utilizes AWS GovCloud-hosted web and database servers, allowing near-instantaneous scaling; should a single server in the cluster fail, Kalkomey can bring a new server online in the cluster to ensure that there is no performance degradation.

Kalkomey also utilizes clustered firewall services to ensure that connectivity to the server clusters won't be disrupted by a firewall failure.

Kalkomey utilizes an automated deployment system. When a code deployment runs, the build is also deployed to a backup environment in exactly the same configuration as the live environment. The backup environment utilizes real-time data replication (log shipping), which ensures that all transactional database records exist in a live backup environment.

The production environment is also replicated in real-time to a read-only database used by the production web servers to support reporting and analytics. Between the production and backup environments, there are three live copies of the production database.

A nightly job copies subscriber information from the read-only reporting database to a custom schema that can be used by subscribers for various custom solutions such as reporting or near-live interfaces.

Finally, backup processes are also run on a regular basis to keep a static backup of all servers, databases, and firewall configurations.

3.3.15 Transaction Processing Requirements (Volume)

3.3.15.1 NDOW routinely experiences known high transaction volumes during certain seasons, potential first-come first-served permit offerings and application deadlines, and vessel registration periods. During these high-volume sales periods the system must be capable of maintaining normal business processing while at the same time accommodating the possibility of all point of sale devices plus a high volume of internet customers accessing the system and all submitting transactions simultaneously. This requirement is critical to the success of the automated system.

Kalkomey is experienced with seasonal demand and adjusts environment capabilities to meet expected demand. With AWS GovCloud hosting, Kalkomey can adjust server scale as needed. As described in sections 3.3.14 and 3.3.1 [pages 35 and 18], all components of AMS are implemented with clustered solutions, allowing scaling at every level of the system so that no component will become a bottleneck to system performance. Kalkomey also offloads data-intensive reporting processes to federated read-only databases to ensure that reporting processes won't be able to disrupt transactional system performance. Additionally, Kalkomey keeps high-volume periods in mind when designing system interfaces and proposes integration strategies that won't hinder system performance during peak demand periods (described in more detail in the responses in section 3.3.13 [page 32]).

3.3.15.2 During customer/agent/user inquiries and transactions, the system must transmit data to the central database and receive a response from the central system within 3 seconds. The system must utilize security and validation procedures that insure only authorized access to the terminal and that only authorized terminals can access the central system.

Kalkomey meets this performance requirement. Kalkomey currently hosts systems capable of supporting more than 600,000 transactions per day with sub-second response times. Kalkomey will continue to ensure that our systems can handle the volume required by NDOW with response times under 3 seconds.

AMS utilizes various security and validation procedures to ensure that only authorized access to the system is allowed. **Ndowlicensing.com** ***utilizes a simple username-and-password authentication system. The Agent Sales Application, however, features a terminal***

authorization process in addition to username and password checks so that an authorized user may not access the system from an unknown terminal. For example, a Sales Agent employee may not user their credentials to log in from home.

3.3.16 Security Administration

> 3.3.16.1The awarded vendor will provide a security management plan, which will describe security management for the central database and all interfaces. NDOW requires various levels of security. The vendor must provide security management tools to enable NDOW staff to control and monitor administrative and agent access. The vendor is responsible to ensure that they and all subcontractors establish and maintain and appropriate level of security in connection with the automated system. The vendor's proposal shall describe the security controls that will be used in the performance of the services required under the RFP. The vendor will report security controls (audit) quarterly.

As the selected vendor, Kalkomey will provide a security management plan.

AMS features security management tools that allow NDOW staff to set up security roles, manage vendor accounts, and grant access to modules and features for each user role.

All Kalkomey employees must submit a background check before joining the company. No development staff member needs access to production systems. Kalkomey has a process by which a developer works with an IT manager to log into a production server if a production problem dictates, but Kalkomey has several systems and processes in place that allow developers to get information on what is taking place in the production environment without requiring direct access:

- ***Production systems utilize replicated logging so developers may access production log files without needing to access the production servers. Developers still have access and visibility to system logs.***
- ***Error reporting systems log additional log information in a location accessible by developers without granting any production server access.***
- ***Kalkomey uses automated system deploys. Developers are not required to access production systems to deploy changes.***
- ***Kalkomey follows the Gitflow source code management process, which means that every change is documented and traceable. A new change management baseline is created with every code deploy.***
- ***Every database change is logged. AMS provides access to view changes through the application.***

Kalkomey has established security controls for server access, internal application controls, and external controls.

Server access controls revolve around access to production systems from inside the organization:

- ***Development staff do not have server accounts or access to production systems.***
- ***Those with access to production systems must use PKI / SSH key authentication.***
- ***Users with production system accounts have restricted access privileges based on authority.***
- ***Production system terminal and console access is restricted to access requests from white-listed Kalkomey IP addresses only.***

Internal controls are built into AMS and dictate what kind of access a user has:

- ***AMS provides user roles with function-based security permissions.***
- ***AMS keeps an audit log of all database changes with log visibility within the AMS NDOW Administrative Interface for authorized users.***
- ***Activity reports give visibility to the activities of users and customers in the system.***
- ***Users are automatically logged out of AMS after extended periods of inactivity.***
- ***Multiple failed login attempts will result in a system lockout requiring users to re-authorize their user account.***

External controls are built into the server infrastructure and dictate how requests to server resources are managed:

- ***All remote access attempts to the production system are logged to monitor for possible attacks.***
- ***All servers are secured by enterprise-class redundant firewalls***
- ***All applications are secured using SSL secure communication.***
- ***The Agent Sales Application is only accessible from authorized terminals. An agent with a valid account cannot log into the application unless they are making a request from an authorized terminal.***

Kalkomey agrees to submit to a quarterly security controls audit.

3.3.16.2 The solution's administrative tools must maintain compatibility with current PC security standards and be able to meet future security standards as needed. Vendors should describe how the proposed solution would meet the high-volume use and security requirements.

AMS is an internet application and therefore uses a different set of security standards to ensure data remains safe. AMS adheres to strict security standards, ensuring all data remains protected. Each tier of AMS is protected by enterprise-class firewalls and is only accessible to authenticated, authorized users. Networking equipment in the production facility, including fail-over equipment, is maintained by Kalkomey's managed hosting provider.

- ***All administrative access to production systems is secured using at least TLS 1.2.***
    - ***Kalkomey is currently testing TLS 1.3 and will introduce the updated security standard when it is production-ready to comply with the latest industry security standards.***
- ***Backups are encrypted as part of the backup process, and are only decrypted during the restore process.***

- ***All log files for AMS (including system log files and error logs) are synchronized in real-time to a centralized log system. Development staff do not require production system access to triage a possible issue.***
- ***Audit logs for specific user changes are tracked in the database and reports are available for specific user changes.***
- ***Audit logs can also be archived and restored to the production system.***
- ***Audit logs cannot be deleted or altered except as part of the archival process.***
- ***The management console which allows for the provisioning and management of servers utilizes strict passwords with time-based expiration and two-factor authentication.***
- ***To access production servers via console, authorized system engineers must use PKI authentication (SSH).***
- ***AMS is powered by a robust framework with built-in security to protect against SQL and script injection.***
- ***Kalkomey subscribes to a security service, allowing us to ensure we are ahead of any new threats. This cloud protection service mitigates bot and DDOS attacks to ensure AMS servers are always handling legitimate traffic.***

Reporting will utilize the same security component of AMS to ensure data access limitations are maintained. Reports will be generated in-stream to reduce temporary file creation. All reporting data requests will be delivered via encrypted channels (SSL).

Kalkomey can meet the high-volume use-case for ndowlicensing.com. Kalkomey hosts AMS using cloud-based clustered web and database servers with near instantaneous provisioning and automated deployment systems allowing our hosting team to scale server capacity up and down as demand dictates. This proven architecture is allowing Kalkomey to serve over 1600 requests per minute with sub-second response times.

3.3.17 Reporting requirements

3.3.17.1 Automated Reporting - The awarded vendor will provide the capacity to produce automated pre-defined system reports to NDOW. These reports will be used to monitor transaction activity as well as the operation and performance of the automated system. The reports shall be available upon demand and provide information on system processing speeds, system availability, and reliability and will be used to measure compliance with performance and technical standards. All system reports must be provided in an electronic format that allows NDOW to import the data into a spreadsheet or electronic database. System performance metrics may be presented as a dashboard application to accommodate on-demand information needs.

AMS supports extensive reporting capabilities. AMS contains many standard reports that have been developed to satisfy reporting requirements, such as U.S. Fish and Wildlife Service Certifications. In addition to these reports, additional reports can be developed at the request of NDOW so that AMS can be used for unique business needs and management.

Reports will be made available to agency staff and sales agents. Staff will have access to reports that can provide details of license purchases, End User information, draw results, user access, and financial reconciliation reporting. Sales Agents may run sales reports and user access reports for their accounts.

All graphical reports are exportable in PDF format. All tabular reports can be exported in CSV format for use in other software products such as Microsoft Office. Additional export formats can be developed at the request of NDOW.

The home page of the NDOW Administrative Interface features a dashboard to accommodate on-demand information needs.

3.3.17.2 Variable Information Reporting – The awarded vendor will provide query tools that provide NDOW the capability to create user defined reports to run sales, transaction and system operation reports user-defined date periods and other reports as needed.

AMS supports ad hoc, user-defined reports in addition to a library of pre-defined reports. All reporting is executed against a read-only, real-time replicated copy of the transactional database to ensure that reporting requests do not interfere with the transactional system.

In addition to the capability to provide ad hoc reports, Kalkomey provides a nightly batch job that copies all subscriber information from the read-only replicated database to a subscriber-specific reporting database where subscribers may write additional custom reports and build near-real-time, read-only interfaces without requiring development support from Kalkomey. Kalkomey is willing to host this database or can provide a copy of this database via SFTP or some other delivery mechanism so that NDOW may host their own copy of their production transactions, products, and configurations.

A. Administrative User Interface - The solution will provide a secure web interface to the database that will be used to access and manipulate real-time system data. All data manipulations must be logged, including the type, date, time and UserID. Describe a solution that will, at a minimum, allow NDOW staff to perform the following functions:

AMS features three distinct interfaces: ndowlicensing.com (Internet sales), the Agent Sales Application (for Sales Agent locations), and the NDOW Administrative Interface (for NDOW staff).

All interfaces meet the requirement for a secure web interface to the database and provide real-time access to read and update system data as security role and permissions allow. All data manipulations are logged. A record of the user who made the change as well as the past value, new value, and when the change was made are logged and visible through the NDOW

Administrative Interface. There is no limit to the length of record change logs. Every change is logged and available for the history of the data record.

1. Manage Customer and Business Record Files - includes the ability to create, modify and combine customer and business records. Historical information on licenses, conservation/safety education, harvest, permit applications and permits, HIP surveys, vessels, citations and revocations must be available.

The NDOW Administrative Interface in AMS allows NDOW staff to create, modify, and combine customer and business records. When accessing a customer record, AMS automatically suggests merge candidates. When new customer and vendor records are created, AMS will warn that an existing customer may already exist. This check is performed in the NDOW Administrative Interface as well as the Agent Sales Application.

Users in the NDOW Administrative Interface will be able to access historical information on licenses, conservation/safety education, harvest, permit applications and permits, HIP surveys, vessels, citations and revocations from the customer record within AMS.

2. Management of Agents - Enrollment of agents, updating agent information, setting agency class and type, managing equipment inventory, help desk activity (service provided by the contractor and NDOW), monitoring sales, transactions, and revenue collections and failures (ACH or Electronic Funds Transfer), and suspend, terminate, or lock out agents and/or individual users.

The NDOW Administrative Interface allows for the functionality described here. NDOW staff with appropriate permissions may manage Sales Agent accounts, including adding and removing agent user accounts, setting up new agent locations, and various other tasks related to agent management. NDOW staff may also:

- ***update agent information,***
- ***set class and type,***
- ***manage equipment inventory,***
- ***see help desk activity,***
- ***monitor sales, transactions and revenue collections, and***
- ***monitor failures.***

Kalkomey is also able to provide an agent account to Kalkomey's help desk so that NDOW staff may log into Kalkomey's support queue to review cases directly as desired.

3. Template Control – Must provide NDOW staff the ability to add and update print templates.

Kalkomey will work with NDOW to create templates and set variables that can be controlled through the NDOW Administrative Interface or on request to Kalkomey.

4. Print-To-Mail–The proposed solution must support direct print to mail functionality for batch processing output for NDOW or contractor use. (Letter Writer ability with approval from NDOW for all printed material).

Kalkomey is willing to support NDOW in this requirement and will include an optional service for Print-To-Mail in the pricing proposal.

5. Problem Management Tracking System – The solution must include a tool to track agent communications with contractor and NDOW helpdesk staff regarding hardware and software issues. The solution must provide NDOW staff with the ability to view and add comments.

Kalkomey's support team utilizes an enterprise web-based help desk solution to manage all support requests from NDOW staff, Sales Agent staff, and Internet customers. Kalkomey can provide a help desk agent account for NDOW staff to access NDOW cases so that NDOW staff may view and add comments on help desk cases.

6. Manage Agent Publication & Supply Order – The contractor shall develop a publication and supply order tracking system that allows NDOW to manage receiving, distribution and tracking of publication and supply orders received from license and registration agents. NDOW must have the ability to add/modify/delete items on the registration agent supply list.

AMS provides functionality for vendors to order supplies and manage their physical inventory. Agency staff will be able to access a global request list and manage fulfillment of request for which NDOW will be responsible. Kalkomey will also be able to manage fulfillment where appropriate.

7. Activate/Void/Reverse/Invalidate and Refund Transactions – includes the ability to change transaction status and control whether an agent is charged for a transaction or portion of a transaction. Must allow NDOW to mark a transaction or portion of a transaction as refunded and store staff comments at the transaction level. Each system component has its own business requirements for handling transaction management.

AMS supports configurable business rules for void/reverse/invalidate and refund transactions. Sales Agents may be allowed to perform these actions within configured circumstances as specified by NDOW. NDOW will be able to perform actions on orders completed through Sales Agents. AMS will automatically handle accounting and financial reconciliation adjustments.

8. Sales prompts and surveys – Includes the ability for NDOW staff to create, edit, enable and disable prompts to be used during the sales process. These prompts will help track customer utilization and preferences and must be tracked throughout the system.

AMS allows NDOW staff to manage product prompts to assist customers with making product purchases. Each product record supports the listing of a customer-friendly name, legal agency name and a long description allowing NDOW to enter additional information.

AMS offers configurable business rules that can trigger purchase prompts. For example, AMS supports a configuration that can automatically add a "prerequisite" privilege to a customer's cart if a customer chooses to purchase a privilege that requires a customer first be a holder of another "prerequisite" privilege.

In addition, the business rule setup in AMS will allow NDOW to set what privileges should be upsold with the purchase of other privileges. For example, if desired, AMS can be configured such that when a customer attempts to purchase a fishing license, the system can prompt them to add a second rod stamp privilege to their current order.

Ndowlicensing.com ***will also feature a purchase wizard to help walk customers through finding the product they want based on the activity they want to participate in. The customer will be able to answer several guiding questions to help them find the appropriate permit.***

Questions include:

- ***What activity do you want to do? (hunt, fish)***
- ***What do you want to hunt? (elk, mule deer, etc.…)***
- ***When do you want to hunt? (list of valid season dates)***
- ***Where do you want to hunt? (List of valid wildlife management areas)***
- ***What manner of take do you wish to utilize? (rifle, archery, muzzleloader, etc.)***

3.3.18 Backup and Recovery

3.3.18.1 The system will require a degree of redundancy so that batch programs such as data backups may be performed without interruption or degradation of on-line system performance.

As described in 3.3.14.1 [page 35], Kalkomey maintains redundancy in all aspects of our hosted solutions. There are no fewer than three real-time copies of all subscriber data

maintained at all times in separate databases. An additional copy of each subscriber's data is created each night and provided to each subscriber in the form of a data file or a hosted reporting database.

In addition, full backups are taken for every component in every environment daily. Backups are kept for no less than 30 days for production environments. Backups for other environments are kept for no less than 2 days and may be kept for up to 30 days.

To ensure 100% data integrity and uptime, Kalkomey employs a three-tier approach to database backups and standbys. A description of Kalkomey's tiered recovery strategies is below:

- ***Tier 1: A hot standby database server with real-time replication is maintained in the same data center as the Primary database server. In the event of failure on the primary database server, the hot standby database server is promoted to primary status, and a new hot standby database server is created.***
- ***Tier 2: In the event of catastrophic failure at the primary database server facility preventing Tier 1 recovery execution, a third database server is maintained with real-time replication at a geographically separate data center. This separate database server is then promoted to primary database server and a hot standby server is prepared in the same data center. When the original data center returns to stable conditions, database servers are recreated, data is re-synced, and, during a proposed maintenance window, primary database services are returned to the original data center.***
- ***Tier 3: In the event of a nationwide event affecting both primary and secondary data centers, a nightly backup of the database server can be deployed to any available production-capable data center. Using replicated transactional logs, any information processed through the production database server between last backup and time of failure will be re-executed to bring the backup up to current status.***

3.3.18.2 System backups must be scheduled to run automatically.

All backup processes are scheduled to run automatically.

3.3.18.3 Restoration of data from backups must be a straightforward, well-documented operation that can be completed within a few hours after error detection.

Kalkomey's SaaS Operations team can restore data or operations from standby systems or file backups within a few hours. See data recovery process tiers listed in 3.3.18.1 [page 43].

3.3.18.4 Provide a Business Continuity/Disaster Recovery Plan that must include:

Kalkomey will provide a formal Business Continuity/Disaster Recovery Plan to NDOW as part of the implementation of AMS. In the sections below, Kalkomey will highlight existing processes. These processes will be reviewed and adapted based on the unique needs of NDOW.

A. Activation and preparedness procedures;

Kalkomey's SaaS operations team and our managed hosting provider monitor system network availability around the clock. Kalkomey utilizes automated monitoring and performs regular system and security log reviews. Production systems are monitored 24 hours a day, every day of the year. This ensures immediate response to any production system concerns. Both teams are responsible for ensuring and maintaining adequate network performance and monitor system load, network availability, disk capacity, traffic, and error rates.

Kalkomey uses fully automated system deployment, including data migrations for schema changes. All environments are provisioned and configured using automated systems, allowing us to have materially identical configurations across all environments. This automated system is key to supporting Kalkomey's Business Continuity and Disaster Recovery plans, as well as allowing Kalkomey to scale the production environment at times of high demand; Kalkomey's SaaS Operations team can provide additional capacity at a moment's notice. When it's time to transition the system into production, Kalkomey will utilize this tested and proven automated process to provision, deploy, and spin up the production environment.

As part of Kalkomey's Incident Response Plan (see section 4.4.2.4 [page 107]), Kalkomey will notify subscribers within 15 minutes of any suspected or real outage or incident. Kalkomey will work to resolve the incident within 4-8 hours. If resolution cannot be fully confirmed within this timeframe, Kalkomey's Disaster Recovery Plan will be invoked and a secondary AMS data center will be brought online to replace the environment experiencing the outage.

B. A recovery strategy that ensures that disrupted operations will be resumed in seven calendar days or less;

Outages involving a single application server (non-database) are mitigated with load balancers and multiple application servers supporting each application and service.
In the event of a data loss (database failure), a secondary database (on a separate machine) that receives real-time replication from the primary database is promoted to primary and will take over as the read-write data device.

If Kalkomey experiences a more severe outage, including multiple servers or an entire data center, the technology team will quickly evaluate the outage and determine if failover is necessary. If the technology team determines a failover is necessary, the following steps will be taken:

1. ***Backup data center database server is promoted to Primary;***
2. ***All application servers in the backup data center are redirected to use the new Primary database server;***

3. ***Public DNS records are updated to route incoming traffic to the backup data center.***

Should failover not be an option for some reason, Kalkomey's automated provisioning and deployment processes will be used to migrate all services to an entirely new hosting provider that is not experiencing issues.

The previous night's backup of the database server will be the basis of the new environment. Using replicated transactional logs, any information processed through the production database server between last backup and time of failure will be re-executed to bring the backup up to the most current possible status.

Kalkomey can complete all recovery operations well within the seven calendar day requirement.

C. The locations of on-site and off-site recovery operations center facilities;

Kalkomey hosts all production systems through AWS GovCloud services. AWS GovCloud has physical operations centers located in the northwestern region of the United States. Amazon plans to expand AWS GovCloud to other U.S. locations in the future. Additionally, Kalkomey maintains a standby environment with a second enterprise-class hosting provider in a geographically disparate location.

D. Vendor support agreements; and

Kalkomey will include vendor support agreements in the formal Business Continuity/Disaster Recovery plan as requested.

E. Any logistical information required to effectively recover from a disaster;

Kalkomey's Business Continuity/Disaster Recovery plan includes logistical information such as:

- ***which staff members have access to production systems, backups and logs;***
- ***accounts to be used; and***
- ***applications, URLs, IP addresses and services needed to complete all steps within the recovery plan.***

F. The awarded vendor must test the procedures included in the approved Business Continuity/Disaster Recovery plan at least once each calendar year during the term of the contract. The test plan will be subject to the approval of NDOW and all tests will be conducted at a time and place

proposed by contractor and approved by NDOW. NDOW may, at its own expense, contract with a third party to monitor the testing and review documentation and procedures related to the plan. The results of any audits will be documented and provided to contractor and NDOW. Significant findings from any audits conducted will be addressed in a manner satisfactory to contractor and NDOW.

Kalkomey agrees to produce a Business Continuity/Disaster Recovery test plan to be executed at least once every calendar year. The test plan will be provided to NDOW for review, feedback, and approval. Kalkomey agrees to coordinate with NDOW regarding testing details such as observers, schedule, and appropriate facilities for testing. Kalkomey will address significant findings from any audits conducted by NDOW and will work with NDOW to ensure that resolutions are mutually satisfactory.

3.3.19 Business Resumption Planning

3.3.19.1 A Business Resumption Plan for the proposed system must be developed and in-place. The awarded vendor must identify and establish off-site procedures, locations and protocols addressing checkpoint and restart capabilities, retention and storage of back-up files and software, hardware backup for data entry equipment, emergency power backup and network backup for telecommunications).

Kalkomey will assist NDOW with Business Resumption Planning. The goal of this document will be to allow NDOW to develop a plan to continue to meet the needs of the public should NDOW facilities experience outages for any reason. All the solutions proposed in this response are cloud-based, Internet systems. NDOW will be able to conduct agency operations related to the systems proposed in this response through any desktop or mobile browser with Internet access. This includes access via cellular networks on mobile devices. NDOW may request that the NDOW Administrative Interface be hardened to allow access from only approved devices (much like the Agent Sales Application). The Business Resumption Plan will address this requirement.

3.3.20 Entity Relationship Document

3.3.20.1 The awarded vendor will be required to develop and maintain an up-to-date Entity Relationship Document (ERD) throughout the contract term. The awarded vendor will provide the up-to-date ERD to the state upon the state's request.

Kalkomey will develop and maintain an up-to-date Entity Relationship Document (ERD) throughout the contract term.

3.3.21 Security Administration Tools

3.3.21.1 Security Administration Tools to include the ability for NDOW security managers to manage access and view logs of all users at NDOW, contractor, and subcontractor locations authorized to access the system. Logging should include authorized use, unauthorized attempts of use, and security violations.

NDOW security managers will be able to utilize reports within the NDOW Administrative Interface to view all user activity within AMS. Reports will include details such as system access, accounts that have not been used over some time, Agent Sales Application access requests from non-approved devices/locations, and may access a history of all changes made to any data record in the system and who made such changes. Kalkomey can create additional reports and provide data export as needed.

3.3.21.2 Security Levels: The solution must allow for various levels of security for each element of the administrative user and agent interfaces. All data manipulations and administrative user and agent interfaces. All data manipulations and administrative transactions should be logged, including the type, date, time and UserID.

AMS supports a robust User management module that allows for role definition through permission sets. Distinct permission sets can be assigned based on what type of User will be acting in AMS (NDOW staff, Sales Agents, End Users). There is no limit to the number of User roles that NDOW can request.

AMS maintains a log of all changes made in the database. The log is visible within the NDOW Administrative Interface and includes, for existing records that have been changed, the original field value, new field value, user who made the change and when the change was made.

3.3.21.3 Security Reporting Tools must include the ability for NDOW to generate reports of authorized users at each security level. Describe the proposed reporting tools NDOW staff will use to generate reports of users and their access levels.

Various reports within the NDOW Administrative Interface allow NDOW staff to perform this function. AMS provides a report of activity by a selected system user. Record additions, changes, merges, and other activities are logged and provided in this report. A user access report offers details of all users who have logged into the system in a given timeframe, and a variation on this report shows vendor and staff accounts that have not been active for some time. A Sales Agent access report shows access requests that were attempted by unauthorized terminals. By default, Kalkomey requires that Sales Agent terminals be authorized before they may access the Agent Sales Application. Requests from unauthorized terminals are logged. This report includes Sales Agent account, user name, and available details from requesting terminal.

3.3.21.4 Internal Security Measures must meet or exceed state requirements

As discussed in section 3.3.16.1 [page 37], internal controls are built into AMS and dictate what kind of access a user has. The NDOW Administrative Interface allows NDOW to specify user roles and assign function-based security permissions. A default set of user roles will be defined on behalf of NDOW including NDOW Administrator, NDOW Staff, Sales Agent User Manager, Sales Agent, Customer. AMS grants functionality access based on user role.

In addition to user role, AMS keeps an audit log of all database changes. The audit log is accessible within the AMS NDOW Administrative Interface to authorized users. The NDOW Administrative Interface also features activity reports to give visibility to the activities of users and customers in the system.

Finally, users are subject to an account lock-out if they repeatedly enter invalid credentials and users who are inactive for a period are automatically logged out of the application.

3.3.21.5 External Security Measures must meet or exceed state requirements to ensure database and transaction integrity

As discussed in section 3.3.16.1 [page 37], external controls are built into the server infrastructure and dictate how requests to server resources are managed:

- ***All remote access attempts to the production system are logged to monitor for possible attacks.***
- ***All servers are secured by enterprise-class redundant firewalls***
- ***All applications are secured using SSL secure communication.***
- ***The Agent Sales Application is only accessible from authorized terminals. An agent with a valid account cannot log into the application unless they are making a request from an authorized terminal.***

Access for NDOW staff and law enforcement is only granted to authenticated users. Sales Agent locations will have IP/MAC whitelisting.

3.3.22 PCI Compliance Requirement

3.3.22.1 Vendors must include in the proposal a copy of certificate of compliance meeting the Payment Card Industry Data Security Standards.

Kalkomey maintains certification by the Payment Card Industry (PCI) to demonstrate Kalkomey's secure handling of end users' credit card and personal data. A copy of our PCI Compliance Certificate is included in **Appendix A.**

3.3.23 Training Plans

3.3.23.1 To meet the training objective, the Vendor shall prepare and submit a plan to NDOW for approval at least one month prior to the start of each preoperational testing phase. The plan shall encompass the following:

A. Plans, by category, of who shall receive training, including agents, NDOW Regional Offices, NDOW information technology personnel, NDOW Financial Specialist personnel, NDOW Administration personnel, and NDOW Enforcement personnel.

B. Proposed training curriculum that identifies specific system functions and components to be covered.

C. Proposed method of delivering the training and a delivery timetable. The training of agents need not be conducted one-on-one at the agent site, but may be conducted by group/regional area.

D. Proposed plan for on-going training for new agents, new NDOW employees, system enhancements, and refresher courses.

Kalkomey acknowledges and accepts the Training Plan requirements.

3.3.24 Training Documentation

3.3.24.1 All training materials shall also be provided to NDOW in electronic media in an editable format. Documentation shall be updated, as needed, to reflect changes in policy, support phone numbers, and equipment. Revised materials shall be distributed to all agents. NDOW will specify quantities of documents. The contractor shall provide the following documentation to NDOW for its approval at least two weeks prior to the start of the pre-operational testing phase:

3.3.24.2 Pre-installation checklist and requirements for installing POS devices.

3.3.24.3 Step-by-step POS device training.

3.3.24.4 Device reference documentation for using all of the device's features.

3.3.24.5 Troubleshooting steps for resolution of common problems.

3.3.24.6 Procedures and instructions for working with the electronic funds transfer system.

Kalkomey will provide all training materials in electronic media in editable format, and Kalkomey will provide frequent updates, as needed, to reflect changes in policy, support phone numbers, and equipment. Any revised materials will be distributed to all agents in the

quantities agreed upon with NDOW. Kalkomey will provide the above documentation to NDOW for approval at least two weeks prior to the start of the pre-operational testing phase.

3.3.25 Testing/Quality Assurance

3.3.25.1 All hardware, software, interfaces, system features and functions, materials, services, and any other subsystem provided by the contractor must be thoroughly and satisfactorily tested by the contractor prior to delivery to the State for inspection.

As explained in section 4.4.2.7 [page 111], Kalkomey's Project Manager will develop and present a change management plan to the NDOW for acceptance. Because quality is essential, Kalkomey thoroughly tests all hardware, software, interfaces, system features and functions, materials, services and other subsystems before items are submitted to our agency partners.

3.3.25.2 Test plans, procedures, and subsequent test reports for all components will be delivered to NDOW for review, comment, and approval prior to the commencement of the testing phase. At the completion of the testing for each component, the contractor will provide a test report for NDOW review and approval.

Kalkomey acknowledges and affirms these requirements. Test plans, procedures, and subsequent test reports for all components will be delivered to NDOW for review, comment, and approval prior to the testing phase.

3.3.25.3 NDOW shall have a period of inspection and testing, as determined by NDOW, before NDOW will certify each deliverable acceptable and ready to be put into production. The period of time will vary depending on the service or product being tested. Inspection and testing periods for initial system design will be negotiated during final system design based on the awarded vendor's proposed solution. Inspection and testing periods for any future system changed will be negotiated as part of the change management process. If any deliverable does not meet the requirements of the contract NDOW will notify the awarded vendor via email of noted system deficiencies.

Kalkomey understands and accepts the requirement for an inspection and testing period. Kalkomey will support NDOW through this process by providing appropriate environments, test plans, and test data to allow NDOW to perform the inspection.

3.3.25.4 The Contractor is responsible for developing and implementing a Test Plan that will be used by the Contractor to certify that any product developed

meets the standards established in the State's Order. Upon completion of the Contractor testing, the Contractor will certify in writing to the State that the product has been successfully tested and ready for the State to begin testing. With Contractor's assistance, the State shall begin performance testing within ten (10) days of receipt of such notification. The tests will determine whether the following acceptance criteria are met:

Kalkomey understands and accepts the requirements listed here related to application and functional testing. Kalkomey will support NDOW through this process by providing appropriate environments, test plans, and test data as needed to allow NDOW to confirm that the solution meets the standards established in the State's Order.

Kalkomey's team will test all deliverables against Nevada specifications and will certify in writing that a given deliverable is ready for NDOW testing. Kalkomey will support NDOW through the testing process and will have members of the team available to assist NDOW testers should any questions or needs arise during the testing process.

A. Operates in conformance with Contractor's technical specifications and functional descriptions;

B. Meets the specifications and performs the functions as contained in the State's solicitation document and/or the State's order;

C. Is capable of running on a repetitive basis on a variety of actual live data, as supplied by the State, without failure;

D. Is capable of meeting the performance expectation as expressed in the State's solicitation document and/or the State's order; and

E. Does not require modifications to other operational systems and does not cause performance degradation of other systems operating on the State's computing system and network.

F. The State shall give notice to the Contractor as to the actual date when the testing period will begin. If problems are encountered during the testing period, the Contractor shall immediately take the necessary steps to ensure the proper performance. If the product meets the State's acceptance test, the State will certify in writing that the product is ready for installation.

G. The State shall promptly notify Contractor of the results of any inspection or acceptance test it performs. If an acceptance test produces unsatisfactory results, the State shall specifically identify what acceptance criteria could not be satisfied and the particular methodology that was used to reach this conclusion.

Kalkomey will ensure that the following acceptance criteria are met for each deliverable:

- ***Operating in conforming with Kalkomey technical specifications and functional descriptions***
- ***Meeting specifications and performing functions as requested in NDOW's solicitation and/or the State's Order***
- ***Running on a repetitive basis on a variety of actual live data, as supplied by Nevada, without failure***
- ***Meeting the performance expectation as expressed in this solicitation and/or the State's Order***
- ***Not requiring modifications to other operational system and doesn't cause performance degradation of other systems operating on NDOW's computing system and network.***

Nevada will give Kalkomey notice when testing will begin. If problems are encountered, Kalkomey will immediately take the required steps to ensure proper performance. When Kalkomey AMS meets NDOW's acceptance test, Nevada shall certify in writing that AMS is ready for installation.

Nevada will notify Kalkomey of the results of any inspection or acceptance test it performs. Should an acceptance test produce an unsatisfactory result, NDOW will specifically identify what acceptance criteria could not be satisfied and the particular methodology to reach that conclusion. Kalkomey, in turn, will take steps to remedy the product.

3.4 FUNCTIONAL REQUIREMENTS

3.4.1 NDOW Customer Identification Numbers

3.4.1.1 The proposed solution must include the use of already-assigned customer numbers for the 883,572 clients (214,129 records of individual vessels) currently in the NWDS database and AHS database, many of which are shared, creating a single point of record.

AMS will use any existing customer numbers from data imported from NDOW. AMS will also make every attempt to use the existing customer number format so that newly created records in the AMS system will stay consistent with the previously assigned numbers.

3.4.1.2 For new customers, the system shall create a unique identification (ID) number for each customer.

A unique customer number will always be created in the AMS system. Kalkomey anticipates using the same format currently used for NDOW's existing customer ID format, so Kalkomey can generate numbers in the same order as the current system to maintain consistency.

3.4.1.3 Another unique identifier, such as social security number, shall be used to create new customers and as a means of verifying existing customers

AMS allows for the configuration of unique identifiers for not only customer creation, but also for residency. Kalkomey will configure AMS to require SSN on the creation of all new records, unless the customer is a foreign national, in which case AMS would allow a passport, or any other identifier chosen by NDOW as approved verification, to serve as a secondary identifier.

3.4.1.4 The Customer ID shall be printed on all licenses in text and may be in a machine-readable format, such as a 2-D bar code.

AMS produces custom templates for each license contract. During this process, Kalkomey will ensure that the Customer ID is printed on all license documents, and that a 2-D barcode containing the Customer ID number (at a minimum) will be included.

3.4.1.5 Customers who do not have a previously assigned customer ID number will be required to provide their social security number and proper identification in order to be assigned a new number.

AMS will ensure that ALL required information, including identifiers, address(es), and any other customer details are provided before a customer record is created and a customer ID is assigned.

3.4.2 NDOW Business Identification Numbers

3.4.2.1 The proposed solution must include the use of Business Identification numbers for entities.

AMS generates a unique identifier for all entities created. Additional details such as legacy ID and FEIN may be captured in AMS as well.

3.4.2.2 For new businesses, the system shall create a unique identification (entity ID) number for each business.

AMS generates unique identification numbers for each new business registered.

3.4.2.3 The Business ID number shall be used as the primary identifier to verify business information and to associate transactions with the business.

AMS will create a Business ID for both the corporate level of a business as well as the individual store level, so that reports can be aggregated on either level.

3.4.2.4 The Business ID shall be printed on all licenses/permits in text and may be in a machine-readable format.

AMS will print the Business ID on both the license document and receipt, and the Business ID can be included in the license bar code, if desired by NDOW.

3.4.2.5 Businesses that do not have a previously assigned ID number will, in most, but not all cases, be required to provide their FEIN in order to be assigned a new number.

AMS will require the FEIN (or SSN for sole proprietorships and smaller unincorporated businesses) for all entities created.

3.4.2.6 The system must be able to differentiate between a business entity and an individual in order to offer the appropriate types of licenses/permits.

AMS will be configured to differentiate between a business entity and an individual to offer the appropriate types of licenses/permits to each organization/individual.

3.4.3 Customer Merge

3.4.3.1 The system must provide a mechanism that allows staff to combine customer records and all their associated history in the various business areas when it is identified that a customer has multiple customer ID's.

When an administrator identifies that a customer has multiple customer IDs, AMS allows NDOW staff to combine customer records and all their associated history in the various business areas.

3.4.4 Business Merge

3.4.4.1 The system must provide a mechanism that allows staff to combine business records and all their associated history in the various business areas when it is identified that a business has multiple business ID's.

When a business is identified as having multiple business IDs, AMS allows NDOW staff to combine the business record and all their associated history in the various business areas.

3.4.5 Customer/Business Identification

3.4.5.1 Customer/business information must be captured at the beginning of each transaction. The transaction must initiate an inquiry of the central database to search for the customer or business. For customers or businesses that are already in the database, the system should access the existing information and return it in the response. In cases where the customer/business is not on file or the demographic information is incorrect, the system must allow for adding or changing information.

Kalkomey captures customer/business information at the beginning of each transaction. Each transaction initiates an inquiry against the central database to search for the customer or business. If a customer or business is already in the database, AMS will connect the user to the appropriate existing record. If the customer or business is not on file or if the demographic information is incorrect, AMS allows NDOW staff to add or change information as appropriate.

3.4.6 Business/Agent Communications

3.4.6.1 The proposed solution must allow for 2-way electronic communications between NDOW and its agent network using the automated system. The solution must allow NDOW to send messages to any single user at an agent location, any single agent, group of agents or all agents. Agents must be able to print messages and manage messages by User/Clerk ID to provide a mechanism to ensure that all users have viewed a given message. NDOW must be able to define the length of time the message will remain available for viewing. Describe any innovative way NDOW (and the awarded Vendor) can best communicate with the agent network on a day-to-day and periodic basis. Describe the process from message development to delivery; be sure to include any limitations to message size and frequency of use.

Authorized NDOW staff may send in-application messages through AMS to the network of Sales Agents. Messages may be targeted at an individual user or may be sent to all users at one or more Sales Agent locations. Similarly, Sales Agents may also create targeted messages for their employees and locations.

These in-app messages are presented to users when they log in. AMS maintains a read-receipt log so that NDOW staff and Sales Agent management may review open rates on in-app messages and identify Sales Agents who are not reading key messages.

Kalkomey puts no limit on the length of message or the frequency with which the feature may be used.

In addition to the messages described above, Kalkomey's chat support solution will be embedded within* ndowlicensing.com *and the Agent Sales Application to allow the support team to provide live chat support to customers and agents. Kalkomey is willing to set up a chat user account for NDOW support staff if the agency desires to provide chat support through Kalkomey's system.

3.4.7 Order Agent Materials

3.4.7.1 Agents must have a method of ordering agent materials, for example: decals, paper supplies, publications, regulations, training materials, etc.

Sales agent will be able to place an order through AMS for agent materials, including decals, paper supplies, publications, regulations, training materials, etc.

3.4.8 Agent Accounting Reports

3.4.8.1 The proposed solution(s) must provide agents with the capability to produce and print current and historical sales, transaction, and accounting reports broken down by day, terminal, userID/clerk, and ACH period.

AMS provides agents with the ability to produce and print current and historical sales, transaction, and accounting reports broken down by day, terminal, userID/clerk, and ACH period.

3.4.9 User IDs and User Reports

3.4.9.1 The proposed solution must have the capability for multiple users to be set up for logging transactions by user. The system must allow for users and supervisors to be given different security levels and associated privileges. The system must allow for UserID to be enabled or disabled at each location, as well as establishing a timeout period for each location. The proposed solution must provide the ability for agent locations and NDOW to manage UserID security. The vendor and NDOW must have the ability to print reports based on UserID.

With AMS, multiple users can be set up for logging transactions. Users and supervisors are assigned different security levels and privileges (determined by NDOW). AMS further allows the UserID to be enabled or disabled at each location, as well as establishing a timeout period for each location. AMS provides the ability for agent locations and NDOW to manage UserID security and to print reports based on UserID.

3.4.10 Transaction Reprint

3.4.10.1 The proposed solution must be capable of reprinting the most recent transaction within a designated timeframe. The system must provide a mechanism for NDOW to track the number of times a document is reprinted.

AMS allows the reprinting of the most recent transaction within a designated timeframe (to be determined in conjunction with NDOW). AMS Licensing allows NDOW administrators to track the number of times a document is reprinted.

3.4.11 Technical System Support Help Desk

3.4.11.1 The awarded vendor must provide a technical help desk to support NDOW staff with all aspects and components of the complete automated business system. Help desk services must be adequately staffed with knowledgeable personnel that can provide prompt and accurate information to address problems with the complete automated business system. Help desk services must be available from 7:30 a.m. to 5:00 p.m. Monday through Friday, Pacific Time, as part of the vendors' proposals. The awarded vendor must provide standby services during all other hours, including weekends, and especially during peak season activity.

Kalkomey has a reputation for excellent customer support, and we anticipate that to continue with NDOW. Kalkomey will provide a technical help desk to support NDOW staff with all aspects and components of the AMS system. Kalkomey's help desk is staffed with knowledgeable personnel who provide prompt and accurate information regarding the use of AMS Licensing.

Kalkomey's Help desk will be available to support NDOW from 7:30 a.m. to 5 p.m. Monday through Friday, Pacific Time. Kalkomey's team will always be available to support NDOW administrators during all other hours, including weekends, particularly during peak seasons.

3.4.12 Internet Customer Help Desk Support

3.4.12.1 The awarded vendor must provide help desk services to support internet sales customers who have questions or experience difficulties using the Internet-based sales site. The internet support help desk must be staffed with personnel knowledgeable about the Internet sales site use and operations. Help desk personnel must be able to provide prompt and accurate information to address system problems and customer questions. Help desk services must be available with increased coverage during seasonal peak times. Help desk personnel are not required to respond to any regulatory questions or interpret laws or policies. The awarded vendor's solution must also include a system to respond to questions

asked via electronic mail. The time to respond to these inquiries should not exceed 48 hours from the time the electronic mail message was sent by the customer.

Kalkomey has a full-time, U.S.-based support team that provides phone (toll-free), email, and online chat support in English and Spanish to license purchases, sales agents, and agency users. Our team is fully trained on unique state laws, business rules, procedures, and products. We find our Customer Support Team can answer 85% of all calls, reducing workload for the state.

- ***All questions and issues receive an automatic acknowledgement immediately and receive a response within 24 hours.***
- ***Kalkomey's phone support is typically resolved within 5 minutes.***
- ***Most online chats are resolved within 4 minutes.***
- ***Kalkomey monitors Twitter, Facebook, and other social media accounts and responds to all Customer Support needs received through these channels.***

Support team capacity is managed by tracking contact volumes (number of calls, chats, emails), time to resolution for each contact, customer satisfaction ratings, and other key metrics. By monitoring of these metrics and historic trends, Kalkomey can add and train staff so that customers, sales agents, and agency staff continue to receive exceptional support 24 hours a day, every day of the year, including holidays.

3.4.13 Agent Help Desk

3.4.13.1 The awarded vendor must provide support to license agents and NDOW staff who use the automated licensing system.

Every user who interacts with Kalkomey should enjoy an optimal experience, which is why Kalkomey provides full support to license agents and NDOW staff.

Because agency users have unique needs, Kalkomey has a dedicated Agency Support team to manage all agency questions, concerns, or needs. Agency users can contact our Agency Support team:

- ***by phone at 844-525-5603.***
- ***by email at agencysupport@kalkomey.com***
- ***Weekdays 8:30 a.m. to midnight CST and weekends 8:30 a.m. to 4:30***
- ***p.m. CST***

Agency users and license agents can also always call, email, or use online chat via the Agent Sales Application to contact Kalkomey's Customer Support team.

Various support channels and applications may require different levels and scheduling of support. Kalkomey can provide live phone, email and chat support 24-hours a day, every day of the year.

3.4.13.2 The awarded vendor must provide monthly documentation of the number of calls taken as well as the minimum, maximum, and average answer time, time in queue, problem description, resolution description, and resolution time.

Kalkomey will provide monthly documentation on the number of calls taken, as well as the minimum, maximum, and average answer time, time in queue, a brief problem description, brief resolution description, and resolution time. Kalkomey already has this functionality established and in use for our current agency subscribers. Internally, we use this type of tracking to optimize staffing hours, anticipate problems, and create a better overall experience for our users.

3.4.13.3 The proposed system must provide NDOW with real-time reporting capabilities for revenues as well as user defined querying capability. All revenue data should be available as variable user defined reporting in CSV or other required report format.

Kalkomey AMS provides NDOW with real-time reporting capabilities for revenue as well as user-defined querying capability. All revenue data will be available as user-defined reporting in CSV or other required report format.

3.4.14 Internet Self Service Transactions

3.4.14.1 Vendors must propose and provide programming and host services for a public-facing web site that allows customers to access all of their business and transaction history housed in the automated business system.

Kalkomey will provide programming and host services for a public-facing self-service website,* ndowlicensing.com*, that will allow customers to access all their business and transaction history housed in Kalkomey's AMS.

3.4.14.2 The web site must be fully compatible and seamlessly integrated with the license issuance, vessel titling and registration, conservation education/programs, law enforcement/revocations, harvest information program, application hunt, volunteer programs and NDOW' web site.

Kalkomey's self-service public-facing website,* ndowlicensing.com*, will be fully compatible and seamlessly integrated with the agency aspects of license issuance, vessel titling and registration, conservation education/programs, law enforcement/revocations, harvest information program, application hunt, volunteer programs, and NDOW's website.

3.4.14.3 The web host must communicate with the system host to validate the customer's identification to gain access prior to all transactions.

The public-facing* ndowlicensing.com *will communicate with Kalkomey to validate the customer's identification. The end user's information will be confirmed before access to the user's prior transactions is permitted.

3.4.14.4 The proposed solution must allow customers to update personal information, purchase licenses and approvals (auto renew), reprint unexpired licenses/receipts, register and renew vessels, submit application data, view tag and permit drawing results, register for conservation education/safety classes, view previous course completions, enroll in events and submit harvest data via the Internet.

Kalkomey AMS allows customers to self-service through* ndowlicensing.com. *Customers can update their personal information, purchase licenses and approvals (as well as auto-renew), reprint unexpired licenses/receipts, register and renew vessels, submit application data, view tag and permit drawing results, register for conservation education/safety classes, view previous course completions, enroll in events, and submit harvest data via the Internet. This will remove a great deal of administrative burden from NDOW and empower users to manage their own license purchases and history.

3.4.14.5 The system must include intuitive navigation tools providing customers with quick access to their customer account (a single point of record) including services offered and their transaction history in all business areas.

AMS focuses on making the customer experience pleasant, intuitive, and straightforward. Kalkomey's public-facing* ndowlicensing.com *is designed with intuitive navigation tools, providing customers with quick access to their customer account (a single point of record), including services offered and their transaction history in all business areas.

3.4.15 Revenue Processing & Accounting

3.4.15.1 License agents collect proceeds from sales and deposit these funds into a bank account. The solution should display the functionality to establish Automated Clearinghouse (ACH) services with the State's working bank to perform a transfer of funds from the accounts through an electronic funds transfer process (EFT) or ACH on a predetermined, weekly basis.

Kalkomey's AMS Licensing includes the option to establish Automated Clearinghouse (ACH) services with Nevada's working bank to perform a transfer of funds from the accounts through an electronic funds transfer process (EFT) or ACH on a predetermined, weekly basis, as determined in agreement between Kalkomey and NDOW.

3.4.15.2 Financial information on transactions, payments, refunds, etc. shall be available in a user defined reporting tool as part of the solution.

AMS will make financial information on transactions, payments, refunds, etc., available to users with appropriate permissions through Kalkomey's reporting tools.

3.4.15.3 The system must automatically electronically transfer monies to the State's bank on a schedule approved by NDOW.

AMS will automatically transfer monies to the State's bank on a schedule approved by NDOW.

3.4.15.4 Each transaction shall include: the amount, the user ID of the person who created the transaction, the date and time the transaction was created, the location from which it was created and a batch number used for tracking which transactions have been transmitted to the State of Nevada accounting system. In addition, the system shall also be capable of tracking changes to transactions including the nature of the change, the UserID of the person making the change, and the date and time of the change.

The financial transactions processed with AMS will include:

- ***the dollar amount***
- ***the user ID of the purchaser***
- ***the date and time of the transaction***
- ***the location from which the transaction was made***
- ***a batch number, used for tracking which transactions are transmitted to the State of Nevada accounting system***

Additionally, AMS will track the changes to transactions, including the nature of the change, the user ID of the person making the change, and the date and time of the change.

3.4.15.5 The revenue from certain types of sales must be deposited into a dedicated fund (or multiple funds). Internal NDOW revenue codes are associated with certain types of licenses and registrations. The system must provide NDOW sufficient information with each transfer of funds to identify: the number of items, amount of fees collected for specified revenue accounts or funds, and amounts retained by agents. The revenue information must meet the State's financial deposit requirements and must be summarized by fund. Financial information shall be accessible in detail and on a consolidated basis, for the entire state, by license or approval type, by revenue source code, by fiscal period or any combination of the above.

Kalkomey will coordinate with NDOW to ensure revenue from certain types of sales to be deposited into a dedicated fund (or multiple funds). Kalkomey's NDOW Administrative Interface will provide NDOW information with each transfer of funds, including:

- ***the number of items***
- ***amount of fees collected for specified revenue accounts or funds***
- ***amounts retained by sales agents***

The information will meet the State's financial deposit requirements and will be summarized by fund. Information will be accessible in detail and on a consolidated basis, for the entire state, by license or approval type, by revenue source code, by fiscal period, or any combination of the above as desired by NDOW.

3.4.15.6 The awarded vendor's solution must provide NDOW with the ability to make adjustments to agent account balances and track such adjustments.

Kalkomey will provide NDOW administrators the ability to make adjustments to agent account balances and track such adjustments.

3.4.15.7 Agents that are affiliated through corporate chains must be identifiable as such; however the solution must be flexible to allow a central corporate account or individual accounts for the corporation. Records must be easily identified in order to be accumulated by chain/corporate affiliation. Corporate headquarters that request centralized processing must be provided a means of accessing weekly transfer of funds, which includes site-specific information in a usable, timely format at no additional cost. Vendors must describe how this requirement will be met.

AMS supports the management of NDOW Sales Agents. NDOW staff with the appropriate permissions will have full access to look up and update a Sales Agent's profile.
In AMS, most Sales Agent Organizations are of two types: the "Parent" and the "Child."

The "Parent" represents the corporate entity of the Sales Agent Organization (i.e. Walmart). The "Child" represents the physical store location (i.e. a specific Wal-Mart store). In the case that the corporate entity and the physical location are the same (e.g. small single-store bait shops), the user setting up the store location will not be required to enter a Parent and Child record. For these scenarios, AMS supports a single agent record so that management efforts are not duplicated.

3.4.15.8 The awarded vendor must work closely with NDOW, banking institutions, the State's bank, and the State Treasurer's Office to establish policies for handling electronic transfer of funds failures.

Kalkomey will work in partnership with NDOW, banking institutions, the State's bank, and the State Treasurer's Office to establish appropriate policies for handling electronic transfer of funds failures.

3.4.15.9 The awarded vendor must develop an interface per NDOW specifications that will report remittance dollars in a format that is compatible with the State's accounting system.

Kalkomey will develop an interface per NDOW specifications that will report remittance dollars in a format compatible with the State's accounting system.

3.4.15.10 The system shall allow accurate methods of accounting based on user defined parameters.

AMS will allow for accurate accounting based on user-defined parameters created in partnership with NDOW.

3.4.15.11 Describe the system's ability to provide user defined reporting on financial information, including reports and query capabilities.

AMS supports extensive reporting capabilities, including a customizable reports dashboard, a report scheduler, ad hoc reporting capabilities, and a large base of business and financial reports.

The system contains many "out of the box" reports that have been developed to satisfy industry standards for reporting requirements. Additional reports can be developed at the request of the NDOW.

Reports will be made available to NDOW Staff and Sales Agents. NDOW Staff will have access to reports that can provide details of license purchases, End User information, draw results, user access, and financial reconciliation reporting. Sales Agents may run sales reports and user access reports for their accounts.

All graphical reports are exportable in PDF format. All tabular reports can be exported in CSV format. Additional export formats can be developed upon NDOW's request.

Kalkomey also exports all subscriber data as a data file or hosted database on a nightly basis. Kalkomey will provide an Entity Relationship Diagram of this database. This process is designed to allow subscribers to give certain approved users or departments such as State of Nevada Enterprise IT Services access to the full set of data collected on behalf of NDOW.

This process is not designed to replace reports needed to run NDOW business, but is provided as a service to assist the state in the analysis of their customers, sales agents, and transactional data.

3.4.16 System Administration Tools/User Interface

3.4.16.1 The awarded vendor must provide a web interface which allows designated internal and external users access to specific functions and data of the proposed system. NDOW will identify approximately 2,700 users who require access to the system (for example, NDOW staff, license agents, safety instructors, law enforcement officers, etc.). The administrative tool will provide a secure web interface that will be used to access and manipulate real-time data. The web must provide reporting regarding hits to all options of customer marketing and other options to ensure NDOW's ability to retain and recruit customers interested in Wildlife.

Kalkomey utilizes Google Tag Manager, a tag management system, on all customer-facing web pages. By integrating with Google's robust system, AMS allows NDOW to easily update tags, code snippets, and custom event tracking without the need of code deploys. In conjunction with the tag management system, Google Analytics tracking script will be added to all customer-facing webpages, allowing NDOW to track web usage data from http requests, browser/system information, first-party cookies and custom interactions as defined in Google Tag Manager. Furthermore, Kalkomey's agency support staff will assist NDOW administrators as-needed with these technologies to allow NDOW to achieve its R3 goals.

Additionally, AMS tracks application-specific data and important actions customers perform throughout various systems such as courses, events, and license purchases. This data is available to NDOW users in real time for research, reporting, and behavioral targeting for R3 campaigns.

3.4.16.2 Vendors should describe how the proposed solution would meet the high-volume use and security requirements.

First, Kalkomey handles the creation of many of NDOW user accounts as part of the implementation process. Kalkomey will request a data file of existing users and import those users into AMS. These users include agency staff, safety instructors, law enforcement officers, and other known and approved agency personnel.

Kalkomey will also import a set of license Sales Agents. As part of this import, Kalkomey will create organization and location records. Kalkomey anticipates creating a user account manager for each organization and/or location. This person will have the responsibility to create user accounts for all employees who will access the Agent Sales Application to sell NDOW products. Kalkomey provides a user management system with the Agent Sales

Application for this purpose. Kalkomey is prepared to work with these users directly to authorize the terminals that will be allowed to access the Agent Sales Application. Users associated with a Sales Agent account will not be able to log into the Agent Sales Application from devices not authorized by AMS.

In addition to the authorization security measure listed above, Kalkomey provides a user access report that is used to audit accounts so that inactive accounts are deactivated in the system. A vendor access report shows access requests that were attempted by unauthorized terminals. The license Sales Agent Manager should take appropriate action if any staff member attempts access from an unauthorized terminal.

3.4.17 Point of Sale Requirements

3.4.17.1 The awarded vendor must provide a Point of Sale component for the automated licensing system. System design and presentation of screens that will be viewed by our agents and customers will be approved by NDOW. Project interval and deliverable acceptance must be included in the project plan for design and development of the new site. Acceptance on each interval and screen will be required prior to any deployment. System functionality shall include, but not be limited to, the following:

Kalkomey will include Point of Sale components. NDOW will be given the opportunity to approve system design and presentation of screens that will be viewed by Sales agents and End Users. Project interval and deliverable acceptance for design and development for the new site are included in the preliminary project plan. Kalkomey will await NDOW's approval before deployment. System functionality will include, but not be limited to, what is outlined below.

A. Void Completed Sales – The system must provide capability to void sales. NDOW staff must be able to void a portion of a sale while agents will be limited to voiding a complete sale. The system must also support a programmable time limit for entering a void transaction at POS. The system must provide NDOW the capability to change the time limit allowed for a POS void. Only users with the appropriate level of security may void a transaction or portion of a transaction.

AMS includes the capability to void sales. NDOW staff will be able to void a portion of a sale, while agents will be limited to voiding a completed sale. AMS Licensing supports a programmable time limit for entering a void transaction at Point of Sale through the NDOW Administrative Interface. NDOW administrators will have the capability to change the time limit allowed for a POS void. Only users with appropriate permission (as determined in partnership with NDOW) may void a transaction or portion of a transaction.

B. Administrative Transaction Issuance & Reprint – The system must include functionality that allows the department to administratively post a transaction to an agent account. NDOW staff must have the ability to enable a license to be reprinted at any specified sales location.

AMS Licensing allows NDOW administrators to post a transaction to an agent account. NDOW administrative staff will have the ability to enable a license to be reprinted at any specified sales location.

C. Customer Purchase Alternatives - The proposed solution must provide the agent the option of viewing a price comparison of chosen licenses versus combination license alternatives.

AMS Licensing provides sales agents the option of viewing a price comparison for chosen licenses versus combination license alternatives to provide an excellent customer experience for the end user.

D. Screen Content Control - The proposed solution must provide NDOW with the ability to control screen text and graphics/maps.

Space is reserved on various pages of* ndowlicensing.com *and the Agent Sales Application for agency information. The content contained within these spaces is managed through the NDOW Administrative Interface.

Additionally, agency communications are presented to each sales agent as they log into the Agent Sales Application, allowing NDOW to reference information and maps posted to agency sites in messages to sales agents. Sales Agent Managers may use one of the reports in NDOW to see when Sales Agent staff mark each message as read. NDOW staff may also run a report to see that Sales Agents have read messages from the agency.

3.4.17.2 NDOW must have the ability to add/modify/delete items on the agent supply list. System functionality should include, but not be limited to, the following:

A. Activate/Void/Reverse/Invalidate and Refund Transactions – includes the ability to change transaction status and control whether or not an agent is charged for a transaction or portion of a transaction. Must allow NDOW to mark a transaction or portion of a transaction as refunded and store staff comments at the transaction level. Each system component has its own business requirements for handling transaction management.

B. Sales prompts and surveys – Includes the ability for NDOW staff to create, edit, enable and disable prompts to be used during the sales

process. Surveys may collect a customer's response and store it in the survey table. Prompts would be messages to the customer/agent based on the customer purchase.

C. Administrative Transaction Issuance & Reprint – The system must include functionality that allows the department to administratively post a transaction to an agent account. NDOW staff must have the ability to enable a license to be reprinted at any specified sales location.

D. Screen Content Control - The proposed solution must provide NDOW with the ability to control screen text and graphics/maps.

E. Maintain phone logs within specific client's records documenting at a minimum, the date, the name of caller and the nature of the call. Copies of all correspondence and backup materials shall be provided to NDOW.

F. Respond in writing in a professional and timely manner to all correspondence by email, regarding the Application Hunt process.

G. Respond to inquiries originated by the NDOW liaison and other NDOW employees authorized to obtain hunt related information.

AMS allows NDOW to add/modify/delete items on the above agent supply list via the NDOW Administrative Interface. Additional functionality includes:

- ***Activating/Voiding/Reversing/Invalidating and Refunding transactions***
    - ***NDOW administrative staff with appropriate permissions will be able to mark a transaction or portion of a transaction as refunded; store staff will only be able to refund a completed transaction.***
- ***NDOW staff will be able to create, edit, enable and disable sales prompts and surveys.***
- ***NDOW will be able to post a transaction to an agent account; NDOW staff will also be able to enable a license to be reprinted at a specified sales location.***
- ***NDOW will be able to control screen text and graphics/maps.***
- ***Kalkomey will maintain phone logs within specific clients' records, documenting the date, name of caller, and the nature of the call. Copies of this correspondence and other backup materials will also be provided to NDOW.***
- ***Kalkomey will respond in writing in a professional and timely manner to all correspondence by email to inquiries regarding the Application Hunt process.***
- ***Kalkomey will respond to all inquiries originated by the NDOW liaison and other NDOW employees authorized to obtain hunt-related information. Additionally, NDOW staff are always welcome to reach out to Kalkomey for assistance in any form.***

3.4.18 Audit, Accountability and Internal Controls

3.4.18.1 Successful vendor shall provide for generally accepted accounting principles and procedures which ensure that a sound system of internal controls is in effect. These controls should include but are not limited to:

A. Documentation of Internal Controls - The internal control system will be documented, readily available for examination and, as a minimum, will include the firm's internal control objectives, techniques, and accountability;

B. Recording of Transactions - All transactions will be promptly recorded and properly classified. This record will provide a clear audit trail from initiation to conclusion;

C. Execution of Transactions - Transactions will be executed only by those authorized individuals specifically designated to do so;

D. Separation of Duties - Key duties and responsibilities in authorizing, processing, recording, and reviewing transactions will be separated among individuals; i.e., one individual will not control all aspects of a transaction or activity;

E. Supervision - Continuous supervision by qualified individuals will be provided to ensure internal control objectives are being satisfied; and

F. Access to and Accountability for Resources - Access to resources and records will be limited to only authorized persons and accountability for resources will be maintained and assigned.

Kalkomey provides for generally accepted accounting principles and procedures to ensure a sound system of internal controls, including:

- ***Documented internal controls, including Kalkomey's internal control objectives, techniques, and accountability;***
- ***Recordings of transactions;***
- ***Executions of transactions (by only those authorized individuals with appropriate permissions);***
- ***Separation of duties;***
- ***Supervision; and***
- ***Access to and accountability to ensure resources and records are properly maintained and assigned.***

3.4.19 Conflict of Interest

3.4.19.1 To ensure that there is no conflict of interest and instill hunter confidence in the contractor, NDOW requires that the contractor have a company policy which disqualifies the contractor, his staff, employees and their immediate families from participating in this process on which are administered by the contractor. Immediate families are defined as the employee, their spouse and dependent children.

Kalkomey acknowledges and affirms this requirement. Hunter, boater, and angler confidence in the licensing system is paramount.

3.4.20 Commission Meetings

3.4.20.1 The awarded vendor must attend three meetings (Season setting in January, Quota setting in May, Big Game Draw Summary Report in September) and upon request, a designated representative shall attend other Commission meetings (minimum of 7 per year) and must be able to address inquiries.

Kalkomey will send any required staff to join NDOW for the Season setting meeting in January, the Quota setting meeting in May, the Big Game Draw Summary Report in September, and other Commission meetings as required to address inquiries. Additionally, Kalkomey staff area available via phone, email, and chat to address any day-to-day concerns.

3.4.21 Functional areas of the current system requirements

3.4.21.1 This customer centric business system integrates multiple related NDOW business functions into a single database, including:

A. Hunting and Fishing Licenses
B. Vessel Titling/Registrations
C. Conservation Education/Programs
D. Law Enforcement Citations/Revocations
E. Harvest Information Program
F. Application Hunt
G. The Volunteer Program

Kalkomey understands NDOW desires to integrate the many business functions into a single database.

3.4.22 Hunting and Fishing Licenses

Licensing Volume			
	2014	**2015**	**2016**
Fishing licenses	96,578	89,036	78,092
Hunting licenses	40,184	41,356	42,868
Special licenses	1,334	1,294	1,509
Trapping	1,625	1,402	1,036
Combo licenses	32,057	31,805	31,130
Group Fishing	524	701	722
BobCat Seals	4,623	3,488	2,223
Stamps	162,762	152,310	149,640

3.4.22.1 NDOW is interested in pursuing possibilities of a reduction in paper deliverables for a licensing solution. Vendors must provide details on how the overall proposed system will lead NDOW through a staged transition from the current processes to a completely paperless system. Considerations in proposals should include:

AMS supports a number of the options listed below. Kalkomey is committed to continuing to develop innovative solutions that enhance agency operations and improve customer convenience.

A. Customer ID Card: a card-type licensing system that would require the bearer to carry during license-required activities.

Kalkomey currently produces credit card-style certification cards for most students who successfully complete an online course or in-person safety education class. In New Hampshire, Kalkomey prints an American Association of Motor Vehicle Administrators (AAMVA)-compliant barcode on the back of certification cards, allowing law enforcement personnel to easily find customer records using a barcode scanner in state cruisers. A scanning solution could be used to query the AMS database with the information on the certification barcode to return active permits from AMS.

B. Law Enforcement: method for NDOW Law Enforcement to validate customer licensing status in the field.

AMS features a mobile interface that will allow Law Enforcement with network access to query the AMS database to validate customer license status in the field. Kalkomey is aware that Law Enforcement wardens are not always able to connect to cell or satellite networks. Pending understanding of security requirements related to customer data and hardware requirements for Law Enforcement, Kalkomey will develop a mobile solution that allows Law Enforcement officials to download a database of active license purchases and citations for offline field use.

C. Real-time Licensing: method for customer to purchase licensing privileges from any proposed sales outlet or by mobile phone and be immediately able to use privilege.

Some states currently allow electronic proof of privilege. AMS can deliver permits in digital format with a TAN code to provide authentication. Customers who provide an email address or cell phone number may receive the permit electronically regardless of where they make a license purchase (online, in a store, or at an NDOW location).

D. Bar Code Scanners – The solution may include a bar code scanner capable of reading the State's two-dimensional (2D) bar code driver's license and ID cards and bar codes printed on license documents. POS devices will be required to read 2D bar code licenses encoded in the American Association of Motor Vessel Administrators (AAMVA) encoding standard.

Kalkomey is currently producing AAMVA-compliant bar codes for a solution in New Hampshire. Kalkomey's pricing proposal includes providing barcode scanners to allow NDOW staff and Sales Agents to scan driver's licenses, ID cards, or license documents that have printed bar codes.

E. Digitally Captured Signature Devices – the solution may include a signing device to capture the customer's signature at the point of sale. This signature image must be transmitted and related to the individual transaction for a defined period of time.

Kalkomey supports an electronic signature capture feature that will allow customers to sign permits digitally through **ndowlicensing.com.** ***Additionally, Kalkomey's POS solution offers a built-in signature pad for capturing signatures at Sales Agent locations.***

F. Additional Equipment Options – Vendors must propose a pricing structure for equipment and support for agents wishing to acquire additional point of sale devices above and beyond NDOW's inventory. All devices must be tracked and recorded in an inventory system that provides NDOW access.

Kalkomey's pricing proposal includes barcode scanner hardware and digital signature pads as part of the Point of Sale solution. Kalkomey can print 2D barcodes on documents at no extra cost to NDOW. Digital capture of electronic signatures through **ndowlicensing.com** ***will not impact subscription costs.***

See pricing proposal for equipment options.

3.4.23 Vessel Titling/ Registrations

Current Active Registrations			
	2014	**2015**	**2016**
Vessels Registrations	45,149	42,645	43,771
Vessel titles	8,291	7,439	7,924
AIS	47,166	45,899	49,051

3.4.23.1NRS 488 requires NDOW to administer a program to register and title vessels (boats, AIS) operated in Nevada. The proposed solution must allow customers and NDOW customer service counter to register and renew vessels and update personal information.

Kalkomey AMS will allow customers and NDOW customer service staff to register and renew vessels and update personal information.

3.4.24 Conservation Education/Programs

3.4.24.1 Vendors must propose and provide programming and host services for a complete system to manage the conservation education, hunter education, boating, and education programs. The system must include web interfaces that allow customers, students, instructors, and NDOW staff. Web interfaces will provide access to various components of the system allowing users to schedule classes, enroll in classes, enroll instructors, manage instructors, manage class registration and fees, document student progress and course completion, and update personal information via the Internet. The system must include navigation tools providing customers with quick access to their customer account including services offered and their safety education history.

As a truly comprehensive solution, Kalkomey AMS is uniquely positioned to address NDOW's desires. As an existing provider of online outdoor education for Nevada, Kalkomey can integrate not just the licensing features but also the conservation education courses for Nevada's hunters, boaters, and outdoor education programs.

Additionally, Kalkomey's Event Manager solution will NDOW in-person education needs by allowing volunteer instructors and education coordinators to schedule classes, manage rosters, record results, collect registration fees if appropriate, and track volunteer hours and miles for US Fish and Wildlife reporting.

***Kalkomey can provide physical proof of certification in the form of hard-plastic, credit-card style certification cards upon completion of online or in-person classes that result in a certification. Students may request duplicate and replacement cards from* ILostMyCard.com.**

All student and instructor information collected through education programs is added to customer records in AMS to help NDOW understand the full life-cycle of customer activities.

By partnering with Kalkomey, NDOW empowers users at all levels to quickly and easily access all customer records, including services offered and their safety education history, all in one place.

3.4.24.2 The system must be fully compatible and seamlessly integrated with the vessel registration, licensing, species harvest registration, and NDOW's web site. The design and presentation of pages that will be viewed by our customers will be approved by the Department. The web host must communicate with the license system host to verify the customer's identification and gain authorization prior to all transactions.

Kalkomey's Licensing system is fully compatible and seamlessly integrated with the multiple aspects covered in this solicitation, including vessel registration, hunt licensing, species harvest registration, and NDOW's website. NDOW will be given the opportunity to approve the design and presentation of the pages viewable by customers. Customers' identification will be confirmed within AMS before the end user is authorized to complete a transaction.

3.4.24.3 Provide NDOW with analytics and intuitive tools to event manage and measure success and opportunity to enable recruitment, retention and reactivation.

Kalkomey believes in a full partnership with our agency customers, which is why we provide analytics and tools to manage evens, measure success, look for opportunities, and otherwise power NDOW's recruitment, retention, and reactivation goals.

3.4.25 Law Enforcement/Revocations

3.4.25.1 The awarded vendor must provide programming and host services for a system to manage NDOW citations and the interfaces to receive data from various business partners. The system must provide database management tools to manage citation data, control access to the system and to generate reports. The system must interface with the Nevada Department of Justice system, Nevada Justice Information System, Nevada Circuit Courts, Department of Children & Families, and the Interstate Wildlife Violator Compact.

AMS will integrate with the Nevada Department of Justice system, Nevada Justice Information System, Nevada Circuit Courts, Department of Children & Families, and the Interstate Wildlife Violator Compact. NDOW will be offered database management tools to manage citation data, control access to the system, and generate reports. Tasks related to this effort may be found in Kalkomey's project plan, available for review in **Appendix B.**

3.4.25.2 The system must be fully compatible and seamlessly integrated with the licensing, vessel registration, conservation education/safety, and species harvest registration system. The design and presentation of pages that will be viewed by users will be approved by the Department. The web host must communicate with the citation database to verify the customer's eligibility to purchase prior to all licensing transactions.

AMS is a complete agency services solution and as such allows seamless integration between licensing, vessel registration, conservation education/safety, and species harvest information systems. The design and presentation of pages viewable by public users will be approved by NDOW. AMS will verify the customer's eligibility to purchase prior to allowing a license transaction.

3.4.25.3 Describe a proposed mobile intuitive application for field personnel. This will include the ability to manage the control tables necessary to operate the mobile app. Control tables are housed in the citation database and exported for transmission to mobile application with interface ability.

Kalkomey is aware that Law Enforcement wardens are not always able to connect to cell or satellite networks. Kalkomey can provide interfaces for existing systems.

Kalkomey is interested in understanding the security requirements for offline devices and hardware requirements for Law Enforcement. Pending a discussion on these requirements, Kalkomey will develop a mobile solution that allows Law Enforcement officials to download a database of active license purchases and citations for offline field use.

3.4.26 Harvest Information Program

	2014	**2015**	**2016**
HIP	9,779	8,763	8,971

3.4.26.1 Vendors must propose and provide programming and host services for a complete system to manage wildlife harvest information. The proposed solution must offer the customer the internet based reporting system to report their harvest to NDOW.

Kalkomey AMS is a complete system to manage wildlife harvest information, as well as licensing, conservation education, events, volunteers, and more. End users will be able to report their harvest to NDOW online.

3.4.26.2 The system must provide management tools allowing NDOW staff to control access to the system, track entries, view and update harvest information, and produce reports.

NDOW users with appropriate permissions will be able to use the wildlife harvest portion of AMS to control access to the system, track entries, view and update harvest information, and produce a variety of reports.

3.4.27

The Nevada Department of Wildlife's big game application and draw is a major source of revenue for the agency. The awarded vendor will design a user friendly, intuitive application process. Clients will have access to view their prior hunt records, bonus points for each species and eligibility by species. All drawings will be conducted using a random number generator as defined in NRS 501 thru 505, https://www.leg.state.nv.us/nrs/index. A seamless draw will be conducted across all species, all weapon classes, and clients can have up to 5 choices per hunt category. In addition to the big game hunts, the system also handles draws for nonresident guided deer, turkey, and swan hunts, and tracks manual entry and issuance of tags by NDOW for landowner damage compensation, elk incentive, private lands elk, bid/auction, small emergency depredations, replacement tags and duplicates.

Kalkomey will design a user-friendly, intuitive application process for the NDOW big game application and draw. Kalkomey AMS will handle a seamless draw across all species, all weapon classes, and clients will have up to 5 choices per hunt category. AMS will handle:

- ***big game hunts***
- ***nonresident guided deer hunts***
- ***nonresident guided turkey hunts***
- ***nonresident guided swan hunts***
- ***draws for nonresident guided deer hunts***
- ***draws for nonresident guided turkey hunts***
- ***draws for nonresident guided swan hunts***
- ***tracking manual entry and issuance of tags by NDOW for***
    - ***landowner damage compensation***
    - ***elk incentive***
    - ***private lands elk***
    - ***bid/auction***
    - ***small emergency depredations***
    - ***replacement tags***

- ***duplicate tags***

3.4.27.1 Bonus Point Program. The bonus point program provides additional random draw numbers that enhance an applicant's opportunity to draw a tag. To participate in the bonus point program a client must purchase a hunting or combination hunting fishing license prior to or during the draw application process. The client must not get a refund on the hunting license. If they receive a refund on a hunting license they will not earn any bonus points on unsuccessful applications that year.

Kalkomey AMS will facilitate the Bonus Point Program according to NDOW's requirements.

A. Random Number Generation is the generation of a sequence of numbers that cannot be reasonably predicted. Regulation requires that the random draw numbers be generated by an algorithm using a number established by the hours, minutes, seconds, and hundredths of a second set forth by the computer clock at the start of the draw. These random draw numbers are assigned randomly across all species applications in the draw.

Kalkomey AMS will include Random Number Generation according to NDOW's requirements.

B. Bonus points are "squared" to arrive at the bonus number of draw numbers for the application. If the client or party has 5 bonus points, these would be "squared" and the application would receive 1 point for the application and 25 points for the bonus points or a total of 26 draw numbers.

Kalkomey AMS will manage bonus points according to NDOW's requirements.

C. Applications are associated with a "Party" record to ensure that party applications are grouped together. Random numbers that are generated are assigned to the associated Party record for each application that was submitted. If four applicants apply together in a single party application, then their four applications are all linked to the "Party Master" record for that group or party, and the random numbers are assigned to the common "Party Master" record. In this way, everyone in the party has the same random numbers for their common application.

Kalkomey AMS will manage "party" application records according to NDOW's requirements.

D. If a client does not apply for a tag or a bonus point for a species category for 2 consecutive years or if the client obtains a tag in a species category in the main big game tag draw or a remaining tag draw the bonus points will revert to zero. Hunters who obtain remaining tags do not lose bonus points if the tag is obtained in a remaining tag first come first serve draw.

Kalkomey AMS will manage bonus points according to NDOW's requirements.

E. A client may apply for just a bonus point for a species category as an option if they know they would not want to obtain a tag that year.

Kalkomey AMS will manage bonus points according to NDOW's requirements.

F. Bonus Point Use. When an applicant with more than one bonus point applies the lowest of those draw numbers is used for the drawing.

Kalkomey AMS will manage bonus points according to NDOW's requirements.

G. Bonus Points and Group Applications. Mule deer, antlerless elk and pronghorn horns shorter than ears hunts are the only hunts where group applications for the same hunt and hunter choices are allowed. On group applications, the bonus points for the group is the quotient of the total number of bonus points held by the group, divided by the number of members in the group, rounded to the nearest whole number. If the group is unsuccessful in drawing tags, each member accrues a bonus point on their individual record for that species category.

Kalkomey AMS will manage bonus points according to NDOW's requirements.

H. Bonus Point Transferability. Bonus points cannot be transferred to another person or species category on their own record, Once a junior hunter becomes ineligible for the junior hunt by reaching 5 years of application for the hunt or maximum age, any bonus points on record may be transferred automatically to the antlered deer category.

Kalkomey AMS will manage bonus points according to NDOW's requirements.

3.4.27.2 Hunter Eligibility by Hunt. There are several types of eligibility for an applicant. There is eligibility that involving waiting periods after a tag is drawn dependent upon harvest of an animal or not. For example, antlered elk has a

waiting period of 7 years. The client is ineligible to apply for a tag for antlered elk (all weapon classes except depredation hunts) regardless of whether they take an animal. The can apply in the 8th year. However, this is a new rule and there are clients that must be grandfathered in under the old rules. They had a 5 year wait if there was no take in 2016 or earlier. These clients will not be extended to the 7 year wait. And in 2016 or earlier those that harvested had a 10 year wait. Dependent upon when they drew the tag the may have become eligible in 2017. Antelope had a similar change to a standardized 3 year wait regardless of harvest starting in 2017. All subspecies of big horn sheep and mountain goat have a 10 year wait. Black bear has 5 year wait if harvest and apply the next year if no harvest eligiblity. Mule deer, antlerless elk, spike elk and horns shorter than ears antelope a client can apply each year. This type of eligibility is in NAC.

Kalkomey AMS will manage hunter eligibility by hunt according to NDOW's requirements.

3.4.27.3 Another type of eligibility is application eligibility where on an annual basis, in February, the Commission can determine what a client can apply for as a species in a draw application period.

For example currently applicants have to choose to apply for either antlered mule deer or antlerless mule deer in a draw period they cannot apply for both. For elk they can apply for both antlered elk and antlerless elk and several different hunts for each. For example (Antlered elk (4151, 4161, 4156), antlered elk depredation (4102) and antlerless elk (4181, 4111, 4176), antlerless elk management hunt (4481, 4476, 4411) and antlerless depredation (4107). However the regulation stipulates they can only obtain 1 antlered elk tag and 1 antlerless elk tag. Big horn sheep this year allows for the client to apply for both ewe and ram tags in the same subspecies for the first time, but they cannot draw both. Antelope is like mule deer where the client has to choose from the horns longer than ears hunt (buck) or the horns shorter than ears hunt.

Kalkomey AMS will manage hunt application eligibility according to NDOW's requirements.

3.4.27.4 Hunts are assigned a four-digit number and are then grouped into categories that are assigned an alpha designator. General information about the hunt such as hunt category, weapon class, hunt description, species, residency requirements, eligibility rules, etc. are included with the hunt master. In addition, the hunt master has several related files.

Kalkomey AMS will group hunters according to NDOW's requirements.

3.4.27.5 The related hunts file shows all hunts that must be considered when determining client eligibility for a hunt, i.e., successful harvest for one hunt

number may prohibit a client from applying for a different hunt number in subsequent years.

Kalkomey AMS will manage related hunts according to NDOW's requirements.

3.4.27.6 Hunt fees are made up of several components. All hunts (possible exception of PIW) have an application fee, a predator management fee and a tag fee. Some hunts may have additional fees. The fee structure associated with a hunt is defined in the Hunt Fees table.

Kalkomey AMS will manage hunt fees according to NDOW's requirements listed here and in the Hunt Fees table.

3.4.27.7 Hunter choice numbers are set up for each hunt to define the individual geographic units and seasons for which the hunter may apply. One or more unit numbers are associated with a hunter choice number. For a hunt, a unit group, season, and quota are all associated at the hunter choice level.

Kalkomey AMS will assign hunter choice numbers according to NDOW's requirements.

3.4.27.8 Applications are assigned a key that is made up of several fields. They key includes the year, draw number designation, application number, hunt number or alpha designation and man number.

Kalkomey AMS will assign applications according to NDOW's requirements.

3.4.27.9 Log files are used to record information regarding access to specific functions within the system and changes that were made to specific data. Various audit reports can be requested to document changes. Audit reports can also be used to ensure security has not been compromised or to diagnose system problems.

Kalkomey AMS will incorporate log files and audit reports according to NDOW's requirements.

3.4.27.10 Season Setting. In late January, the Commission approves the hunts, unit groups and seasons for big game. March, they approve migratory bird seasons a bag limit and swan draw requirements.

A. June is upland game and the seasons, unit groups and quotas for wild turkey.

B. Once these determinations are made they are provided to the Administrator who will update the hunt master and hunter choices files to reflect the decisions. Hunter choice and season information is critical for application processing. Therefore, the information is reviewed and approved by both NDOW and the Administrator to ensure accuracy.

C. Additionally, during the season setting process, the Commission approves application regulations. This includes the methods and rules for applying, the deadlines for accepting applications, and the dates that the draw results will be available to the public. These dates are public information and are part of regulation. Therefore, the application processing schedule established by the Administrator must ensure that all deadlines are met.

Kalkomey AMS will attend the Commission meetings regarding season setting according to NDOW's requirements. Additionally, Kalkomey will manage NDOW's seasons according to the Commission's decisions.

3.4.27.11 Quota Setting. For big game the quota setting occurs during a separate Commission meeting in early to mid-May and after the deadline for applications. The Commission determines quotas and this information is provided to the Administrator for entry into the system by the Administrator. The quota is entered for each hunter choice number of each hunt. Since the quota number is critical to the draw process, the figures are reviewed and approved by both the Administrator and NDOW to ensure accuracy.

Kalkomey AMS will set quotas according to NDOW's requirements.

3.4.27.12 Internet Application. The Internet application, once a client logs in, provides fields for the client information which can be completed or updated if they are already a client. The application also displays the client's bonus points for each species category, and species eligibility information if they are in a waiting period for a species as part of the online application process. The web application is user interactive and has the regulatory requirements programmed into the functionality to prevent applicants from making errors.

Kalkomey AMS will manage the Internet application according to NDOW's requirements. The public-facing* ndowlicensing.com *will provide fields for the end user to complete or update after logging in.* Ndowlicensing.com *will also display the end user's bonus points for each species category, and species eligibility information if applicable.

3.4.27.13 The Administrator has a test online application website that they utilized for QA activity. The Administrator tests the functionality prior to turning over to NDOW. NDOW can access and test online application process and rules from the client perspective prior to being made available to the public to ensure that all the requirements are in place.

NDOW will be able to access and test the* ndowlicensing.com *application process and rules from the client perspective before it is made available to the public.

3.4.27.14 Restricted Nonresident Guided Deer Hunt. In January NDOW provides the Administrator a list of the currently licensed master guides for mule deer. This information includes their master guide license and demographics and valid unit groups which they are licensed. This information is entered by the Administrator and approved by NDOW. The seasons and quotas are approved by the Commission during the big game process in January. These approved hunter choices are provided to the Administrator for entry into the system and reviewed and approved by NDOW before the application period begins. The timeframe is short and occurs the week after the commission meeting. The online application period begins that following Friday.

Kalkomey AMS will manage the Restricted Nonresident Guided Deer Hunt according to NDOW's requirements.

3.4.27.15 Restricted Nonresident Guided Hunt Online Internet Application. The master guide with a pin number provided by the Administrator can apply for their clients. The program presents the master guide with the applicant demographic information if they are already a client or presents the blank fields if they are new. This data can be entered or updated by correcting the information in the field. The master guide can select up to five hunter choice numbers which correspond to the geographic areas and seasons where they are licensed to hunt from drop down boxes provided onscreen. At the end of the transaction the client will be sent an email confirmation and/or print the confirmation at that time. The confirmation notice includes a confirmation number that the client can utilize to review their transaction later. If a client applies and then wants to make a change or withdraw it completely the client can withdraw the application in question and resubmit within the deadline for the application period. The client if they miss the regular application deadline may for 7 days after that deadline apply only for bonus points. After those deadlines, a person may request to withdraw an application by submitting a request in writing up until 5 days after the application deadline.

Kalkomey AMS will manage the Restricted Nonresident Guided Deer Hunt online application according to NDOW's requirements.

3.4.27.16 To accomplish party applications for deer online the master guide may add another applicant.. Once a hunter is added, then marking the box next to each hunter in the list will indicate they are to be in the party. Once the party box is marked those applicants in a party will be submitted for the same hunt and hunter choice numbers selected. During the drawing, all the party members will either be successful or unsuccessful as a group.

Kalkomey AMS will manage party applications for deer online according to NDOW's requirements.

3.4.27.17 During the draw, the program will test for open quota in each area beginning with the first choice until successful or until all choices listed have been unsuccessful. Master guides can only have 30 successful clients once that cap is reached all other clients are unsuccessful. The Restricted Nonresident Guided Hunt also has a maximum of 400 tags that can be issued. If that cap is reached any remaining applications will become unsuccessful.

Kalkomey AMS will test for open quota in each area and guide requirements according to NDOW's requirements.

A. Currently clients that participate in the Restricted Nonresident Guided Deer draw are ineligible to apply for mule deer in the big game tag main draw.

Kalkomey AMS will manage the Restricted Nonresident Guided Deer Hunt and mule deer draw according to NDOW's requirements.

3.4.27.18 Big Game Application. In the application process a client can apply for all species categories if they are eligible. When the client logs in, the program presents the client their demographic information. This data can be updated by correcting the information in the field(s). The applicant can have multiple hunt categories in one online transaction. The applicant has the option of selecting a hunt category and up to five hunter choice numbers corresponding to the unit groups and season where they wish to hunt.. Or they can apply for bonus points only for the category.

Kalkomey AMS will manage the Big Game Application according to NDOW's requirements.

A. At the end of the transaction the client(s) can be sent an email or text confirmation. The confirmation notice includes a confirmation number that the client can utilize to review their transaction later. If a client applies and then wants to make a change or withdraw it completely the

client can withdraw the application in question and resubmit within the deadline for the application period. The client, if they miss the regular application deadline, may for 7 days after that deadline apply only for bonus points. After those deadlines, a person may request to withdraw an application up 5 days after the application deadline.

Kalkomey AMS will send the end user an email or text confirmation, including a confirmation number the end user can use to review their transaction at a later time. Kalkomey will manage the application process according to NDOW's requirements.

B. The online site allows the operator to add additional hunters during the transaction. This could be utilized for group applications or convenience of one or multiple transactions for multiple clients.

Kalkomey AMS will add additional hunters during a transaction according to NDOW's requirements.

C. Second Draw online internet application-in the online application process a client can apply for any leftover tags from the Big Game Main Draw (follows the same process as the main draw.)

Kalkomey AMS will manage Second Draw according to NDOW's requirements.

D. Following the second draw, any remaining quotas for deer, antelope, elk, mountain goat and any sub species of bighorn sheep will be available through a first come first serve basis.

Kalkomey AMS will process any remaining quotas according to NDOW's requirements.

E. Applications are entered and edited in the same manner as for the first and second draw. Once entered, all applications will receive a tag until the available quota goes to zero for that hunt and hunter choice.

Kalkomey AMS will applications according to NDOW's requirements.

F. A cut-off date is established by the Commission for the sale of remaining tags. No more tags can be sold after that date, even if quota is remaining. Any permits remaining after the first draw for swan are in a first come first serve process. Clients may obtain a second swan permit during that process and are limited to 2. However, for swan there is no

cut-off date for the issuance of the permits. Permits are sold until the end of the swan season.

Kalkomey AMS will manage the end of tag sales and swan permitting according to NDOW's requirements.

3.4.27.19 Turkey Online Internet Application. When the client logs in, the program presents the hunter their demographic information. This data can be updated by correcting the information in the field(s). The applicant has the option of selecting up to five hunter choice numbers which correspond to the geographic areas and seasons where they wish to hunt from drop down boxes provided onscreen. Parties are not allowed in turkey hunts. Historically there has been a spring draw and a fall draw that is operated by the Administrator. A client cannot have more than one turkey tag in a calendar year. At the end of the transaction the client can be sent an email confirmation and/or print the confirmation at that time. The confirmation notice includes a confirmation number that the client can utilize to review their transaction later. If a client applies and then wants to make a change or withdraw it completely the client can withdraw the application in question and resubmit within the deadline for the application period. The client if they miss the regular application deadline may for 7 days after that deadline apply only for bonus points. After those deadlines, a person may request to withdraw an application by submitting a request in writing up until 5 days before the draw.

Kalkomey AMS will manage the Turkey Online Internet Application according to NDOW's requirements.

A. The Administrator processes the private lands applications as first come first serve applications until 7 days before the close of the season.

Kalkomey AMS will manage the administrator process for private lands applications according to NDOW's requirements.

B. Any remaining tags for First come first serve Turkey will be available on the online application.

Kalkomey AMS will manage any remaining tags for first come first serve turkey according to NDOW's requirements.

3.4.27.20 Additional Purchases Online. The online tag application process provides NDOW the opportunity to sell licenses as required for the bonus point program. To provide one stop shopping for NDOW clients the online application site also sells mountain lion tags.

Kalkomey AMS will manage additional online purchases, including mountain lion tags, according to NDOW's requirements.

3.4.27.21 Additional Big Game Tag Opportunities. The online tag application process has additional big game tag applications and draws that occur at the same time. These are Silver State Tags and Partnership in Wildlife tag draws which are specialty tag hunts which allow successful hunters to hunt statewide if they are successful in obtaining a tag through the draw process.

Kalkomey AMS will manage additional big game tag opportunities according to NDOW's requirements.

3.4.27.22 Silver State Tags. Clients that are in waiting periods for certain species are eligible to apply for Silver State tag hunts. These applications are online available online and the client can apply for these tags during a transaction for big game. The hunts, unit group, seasons and quotas are all set up during the big game process for that application period.

Kalkomey AMS will manage Silver State tags according to NDOW's requirements.

A. If the client is eligible for Silver State hunt and big game they can apply for both. However, when the draw is initiated if the client draws the Silver state tag their big game application automatically becomes ineligible and the client will be awarded a bonus point for that application.

Kalkomey AMS will manage Silver State hunt and big game tags according to NDOW's requirements.

3.4.27.23 Partnership in Wildlife (PIW). A $10 fee to participate in the PIW this draw is collected for the draw occurs as participation is unknown until the results of big game application for the species is determined. There is current draft regulation that may amend PIW to be drawn prior to the main draw.

Kalkomey AMS will manage the Partnership in Wildlife fee according to NDOW's requirements. Kalkomey will update AMS if regulations change.

3.4.27.24 Management Hunts. Currently NDOW only has antlerless elk management hunts. These hunts and tags are available during the application process for big game. The management hunt was developed by NDOW to address elk population problems in specific unit groups but not add more hunters

in the field. Where these hunts are approved, the client will have an opportunity to apply for a deer tag and the management elk hunt for same unit group and season for each hunt. The applicant is provided an opportunity opt in on the management hunt if they select a hunter choice for deer where a management hunt for the elk has been approved. These are also called combination hunts. In group applications, not everyone has to opt in on the management hunt.

Kalkomey AMS will manage Management Hunts according to NDOW's requirements.

A. During the draw on a group hunt there must be sufficient quota for the base hunt for the group to be successful. And management hunt quota is allocated until exhausted.

Kalkomey AMS will manage group hunts for management hunts according to NDOW's requirements.

3.4.27.25 Law Enforcement. The program completes a lookup of Nevada hunting privilege revocations and Interstate Wildlife Violator Compact of which NDOW is a member. Online applicants will be provided a message that they are not eligible.

Kalkomey AMS will provide ineligible hunters a notice after checking against the privilege revocations and Interstate Wildlife Violator Compact according to NDOW's requirements.

A. If the client is on the list for a revocation in another state or Nevada and the record has been ratified or accepted by Nevada the client will be prohibited from obtaining a tag until the revocation has expired.

Kalkomey AMS will prohibit customers listed for revocation according to NDOW's requirements.

3.4.27.26 Quota Verification. As stated in an earlier section the Hunt Season and Quota report on quota is checked to make sure that all hunts appear in the table and that all quotas have been entered correctly. This report is reviewed and approved by both the Administrator and NDOW

Kalkomey AMS will verify the quotas according to NDOW's requirements.

3.4.27.27 Bonus Point Check. Random checks of the bonus points are made to be sure that points have been updated with the results of the last draw.

Kalkomey AMS will facilitate the bonus point check according to NDOW's requirements.

3.4.27.28 Tag Reconciliation. Once the reports are verified, an option is taken to prepare the files for processing credit cards for tags and license sales, tag and license printing, results letters and emails. Tag and licenses are printed in pre–sorted zip code order to take advantage of reduced postal rates. Tags are mailed out along any inserts as approved by NDOW.

Kalkomey AMS will manage Tag Reconciliation according to NDOW's requirements.

3.4.27.29 The exception is bear tags. Clients receive their bear tags during an indoctrination class rather than receiving them through the mail. For that reason, in drawings where bear tags are part of the quota, the season report has an Orientation field selected. This allows for these tags to be held and printed separately and turned over to NDOW. A report is developed and serves as documentation of the tags that were turned over to NDOW.

Kalkomey AMS will manage bear tags according to NDOW's requirements.

3.4.27.30 Results. All applicants receive an email and or a letter if requested, summarizing their draw results and contributions. These will include line items such as donations to Operation Game Thief or Predator Management. The emails or letters will be proofed by the Department prior to being sent.

Kalkomey AMS will submit an email and/or email summarizing their draw results and contributions according to NDOW's requirements.

3.4.27.31 Stand Alone licenses. Currently Residents and Nonresidents can purchase their license during the online in the application process. During the online application process a client can opt to either buy the license now or only if successful. If they buy it during the application process, at the end of the transaction the client can either print the license at home, save it to the desktop or have it fulfilled. If they opted to purchase only if successful and are successful the license will be mailed. The printing of the licenses for those that chose to have it fulfilled will occur throughout the application period and must be mailed within 5-7days of purchase.

Kalkomey AMS will manage Stand Alone licenses according to NDOW's requirements.

3.4.27.32 Draw Conclusion. Immediately following the conclusion of the draw, an electronic copy will be captured on a portable hard drive, sealed in an envelope

and placed in a Bank Vault. A series of reports must be run after draw processing is complete. At a minimum the following draw reports will be generated:

A. Draw Number at A Glance Report
B. Tag Sold Remaining Tag
C. Successful List
D. Unsuccessful List
E. Withdraw List

Kalkomey AMS will manage the Draw Conclusion according to NDOW's requirements. Kalkomey will issue, at a minimum, the following draw reports:

- ***Draw Number at A Glance Report***
- ***Tag Sold Remaining Tag***
- ***Successful List***
- ***Unsuccessful List***
- ***Withdraw List***

3.4.27.33 48 hour Draw Results. Within 48 hours of the draw the initial draw results must be posted on the website. This listing includes a successful, unsuccessful, and withdraw list. It also has a successful list that is alphabetical by hunt and hunter choice.

Within 48 hours of the draw, the initial draw results will be posted on* ndowlicensing.com *according to NDOW requirements.

A. Due to the number of clients that apply the online lookup must be user friendly. The successful, unsuccessful, and withdraw lists are alphabetical.

The online lookup in* ndowlicensing.com *will be designed to be user-friendly according to NDOW requirements.

B. These online lists are public information and only display the First Name, Last Name, City and successful hunt and unit short description due to privacy concerns.

The online lookup in* ndowlicensing.com *will display a minimum of information due to privacy concerns, per NDOW requirements.

3.4.27.34 Post Drawing Reports. Following the second draw the Statewide Warden List is provided to the Law Enforcement Division for distribution to the wardens.

Kalkomey AMS will issue Post Drawing Reports according to NDOW requirements.

3.4.27.35 Bonus Point Update. The final step in the draw process is to update bonus points. Applications are evaluated based upon successful or unsuccessful status. Points are awarded only to unsuccessful applicants. For successful applicants, the bonus points are set back to zero for the hunt(s) for which they were successful.

Kalkomey AMS will update bonus points according to NDOW requirements.

3.4.27.36 Remaining Tags. If quota is remaining for any hunt after the second draw for the big game hunt, remaining tags will be issued in a first come first serve process online. The Commission will select an initial date as the first date upon which applications may be accepted for the remaining tags.

Kalkomey AMS will issue any remaining tags according to NDOW requirements.

3.4.27.37 Other Reports. The Reports and Labels Menu provides the ability to print a wide variety of standard reports. Types of standard reports include:

A. Print of the Application Master File
B. A variety of cash control and finance reports
C. A series of client disqualification reports
D. Print of the Client Master Files
E. Quota Reports
F. Bonus Point Analysis
G. Error Statistics
H. Analysis of Hunter Choices and party size
I. Client Profile reports – redacted and open
J. Client Application detail reports - redacted and open
K. Client Return Card detail reports - redacted and open

Kalkomey will issue standard reports according to NDOW requirements.

3.4.27.38 Returned Tags. Regulation allows for tags to be returned up to 1 business day prior to the opening day of the season. A tag may be returned if the client or a member of the family within the third degree of consanguinity dies, has a medical reason or is in the Armed Forces of the United States and has been transferred. In these cases of a return, the fees are refunded, the application status is changed to unsuccessful, eligibility and bonus points are restored. If the tag is returned prior to 14 days of the opening day of the season an alternate tag is issued. Depending on the timing the refund could occur as a credit to the credit card or there may be a refund check issued if the credit cannot be made. Both the

tag refund and the issuance of an alternate tag are reported on the Bi-weekly Revenue and Disbursement report.

Kalkomey AMS will manage returned tags according to NDOW requirements.

A. Clients can also return a tag for any reason up to one business day prior to the season opening. In these cases, the client will not receive a refund but will have their application marked unsuccessful, have their bonus points and eligibility restored and earn a bonus point for the application status change. Alternate tags are issued if they are returned up to 14 days before the opening day of the season.

Kalkomey AMS will manage returned tags according to NDOW requirements.

3.4.27.39 Alternative Tags. At the time of application, a client can select an option to be an alternate for that species if a tag is returned on their first hunter choice number. An alternate list is generated after the draw and it will list those applicants that were unsuccessful in drawing a tag in draw number order. When a tag is returned in the required time frame it can be issued to an alternate if there is one available for that hunter choice.

A. The Alternate tag process in the system automatically charges the clients account and issues the alternate tag.

B. An exception to this process is for the Restricted Nonresident Guided hunt. If the tag that is being returned is for this hunt the Administrator has review alternate master guide eligibility prior to issuing the tag. If the Master Guide has reached his 30 client maximum for the guided hunt the Administrator must go on to the next alternate.

C. Alternate tags that are issued and reported.

Kalkomey AMS will manage alternate tags according to NDOW requirements.

3.4.27.40 Third Party Errors. Neither the Administrator nor NDOW is responsible for third-party errors. However, Nevada Administrative Code allows for consideration to the client for specific circumstances where it can be verified in writing by the bank or postal service, that their error was the sole cause for the application to reject. If the error is identified prior to the draw, the application will be corrected to show that it is "OK" to proceed through the draw. If the error is discovered after the draw, after receipt of proper documentation from the bank or postal service, the applicant will receive a bonus point.

Kalkomey AMS will manage third party errors according to NDOW requirements.

3.4.27.41 Monies from any tags, licenses or refunds issued as part of this section are reported.

Kalkomey AMS will report any money from tags, licenses, or refunds issues according to NDOW requirements.

3.4.27.42 Duplicate Tags. In the event of lost or stolen tags, duplicates can be obtained through the NDOW regional offices. The client signs an affidavit and the tag is processed by NDOW staff. A copy of the affidavit is forwarded to the NDOW headquarters office to be filed. Each NDOW office can print duplicate tags directly from the live file. After the tag is printed the pseudo number and actual tag number reconciled by the NDOW staff.

Kalkomey AMS will assist in the issuance of Duplicate Tags according to NDOW requirements.

A. Through access via the Internet NDOW can login remotely to the system. NDOW staff can locate the application and tag record and print the duplicate at their location for the client.

Kalkomey AMS will assist in the issuance of Duplicate Tags according to NDOW requirements.

3.4.27.43 Manual Tags. Manual tags are issued by NDOW for landowner damage compensation, elk incentive, private land elk, small emergency depredation, Heritage tag hunts. These tags are processed individually using the "Manual/Duplicate Tags" option of the NDOW Processing menu.

Kalkomey AMS will issue manual tags according to NDOW requirements.

3.4.27.44 Military Deferred Tags. Military deferred tags are for those active military that receive notification they are being deployed or mobilized after receiving the tag. Regulation allows for them to return the tag and opt to defer the tag up to two years for the same hunt and unit group. Applicant must provide proper documentation.

Kalkomey AMS will issue military deferred tags according to NDOW requirements.

3.4.27.45 Saleable Lists. Much of the information in the system is public information and can be made available to clients for a reasonable fee. Formats for delivery of the information include lists, labels, diskettes or other electronic media. The file must have a flag to exclude clients who have requested not to be on the lists. Requests are processed by the Administrator who keeps the fees collected for the work performed.

Kalkomey AMS will create Saleable Lists according to NDOW requirements.

3.4.27.46 Volunteer Program

A. Wildlife volunteers are involved in every division of the agency. There are 8,011 volunteers in the current system. The projects include jobs such as stocking, fish sampling, nesting surveys, check station assistance, interpretation, seed collection, and guzzler projects.

Kalkomey understands NDOW has a variety of volunteers in the agency.

B. The Nevada Department of Wildlife Volunteer Program is administered by the Nevada Department of Wildlife, Conservation Education Division Bureau. Volunteer members work with regular full-time Division staff members such as wildlife and fisheries biologists, wildlife installation specialists, interpreters and other staff.

Kalkomey understands volunteers are integral to the success of the Division and is prepared to support the agency in meeting its volunteer goals through Volunteer Manager.

C. The system must be able to enable volunteers to utilize the online system to track hours, recruitment, application on boarding process, and volunteer duties performed.

Kalkomey's Volunteer Manager enables volunteers to use the online system to track hours, recruit, application on-boarding process, and volunteer duties performed.

D. For new volunteers, the system shall create a unique identification (ID) number for each volunteer. The Volunteer ID number shall be used as the primary identifier to associate volunteers to the event. The Volunteer ID number may also be associated to the Customer ID number that belongs to that volunteer.

Volunteer Manager creates a unique identification (ID) number for each new volunteer. The Volunteer ID number is then used as the primary identifier used to associate volunteers to an event. A volunteer ID may be associated to the customer ID.

E. The proposed solution must include event ID numbers for the event records currently in the volunteer database. For new events, the system shall create a unique identification (ID) number. The Event ID number shall be used as the primary identifier to associate events to volunteers.

Volunteer Manager includes Event ID numbers for event records imported from NDOW's existing volunteer database. For new events, Volunteer Manager will create a unique identification number, which will be used as the primary identifier to associate events to volunteers.

F. The system must compute the proper event fees for each type of event. See attachment of stored procedure on how those events are accounted for to enable reporting to the correct Federal agency for funding.

Kalkomey AMS provides a comprehensive solution for agency needs by seamlessly integrating systems. Volunteer Manager works with Event Manager to compute proper event fees for each type of event. Event Manager includes volunteer hour tracking to make volunteer reporting easy.

G. The system must manage and track participants in volunteer events and generate reports as needed.

Kalkomey Volunteer Manager and Event Manager work together to manage and track participants in volunteer events and generated needed reports. Instructor hours are managed through Event Manager; one-time volunteers or other non-instructor-type volunteer hours are tracked through Volunteer Manager.

- ***Kalkomey's Volunteer Manager allows NDOW administrators to create and manage various volunteer activity types and associated volunteer eligibility requirements. This allows NDOW administrators to list opportunities and ensure that only volunteers meeting eligibility requirements may register for the opportunity.***
    - ***For example, if there is a buoy inspection opportunity with a training requirement associated with it, volunteers who are not yet eligible because they have not completed the required inspection training would not be able to register for the activity without first completing the necessary training.***
- ***If NDOW wishes, volunteer activity records submitted by volunteers may require review and approval by appropriate agency personnel before being accepted and included in***

reporting, etc. If declined, the volunteer is prompted to correct and resubmit until approved.

- ***Volunteer activity will be monitored by the system to facilitate the renewal of volunteer certifications, as well as facilitating agency efforts to issue awards and recognition based on volunteer contributions.***
- ***Volunteer Manager will facilitate volunteer recruitment and staffing of events by:***
    - ***Assigning volunteers to certain filterable designations, such as region and county. These filterable designations will enable NDOW Staff to send relevant (region/county-specific) communications (such as invitations to volunteer for particular events) to recruit volunteers to staff events in the area(s) in which they serve.***
    - ***Allowing volunteers to filter upcoming events by their designated service area(s) (region/county/etc.).***
    - ***Allowing volunteers to set their upcoming events notifications preferences to ensure that only relevant event communications are received by volunteers.***
    - ***Automatically accounting for volunteers that accept event staffing invitations in the "staffing quota balance" as defined for an event.***
    - ***Notifying NDOW staff of upcoming events that fall short of the desired staffing quota (e.g. Event X requires 4 volunteers but only 2 volunteers are assigned. Agency staff will be notified of the lack within Volunteer Manager and by email.).***
    - ***Automatically send email notifications to volunteers to remind them of their upcoming event assignments.***
    - ***Send email notifications to volunteers about past event assignments when the predefined period lapses if they have not submitted an activity record.***
    - ***Allow agency personnel to opt-in to be notified if/when a volunteer updates personal profile information such as email, address, phone, etc.***

H. The system must provide a mechanism to track volunteer years of service, events, and service awards received.

Kalkomey's Volunteer Manager is evolving to meet the growing needs of our agency partners. Kalkomey anticipates a complete rollout of a mechanism to track volunteer years of service, events, and service awards received by the end of 2017. In the meantime, Kalkomey will work with NDOW to provide adequate support for all NDOW's volunteer recognition needs.

I. Customer Interface. Describe the complete process flow that a customer would go through to perform the following:

1.Customer ID Location/Creation – Customers wishing to enroll in an event must have a method to locate an existing customer ID or create a new ID which links to other aspects of the system.

A user may register for a volunteer account using their email address. At the time they enroll, they will be assigned a unique ID. The user can locate an existing account using their email address. Kalkomey's AMS links together all aspects of the agency process, allowing volunteers to link accounts across the system.

2. Locate and Register for an event - The secure public facing web interface must allow customers/volunteers to view event offerings, register for event and update personal information.

Kalkomey's Volunteer Manager features a secure, public-facing web interface to allow customers/volunteers to view event offerings, register for an event, and update personal information.

- ***To volunteer for a given event, volunteers will visit NDOW's public volunteer site. The volunteer may then search for events that interest them and may request to volunteer for those particular events if the volunteer has already been approved as a volunteer by an agency administrator.***
- ***If the volunteer is not an approved agency volunteer, they must complete the agency-specific application process and can volunteer for events only after an agency member has reviewed and approved the application. A user can continue to submit requests to volunteer for other events in the meantime, but request will not be shown to the administrator until their application is approved (agency administrators may opt to see all requests, including those from unapproved volunteers).***
- ***Any volunteer that has completed the application process will be able to log into their account from the public volunteer site and update their information.***

3. Enrollment Receipt – The system must produce a receipt upon completion (email confirmation) of enrollment in an event. There must be a means of reprinting this document for a designated timeframe.

Volunteer Manager produces a two-part email confirmation/receipt upon completion of enrollment of an event. The user may print these documents as often as they would like.

All volunteers must complete two steps to enroll in a particular event:

1. ***Express interest in volunteering for a particular event. The user will receive a confirmation email; the agency receives a notification that someone has volunteered for the event.***
2. ***The agency decides which interested volunteers may participate in the event. At this point, the user is given a notification email to let them know they were selected.***

The email sent to the user in step 2 serves as a confirmation that they are to attend the event.

A student enrolling in a paid event is emailed a receipt upon paying to attend the event.

J. NDOW Staff Interface & Administrative Tools

1. The Vendor will provide a secure web interface to the volunteer database that will be used to access and manipulate real-time system data. All data manipulations must be logged, including the type, date, time and UserID. Describe a solution that will, at a minimum, allow NDOW to perform the following functions:

Kalkomey's Volunteer Manager is a secure web interface to the volunteer database. This interface allows approved users to access and manipulate real-time system data. All data manipulations will be logged, including the type, date, time, and User ID.

a. Management of Volunteers – Includes recruitment, onboarding, enrollment of volunteers, updating information, monitoring event activity, managing specific event types for mail out and contact information (based on volunteer applicant's interests) and the ability to suspend, terminate, or lock out a volunteer.

Volunteer Manager covers all essential aspects of the management of volunteers, including:

- ***Recruitment***
- ***Onboarding***
- ***Enrollment of volunteers***
- ***Updating information***
- ***Monitoring event activity***
- ***Managing specific event types (for mail out and contact information based on the applicant's interests)***
- ***Ability to suspend, terminate, or lock out a volunteer***

b. Administrative Event Management – includes the ability to view volunteer transactions and change the status of an event or volunteer.

With AMS, Volunteer Manager and Event Manager work together to allow administrators to view volunteer transactions. Administrators can change the status of both events (open, closed, private, accessible to the public) and volunteers (which programs, approval, suspended, etc.).

c. Management of Event Types and Volunteer Interests – Must provide a tool to manage event types with volunteer interests.

Volunteer Manager allows volunteer users to self-select which types of events they are interested in participating in, and further requires administrators to approve volunteers for any particular event. This ensures that only volunteers appropriate to the event may participate. (Ex. Only hunter education instructors with adequate experience will be allowed to volunteer to teach a hunter education course.)

d. Merge Instructor Records – The system must provide a mechanism that allows staff to combine volunteer records and all associated history contained within the record when it is identified that a volunteer has multiple ID's.

When NDOW staff recognizes that a volunteer has a duplicate record, a staff member may merge all associated volunteering history.

K. Describe any additional system functionality the vendor can provide in the event management component and marketing information to Nevada customers with excellence. (May provide NDOW with post-event analytics to measure success and opportunity to enable recruitment, retention and reactivation).

As discussed in section 3.4.16.1 [page 65], Kalkomey tracks important actions that a user performs throughout various systems (e.g. course completions, license purchases, events attended). This tracked data is available in AMS. NDOW can use this data for research and for campaigns targeting users that have or have not completed certain actions.

3.5 SECURITY STANDARDS

3.5.1

System shall meet State security standards for transmission of personal information as outlined in NRS 205.4742 and NRS 603A.

Kalkomey will meet the Nevada security standards outlined in NRS 205.4742 and NRS 603A, including, but not limited to:

- ***data collection requirements***
- ***personal information requirements***
- ***destruction of data requirements***
- ***security measures***

3.5.2

Protection of sensitive information shall include the following:

3.5.2.1 Sensitive information in existing legacy applications shall encrypt data as is practical.

Kalkomey is developing a ground-up application. Because we are not evolving an existing legacy system, and because we are utilizing encrypted data volumes within our hosting provider, we are able to ensure all data is encrypted in AMS. Kalkomey's systems are hosted in AWS GovCloud featuring encrypted Amazon Elastic Block Store (EBS) boot volumes ensuring all data hosted by Kalkomey is encrypted at rest and in transit.

3.5.2.2 Confidential personal data shall be encrypted.

Kalkomey has a process that encrypts confidential personal information. This process is in addition to the use of encrypted drives through AWS GovCloud.

3.5.2.3 Any electronic transmission of personal information shall comply with NRS 603A.215 (2 & 3).

All electronic transmissions will use the latest industry standard encrypted connections, and will comply with current PCI compliance standards. A copy of Kalkomey's current PCI Certification is included in Appendix A.

3.5.2.4 Sensitive data shall be encrypted in all newly developed applications.

All applications built and hosted by Kalkomey will utilize encrypted EBS drives ensuring that data is secure at rest. By utilizing encrypted data volumes, and encrypting traffic between servers, Kalkomey ensures data is encrypted at all points between entry and storage in the database. Kalkomey also has a process to encrypt sensitive and confidential data.

3.5.3

All information technology services and systems developed or acquired by agencies shall have documented security specifications that include an analysis of security risks and recommended controls (including access control systems and contingency plans).

Kalkomey agrees to provide documented security specifications including security risks, recommended access controls, and contingency plans upon award of contract.

Access controls are discussed in section 3.3.16 [page 37]. For convenience, a portion of that response is included here.

AMS features security management tools that allow NDOW staff to set up security roles, manage vendor accounts and grant access to modules and features for each user role.

All Kalkomey employees must submit a background check before joining the company. No development staff member needs access to production systems. Kalkomey has a process by which a developer work with an IT manager to log into a production server if a production problem dictates, but Kalkomey has several systems and processes in place that allow developers to get information on what is taking place in the production environment without requiring direct access:

- ***The production systems utilize replicated logging so developers may access production log files without needing to access the production servers. Developers still have access and visibility to system logs.***
- ***Error reporting systems log additional log information in a location accessible by developers without granting any production server access.***
- ***Kalkomey uses automated system deploys. Developers are not required to access production systems to deploy changes.***
- ***Kalkomey follows the Gitflow source code management process, which means that every change is documented and traceable. A new change management baseline is created with every code deploy.***
- ***Every database change is logged and AMS provides access to view changes through the application.***

Kalkomey has established security controls for server access, internal application controls and external controls.

Server access controls revolve around access to production systems from inside the organization:

- ***Development staff do not have server accounts or access to production systems***
- ***Those with access to production systems must use PKI / SSH key authentication***
- ***Users with production system accounts have restricted access privileges based on authority***
- ***Production system terminal and console access is restricted to access requests from white-listed Kalkomey IP addresses only.***

Internal controls are built into AMS and dictate what kind of access a user has:

- ***AMS provides user roles with function-based security permissions.***
- ***AMS keeps an audit log of all database changes with log visibility within the AMS NDOW Administrative Interface for authorized users.***
- ***Activity reports give visibility to the activities of users and customers in the system.***
- ***Users are automatically logged out of AMS after extended periods of inactivity.***
- ***Multiple failed login attempts will result in a system lockout requiring users to re-authorize their user account.***

External controls are built into the server infrastructure and dictate how requests to server resources are managed:

- ***All remote access attempts to the production system are logged to monitor for possible attacks.***
- ***All servers are secured by enterprise-class redundant firewalls***
- ***All applications are secured using SSL secure communication.***
- ***The Agent Sales Application is only accessible from authorized terminals. An agent with a valid account cannot log into the application unless they are making a request from an authorized terminal.***

3.5.4

Security requirements shall be developed at the same time system planners define the requirements of the system. Requirements shall permit updating security requirements as new threats/vulnerabilities are identified and/or new technologies implemented.

Security requirements will be maintained and evolved throughout the lifecycle of the Software Development Life Cycle. Throughout the Software Development Life Cycle, Kalkomey will continue to meet industry standards for security throughout AMS. During planning, Kalkomey's security lead will be available for feedback and input to ensure all work meets security requirements. Additionally throughout the planning/development process, as security requirements evolve, the implementation team will be notified to update any existing work well as ensure all new work meets the evolved security requirements.

3.5.5

Security requirements and evaluation/test procedures shall be included in all solicitation documents and/or acquisition specifications.

Kalkomey will adhere to state security requirements and maintain test procedures that validate system compliance with every update and deployment.

3.5.6

Systems developed by either internal State or contracted system developers shall not include back doors, or other code that would cause or allow unauthorized access or manipulation of code or data.

Kalkomey does not allow development staff access to production servers except as needed to resolve emergency production issues. Kalkomey will not include back doors that allow unauthorized access or manipulation of code or data.

3.5.7

Security specifications shall be developed by the system developer for approval by the agency owning the system at appropriate points of the system development or acquisition cycle.

Security requirements are often included as acceptance criteria in user stories in Kalkomey's agile software development process. Kalkomey will develop security specifications and include user-stories and/or acceptance criteria to ensure that system security is considered throughout the implementation process. NDOW will have the opportunity to review and provide feedback on security measures. NDOW will also have ultimate signoff authority on these requirements and system adherence to those requirements.

Of note, AMS features security controls built into the application framework and web server for common threats such as SQL and script injection. Kalkomey also subscribes to a vulnerability assessment program that performs regular audits of various Kalkomey systems that help our teams stay apprised of new tactics by malicious users.

3.5.8

All system development projects shall include a documented change control and approval process and shall address the security implications of all changes recommended and approved to a particular service or system. The responsible agency shall authorize all changes.

Kalkomey's change control process includes requirements traceability, source code baselines, configuration baselines, peer review, unit testing, regression testing, and automated deployment.

NDOW stakeholders are involved in the review of all software development, configuration, and data import/export stories that will be performed in association with the implementation of AMS for the agency. These stories provide traceability back to NDOW business requirements and include acceptance criteria, which define how adherence to a requirement has been measured. Only approved stories are eligible to be merged into the current source code baseline. If system configuration requires a task that is not performed directly through an AMS interface, this will be done through a SQL migration and be included in the source code baseline. Configuration done directly through the application interface is baselined through audit logs visible within AMS. AMS records changes to database values, including original configuration value, new value, user who made the change, and when the change was made.

Before a source code change can be merged into the current baseline, Kalkomey requires that developers issue and follow a pull request process. Through this process, developers create a source code branch containing all proposed changes to the system. This branch is generally related to a single user story. Before the branch may be merged into the current baseline, the branch must be reviewed by a developer who did not perform the work. This peer review process often includes validation of unit and regression tests and a review of story acceptance criteria.

Finally, once the pull request has been merged, the system automatically deploys the system to QA environments for additional testing. When the branch is ready to be deployed, an automated deployment system is used to ensure accurate and consistent deploys.

3.5.9

Application systems and information that become obsolete and no longer used shall be disposed of by appropriate procedures. The application and associated information shall be preserved, discarded, or destroyed in accordance with Electronic Record and Record Management requirements defined in NRS and NAC 239, Records Management.

It's important to destroy obsolete documentation so that team members do not become confused by old requirements and invalid test cases. Kalkomey will work with NDOW to ensure that obsolete and unused application systems and information will be disposed of in accordance with NRS and NAC 239.

3.5.10

Software development projects shall comply with State Information Security Consolidated Policy 100, Section 4.7, Software Development and Maintenance and State Standard 131, "Security for System Development".

Kalkomey will comply with State Information Security Policy 100, Section 4.7, Software Development and Maintenance and State Standard 131, "Security for System Development."

3.5.10.1 Separate development, test and production environments shall be established on State systems.

Kalkomey will provide separate development, test and production environments for all aspects of the AMS hosted solution.

3.5.10.2 Processes shall be documented and implemented to control the transfer of software from a development environment to a production environment. New hardware/software is not introduced into a production environment until it is fully tested and accepted by the State.

Kalkomey employs the use of peer-review, staged release processes to deploy and test application changes in each environment progressively until a final build is approved by both Kalkomey and NDOW. Once a final build is ready to be used in production, automated scripts are used to deploy source code and data migrations to the production environment.

3.5.10.3 Development of software and tools shall be maintained on computer systems isolated from a production environment.

As noted in section 3.3.16 [page 37] and in other locations throughout this response, members of the implementation team do not have access to production systems. All development,

training, testing, and other tasks are performed in systems isolated from the production environment.

3.5.10.4 Access to compilers, editors and other system utilities shall be removed from production systems.

Only members of Kalkomey's information technology team will have production server access. By default, these individuals will only have read access to production systems. This prevents direct edit/manipulation of files on the production server. Only system utilities necessary for the function of the application and IT-related functions are installed on production servers.

3.5.10.5 Controls shall be established to issue short-term access to development staff to correct problems with production systems allowing only necessary access.

Controls will be established to issue short-term access to development staff only when problems with production warrant necessary access.

3.5.10.6 Security requirements and controls shall be identified, incorporated in and verified throughout the planning, development, and testing phases of all software development projects. Security staff shall be included in all phases of the System Development Lifecycle (SDLC) from the requirement definitions phase through implementation phase.

As described more fully in section 3.3.16 [page 37], security requirements and controls will revolve around production systems access, internal controls built into AMS application modules, and external controls primarily supported by firewalls and other hosting components. Kalkomey's implementation team and representatives from the Kalkomey SaaS Operations team will be included in all phases of the SDLC and will be responsible for the implementation of controls to ensure a secure and responsive software and hardware solution.

Section VI – Scope of Work

4.1 VENDOR RESPONSE TO SCOPE OF WORK

Kalkomey acknowledges and accepts the requirements for the scope of work. Requested information regarding requirements described in Sections 4.4 through 4.5 is included below.

4.2 DELIVERABLE SUBMISSION AND REVIEW PROCESS

Once the detailed project plan is approved by the State, the following sections detail the process for submission and review of deliverables during the life of the project/contract.

Kalkomey understands and affirms these requirements.

4.3 PROJECT KICK OFF MEETING

A project kick off meeting shall be held with representatives from the State and the contractor after contract approval and prior to work performed.

Kalkomey affirms and accepts the items for the Project Kick Off Meeting.

4.4 PLANNING AND ADMINISTRATION

4.4.1 Objective

The objective of this task is to ensure that adequate planning and project management are dedicated to this project.

4.4.2 Activities

The awarded vendor shall:

4.4.2.1 Work with the State to provide a detailed project plan with fixed deadlines to include, but not be limited to:

A. Project schedule including tasks, activities, activity duration, sequencing and dependencies;

B. Project work plan for each deliverable, including a work breakdown structure;

C. Completion date of each task;

D. Project milestones;

E. Entrance and exit criteria for specific project milestones; and

F. Project organization including a resource plan defining roles and responsibilities for the awarded vendor, subcontractors (if applicable) and State.

Kalkomey affirms and accepts project plan requirements.

4.4.2.2 Attend and participate in all project related meetings requested by the State at a location to be determined by the State. Attendance may be in person or via teleconferencing, as mutually agreed to by the project team. These meetings shall follow an agenda mutually developed by the awarded vendor and the State. The awarded vendor shall prepare materials or briefings for these meetings as requested by the State. Minutes shall be taken and distributed by State staff within five (5) working days after the meeting. Minutes may be distributed via facsimile or email.

The agenda may include, but not be limited to:

A. Review and approval of previous meeting minutes;

B. Contractor project status;

C. State project status;

D. Contract status and issues, including resolutions;

E. Quality Assurance status;

F. New action items;

G. Outstanding action items, including resolutions;

H. Setting of next meeting date; and

I. Other business.

Kalkomey understands the possible meeting topics, and will provide any required materials or briefings. Should NDOW prefer in-person meetings, Kalkomey will appoint a representative; otherwise, Kalkomey can accommodate teleconferencing meetings.

4.4.2.3 Provide written semi-monthly project status reports delivered to State project management by the third (3rd) working day following the end of each reporting period. The format shall be approved by the State prior to issuance of the first semi-monthly project status report. The first semi-monthly report covers the reporting period from the 1st through the 15th of each month; and the second semi-monthly report covers the reporting period from the 16th through the end of the month. The status reports shall include, but not be limited to the following:

A. Overall completion status of the project in terms of the State approved project work plan and deliverable schedule;

B. Accomplishments during the period, including State staff/stakeholders interviewed, meetings held, Joint Application Development (JAD) sessions and conclusions/decisions determined;

C. Problems encountered and proposed/actual resolutions;

D. What is to be accomplished during the next reporting period;

E. Issues that need to be addressed, including contractual;

F. Quality Assurance status;

G. Updated MS Project time line showing percentage completed, tasks assigned, completed and remaining;

H. Identification of schedule slippage and strategy for resolution;

I. Contractor staff assigned and their location/schedule;

J. State resources required for activities during the next time period; and

K. Resource allocation percentages including planned versus actual by project milestone.

Kalkomey will design its semi-monthly reports to meet the specific needs required by NDOW.

4.4.2.4 Develop a comprehensive approach for handling communications with both internal and external audiences. Effective communication is critical to the development of productive relationships with concerned stakeholders. The communication plan shall include, but not be limited to: a plan for generation, documentation, storage, transmission and disposal of all project information.

Kalkomey utilizes the Project Management Body of Knowledge (PMBOK) Guide established by the Project Management Institute (PMI) to support external stakeholder interests as part of our Agile project management process. A communications plan is developed at the start of every project to ensure timely and appropriate planning, documentation, storage, transmission, retrieval, and the ultimate disposal of project information. While Kalkomey has a default approach to method, type, and when we provide formal project communication, we are adaptive to meet the unique needs of each client.

The processes outlined below represents our default communication processes. During Project Planning and Discovery (see project plan in Appendix B), Kalkomey will work in partnership with NDOW to put together a project specific communications plan based on the needs and desires of NDOW. This communications plan will be carried out by the Kalkomey Project Manager to ensure a successful engagement.

<u>Implementation Communication Process</u>
Kalkomey's Implementation Project Manager will serve as the primary liaison between NDOW and Kalkomey's Implementation Team. In addition to the Project Manager, the Kalkomey implementation team includes an Implementation Lead and representatives from the product and implementation teams, support team, and internal security and licensing subject matter experts. Our Project Manager works hand-in-hand with NDOW stakeholders and will respond to needs and changes throughout the implementation of AMS.

As an Agile organization, Kalkomey's implementation process is based on regular, recurring meetings based on the availability and time constraints of NDOW team members. In each meeting, Kalkomey's Implementation Lead will demonstrate a set of capabilities within

Kalkomey's AMS and ask questions related to configuration to learn more about NDOW's preferences. During the meetings, the team will also demonstrate tasks completed since the last meeting and discuss commitments for the upcoming period. After each meeting, the Kalkomey Project Manager will provide a status document outlining what accomplishments and tasks were completed in the previous period and what work is to be completed before the next meeting. Kalkomey's Project Manager will compile the status reports from these meetings into a formal semi-monthly project status report to be delivered to NDOW Project Management by the third (3rd) working day following the end of each reporting period.

Through these regular meetings, Kalkomey will develop a deep understanding and perform constant review of NDOWS needs and current processes so we can construct the best configuration to ensure a smooth transition from NDOW's current processes to our systems. We also use these meetings to educate NDOW stakeholders on every facet of our system. This allows stakeholders to fully maximize the potential of AMS. Between meetings, Kalkomey stays in contact with key NDOW personnel through the Kalkomey Implementation Lead to answer questions and clarify requirements.

Operational (Post go-live) Communication Process

Once AMS licensing is live, Kalkomey's partnership with NDOW will continue. The Kalkomey Account Manager assigned to work with NDOW will act as the single point of contact between Kalkomey and NDOW and will have overall responsibility for the relationship with NDOW under the contract. The Account Manager will be accountable to NDOW for Kalkomey's performance under the contract and will ensure that all calendar events and activities in the Project Plan are accomplished on time and in a satisfactory manner. Kalkomey anticipates providing a Performance Management Plan as a part of each semi-monthly update that will include, and is not limited to, the following regular deliverables:

- ***reports and notices such as usage metrics;***
- ***system load and scale metrics;***
- ***License Agent and NDOW staff service support summaries; and***
- ***sales reports.***

The Account Manager is always available by phone, email, or text should any needs arise from NDOW. As new system versions and functionality become available, Kalkomey's Account Manager will notify NDOW of the upcoming releases and work with NDOW should they choose to adopt the available updates. The Account Manager will also be responsible for alerting NDOW of any system maintenance that may need to be performed.

Incident Response Communication Process

Should Kalkomey identify any issues or experience interruptions in service, Kalkomey's operations team will prepare incident reports and the Account Manager will notify NDOW immediately and work towards resolution.

Kalkomey has a standard Incident Response Plan that calls for the executive management team to be notified of any confirmed or suspected incident. The executive management team assists in the response planning, correction, and communication of any issue and the resolution. If a service interruption of core functionality is experienced, Kalkomey will notify

subscribers, follow up with an action plan, and notify of subscribers of the final resolution. The Performance Management Plan provided to NDOW will include details of Kalkomey's incident management plan that will be updated based on NDOW needs and requirements as identified during the implementation of Kalkomey services.

4.4.2.5 Develop a risk management plan to ensure that risks are identified, planned for, analyzed, communicated and acted upon effectively.

Kalkomey will develop a Risk Management Plan unique to our engagement with NDOW. A default Risk Management Plan is maintained as part of our process and is designed to help identify risk events for a project, perform analysis of the risk impact (risk exposure and loss size), and determine what mitigating efforts should be put in place to remove or reduce the risk. When a risk event can't be completely eliminated, Kalkomey identifies the probability of exposure and a contingent response should the risk materialize.

Kalkomey has identified the following common risk events in many projects of this type. While we enter a project expecting low probability of occurrence with these risks, we've already begun taking actions to mitigate our risk exposure.

<u>Potential Risk Events</u>

- ***RISK 1: Availability of NDOW Staff – Kalkomey is aware that external stakeholders sometimes find demands on their time as well as other commitments that force a project to take a lower priority.***
    - ***MITIGATION STRAGEGY 1 – Kalkomey mitigates this risk through our iterative Agile process so that no significant time passes between formal meetings with stakeholders, preventing delayed decision points from becoming significant. Even so, security measures are in place in case these external demands on NDOW resources threaten the project.***

- ***RISK 2: Historic Data / Data Import – Source and historic data may come from multiple sources and may not be available in a consistent format.***

    - ***MITIGATION STRATEGY 2 – Kalkomey has developed tools and strategies for importing, cleaning, and merging data from multiple sources. We will utilize existing tools and systems to manage source and historic data.***

<u>Potential Major Risk Events</u>

- ***MAJOR RISK 1 – Loss of key personnel during development cycle.***
    - ***MAJOR MITIGATION STRATEGY 1 – Multiple leadership individuals are knowledgeable and capable of fulfilling duties performed by other leadership members. Development of AMS is performed by a multiple-member team to ensure each aspect of the system is understood by several individuals to prevent knowledge loss with the loss of a key developer.***

- ***MAJOR RISK 2 – Incomplete or failed data exports from previous licensing system prevent go-live***
    - ***MAJOR MITIGATION STRATEGY 2 – The Kalkomey operations and product implementation teams are experienced with most operating systems and database systems and can perform data extraction from a previous vendor's database backup, if needed.***

4.4.2.6 Develop a quality assurance plan including, but not limited to, the methodology for maintaining quality of the code, workmanship, project schedules and subcontractor(s) activities.

Kalkomey will develop a Quality Assurance Plan for NDOW's approval. Processes for the methodology for maintaining quality of code, workmanship, project schedules, and user activities are already well documented and in practice for AMS.

AMS is a SaaS product that has full-time, dedicated teams of designers, developers, testers, and product owners continually adding functionality and improving performance. Kalkomey has the following processes and mechanisms, such as automated tests, automated deployment, and formal testing procedures, in place to ensure a high-quality product through every release:

- ***Every change made by Kalkomey development is committed to a new branch in a central source code repository and automated regression test scripts are run to ensure that no defects have been added.***
- ***Once these tests are successful, the branch can be merged into a release candidate branch and deployed to an internal QA environment, where more automated tests are executed.***
- ***After those are completed, Kalkomey's testing team performs a full suite of manual tests. This release candidate branch can then be deployed, using automated deployment scripts, to the UAT environment for client review and additional testing.***
- ***Once NDOW approves the release, a production release is planned and scheduled. The updates are not available to the public until the production release***
- ***The release may then be deployed to production and training environments.***
- ***A training environment may be updated as needed before a production deploy to ensure seamless integration.***

<u>Quality Assurance Environment</u>

Kalkomey documents every configuration selection and implements configuration changes in non-production environments for traceability, testing, and verification before the changes are deployed to the production system.

Kalkomey uses fully automated system deployment, including data migrations for schema changes. All environments are provisioned and configured using automated systems, allowing

us to have materially identical configurations across all environments. This automated system is key to supporting Kalkomey's Business Continuity and Disaster Recovery plans (ensuring a duplicate environment is always available), and allows Kalkomey to scale the production environment at times of high demand. Kalkomey's SaaS Operations team is also able to provide additional capacity at a moment's notice. When it's time to transition the system into production, Kalkomey will utilize this tested and proven automated process to provision, deploy, and spin up the production environment.

<u>Safeguards</u>

All non-production systems require users to possess a server passcode to access the system. Before a non-production system may be accessed in any way, an authentication form is presented. Users wishing to access the non-production system must enter a valid passcode to gain access to the website. This passcode is not the same as an individual's username and password. Once the passcode has been provided, access to the server is granted and the system will act in exactly the same fashion as the production system. Users who enter the server passcode become authorized anonymous users. Users will then be able to sign in or register a new account as one might do on the production site.

Using a fully automated deployment process also provides a secure method for managing each environment, allowing for a separation of responsibilities such that only approved staff have access to production systems. While every Kalkomey employee is trusted and background-checked, it's a best practice to secure production environments so that only personnel approved through documented processes have any access to read or change production data or configurations.

> 4.4.2.7 Develop a Change Management Plan and Control Procedures and present it to the State for acceptance. This plan shall be used by the vendor and the State in the design, specification, construction, implementation and support of the system.

Kalkomey's Project Manager will develop and present a change management plan to the NDOW for acceptance.

Kalkomey does defect and feature management using enterprise software management solution designed to support Agile projects. Issues, defects, and feature enhancements requests (called "stories") related to any Kalkomey solution or process are entered into the software management solution and prioritized by Product Owners.

Every application change starts with a story in the software management solution. Each story must include business requirements, acceptance criteria, and test plans. Once approved and prioritized, stories are assigned to an Agile team for implementation.

All stories are organized based on priority/business value. Feature enhancement requests needing immediate attention may be addressed as change requests for an ongoing project;

other requests (such as "nice to have" items) may be identified as useful for all AMS subscribers and become part of the product roadmap at no cost to any single subscriber of AMS.

Once a story is completed and thoroughly tested, whether through Incident Response procedures, non-production defect management, or through our regular release cycle, the Kalkomey Project Manager (during implementation) or the Kalkomey Account Manager (post-implementation) will coordinate with NDOW stakeholders to schedule a maintenance window should any downtime be required for deployment.

In the unlikely event that a system defect impacts production business processes, the defect will be given urgent priority and is subject to Kalkomey's incident response plan (see section 4.4.2.4 [page 107]). Defects in non-production systems are prioritized in coordination between NDOW and the Kalkomey Project Manager and addressed in the next upcoming scheduled release as appropriate.

> 4.4.2.8 Develop a Knowledge Transfer Plan, present the plan to the State, execute the plan and obtain State acceptance before and after the plan is executed. The plan shall include sufficient time and resources to accomplish a full transfer of knowledge to assure that the State can operate the system independently and obtain timely and effective support from the vendor.

As a part of Project Discovery and Planning, Kalkomey's Project Manager will develop a Knowledge Transfer Plan to be accepted by NDOW and executed on throughout the life of the contract. Although Kalkomey will develop a Knowledge Transfer Plan specific to the requirements of NDOW, we already have processes and procedures in place to ensure a smooth knowledge transfer process.

Kalkomey maintains redundancy and extra capacity on our teams and among subject matter experts such that changes in staff will not diminish our capabilities to support our clients. Team members rotate between product teams to develop a deep understanding of all our systems and to apply learning from various areas of the business, helping Kalkomey develop the best data and process management in the industry.

Kalkomey provides formal and recorded training to help our clients maintain internal systems expertise. As NDOW or Sales Agent staff members are added or change roles, Kalkomey is prepared to provide training and knowledge transfer to help ease on-boarding and ramp-up time. Additionally, Kalkomey's training resources will be available 24/7/365.

> 4.4.2.9 The State shall perform a Post Implementation Evaluation Review (PIER) approximately six (6) months after full implementation and State acceptance of all deliverables. The awarded vendor's Project Manager shall be required to participate on site for a period of not to exceed three (3) days.

Kalkomey understands and affirms the requirements for a Post Implementation Evaluation Review (PIER) to take place approximately six (6) months after full implementation and NDOW acceptance of all deliverables. Kalkomey is committed to having the Project Manager and any other required resources available on site with NDOW for the Post Implementation Evaluation Review.

4.5 Calendar of Activities

4.5.1 Objective

The objective of this task is to inform vendors of the calendar of events so that vendors may accurately plan implementation.

Kalkomey acknowledges the calendar of events. This calendar has been used as the foundation of Kalkomey's project plan, available for review in **Appendix B.**

4.5.2 Activities

Kalkomey acknowledges the dates, responsible parties, and calendar events for activities numbered 4.5.2.1 through 4.5.2.75. All activities listed have been included in the proposed Project Plan. Kalkomey affirms that, upon contract award, Kalkomey will work with NDOW on all listed activities and will meet all scheduled "go-lives."

Section VII – Company Background and References

5.1 VENDOR INFORMATION

5.1.1.

Vendors shall provide a company profile in the table format below.

Question	Response
Company name:	***Kalkomey Enterprises, LLC***
Ownership (sole proprietor, partnership, etc.):	***LLC Partnership***
State of incorporation:	***Texas***
Date of incorporation:	***Jan. 1, 1995***
# of years in business:	***22***
List of top officers:	***Jason Alexander, CEO;*** ***Howard Rouse, CFO;*** ***Mitch Strobl, VP of Agency Relations;*** ***Adonis Bitar, VP of Professional Services;*** ***Scott Bonner, Director of Strategy;*** ***Ray St. Germain, VP of Sales;*** ***Edward Cossette, VP of E-Learning***
Location of company headquarters:	***Dallas, TX***
Location(s) of the office that shall provide the services described in this RFP:	***Dallas, TX***
Number of employees locally with the expertise to support the requirements identified in this RFP:	***Kalkomey does not currently have staff in Nevada, but will provide local staff if desired.***
Number of employees nationally with the expertise to support the requirements in this RFP:	***58***
Location(s) from which employees shall be assigned for this project:	***Dallas, TX***

5.1.2

Please be advised, pursuant to NRS 80.010, a corporation organized pursuant to the laws of another state shall register with the State of Nevada, Secretary of State's Office as a foreign corporation before a contract can be executed between the State of Nevada and the awarded vendor, unless specifically exempted by NRS 80.015.

Kalkomey has registered with the Nevada Secretary of State. At the time of this submission, the application was pending.

5.1.3

The selected vendor, prior to doing business in the State of Nevada, shall be appropriately licensed by the State of Nevada, Secretary of State's Office pursuant to NRS76. Information regarding the Nevada Business License can be located at http://nvsos.gov.

Question	Response
Nevada Business License Number:	***See below***
Legal Entity Name:	***Kalkomey Enterprises, LLC***

Is "Legal Entity Name" the same name as vendor is doing business as?

Yes	***X***	No	

If "No", provide explanation.

Kalkomey has initiated the Nevada Business License process with the Nevada Secretary of State; the application is pending.

5.1.4

Vendors are cautioned that some services may contain licensing requirement(s). Vendors shall be proactive in verification of these requirements prior to proposal submittal. Proposals that do not contain the requisite licensure may be deemed non-responsive.

Kalkomey has initiated the Nevada Business License process with the Nevada Secretary of State; the application is pending.

5.1.5

Has the vendor ever been engaged under contract by any State of Nevada agency?

Yes	***X***	No	

If "Yes", complete the following table for each State agency for whom the work was performed. Table can be duplicated for each contract being identified.

Question	Response
Name of State agency:	***Nevada Department of Wildlife***

Question	Response
State agency contact name:	***Chris Vasey and Edwin Lyngar***
Dates when services were performed:	***2005 to present***
Type of duties performed:	***Boat and hunter education printed materials including teaching aids; online courses for boat, hunter, and bowhunter education***
Total dollar value of the contract:	***$86,350 annually***

5.1.6

Are you now or have you been within the last two (2) years an employee of the State of Nevada, or any of its agencies, departments, or divisions?

Yes		No	***X***

If "Yes", please explain when the employee is planning to render services, while on annual leave, compensatory time, or on their own time?

If you employ (a) any person who is a current employee of an agency of the State of Nevada, or (b) any person who has been an employee of an agency of the State of Nevada within the past two (2) years, and if such person shall be performing or producing the services which you shall be contracted to provide under this contract, you shall disclose the identity of each such person in your response to this RFP, and specify the services that each person shall be expected to perform.

Kalkomey does not employ a current or past employee of the State of Nevada.

5.1.7

Disclosure of any significant prior or ongoing contract failures, contract breaches, civil or criminal litigation in which the vendor has been alleged to be liable or held liable in a matter involving a contract with the State of Nevada or any other governmental entity. Any pending claim or litigation occurring within the past six (6) years which may adversely affect the vendor's ability to perform or fulfill its obligations if a contract is awarded as a result of this RFP shall also be disclosed.

Does any of the above apply to your company?

Yes		No	***X***

Kalkomey has not experienced any contract failures, breaches, civil or criminal litigation involving a contract with the State of Nevada or any other governmental entity.

5.1.8

Vendors shall review and provide if awarded a contract the insurance requirements as specified in ***Attachment D, Insurance Schedule for RFP 3432.***

Kalkomey has read and understands the insurance requirements listed in* Attachment D, Insurance Schedule *and will ensure it has sufficient insurance coverage.

5.1.9

Company background/history and why vendor is qualified to provide the services described in this RFP. Limit response to no more than five (5) pages.

Since its founding 22 years ago, Kalkomey Enterprises, LLC has been solely dedicated to providing outstanding service and solutions in the fields of outdoor recreation and government process and data management.

Kalkomey has extensive experience in eCommerce systems, having provided online education and data management solutions for subscribers since 1995. More than 8 million customers have purchased products and services online through eCommerce systems developed, managed, and hosted by Kalkomey, including online education, event registration, certification cards, ebooks, and education materials. Kalkomey maintains certification by the Payment Card Industry (PCI) to demonstrate Kalkomey's secure handling of end users' credit card and personal data.

Due to a reputation for delivering top-quality products and services on time and on budget, our company has flourished, employing more than 50 designers, editors, user experience professionals, application developers, project managers, information technology administrators, and customer service staff at our office in Dallas, Texas, USA.

5.1.10

Provide a brief description of the length of time vendor has been providing services described in this RFP to the public and/or private sector.

Kalkomey has been in continuous operation as an organization serving state agency customers since 1995 when we published our first boating safety home-study course for Texas Parks and Wildlife. Due to our reputation for quality products, white-glove customer service, robust process and data management solutions and a proven track record of securely handling confidential customer and student data, Kalkomey grew to serve government recreation agencies in all 50 states and now provides products, services and solutions for more than 200 government agencies, associations and organizations in the U.S., Canada, Mexico, Puerto Rico, New Zealand, and more.

The implementation team that will work with NDOW has more than 20 years of experience in the development, support and implementation of license automation systems. Our experience has provided a deep understanding of the products and services needed by NDOW.

Every employee is dedicated to high-quality work, because they know their work saves lives.

5.1.11

Financial information and documentation to be included in accordance with ***Section 11.5, Part III – Confidential Financial Information***.

5.1.11.1 Dun and Bradstreet Number
5.1.11.2 Federal Tax Identification Number

35.1.11.3 The last two (2) years and current year interim:

A. Profit and Loss Statement
B. Balance Statement

This information has been included in* Part III – Confidential Financial Information *in accordance with the solicitation requirements.

5.2 SUBCONTRACTOR INFORMATION

Subcontractors are defined as a third party, not directly employed by the contractor, who shall provide services identified in this RFP. This does not include third parties who provide support or incidental services to the contractor.

Third-party subcontractors are not included as part of Kalkomey's plan for NDOW.

5.2.1

Does this proposal include the use of subcontractors?

Yes		No	***X***

If "Yes", vendor shall:

5.2.1.1 Identify specific subcontractors and the specific requirements of this RFP for which each proposed subcontractor shall perform services.

5.2.1.2 If any tasks are to be completed by subcontractor(s), vendors shall:

A. Describe how the work of any subcontractor(s) shall be supervised, channels of communication shall be maintained and compliance with contract terms assured; and

B. Describe your previous experience with subcontractor(s).

5.2.1.3 Provide the same information for any proposed subcontractors as requested in Section 5.1, Vendor Information.

5.2.1.4 Business references as specified in Section 5.3, Business References shall be provided for any proposed subcontractors.

5.2.1.5 Provide the same information for any proposed subcontractor staff as specified in Section 5.4, Vendor Staff Skills and Experience Required.

5.2.1.6 Staff resumes for any proposed subcontractors as specified in Section 5.5, Vendor Staff Resumes.

5.2.1.7 Vendor shall not allow any subcontractor to commence work until all insurance required of the subcontractor is provided to the vendor.

5.2.1.8 Vendor shall notify the using agency of the intended use of any subcontractors not identified within their original proposal and provide the information originally requested in the RFP in Section 5.2, Subcontractor Information. The vendor shall receive agency approval prior to subcontractor commencing work.

5.2.1.9 All subcontractor employees assigned to the project shall be authorized to work in this country.

Third-party subcontractors are not included as part of Kalkomey's plan for NDOW.

5.3 BUSINESS REFERENCES

5.3.1

Vendors shall provide a minimum of five (5) business references from similar projects performed for private and/or public sector clients within the last five (5) years.

Kalkomey submits the following business references:

- ***Capt. Tim Dunleavy, New Hampshire Department of Safety***
- ***Megan Wisecup, Iowa Department of Natural Resources***
- ***Lt. Warren (Ed) Goodson, West Virginia Division of Natural Resources***
- ***Lt. Larry Morrison, Indiana Department of Natural Resources***
- ***Stacey Brown, Virginia Department of Game and Inland Fisheries***

5.3.2

Business references shall show a proven ability of:

5.3.2.1 Developing, designing, implementing and/or transferring a large scale application with public and/or private sectors;
5.3.2.2 Developing and executing a comprehensive application test plan;
5.3.2.3 Developing and implementing a comprehensive training plan;
5.3.2.4 Experience with comprehensive project management;
5.3.2.5 Experience with cultural change management;
5.3.2.6 Experience with managing subcontractors; and
5.3.2.7 Development and execution of a comprehensive project management plan.

Kalkomey acknowledges and affirms these requirements.

5.3.3

Vendors shall submit Attachment E, Reference Questionnaire to their business references.

Kalkomey has submitted* Attachment E, Reference Questionnaire*, to all business references listed above.

5.3.4

It is the vendor's responsibility to ensure that completed forms are received by the Purchasing Division on or before the deadline as specified in Section 9, RFP Timeline for inclusion in the evaluation process. Reference Questionnaires not received, or not complete, may adversely affect the vendor's score in the evaluation process.

Kalkomey acknowledges and affirms this requirement.

5.3.5

The State reserves the right to contact and verify any and all references listed regarding the quality and degree of satisfaction for such performance.

Kalkomey acknowledges and affirms this requirement.

5.4 VENDOR STAFF SKILLS AND EXPERIENCE REQUIRED

The vendor shall provide qualified personnel to perform the work necessary to accomplish the tasks defined in Section 4, Scope of Work. The State shall approve all awarded vendor resources. The State reserves the right to require the removal of any member of the awarded vendor's staff from the project.

Kalkomey acknowledges and affirms NDOW's requirements regarding Kalkomey's staff.

5.4.1 Project Manager Qualifications

The Project Manager assigned by the awarded vendor to the engagement shall have:

5.4.1.1 A minimum of four (4) years of project management experience, within the last ten (10) years, in government or the private sector;

5.4.1.2 A minimum of three (3) years of experience, within the last ten (10) years, managing systems architecture and development projects;

5.4.1.3 A minimum of two (2) years of experience with systems analysis and design;

5.4.1.4 A minimum of two (2) years of experience with systems development and implementation;

5.4.1.5 Completed at least one (1) project within the past three (3) years that involved designing business processes and procedures and developing new systems to support the new business processes; and

5.4.1.6 Completed at least one (1) project within the past three (3) years that involved communication and coordination of activities with external stakeholders.

NDOW's Project Manager will be Adonis Bitar, Kalkomey's Vice President of Professional services. Adonis has more than 15 years of software project management experience. He has spent his entire 20-year career in software project management, on projects in various capacities: developer, system architect, development manager, project manager, business analyst, Scrum Master, and product owner.

Adonis also has 20 years of experience with systems analysis and design. He joined Kalkomey in 2012 as Director of Development and was hired to lead the design, development, and implementation of Certification Manager, a Kalkomey product which serves as the permanent repository of all a partner agency's safety certification standards.

Adonis has two decades of experience that include systems development and implementation. Immediately prior to joining Kalkomey, Adonis ran a professional services organization engaged in the implementation of support communities. In that role, he assisted clients with process and document management. At Kalkomey, Adonis has lead the implementations of Certification Manager and Event Manager products for more than a dozen state agencies.

Adonis lead the implementation of Certification Manager for the Pennsylvania Game Commission in 2014. In this implementation, Adonis worked with Pennsylvania to import approximately 1.4 million certification records and defined business processes for importing and creating certification records for all Pennsylvania hunting students who complete a safety

certification online, in-person or via sworn affidavit. Kalkomey established processes for data entry, peer review, and archival of documentation related to all record additions and changes. Kalkomey also established business processes for delivery of replacement cards, handling returned cards, and addressing various customer service issues. Through this project, Kalkomey took over all data management and customer support processes related to hunter safety certification for Pennsylvania.

Most of the projects Adonis has completed at Kalkomey involved the communication and coordination of activities with external stakeholders. One such project was the implementation of Event Manager with the California Department of Fish and Wildlife in late 2015. Adonis coordinated with six regional coordinators, various administrative staff, and agency leadership to gather requirements, perform process design, provide system configuration, build and test import and export processes, and several other required tasks. To complete the training and implementation process for this product, Adonis and two other Kalkomey team members lead four regional training sessions where almost 1,000 volunteer instructors were introduced to the use of and processes related to the new system.

5.4.2 Technical Lead Qualifications

The technical lead assigned by the awarded vendor shall have:

5.4.2.1 A minimum of four (4) years of experience in systems development, design and programming of automated systems;

5.4.2.2 A minimum of four (4) years of experience developing systems using a relational database;

5.4.2.3 A minimum of two (2) years of experience developing Internet applications;

5.4.2.4 A minimum of two (2) years of experience managing systems architecture and systems development projects; and

5.4.2.5 Completed at least (1) project within the past three (3) years that involved conducting a pilot implementation and determining the readiness of the system production.

Kalkomey's Technical Lead for NDOW will be Scott Bonner, Kalkomey's Director of Strategy. Scott has worked on designing and building Hunt and Fish License Automation systems since 1999. He designed and developed relational databases for more than 15 Hunt and Fish License Automation projects in both Oracle and SQL Server. He also designed and developed more than 20 unique Hunt and Fish license sales PHP websites for agencies around the country.

Scott has been responsible for the design and development of complete system architecture for 6 separate implementations, and supervised the web and point of sale architecture for more than 20 additional unique implementations. Scott joined Kalkomey in 2016. At Kalkomey, Scott oversaw the pilot implementation and project readiness for Kalkomey's Subscription Manager (agency sales marketplace) and Kalkomey's licensing portion of AMS.

5.4.3 Implementation Lead Qualifications

The implementation lead assigned by the awarded vendor shall have:

5.4.3.1 A minimum of three (3) years of experience managing the implementation of new business processes and procedures and new automated systems to support the new business processes;

5.4.3.2 A minimum of two (2) years of experience managing the implementation of Internet applications;

5.4.3.3 Completed at least one (1) project within the past three (3) years that involved the procurement, receipt and make ready of computer equipment and software; and

5.4.3.4 Completed at least one (1) project within the past three (3) years that involved a phased implementation where systems activities were coordinated between the old and new system environments.

Kalkomey's Implementation Lead for Nevada will be Zack Lambert. Zack has ample experience related to implementation of new business processes and procedures and new automated systems, including the implementation of Internet applications. He has 4 years of experience between Kalkomey and Active Network; all of Zack's experience is in the Licensing/Registration industry.

In the past three years, he completed a project that involved the procurement, receipt, and make ready of computer equipment and software: Chronic Wasting Disease Reporting System for Alberta Environment and Sustainable Resource Development (go-live October 2014).

He also completed a project involving a phased implementation where systems activities were coordinated between old and new system environments: Subscription Manager Project for Pennsylvania Game Commission (go-live April 2017).

5.4.4 Individual Team Member Qualifications

Each member of the awarded vendor's project team shall meet at least one (1) of the qualifications below. In addition, the aggregation of the individual qualifications of the

team members shall cumulatively meet all of the following requirements. These requirements are:

The NDOW project team will include no fewer than 10 dedicated developers and development leads, designers, IT managers, quality assurance professionals, analysts, and implementation specialists. This proposed team is in addition to the named staff listed in section 5.5.

Listed below is the count of team members currently considered for this project who meet each requirement.

5.4.4.1 Two (2) years of experience within the last five (5) years analyzing and modeling business processes;

9 of 10 team members meet this requirement.

5.4.4.2 Two (2) years of experience within the last five (5) years designing online interfaces using the tools proposed for this project;

2 of 10 team members meet this requirement.

5.4.4.3 Three (3) years of experience within the last five (5) years developing systems using the relational database proposed for this project;

9 of 10 team members meet this requirement.

5.4.4.4 Three (3) years of experience within the last five (5) years developing system to system interfaces;

7 of 10 team members meet this requirement.

5.4.4.5 Three (3) years of experience within the last five years developing secure Internet applications using the tools proposed for this project; and

9 of 10 team members meet this requirement.

5.4.4.6 Completed at least one (1) project within the past three (3) years that involved development of course outlines and materials and organizing and conducting classes to support the implementation of new business processes and systems.

1 team member from Kalkomey's Agency Support team meets this requirement. The Agency Support team is integral to the success of all Kalkomey's product launches, including for NDOW.

Section VIII – Attachment H – Proposed Staff Resume

5.5 VENDOR STAFF RESUMES

A resume shall be completed for each proposed individual on the State format provided in ***Attachment H, Proposed Staff Resume***, including identification of key personnel per ***Section 13.3.19, Key Personnel.***

Proposed staff resumes are included on the following pages.

PROPOSED STAFF RESUME FOR RFP 3432

A resume must be completed for all proposed prime contractor staff and proposed subcontractor staff.

Company Name Submitting Proposal:	***Kalkomey Enterprises, LLC***

Check the appropriate box if the proposed individual is prime contractor staff or subcontractor staff.			
Contractor:	***X***	**Subcontractor:**	

The following information requested pertains to the individual being proposed for this project.			
Name:	***Adonis Bitar***	**Key Personnel: (Yes/No)**	***Yes***
Classification; i.e., Project Manager, Implementation Lead, etc.	***Project Manager***		
# of Years in Classification:	***15***	**# of Years with Firm:**	***5***

BRIEF SUMMARY OF PROFESSIONAL EXPERIENCE

Information should include a brief summary of the proposed individual's professional experience.

Adonis has built and led software development teams at various companies, including Perot Systems, Software Spectrum, and Telligent. Adonis excels at business process design, issue resolution and identifying alternative solutions to help resolve roadblocks. These skills have been refined through formal education as well as a broad base of experience as a software developer, business analyst, pre-sales technician, project manager, product owner, and ScrumMaster.

RELEVANT EXPERIENCE

Information required should include: timeframe, company name, company location, position title held during the term of the project/position and software/hardware used during the project engagement.

Kalkomey Enterprises, LLC **Nov. 2012 – present**
Dallas, TX
VP of Professional Services (Feb. 2016 – Present)

- Responsible for all customer support and the implementation of support services for all products
- Acting as project manager, business analyst, product innovator, customer advocate, trainer, and mentor

Director of Development & Technical Support (Nov. 2012 – Feb. 2016)

- Oversaw development of new data management solutions
- Reduced system complexity by deprecating and consolidating applications and executing against technology roadmap

Telligent Systems, Inc. **2005 – 2012**
Dallas, TX
Product Manager

- Identified and engaged with technology and application partners to provide support and help win business. Provided partners with insight into Telligent's product roadmaps and gathered feedback to drive product requirements that enabled partners to deliver "value-adds" on Telligent platform.
- Worked to complete and maintain a gap/whitespace analysis based on core use cases and made buy/build/partner recommendations on how to fill gaps.

- Hosted regular partner briefings and managed integration projects with strategic partners.
- Directly supported product sales through product demonstrations, presentation of integration capabilities, product roadmap and implementation case studies and success stories.

Practice Director, Professional Services

- Responsible for the success of implementations for key clients, including Microsoft, Dell, Citibank, Intel, General Mills and many more.
- Performed account and implementation management from finding opportunities and selling services projects to gathering requirements, planning implementations, leading solution design and managing development.
- Leveraged in-depth knowledge of Telligent products to improve project management role by converting team from requirements-focused project planning to focus on solutions and engagement.
- Built process for and led estimation efforts for a significant number of Telligent Professional Services projects. Produced a high degree of confidence in Services estimates.
- Participated in annual technical team hackathon, a 24-hour software development competition for product team developers. While no longer serving in a development role, Adonis placed 4th in the competition 4 straight years while competing against a dozen or more seasoned full-time product team and professional services developers.

Director of Sales Engineering

- Formed Telligent's first Technical Presales Team
- Demonstrated strong presentation and communication skills through speaking engagements at conferences and product demonstrations for current and prospective Telligent Clients. Played a significant role in wins of Dell, TI, Mary Kay, Game Informer, P&G and more.
- Created a weekly video series called Tellicast for company and product evangelism. Produced 30+ videos with announcements, employee interviews, product releases, and company events.

Software Spectrum **1999 – 2005**
Dallas, TX
Platform Development Manager

- Recognized key leader and top performer through numerous accolades including Newcomer of the Year, North American Employee of the Month and IT Employee of the Month.
- Lead important and transformative projects including Web eCommerce redesign and iCARE (inside sales order entry and sales reporting system).
- Advanced to iCARE product owner. Worked with business to identify, prioritize and scope enhancements for improvements in product efficiency, cost savings and greater visibility into progress toward corporate sales goals.

Perot Systems **1997 – 1999**
Dallas, TX
Developer, Analyst, Application Manager

- Owned and lead innovations to operations management application in datacenter supporting claims reporting for a major health care client.

EDUCATION

Information required should include: institution name, city, state, degree and/or Achievement and date completed/received.

The University of Texas at Dallas, Dallas, TX

- Master of Computer Science in Software Engineering 2001

Texas A&M University, College Station, TX

- Bachelor of Business Administration in Information Systems 1997

CERTIFICATIONS

Information required should include: type of certification and date completed/received.

Certified ScrumMaster 2013 - 2015

HARDWARE/SOFTWARE SUMMARY (BE SPECIFIC)

Information required should include: environments, hardware, software, tools and databases.

Software: Microsoft Windows, MacOS, Unix, Microsoft Visual Studio, C#, ASP.NET, Ruby on Rails, PHP, Javascript, Microsoft SQL Server, MySQL, Microsoft Office Suite, Microsoft Project

REFERENCES

A minimum of three (3) references are required, including name, phone number, fax number and email address.

Wayde Cooperider, Hunter Education Administrator
Montana Fish, Wildlife and Parks
Phone: 406-444-9947
Fax: 406-443-2561
Email: WaCooperider@mt.gov

Brenda Beckley, Hunter Education & Recruitment Program Manager
Idaho Department of Fish and Game
Phone: 208-287-2884
Fax: None available
E-mail: Brenda.beckley@idfg.idaho.gov

Denise Raum, Hunter Education Administrator
Arizona Game and Fish Department
Phone: 623-236-7567
Fax: None available
E-mail: DRaum@azgfd.gov

PROPOSED STAFF RESUME FOR RFP 3432

A resume must be completed for all proposed prime contractor staff and proposed subcontractor staff.

Company Name Submitting Proposal:	***Kalkomey Enterprises, LLC***

Check the appropriate box if the proposed individual is prime contractor staff or subcontractor staff.			
Contractor:	***X***	**Subcontractor:**	

The following information requested pertains to the individual being proposed for this project.			
Name:	***Scott Bonner***	**Key Personnel: (Yes/No)**	***Yes***
Classification; i.e., Project Manager, Implementation Lead, etc.	***Technical Lead***		
# of Years in Classification:	***4***	**# of Years with Firm:**	***1***

BRIEF SUMMARY OF PROFESSIONAL EXPERIENCE

Information should include a brief summary of the proposed individual's professional experience.

As Kalkomey's Director of Strategy, Scott brings 18 years of hunt and fish license automation experience to our building of the latest and greatest technology offering in the industry, AMS. Scott has designed and implemented 30 unique hunt and fish license sales solutions for 23 distinct customers in the outdoor license automation industry. Scott's understanding of the unique business requirements for outdoor recreation, along with the complexity of rules and regulations that come along with them, stems from his time as the design manager for Automated License Systems, and then later as the technical lead for the Active Network, and now for over a year planning the AMS product.

RELEVANT EXPERIENCE

Information required should include: timeframe, company name, company location, position title held during the term of the project/position and software/hardware used during the project engagement.

Kalkomey Enterprises, LLC, Dallas, TX **April 2016 – Present**
Director of Strategy

Active Network, Nashville, TN **Oct. 2009 – April 2016**
Director, Technical Account Management *June 2015 – April 2016*

- Managed the Technical Account Management team
- Responsible for the day to day management of client relationships.
- Daily and weekly scheduled calls
- Troubleshooting active issues

Senior Client Technical Manager *Aug. 2013 – June 2015*

- Responsible for explaining complex technical issues and solutions to the business and client teams.
- Configuration and presentation of sales demonstrations
- Post sales onboarding support

Director of ORMS H&F Integration *Oct. 2009 – Aug. 2013*

- Responsible for taking the business requirements from all 26 H&F Active contracts and combine them into a single configurable application.

Automated License Systems **April 1999 – Oct. 2009**
Director, Customer Product Relations

- Multiple roles over 10 years with Automated License Systems

- Help Desk Support
- Internet Page Designer
- Point of Sale Designer
- Director of Product Design

EDUCATION

Information required should include: institution name, city, state, degree and/or Achievement and date completed/received.

Bakersfield Community College, Bakersfield, CA
Studied history and political science

CERTIFICATIONS

Information required should include: type of certification and date completed/received.

None

HARDWARE/SOFTWARE SUMMARY (BE SPECIFIC)

Information required should include: environments, hardware, software, tools and databases.

- Point of Sale Solutions (Including VeriFone, HP, Elo, Datamax, Zebra, Citizen, and other ancillary support equipment, like mag strip readers, bar code scanners, receipt printers, external keyboards, and pinpads)
- Paper Solutions (Including Valeron (both Direct Thermal and Thermal Transfer) and Tyvek.
- SQL Server, Oracle, PHP, Java, HTML

REFERENCES

A minimum of three (3) references are required, including name, phone number, fax number and email address.

Curtis Thornhill, Project Manager
Mississippi Department of Wildlife, Fisheries & Parks
Phone: 601-432-2028
Fax: None available
Email: curtist@mdwfp.state.ms.us

Barbara Stoff, Licensing Manager
New Jersey Division of Fish & Wildlife
Phone: 856-629-0552
Fax: None available
Email: Barbara.Stoff@dep.state.nj.us

Steve Michaels, Licensing Manager
Minnesota Department of Natural Resources
Phone: 651-335-0150
Fax: None available
Email: steve.michaels@dnr.state.mn.us

PROPOSED STAFF RESUME FOR RFP 3432

A resume must be completed for all proposed prime contractor staff and proposed subcontractor staff.

Company Name Submitting Proposal:	***Kalkomey Enterprises, LLC***

Check the appropriate box if the proposed individual is prime contractor staff or subcontractor staff.			
Contractor:	***X***	**Subcontractor:**	

The following information requested pertains to the individual being proposed for this project.			
Name:	***Zack Lambert***	**Key Personnel: (Yes/No)**	***Yes***
Classification; i.e., Project Manager, Implementation Lead, etc.	***Implementation Lead***		
# of Years in Classification:	***4***	**# of Years with Firm:**	***1***

BRIEF SUMMARY OF PROFESSIONAL EXPERIENCE

Information should include a brief summary of the proposed individual's professional experience.

As Kalkomey's Business Analyst, Zack takes point on the development of new products, such as licensing management, subscription management, and more. He prioritizes new features, serves as project manager, and documents complex business requirements. Zack is additionally Kalkomey's in-house expert on licensing and registration development, and also addresses agency customer questions. He previously worked for Active Network in a consulting role for the implementation of agency systems. Zack holds a bachelor of science degree in business administration from Birmingham Southern College.

RELEVANT EXPERIENCE

Information required should include: timeframe, company name, company location, position title held during the term of the project/position and software/hardware used during the project engagement.

Kalkomey Enterprises, LLC **May 2016 – present**
Dallas, TX

- Serves as liaison between Product Owner and Agile Implementation Team to coordinate product development efforts
- Subject matter expert on development of licensing and registration system
- Configure and implement enterprise SaaS products during customer onboarding
- Provide support for agency administrators using Kalkomey Products

Active Network **July 2013 – May 2016**
Nashville, TN
Professional Services Consultant *July 2014 – May 2016*

- Primary consulting role for the implementation of government agency systems, including data migration, product development, training, and system configuration
- Ensured that system requirements were implemented and validated in accordance with a Requirements Traceability Matrix
- Tracked requirements development with project management to ensure deliverables and high-priority requirements were addressed and released in a timely manner
- Authored Operational Support Documents to provide guidance to Account Management, Training, and Service Resolution teams to successfully manage and execute critical operational processes.
- Lead implementation consultant for migration of MDWFP big game drawing system from a state government-hosted system into the ActiveWorks Outdoors Platform.

Junior Business Systems Analyst *July 2013 – July 2014*

EDUCATION

Information required should include: institution name, city, state, degree and/or Achievement and date completed/received.

Birmingham Southern College, Birmingham, AL
Bachelor of Science in Business Administration May 2013

CERTIFICATIONS

Information required should include: type of certification and date completed/received.

Certified Scrum Master, June 2016 – June 2018
License # 00534631

HARDWARE/SOFTWARE SUMMARY (BE SPECIFIC)

Information required should include: environments, hardware, software, tools and databases.

Hardware/Software tools: Microsoft Project, JIRA, SalesForce, TargetProcess, Microsoft Report Building, Microsoft SQL Server, MySQL
Environments: Quality Assurance, User Acceptance Testing, Staging, Production in multiple systems

REFERENCES

A minimum of three (3) references are required, including name, phone number, fax number and email address.

Jason Price, Assistant Director
Mississippi Department of Wildlife, Fisheries & Parks
Phone: 601-432-2123
Fax: none available
Email: jasonp@mdwfp.state.ms.us

Matthew Weiss, Business Analyst
Saskatchewan Ministry of Environment
Phone: 306-787-0807
Fax: 306-787-9544
Email: matthew.weiss@gov.sk.ca

Doug Burt, Hunting and Shooting Sports Program Manager
Arizona Game & Fish Department
Phone: 623-236-7487
Fax: none available
Email: dburt@azgfd.gov

PROPOSED STAFF RESUME FOR RFP 3432

A resume must be completed for all proposed prime contractor staff and proposed subcontractor staff.

Company Name Submitting Proposal:	***Kalkomey Enterprises, LLC***

Check the appropriate box if the proposed individual is prime contractor staff or subcontractor staff.			
Contractor:	***X***	**Subcontractor:**	

The following information requested pertains to the individual being proposed for this project.			
Name:	***Jason Alexander***	**Key Personnel: (Yes/No)**	***No***
Classification; i.e., Project Manager, Implementation Lead, etc.	***CEO***		
# of Years in Classification:	***2***	**# of Years with Firm:**	***7***

BRIEF SUMMARY OF PROFESSIONAL EXPERIENCE

Information should include a brief summary of the proposed individual's professional experience.

Jason studied computer science at the University of North Texas before beginning his career at Mark Cuban's company, Broadcast.com. He also has experience at many other well-known names such as BlueCross BlueShield, JPMorgan Chase Bank, Match.com, and ultimately started and built his own company, Telligent. There, he built a world-class company with more than 150 employees and over $17M in revenue, and he raised more than $20M in venture capital. Jason has more than 17 years of leadership and technical experience; he is named as a co-inventor on three software patents and holds a multitude of certifications and honors throughout the industry.

RELEVANT EXPERIENCE

Information required should include: timeframe, company name, company location, position title held during the term of the project/position and software/hardware used during the project engagement.

Kalkomey Enterprises, LLC **Aug. 2012 – present**
Dallas, TX

Chief Executive Officer (Jan. 2016 – Present)

- Oversee all aspects of the company for both short- and long-term vision
- Create and execute an overall business strategy to push the company toward more aggressive growth & strategic partnership with customers
- Continue to drive and run the company with our new ownership/partners: Inverness Graham
- Established formal internal guidelines and execution towards monthly financial reporting, month-end close, and high-level Accounting needs (in the absence of a formal CFO)
- Worked with KPMG engagement teams to execute on initial audits, and tax studies
- Worked with Inverness Graham to evaluate the market for possible acquisitions, talk with existing owners/founders, work through any questions or concerns, and finalize acquisitions with industry competitors and near-in partners to help strengthen the company's position while maintaining our service-first focus to being GREAT partners to our customers and students

Chief Operations Officer / Chief Technology Officer (Dec. 2013 – Jan. 2016)

- Execution of short- and long-term Operations plans; oversaw day-to-day operations, including YOY 15%+ growth in revenue and margins
- Rebuilt and re-tooled the Implementation Team and overall Product Development process

- Executed on all previously set goals, developed new technical roadmap and direction, and review every aspect of the business to understand challenges and areas for improvement
- Lead process of taking the company to market, including:
    - Evaluating investment banks that aligned well with our vision, mission, and personalities;
    - Creating, collecting, organizing, and presenting on all due diligence data and materials throughout the process
    - Evaluating the list of prospective buyers, interviewing (and being interviewed by) to ensure the perfect fit for the company, the existing employees, and the long-term goals previously envisioned for the company
    - Pushing and finalizing the deal, helping to finalize and close the transaction

VP of Operations (Aug. 2012 – Dec. 2013)

- Evaluated business operations; identified efficiency gains
- Established the technical direction and strategy, and realigned the company on an overall roadmap and direction

VP of Engineering, ShopSavvy Inc. **Aug. 2011 – Aug. 2012**
Dallas, TX

- Responsible for hiring, building and maintaining the corporate culture not only in the original Dallas office, but also for a newly opening San Francisco office
    - Grew the team from 3 engineers to 12 engineers and 2 designers
- Introduced and implemented a Scrum Agile development process, pushing the team into 2--week sprints for all (iPhone, Android, Windows Phone 7, iPad and web) products
- Hired and built an offshore QA team in India, including setting the base test suites for the team to build from
- Managed and oversaw the prioritization of the product roadmap based on the direction of the main business stakeholders, including iPhone, Android, Windows Phone 7, iPad and our Web product
- Ported the existing ad delivery system from Ruby on Rails to .NET after we had scaling issues with traffic. After the port, the system was handling 150+ requests/second without any problems
- Set the direction for the architecture and technical standards for the company, going forward; maintaining a sound, consistent direction for an otherwise chaotic technology stack
- Created a formal reporting warehouse using Cassandra and Hadoop, building our regular reporting infrastructure and ETL jobs.
- Built a suite of web--based reports built in ASP.NET MVC and jQuery, hitting against Hive

Director of Development, Fraud Prevention, Match.com **Feb. 2010 – July 2011**
Dallas-Fort Worth, TX

- Hired to lead a newly formed department that was created through the consolidation of fraud controls from various other departments throughout the company.
- Managed a team of 6 developers, 3 fraud analysts, and 11 fraud inspectors
- Managed the fraud inspection team to try to have 24-hour coverage for fraud review and action, so as not to leave gaps for would-be fraudsters to know when we were, and weren't, at work
- With the development team, I executed a roadmap that would go on to create a large set of various fraud tools and strategies to allow the creation of queues of Match.com users to be reviewed for fraud, by our inspectors
- I worked with analysts to understand and capture the various techniques in which they employed to find fraudsters, driving those techniques into software-based solutions to better automate and scale our processes as a company
- From all of this, I created two patents to add to the company's IP portfolio, regarding fraud fighting techniques

EDUCATION

Information required should include: institution name, city, state, degree and/or Achievement and date completed/received.

1994-1998: University of North Texas, studied Computer Science

CERTIFICATIONS

Information required should include: type of certification and date completed/received.

- Certified Scrum Master
- Certified Sitecore Developer
- Microsoft Certified Application Developer
- Microsoft MVP (ASP.NET)
- 3 technology patents:
    - System, Method, and Computer-Readable Storage Medium For Identifying A Product
    - Fraud Detection Using Image Analysis
    - Fraud Detection Using Text Analysis

HARDWARE/SOFTWARE SUMMARY (BE SPECIFIC)

Information required should include: environments, hardware, software, tools and databases.

Microsoft SQL, jQuery, Ruby on Rails, cloud computing, ASP.NET MVC, Javascript, IIS, enterprise software, .NET, Perl, ASP.NET, Hadoop

REFERENCES

A minimum of three (3) references are required, including name, phone number, fax number and email address.

Wayde Cooperider, Hunter Education Administrator
Montana Fish, Wildlife and Parks
Phone: 406-444-9947
Fax: none available
Email: WaCooperider@mt.gov

Capt. Billy Downer, Hunter and Boater Education Coordinator
South Carolina Department of Natural Resources
Phone: 803-734-4491
Fax: none available
Email: downerj@dnr.sc.gov

Steve Hall, Executive Director
Texas Parks and Wildlife Department
Phone: 512-389-8140
Fax: none available
Email: steve.hall@tpwd.texas.gov

PROPOSED STAFF RESUME FOR RFP 3432

A resume must be completed for all proposed prime contractor staff and proposed subcontractor staff.

Company Name Submitting Proposal:	***Kalkomey Enterprises, LLC***

Check the appropriate box if the proposed individual is prime contractor staff or subcontractor staff.			
Contractor:	***X***	**Subcontractor:**	

The following information requested pertains to the individual being proposed for this project.			
Name:	***Mitch Strobl***	**Key Personnel: (Yes/No)**	***No***
Classification; i.e., Project Manager, Implementation Lead, etc.	***Vice President of Agency Relations***		
# of Years in Classification:	***2***	**# of Years with Firm:**	***5***

BRIEF SUMMARY OF PROFESSIONAL EXPERIENCE

Information should include a brief summary of the proposed individual's professional experience.

Mitch brings a wealth of outdoor recreational experience to the Kalkomey team; as a competitive archer and shotgun shooter, avid fisherman, and hunter, Mitch lives and breathes the outdoor lifestyle and is Kalkomey's in-house subject matter expert on all related topics. Mitch holds a degree in biology from DePauw University, which he has extensively used as a hunter. At Kalkomey, he works closely with our agency customers, ensuring Kalkomey remains the most innovative outdoor education company.

RELEVANT EXPERIENCE

Information required should include: timeframe, company name, company location, position title held during the term of the project/position and software/hardware used during the project engagement.

Kalkomey Enterprises, LLC **July 2012 – Present**
Dallas, TX
VP of Agency Relations (July 2015 – Present)

- Oversee strategic planning, marketing, sales, and agency/government relations and contracts; cultivate business opportunities
- Government contracting & business development, sales strategy, marketing, e-learning, SaaS platforms, video production

Director of Customer Relations (May 2014 – July 2015)

- Fostered state agency relations and agency initiatives; acted as customer advocate during product development

Business Development/Communications Specialist (July 2012 – May 2014)

- Worked with business development team to grow agency relations
- Developed content for social media and marketing

GE Aviation **May 2011 – May 2012**
Cincinnati, OH
HealthAhead Co-Op

Professional Outdoor Media Association **Oct. 2010 – May 2012**

Independent Contractor

- Wrote website content, created streaming video, developed webinars, operated social media and organized the organization's annual business conference.

EDUCATION

Information required should include: institution name, city, state, degree and/or Achievement and date completed/received.

DePauw University, Greencastle, IN
Bachelor of Science in Biological Sciences and Environmental Sciences May 2012

CERTIFICATIONS

Information required should include: type of certification and date completed/received.

None applicable

HARDWARE/SOFTWARE SUMMARY (BE SPECIFIC)

Information required should include: environments, hardware, software, tools and databases.

None applicable

REFERENCES

A minimum of three (3) references are required, including name, phone number, fax number and email address.

Wayde Cooperider, Hunter Education Administrator
Montana Fish, Wildlife & Parks
Phone: 406-444-9947
Fax: 406-443-2561
Email: WaCooperider@mt.gov

Larry Morrison, Outdoor Education Lieutenant
Indiana Department of Natural Resources
Phone: 812-320-8644
Fax: 812-526-8259 (must include a cover sheet with “ATTN: Larry Morrison)
Email: lmorrison@dnr.in.gov

Tristanna Bickford, Education Supervisor
Wyoming Game and Fish Department
Phone: 307-777-4542
Fax: none available
Email: tristanna.bickford@wyo.gov

PROPOSED STAFF RESUME FOR RFP 3432

A resume must be completed for all proposed prime contractor staff and proposed subcontractor staff.

Company Name Submitting Proposal:	***Kalkomey Enterprises, LLC***

Check the appropriate box if the proposed individual is prime contractor staff or subcontractor staff.			
Contractor:	***X***	**Subcontractor:**	

The following information requested pertains to the individual being proposed for this project.			
Name:	***Howard Rouse***	**Key Personnel: (Yes/No)**	***No***
Classification; i.e., Project Manager, Implementation Lead, etc.	***COO***		
# of Years in Classification:	***4***	**# of Years with Firm:**	***1***

BRIEF SUMMARY OF PROFESSIONAL EXPERIENCE

Information should include a brief summary of the proposed individual's professional experience.

Howard joined Kalkomey in 2016 to guide the company's growth and achieve operational excellence. He has a legacy of education-focused financial leadership from previous roles at Academic Partnerships and the American College of Education which he now uses to expand Kalkomey's e-learning education resources. He holds a bachelor of science in accounting from Brigham Young University and is a Certified Public Accountant.

RELEVANT EXPERIENCE

Information required should include: timeframe, company name, company location, position title held during the term of the project/position and software/hardware used during the project engagement.

Kalkomey Enterprises, LLC **June 2016 – present**
Dallas, TX

- Partner with CEO to improve operational excellence
- Building a company culture that is 100% customer-focused

Best Associates **April 2007 – June 2016**
Dallas, TX

Senior Vice President of Operations, Academic Partnerships (Nov. 2015 – June 2016)
Chief Financial Officer, American College of Education (May 2014 – June 2016)
Vice President of Operations and Reporting, Academic Partnerships (Jan. 2014 – April 2015)
Vice President of Finance, Academic Partnerships (Jan. 2013 – Dec. 2013)
Vice President of Finance and Controller, Higher Ed Holdings (April 2007 – Dec. 2013)

- Created and documented key performance metrics through which the companies are managed. Then collaborated with IT to create a data warehouse and reporting structure that allows Academic Partnerships to efficiently report and measure the metrics.
- Built forecasting models that allowed accurate and efficient projection of future financial performance
- Lead weekly cross-functional coordination meetings to ensure performance goals were met and any obstacles to success were identified and resolved in a timely manner. Company performance goals were consistently met over a five-year period.
- Lead the sales analysis process, which reviewed potential sales opportunities to ensure that new customers met minimum performance expectations. During this time the strategic customer base grew

from 3 to more than 35, students served grew to more than 33,000 and revenue grew from $.5M to more than $100M.

- Created a robust, 5-year strategic financial model in anticipation of a possible equity event. This model is subject to full due diligence by potential equity partners and is the foundation of a formal CIP prepared by investment bankers.

Zix Corporation **Jan. 2005 – April 2007**
Dallas, TX
Controller *Nov. 2006 – April 2007*
Assistant Controller *Jan. 2005 – Oct. 2006*
Nortel Networks **April 1997 – Dec. 2004**
Dallas TX
Senior Manager, Wireless Americas Bid Finance *July 2001 – Dec. 2004*
Senior Manager, Service Provider Sales Finance *Jan. 2000 – June 2001*
Manager, Enterprise Solutions Marketing Finance *July 1998 – Dec. 1999*
Manager, Global Wireless Consolidations *April 1997 – June 1998*
Ernst & Young LLP **July 1991 – April 1997**
Seattle, WA
Manager *Sept.1996 - April 1997*
Senior Auditor/Financial Analyst (Tokyo, Japan) *Sept. 1995 – Aug. 1996*
Staff/Senior Auditor *July 1991 – Aug.1995*

EDUCATION

Information required should include: institution name, city, state, degree and/or Achievement and date completed/received.

Brigham Young University, Provo, UT
Bachelor of Science in Accounting May 1991

CERTIFICATIONS

Information required should include: type of certification and date completed/received.

Certified Public Accountant
Washington State, June 1992
License #15504

HARDWARE/SOFTWARE SUMMARY (BE SPECIFIC)

Information required should include: environments, hardware, software, tools and databases.

None applicable

REFERENCES

A minimum of three (3) references are required, including name, phone number, fax number and email address.

Michael Briskey, CFO
iJET International
Phone: 972-679-7629
Fax: None available
Email: briskeym@ijet.com

Brad Almond, CFO
Vertex Business Services
Phone: 214-616-0710
Fax: None available
Email: balmond@tx.rr.com

Shawntel Landry, President
American College of Education
Phone: 972-896-0793
Fax: 317-829-9401
Email: shawntel.landry@ace.edu

PROPOSED STAFF RESUME FOR RFP 3432

A resume must be completed for all proposed prime contractor staff and proposed subcontractor staff.

Company Name Submitting Proposal:	***Kalkomey Enterprises, LLC***

Check the appropriate box if the proposed individual is prime contractor staff or subcontractor staff.			
Contractor:	***X***	**Subcontractor:**	

The following information requested pertains to the individual being proposed for this project.			
Name:	***Jacob Waldrop***	**Key Personnel: (Yes/No)**	***No***
Classification; i.e., Project Manager, Implementation Lead, etc.	***Director of Marketing***		
# of Years in Classification:	***1***	**# of Years with Firm:**	***3***

BRIEF SUMMARY OF PROFESSIONAL EXPERIENCE

Information should include a brief summary of the proposed individual's professional experience.

Jake uses his years of digital marketing expertise to strategically manage Kalkomey's marketing efforts to raise brand awareness and extend the reach of each state and provincial course, ensuring more students are exposed to the most current outdoor education standards. Jake holds a bachelor's degree in advertising and speech communications from the University of Texas at Arlington and completed Google AdWords Professional Certification in 2014.

RELEVANT EXPERIENCE

Information required should include: timeframe, company name, company location, position title held during the term of the project/position and software/hardware used during the project engagement.

Kalkomey Enterprises, LLC **May 2014 – Present**
Dallas, TX
Director of Digital Marketing *March 2017 – Present*
Senior Search Marketing Manager *May 2015 – March 2017*
Senior Marketing Specialist *May 2014 – May 2015*

- Set marketing objectives to meet business goals.
- Forecast, allocate and manage multi-million dollar budget.
- Direct marketing strategy to meet objectives and critical success factors.
- Oversee all digital channels & campaigns including organic, paid, referral and social.
- Collaborate cross functionally with vendors, agencies, SMEs, Development, Editorial and Agile Squads.

Performance Course **2011 - May 2014**
Allen, TX
Marketing Specialist

Related technology: Adobe Creative Suite, Google Analytics, Google Tag Manager, Google Adwords, Google Search Console, Google Double Click, Hubspot, Vero, Kiss Metrics, Salesforce, Optimizely

EDUCATION

Information required should include: institution name, city, state, degree and/or Achievement and date completed/received.

University of Texas at Dallas – Naveen Jindal School of Management, Dallas, TX
Master of Business Administration in Business Analytics — Anticipated completion May 2019

The University of Texas at Arlington, Arlington, TX
Bachelor of Arts in Advertising and Speech Communication — May 2011

CERTIFICATIONS

Information required should include: type of certification and date completed/received.

Inbound Certification, Hubspot	2016 – present
Certified ScrumMaster License 000408474	May 2015 – May 2017
Google AdWords Professional Certification License 01858055	July 2013 – July 2014

HARDWARE/SOFTWARE SUMMARY (BE SPECIFIC)

Information required should include: environments, hardware, software, tools and databases.

MySQL

REFERENCES

A minimum of three (3) references are required, including name, phone number, fax number and email address.

Paige Pearson, Marketing and Public Relations Director
Virginia Department of Game and Inland Fisheries
Phone: (919) 523-3158
Fax: None available
Email: Paige.Pearson@dgif.virginia.gov

Pam Dillon, Education Director
National Association of State Boating Law Administrators
Phone: 859-225-9487
Fax: none available
Email: pam@nasbla.org

Joe Youngblood, Founder
Winner Winner Chicken Dinner (SEO Marketing)
Phone: 620-757-6520
Fax: None available
Email: joe.youngblood@dotmediaweb.com

PROPOSED STAFF RESUME FOR RFP 3432

A resume must be completed for all proposed prime contractor staff and proposed subcontractor staff.

Company Name Submitting Proposal:	***Kalkomey Enterprises, LLC***

Check the appropriate box if the proposed individual is prime contractor staff or subcontractor staff.			
Contractor:	***X***	**Subcontractor:**	

The following information requested pertains to the individual being proposed for this project.			
Name:	***Kevin Clark***	**Key Personnel: (Yes/No)**	***No***
Classification; i.e., Project Manager, Implementation Lead, etc.	***Director of Development***		
# of Years in Classification:	***1***	**# of Years with Firm:**	***4***

BRIEF SUMMARY OF PROFESSIONAL EXPERIENCE

Information should include a brief summary of the proposed individual's professional experience.

Kevin studied decision sciences at the University of North Texas, where he had a keen eye and focus on numbers and analytics. He brings these talents to Kalkomey, helping oversee, lead, innovate, and set the direction for our future. Kevin, who has worked at giants such as Match.com and CBRE, also holds a multitude of certifications and honors, and he is named as a co-inventor on one software patent.

RELEVANT EXPERIENCE

Information required should include: timeframe, company name, company location, position title held during the term of the project/position and software/hardware used during the project engagement.

Kalkomey Enterprises, LLC, Dallas, TX **Mar. 2013 - Present**

Director of Technology *Nov. 2016 – Present*

- Additional responsibilities now include Information Technology and Security.
- Incrementally improving infrastructure to further strengthen Kalkomey's systems.

Manager of Development *Feb. 2015 - Nov. 2016*

- Oversaw development of new course delivery platform.
- Managed development of several internal tools for automating business processes (reporting, financials).
- Migrated of entire production infrastructure to new hosting provider for cost/stability benefits.

Lead Developer *Mar. 2013 - Feb. 2015*

- Aided in development and launch of Certification Manager.
- Developed full deployment suite to automate and stabilize software deployment.

Sr. Developer, CBRE, Dallas, TX **Aug. 2012 - Mar. 2013**

- Co-lead on internal Valuation software used by appraisal arm of CBRE.
- Built, deployed, and maintained CBRE's Jira project management tool installation.

ShopSavvy, Dallas, TX **Sept. 2011 – Aug. 2012**

Lead Developer *Dec. 2011 - Aug. 2012*

Sr. Developer *Sept. 2011 - Dec. 2011*

- Designed and implemented several new server components used by the ShopSavvy app (iOS, Android, WP7).
- Co-developed entirely new backend pricing engine to help with growing pains from the 20MM users

- Built and released company's reporting environment designed around SSRS.

Developer, Match.com, Dallas, TX **May 2011 - Sept. 2011**

- Engineered groundbreaking tools and algorithms to aid in identifying/catching fraud.
- Established several key metric reports used by top business leaders.
- Streamlined and centralized existing tools to ease and accelerate fraud agent capabilities.

Telligent, Dallas, TX **May 2007 – May 2011**

Jr. Developer *Aug. 2009 - May 2011*

Developer Intern *May 2007 - Aug. 2009*

Technologies: Ruby on Rails, Elasticsearch, Redis, MySQL, Linux (Ubuntu), MacOS, RackspaceCloud, AmazonAWS

EDUCATION

Information required should include: institution name, city, state, degree and/or Achievement and date completed/received.

University of North Texas, Denton, TX

Bachelor's of Decision Sciences May 2010

CERTIFICATIONS

Information required should include: type of certification and date completed/received.

Certified ScrumMaster 2013 - 2015

HARDWARE/SOFTWARE SUMMARY (BE SPECIFIC)

Information required should include: environments, hardware, software, tools and databases.

Hardware: Firewalls, Networking, Load Balancers, Servers, Data Storage Arrays
Software: Ubuntu, MacOS, Windows Server, Windows Desktop, Ruby on Rails, Elasticsearch, Message Ques
Databases: MySQL, SQL Server, PostgreSQL, Apache Cassandra

REFERENCES

A minimum of three (3) references are required, including name, phone number, fax number and email address.

Betsy Woods, Boater Education Coordinator
TN Wildlife Resources Agency
Email: Betsy.Woods@tn.gov
Phone: 615-781-6601
Fax: 615-781-5268

Rylan Barnes, Mobile Team Head
Purch
Email: rylan.barnes@gmail.com
Phone: 214-893-4953
Fax: None available

Rob Howard, Founder
Daily Story
Email: rob@grokable.com
Phone: 214-714-0059
Fax: None available

Section IX – Preliminary Project Plan

5.6 PRELIMINARY PROJECT PLAN

Kalkomey anticipates completing the NDOW Licensing System Implementation by* Friday, January 19, 2018. *This includes going live with the Registration and Titling module of AMS on December 15, 2017.

Kalkomey can meet this aggressive timeline because of our innovative approach and our implementation of the Agile form of software development. The Agile approach is distinct from other, older models of development, so we have included a short summary of the Agile process for NDOW's understanding.

Kalkomey's Agile Approach

Kalkomey will often refer to our Agile software development approach throughout this response. We believe that our approach provides better results in a shorter timeframe than traditional approaches.

At a high level, Kalkomey breaks large projects down into a series of very small projects. Each project has a limited scope and very well defined requirements and acceptance criteria. Stakeholders are in constant collaboration with team members. All of this is designed to greatly improve communication and ensure that time is spent on high-value priorities.

First, Kalkomey project managers convert business requirements into "user stories." User stories are written from the perspective of a feature user and include what the user wants to accomplish as well as the business value provided. Stories follow the form, "As a [user description], I want to [perform some task/accomplish some goal] so that [some business value that is recognized]." This format allows the team to focus on the "what is desired" part of a requirement and not the "how something is to be accomplished."

User stories are meant to be written following the INVEST pneumonic:

- ***Independent***
- ***Negotiable***
- ***Valuable***
- ***Estimable***
- ***Small***
- ***Testable***

The very small projects referenced above are called "sprints." Each sprint may be one to three weeks in duration. Each sprint starts with a meeting between all implementation team members and agency stakeholders called "story grooming." The goal of the meeting is to refine the top priority user stories and build understanding of selected business requirements

and the criteria by which the requirements will be considered achieved. This process encourages out-of-the-box thinking, discussion of alternatives to the implementation of a requirement, and negotiation about the value to be delivered by a set of requirements. In the end, this collaborative process around a very limited scope of work creates a deep understanding of business needs and ensures that, per Section 5.7.2, "the project includes all the work required and only the work required to complete the project successfully" and, per Section 5.10.1, the team analyzes potential solutions and identifies alternatives for evaluation.

Team members commit to accomplishing a certain set of stories by the end of the sprint duration. Project managers assist teams by making sure they don't encounter any roadblocks in delivering on the selected stories.

At the end of the sprint, a demo meeting is hosted in which the implementation team shows the work that was accomplished. Agency stakeholders confirm that the teams completed all acceptance criteria and sign off on each piece of delivered functionality. If something is found to be unacceptable, it is automatically included in the next sprint. Immediately following the sprint, a new story-grooming meeting is held and a new sprint is kicked off. This process continues until all business requirements are met.

Advantages of Agile Development

The Agile development process greatly improves the traditional project management processes.

- ***Limited scope per sprint — Agile focuses on the things that are important right now, and addresses requirements as they are relevant to the phase of implementation we are in. This allows the team to focus on timely requirements more fully.***
- ***User stories – by writing projects with the end user in mind, the final product is more tailored to the consumer and the developer has more freedom to come up with creative solutions. Compared to traditional project management, this results in a better end product in a shorter time frame.***
- ***Improved communication – Agile has built-in regular meetings among the implementation team as well as with stakeholders. This helps avoid a common pitfall of traditional project management by keeping all project members apprised of any new developments.***
- ***Clear, testable acceptance criteria – The implementation team builds the project with a definite idea of what "success" will be, rather than making assumptions that may prove to be invalid when reviewed by stakeholders.***
- ***Demonstration – Demo provides a regular and early feedback loop with stakeholders so that changes can be implemented throughout the process, so there no surprises at product delivery.***

It is because Kalkomey utilizes this process that we are confident in our ability to meet NDOW's by January 2018.

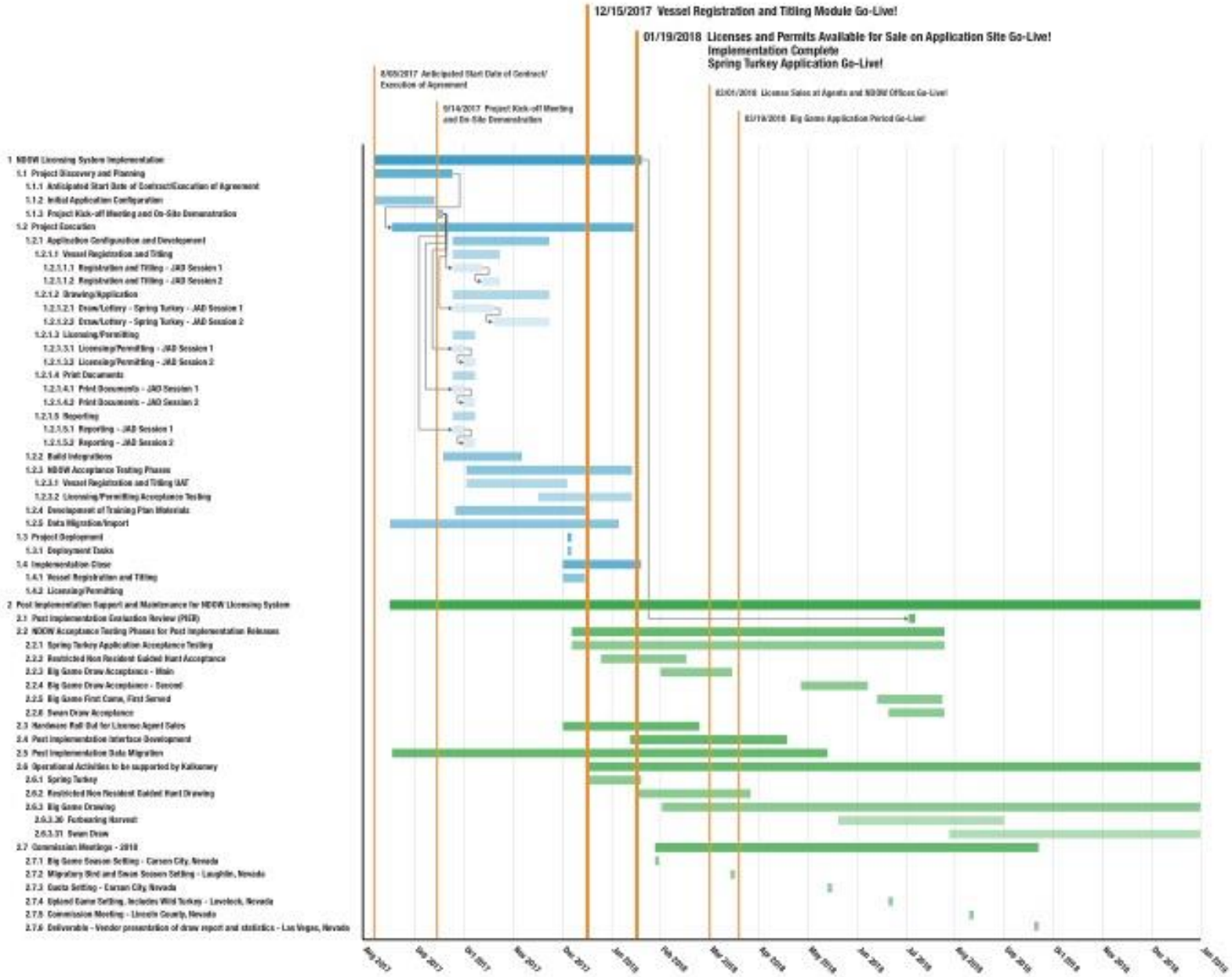
5.6.1

Vendors shall submit a preliminary project plan as part of the proposal, including, but not limited to:

A full copy of Kalkomey's preliminary project plan is included in* Appendix B. *Additionally, Kalkomey has included the Microsoft Project Plan in the electronic submission, per solicitation requirements.

5.6.1.1 Gantt charts that show all proposed project activities;

A detailed, formal Gantt chart demonstrating all Kalkomey's proposed project activities is included in the preliminary project plan in the attached electronic Microsoft Project document. The following chart includes high-level milestones and is included for illustration purposes.


12/15/2017 Vessel Registration and Titling Module Go-Live!
01/19/2018 Licenses and Permits Available for Sale on Application Site Go-Live!
Implementation Complete
Spring Turkey Application Go-Live!
8/08/2017 Anticipated Start Date of Contract/ Execution of Agreement
9/14/2017 Project Kick-off Meeting and On-Site Demonstration
02/01/2018 License Sales at Agents and NDOW Offices Go-Live!
02/19/2018 Big Game Application Period Go-Live!
1 NDOW Licensing System Implementation
1.1 Project Discovery and Planning
1.1.1 Anticipated Start Date of Contract/Execution of Agreement
1.1.2 Initial Application Configuration
1.1.3 Project Kick-off Meeting and On-Site Demonstration
1.2 Project Execution
1.2.1 Application Configuration and Development
1.2.1.1 Vessel Registration and Titling
1.2.1.1.1 Registration and Titling - JAD Session 1
1.2.1.1.2 Registration and Titling - JAD Session 2
1.2.1.2 Drawing/Application
1.2.1.2.1 Draw/Lottery - Spring Turkey - JAD Session 1
1.2.1.2.2 Draw/Lottery - Spring Turkey - JAD Session 2
1.2.1.3 Licensing/Permitting
1.2.1.3.1 Licensing/Permitting - JAD Session 1
1.2.1.3.2 Licensing/Permitting - JAD Session 2
1.2.1.4 Print Documents
1.2.1.4.1 Print Documents - JAD Session 1
1.2.1.4.2 Print Documents - JAD Session 2
1.2.1.5 Reporting
1.2.1.5.1 Reporting - JAD Session 1
1.2.1.5.2 Reporting - JAD Session 2
1.2.2 Build Integrations
1.2.3 NDOW Acceptance Testing Phases
1.2.3.1 Vessel Registration and Titling UAT
1.2.3.2 Licensing/Permitting Acceptance Testing
1.2.4 Development of Training Plan Materials
1.2.5 Data Migration/Import
1.3 Project Deployment
1.3.1 Deployment Tasks
1.4 Implementation Close
1.4.1 Vessel Registration and Titling
1.4.2 Licensing/Permitting
2 Post Implementation Support and Maintenance for NDOW Licensing System
2.1 Post Implementation Evaluation Review (PIER)
2.2 NDOW Acceptance Testing Phases for Post Implementation Releases
2.2.1 Spring Turkey Application Acceptance Testing
2.2.2 Restricted Non Resident Guided Hunt Acceptance
2.2.3 Big Game Draw Acceptance - Main
2.2.4 Big Game Draw Acceptance - Second
2.2.5 Big Game First Come, First Served
2.2.6 Swan Draw Acceptance
2.3 Hardware Roll Out for License Agent Sales
2.4 Post Implementation Interface Development
2.5 Post Implementation Data Migration
2.6 Operational Activities to be supported by Kalkomey
2.6.1 Spring Turkey
2.6.2 Restricted Non Resident Guided Hunt Drawing
2.6.3 Big Game Drawing
2.6.3.30 Furbearing Harvest
2.6.3.31 Swan Draw
2.7 Commission Meetings - 2018
2.7.1 Big Game Season Setting - Carson City, Nevada
2.7.2 Migratory Bird and Swan Season Setting - Laughlin, Nevada
2.7.3 Ducks Setting - Carson City, Nevada
2.7.4 Upland Game Setting, Includes Wild Turkey - Lovelock, Nevada
2.7.5 Commission Meeting - Lincoln County, Nevada
2.7.6 Deliverable - Vendor presentation of draw report and statistics - Las Vegas, Nevada
Aug 2017
Sep 2017
Oct 2017
Nov 2017
Dec 2017
Jan 2018
Feb 2018
Mar 2018
Apr 2018
May 2018
Jun 2018
Jul 2018
Aug 2018
Sep 2018
Oct 2018
Nov 2018
Dec 2018
Jan 2019

5.6.1.2 Planning methodologies;

Kalkomey has already begun planning the implementation of AMS for NDOW. Planning begins with reading available NDOW documentation, regulations, and product listings. Kalkomey subject matter experts begin writing internal requirements documentation based on this public data. Additional requirements are gathered from state documentation, including this solicitation. Kalkomey product owners begin writing and prioritizing user stories based on these requirements.

At the same time, the SaaS operations team reviews any information available on solution scope for hosting requirements. This team identifies expected impact on existing infrastructure and begins architecting environment changes that may be required to fully support NDOW in the SaaS environment.

A gap analysis is performed between requirements and existing capabilities.

User stories are written to support the requirements that have been defined (user stories; see* Kalkomey's Agile Approach *above for more detail) and Agile teams are mobilized to prepare for an NDOW implementation. These teams focus on closing functional gaps between requirements and current system capabilities.

Once Kalkomey is selected as the vendor for this solicitation, Kalkomey's subject matter experts configure an environment that may be used as a baseline from which the production system will evolve.

Kalkomey will present the base solution in a demo to NDOW stakeholders and Kalkomey implementation teams and, together, the teams will validate the overall project plan, priorities, and immediate needs.

In the Agile software development methodology, planning and design are done each sprint based on the prioritized user-stories refined in the sprint's user-story grooming meeting.

Kalkomey's implementation teams will use the information from the initial kick-off meeting to prepare the first sprint. Kalkomey will schedule and plan a subsequent demo based on NDOW availability. The teams will commit to delivering a set of tasks through user story selection and begin implementation.

After the sprint demo meeting, the teams will groom a new set of user-stories, plan and design solutions and implement those stories as a sprint. This process continues until all business requirements have been fulfilled.

5.6.1.3 Milestones;

A detailed review of Kalkomey's projected milestones is available in the preliminary project plan in Appendix B; however, Kalkomey anticipates the following major milestones:

Milestone	Date
NDOW Licensing System Implementation begins; Project Discovery and Planning begins	Aug. 8, 2017
Kalkomey receives data from NDOW; Project Execution begins; Hardware rollout for Sales Agent locations begins	Aug. 15, 2017
Integration development begins	Sept. 18, 2017
Application Configuration and Development begins; Development of NDOW Training Plan and Materials begins	Sept. 26, 2017
Vessel Registration and Titling UAT Test Plan delivered to NDOW	Oct. 2, 2017
Licensing/Permitting Test Plan delivered to NDOW	Nov. 15, 2017
Project Deployment	Dec. 4 and 5, 2017
Vessel Registration and Titling go-live	**Dec. 15, 2017**
NDOW Data loaded to AMS for Initial Implementation	Jan. 4, 2018
Post Implementation Interface Development begins	Jan. 12, 2018
Licenses and Permits available for sale on application site	**Jan. 19. 2018**
Implementation Complete; Post Implementation Support and Maintenance for NDOW Licensing begins	Jan. 19, 2018

5.6.1.4 Task conflicts and/or interdependencies;

As discussed in the introduction to section 5.6, user stories are meant to be written following the INVEST pneumonic:

- ***Independent***
- ***Negotiable***
- ***Valuable***
- ***Estimable***
- ***Small***
- ***Testable***

While product owners strive to reduce conflicts and interdependencies in story writing, some user stories are naturally dependent on other use stories.

Kalkomey follows two approaches to these stories. First, Kalkomey prioritizes dependent stories so that one story lays the groundwork for the future story. Secondly, the same team is

generally expected to work on both stories so that they are not dependent on another team and can resolve stories based on priority and avoid roadblocks.

It is the responsibility of the Agile teams to identify these kinds of risks and create mediation plans to ensure that the overall project does not suffer from team interdependencies.

5.6.1.5 Estimated time frame for each task identified in Section 4, Scope of Work; and

A full copy of Kalkomey's preliminary project plan is included in* Appendix B. *However, a brief summary of estimated time frames for key tasks is included below.

Task	Time frame
Planning and Administration	35 days
Vessel Registration and Titling implementation configuration and development	13 days
Drawing/Application implementation configuration and development	40 days
Integrations	35 days
NDOW Acceptance Testing Phases	74 days
Development of Training Plan and Materials	60 days
Data Migration/Import	102 days
Project Deploy	2 days
Hardware Rollout	61 days
Post Implementation Data Migration	62 days*

**** Kalkomey expects to get required data on 8/15/2017. Work does not resume until much later, so while the project plan shows a duration of 192 days, 62 days of work are required.***

5.6.1.6 Overall estimated time frame from project start to completion for both vendor and State activities, including strategies to avoid schedule slippage.

***Kalkomey anticipates a project start date of* August 8, 2017, *with anticipated completion of implementation* January 19, 2018.**

***A full copy of Kalkomey's preliminary project plan, including anticipating time frames for given activities, is included in* Appendix B.**

5.6.2

Vendors shall provide a written plan addressing the roles and responsibilities and method of communication between the contractor and any subcontractor(s).

A communications plan is developed at the start of every project to ensure timely and appropriate planning, documentation, storage, transmission, retrieval, and the ultimate disposal of project information. While Kalkomey has a default approach to how, what, and when we provide formal project communication, we are adaptive to meet the unique needs of each client. The processes outlined below represents our default communication processes. During Project Planning and Discovery (see project plan in Appendix B), Kalkomey will work with NDOW to put together a project specific communications plans based on the needs and desires of NDOW. This communications plan will be carried out by the Kalkomey Project Manager to ensure a successful engagement.

<u>Implementation Communication Process</u>
Kalkomey provides an Implementation Project Manager, who will serve as the primary liaison between NDOW and Kalkomey's implementation team. In addition to the Project Manager, the Kalkomey implementation team includes an Implementation Lead and representatives from the product and implementation teams, support team, and internal security and licensing subject matter experts. Our project manager works hand-in-hand with NDOW stakeholders and will respond to needs and changes throughout the implementation of AMS.

As an Agile organization, Kalkomey's implementation process is based on regular, recurring meetings based on the availability and time constraints of NDOW team members. In each meeting, Kalkomey's Implementation Lead will demonstrate a set of capabilities within AMS and ask questions related to configuration choices that are to be made by NDOW. In these meetings, the team will also demonstrate tasks that were set to be completed since the last meeting and discuss commitments for the upcoming period. After each meeting, Kalkomey's Project Manager will provide a status document outlining what accomplishments and tasks were completed in the previous period and what work is to be completed before the next meeting. Kalkomey's Project Manager will compile the status reports from these meetings into a formal written semi-monthly project status report to be delivered to State Project Management by the third (3rd) working day following the end of each reporting period.

Through these regular meetings, Kalkomey develops a deep understanding and can perform constant review of NDOWS needs and current processes so we can construct the best configuration to ensure a smooth transition from NDOW's current processes to our systems. We also use these meetings to educate NDOW stakeholders on every facet of our system. This allows stakeholders to fully maximize the potential of AMS. Between meetings, Kalkomey stays in contact with key NDOW personnel through the Kalkomey Implementation Lead to answer questions and clarify requirements.

<u>Operational (Post go-live) Communication Process</u>
Once the system is live, our engagement with NDOW continues. The Kalkomey Account Manager assigned to work with NDOW will act as the single point of contact between Kalkomey and NDOW and will have overall responsibility for the relationship with NDOW under the contract. The Account Manager will be accountable to NDOW for Kalkomey's performance under the contract and will ensure that all calendar events and activities in the Project Plan are completed on time and in a satisfactory manner. Kalkomey anticipates

providing a Performance Management Plan as a part of each semi-monthly update which will include, and is not limited to, the following regular deliverables:

- ***reports and notices such as usage metrics;***
- ***system load and scale metrics;***
- ***Sales Agent and NDOW staff service support summaries; and***
- ***sales reports.***

The Account Manager is always available should any needs arise from NDOW. As new system versions and functionality become available, the Kalkomey Account Manager will notify NDOW of the upcoming releases and work with NDOW should they choose to adopt the available updates. The Account Manager will also be responsible for alerting NDOW of any system maintenance that may need to be performed.

<u>Incident Response Communication Process</u>
Should Kalkomey identify any issues or experience interruptions in service, the operations team will prepare incident reports and work with the Account Manager to notify NDOW immediately and work toward resolution.

Kalkomey has a standard Incident Response Plan (see section 4.4.2.4) that calls for the executive management team to be notified of any confirmed or suspected incident. The executive management team assists in the response planning, correction, and communication of the issue and resolution. If a service interruption of core functionality is experienced, Kalkomey will notify subscribers of the issue, follow up with an action plan, and notify of final resolution.

The Performance Management Plan provided to NDOW will include details of Kalkomey's incident management plan and be updated based on NDOW needs and requirements as identified during the implementation of Kalkomey services.

5.6.3

The preliminary project plan shall be incorporated into the contract.

Kalkomey acknowledges and affirms this requirement.

5.6.4

The first project deliverable is the finalized detailed project plan that shall include fixed deliverable due dates for all subsequent project tasks as defined in Section 4, Scope of Work. The contract shall be amended to include the State approved detailed project plan.

Kalkomey acknowledges and affirms this requirement.

5.6.5

Vendors shall identify all potential risks associated with the project, their proposed plan to mitigate the potential risks and include recommended strategies for managing those risks.

Kalkomey will develop a Risk Management Plan unique to our engagement with NDOW. A default Risk Management Plan is maintained as part of our process and is designed to help identify risk events for a project, perform analysis of the risk impact (risk exposure and loss size), and determine what mitigating efforts should be put in place to remove or reduce the risk. When a risk event can't be completely eliminated, Kalkomey identifies the probability of exposure and a contingent response should the risk materialize.

As new project risks are identified, Kalkomey will work with NDOW to iterate on the Risk Management Plan and develop new mitigation strategies for these risks. Once a new risk is identified, Kalkomey will develop a mitigation strategy to manage, eliminate, or reduce risk to an acceptable level. The updated risk management plan will be presented to NDOW for approval and implementation. After a mitigation strategy has been documented, it will be continually monitored to ensure its effectiveness. Once approved by NDOW, risk mitigation strategies can always be modified as needed. Generally, the identification of new risk and the presentation of new mitigation strategies will be part of joint grooming/JAD sessions with NDOW; however, NDOW should feel free to reach out to Kalkomey at any time if there is concern of new risk. All newly identified risks and mitigation strategies will also be presented to NDOW as a part of the semi-monthly status update provided by Kalkomey's project manager.

With our process to identify and mitigate risk in mind, Kalkomey has identified the following common risk events in many projects of this type. While we enter a project expecting low probability of occurrence with these risks, we've already begun taking actions to mitigate our risk exposure.

<u>Potential Risk Events</u>

- ***RISK 1: Availability of NDOW Staff – Kalkomey is aware that external stakeholders sometimes find demands on their time as well as other commitments that force a project to take a lower priority.***
    - ***MITIGATION STRAGEGY 1 – Kalkomey mitigates this risk through our iterative Agile process so that no significant time passes between formal meetings with stakeholders, preventing delayed decision points from becoming significant. Even so, security measures are in place in case these external demands on NDOW resources threaten the project.***

- ***RISK 2: Historic Data / Data Import – Source and historic data may come from multiple sources and may not be available in a consistent format.***

    - ***MITIGATION STRATEGY 2 – Kalkomey has developed tools and strategies for importing, cleaning, and merging data from multiple sources. We will utilize existing tools and systems to manage source and historic data.***

Potential Major Risk Events

- ***MAJOR RISK 1 – Loss of key personnel during development cycle.***
    - ***MAJOR MITIGATION STRATEGY 1 – Multiple leadership individuals are knowledgeable and capable of fulfilling duties performed by other leadership members. Development of AMS is performed by a multiple-member team to ensure each aspect of the system is understood by several individuals to prevent knowledge loss with the loss of a key developer.***

- ***MAJOR RISK 2 – Incomplete or failed data exports from previous licensing system prevent go-live***
    - ***MAJOR MITIGATION STRATEGY 2 – The Kalkomey operations and product implementation teams are experienced with most operating systems and database systems and can perform data extraction from a previous vendor's database backup, if needed.***

General Risk Management Processes

Kalkomey has been running complex projects and implementing process and data management solutions for government entities since 1995. While our experience and expertise in no way makes us immune to implementation surprises and risks, we have a veteran staff that has the background and seasoning to identify risks and design multiple mitigation strategies.

One lesson that we've learned through many years of running large, complex projects is that a waterfall approach to gathering requirements and implementing configuration and customization induces a great deal of communication gap risk to a project. Kalkomey removes this and many related risks by adopting an Agile methodology in which we work regularly and closely with our clients. Kalkomey is ready and able to reprioritize, redirect resources, and respond quickly unexpected events and new, prioritized needs.

NDOW staff can be pulled away from projects due to internal pressures and priorities. Kalkomey has attracted and keeps experienced Subject Matter Experts on staff to help with this general risk. With over 20 years of experience in hunt and fish license automation, our staff knows the kinds of decisions that the NDOW will need to make and is experienced finding and reading public regulations, hunt and game lists, and other materials to reduce the amount of effort required from NDOW staff. We will do significant legwork to help NDOW staff make great strides with minimal effort.

Historic data can create complications in new systems. Data may be incomplete, inconsistent and may adhere to different validation rules over the years. Due to this, we have implemented a risk security measure to make our systems flexible with data at rest. We perform validation while an agent is available to correct missing, incomplete, or bad information. Rather than throwing errors on import, Kalkomey stores everything provided by the NDOW and builds controls in support and administration interfaces to alert system users that a transactional record needs attention. It is often unnecessary to correct millions of incomplete records functional reporting but incomplete in regard to a new purchase when a very small percentage of those records will ever be used for a purchase. Should an End User retrieve their

incomplete record online or through NDOW staff or a License Issuer, the system will request an update to that record while the End User is available to provide information.

Staff changes mid-project can have negative impacts on an implementation. To protect against this risk, all software at Kalkomey is developed in a team environment where developers are in constant communication with each other to ensure application knowledge is being shared among more than a single team member.

In addition to keeping extra staff and doing cross-training, Kalkomey develops software systems with technology and frameworks designed to allow individual developers to get more done with less effort. Our frameworks handle monotonous tasks so our developers can focus on essential functionality. In addition to allowing for efficient development, our technology choices make for a positive work environment for development staff. This allows Kalkomey to find and retain excellent talent and continue to add exceptional staff helping to ensure that we have plenty of capacity for schedule-related risks.

Lastly, various clients may utilize a broad spectrum of technologies in their existing solutions. Kalkomey's staff is well-rounded and knowledgeable in most operating systems and technologies to prevent a situation where a knowledge gap prevents a successful project outcome. Even so, should Kalkomey find that there is not adequate expertise on the existing team to handle a technology-based requirement, additional resources will be found to augment the team.

5.6.6

Vendors shall provide information on the staff that shall be located onsite in Carson City. If staff shall be located at remote locations, vendors shall include specific information on plans to accommodate the exchange of information and transfer of technical and procedural knowledge. The State encourages alternate methods of communication other than in person meetings, such as transmission of documents via email and teleconferencing, as appropriate.

Kalkomey's headquarters are located in Dallas, TX, as are the bulk of our staff. Should NDOW desire a Kalkomey representative to be located in Nevada, Kalkomey will provide a representative. Otherwise, Kalkomey will accept emailed documents, teleconferences, online or text chats, or other forms of communication. Kalkomey additionally expects to attend Commission meetings.

Section X – Other Informational Material

5.7 PROJECT MANAGEMENT

Vendors shall describe the project management methodology and processes utilized for:

Kalkomey's project management methodology and processes are outlined below.

5.7.1

Project integration to ensure that the various elements of the project are properly coordinated;

Kalkomey is committed to being a proactive and responsive NDOW solution provider. As such, we've adopted an Agile approach to project management that allows us to adapt our process to meet changing NDOW needs throughout Implementation and address requirements as new information is discovered. Kalkomey is experienced with iterative, Agile development and working closely with client stakeholders to encourage transparency and throughout the implementation process. (More information about Agile development is available under **section 5.6, Kalkomey's Agile Approach [page 146].*)***

Kalkomey's Project Manager will serve as the primary conduit between NDOW and the Kalkomey implementation team. In addition to the Project Manager, the Kalkomey implementation team includes a dedicated Account Manager and representatives from the product and implementation teams, support team, SaaS operations team, and internal security and licensing subject matter experts. Our project manager works hand-in-hand with NDOW stakeholders and will respond to needs and changes throughout the implementation of AMS.

5.7.2

Project scope to ensure that the project includes all the work required and only the work required to complete the project successfully;

As an Agile organization, Kalkomey's implementation process is based on regular, recurring meetings (generally weekly) based on the availability and time constraints of NDOW. In each meeting, Kalkomey will demonstrate a set of capabilities within the application and will ask questions related to configuration choices that are to be made by NDOW. In these meetings, the team will also demonstrate tasks that were set to be completed since the last meeting and discuss commitments for the upcoming period. After each meeting, Kalkomey's Project Manager will provide a status document outlining what accomplishments and tasks were completed in the previous period and what work is to be completed before the next meeting.

Through these regular meetings, Kalkomey will develop a deep understanding and perform constant review of NDOW's needs and current processes so we can construct the best configuration to ensure a smooth transition from the NDOW's current processes to our systems. We also use these meetings to educate NDOW stakeholders on every facet of our

application suite. This allows stakeholders to fully maximize the potential of Kalkomey's applications. Between meetings, Kalkomey stays in contact with key NDOW personnel through the Kalkomey Project Manager to answer questions and clarify requirements.

5.7.3

Time management to ensure timely completion of the project. Include defining activities, estimating activity duration, developing and controlling the project schedule;

Kalkomey utilizes the Project Management Body of Knowledge (PMBOK) Guide established by the Project Management Institute (PMI) to support external stakeholder interests and schedules as part of our Agile project management process. This is regularly reviewed and updated as needed during the regularly-scheduled meetings with NDOW stakeholders.

5.7.4

Management of contractor and/or subcontractor issues and resolution process;

One of the most important aspects of working with contractors is clear and regular communication. As an organization that prints more than 240 unique publications per year with the support of print and shipping contractors, Kalkomey is an expert in managing contractors. It doesn't matter where a process breaks down; if one of Kalkomey's contractors fail to deliver on project expectations, the responsibility lies with Kalkomey to ensure that the customer gets what they need when they need it. Part of the methodology for managing contractors is regular, live communication, confirming understanding and acceptance of requirements and timelines, and maintaining schedule margin.

While Kalkomey does not foresee utilizing any contractors in the delivery of commitments for NDOW, Kalkomey follows similar methodologies with internal staff to ensure that projects are delivered on time and under budget.

5.7.5

Responding to and covering requested changes in the project time frames;

Every application change starts with a story in the software management solution. Each story must include business requirements, acceptance criteria, and test plans. Once approved and prioritized, stories are assigned to an Agile team for implementation.

All stories are organized based on priority/business value. Feature enhancement requests needing immediate attention may be addressed as change requests for an ongoing project; other requests (such as "nice to have" items) may be identified as useful for all AMS subscribers and become part of the product roadmap at no cost to any single subscriber of AMS.

Once a story is completed and thoroughly tested, whether through Incident Response procedures, non-production defect management, or through our regular release cycle, the Kalkomey Project Manager (during implementation) or the Kalkomey Account Manager (post-implementation) will coordinate with NDOW stakeholders to schedule a maintenance window should any downtime be required for deployment.

5.7.6

Responding to State generated issues;

Kalkomey does defect and feature management using an Agile-related enterprise software management solution. Issues, defects, and feature enhancements requests (called "stories") related to any Kalkomey solution or process are entered into the software management solution and prioritized by Product Owners.

In the unlikely event that a system defect impacts production business processes, the defect will be given urgent priority and is subject to Kalkomey's incident response plan (discussed in section 4.4.2.4 [page 107]). Defects in non-production systems are prioritized in coordination between NDOW and the Kalkomey Project Manager and addressed in the next upcoming scheduled release as appropriate.

5.7.7

Cost management to ensure that the project is completed within the approved budget. Include resource planning, cost estimating, cost budgeting and cost control;

As with many aspects of project management, controlling project budget involves excelling at communication. Documenting and reviewing assumptions is an excellent way to ensure that all stakeholders have the same understanding and expectations around a set of requirements. Bad assumptions can have significant impact on a project schedule and budget.

One way to ensure that all stakeholders are not making assumptions is to carefully review business requirements and agree on well-defined, testable acceptance criteria. As acceptance criteria are discussed, assumptions are brought to light and may be addressed early in the process.

These tenants—excellent communication, assumption control, and testable acceptance criteria—are core to Kalkomey's Agile software development and implementation methodology. For decades, software development methodologies tried to mirror physical engineering practices. Often, half of a project's schedule was dedicated to design and requirement-gathering. Software Engineers agree that requirements aren't always complete or perfectly accurate and yet many organizations still spend a significant portion of their project schedule on trying to write perfect, complete business requirements before ever writing a line of code.

On our projects, Kalkomey works with stakeholders to select the highest priority and value-recognizing business needs that can be delivered within a short timeframe. We then work quickly to return to the stakeholders with those requirements fulfilled. Stakeholders can review the implementation of the requirements by testing against acceptance criteria. If the acceptance criteria are met, the requirements are fulfilled and a new set of requirements can be selected. This limits any project-halting, back-and-forth negotiation over business requirements and change requests.

A large project benefits greatly through this process because it is essentially broken down into a series of small, controlled projects. Communication is greatly improved because the scope of each project is relatively small and attention may be given to various details.

Project Managers in this process can track project progress through simple velocity calculations and can make corrections to ensure that the project timeframe and budget are not slipping. Kalkomey is highly experienced with this process and looks forward to working with NDOW to develop its licensing product.

5.7.8

Resource management to ensure the most effective use of people involved in the project including subcontractors;

In Kalkomey's Agile approach to project management, we hold regular, internal meetings to review and address concerns such as the effective use of personnel on a project or subproject. We also address resource management in our **Incident Response Plan** ***(see section 4.4.2.4 [page 107])***

5.7.9

Communications management to ensure effective information generation, documentation, storage, transmission and disposal of project information; and

Communication is the most expensive and difficult aspect of a software development project. Kalkomey uses a project management tool for day-to-day software development and configuration tasks. All stakeholders have access to this tool.

Within Kalkomey's Agile methodology, most discussions are held in regular (weekly), in-person (phone and teleconference) meetings. The scope of a meeting is often limited to the most valuable next set of functionality and related business requirements that can be delivered to stakeholders before the next meeting. This keeps discussions concise and on track. All business requirements are documented in the form of user stories with acceptance criteria and organized into time-boxed delivery cycles published in the project management portal.

At any time, stakeholders may review the full set of business requirements in the project management tool and can easily find the work that has been completed and the work that will be completed before the next meeting.

5.7.10

Risk management to ensure that risks are identified, planned for, analyzed, communicated and acted upon effectively.

Kalkomey has been running complex projects and implementing process and data management solutions for government entities since 1995. While our experience and expertise in no way makes us immune to implementation surprises and risks, we have a veteran staff that has the background and seasoning to identify risks and design multiple mitigation strategies.

One lesson that we've learned through many years of running large, complex projects is that a waterfall approach to gathering requirements and implementing configuration and customization induces a great deal of communication gap risk to a project. Kalkomey removes this and many related risks by adopting an Agile methodology in which we work regularly and closely with our clients. Kalkomey is ready and able to reprioritize, redirect resources, and respond quickly to unexpected events and new, prioritized needs. (Read more about Kalkomey's methodology at Section 5.6, **Kalkomey's Agile Approach [page 146].)**

The process of user-story grooming allows teams to discuss risks as they review requirements, acceptance criteria and possible solutions. Risk is generally mitigated in these discussions. Teams have a short window of time to meet commitments and are naturally predisposed to avoid risks as they design solutions to meet NDOW needs.

5.8 QUALITY ASSURANCE

Vendors shall describe the quality assurance methodology and processes utilized to ensure that the project shall satisfy State requirements as outlined in Section 4, Scope of Work of this RFP.

AMS is a SaaS product that has a full-time, dedicated team of designers, developers, testers, and product managers continuously adding functionality and improving performance. Kalkomey has processes and mechanisms, such as automated tests, automated deployment, and formal testing procedures, in place to ensure a high-quality product through every release.

Every change made by Kalkomey development is committed to a new branch in a central source code repository and automated regression test scripts are run to ensure that no new defects have been added. Once these tests are successful, the branch can be merged into a release candidate branch and deployed to an internal QA environment, where more automated tests are executed. Then, our testing team performs a full suite of manual tests. For specifics on the processes in place to handle peer review and design change approvals, see sections 5.11 and 5.12 [pages 165 and 168].

Kalkomey documents every configuration selection and implements configuration changes in non-production environments for traceability, testing, and verification before the changes are deployed to the production system. The tools used to execute these processes in non-production environments are outlined in section 5.13 [page 170].

Kalkomey uses fully automated system deployment, including data migrations for schema changes. All environments are provisioned and configured using automated systems, allowing us to have materially identical configurations across all environments. This automated system is key to supporting Kalkomey's Business Continuity and Disaster Recovery plans, as well as allowing Kalkomey to scale the production environment at times of high demand; Kalkomey's SaaS Operations team can provide additional capacity at a moment's notice. When it's time to transition the system into production, Kalkomey will utilize this tested and proven automated process to provision, deploy, and spin up the production environment. See section 5.11.4 [page 166] for information on the tools used to build, or deploy, the production environment.

All non-production systems will be secured behind a quality assurance username and password access system to manage access to authorized users. Once through this authorization step, users may use system accounts to log in to appropriate pages. Pages that are public in the production environment will be protected behind this quality assurance authorization system in non-production environments.

Using a fully automated deployment process also provides a secure method for managing each environment. This allows for a separation of responsibilities such that only approved staff members have access to production systems. While every Kalkomey employee is trusted and background-checked, it's a best practice to secure production environments so that only personnel who are approved through our documented process have any access to read or change production data or configurations.

5.9 METRICS MANAGEMENT

Vendors shall describe the metrics management methodology and processes utilized to satisfy State requirements as outlined in Section 4, Scope of Work of this RFP. The methodology shall include the metrics captured and how they are tracked and measured.

Kalkomey uses its project management system to capture, measure, and report on project-related metrics. This includes, but is not limited to, resource usage, time spent, deadlines, business requirements, and test cases/runs. These metrics are regularly utilized by the Project Manager to adjust processes and resources as needed during the project.

Project team members are required to log their time spent on a particular business requirement in the project management system. Additions or changes to business requirements are logged as well. QA resources report on their test runs and test outcomes (successes or failures along with detailed logging information). The centralization of this information provides the project team the data it needs to generate reports that support day-to-day project tasks and regularly-scheduled review sessions.

5.10 DESIGN AND DEVELOPMENT PROCESSES

Vendors shall describe the methodology, processes and tools utilized for:

5.10.1

Analyzing potential solutions, including identifying alternatives for evaluation in addition to those suggested by the State;

The implementation team assigned to the NDOW AMS implementation has more than 20 years of experience with license automation solutions and has experience providing solutions for many NDOW needs. These subject matter experts will weigh in on NDOW business requirements and suggest alternatives as appropriate based on their experience in other projects.

Kalkomey's process focuses on business need and value, and minimizes requirement capture related to how need is fulfilled. This process is a natural part of converting business requirements into a set of user stories. Implementation team staff are engaged in the writing of user stories and negotiate with product owners on how a story is implemented so that alternative solutions are always front of mind and business value is generated throughout the project. (See* Kalkomey's Agile Approach *in Section 5.6 [page 146] for more detail.)

5.10.2

Developing a detailed operational concept of the interaction of the system, the user and the environment that satisfies the operational need;

Kalkomey's user experience professionals "sprint ahead" of implementation teams by rapidly producing prototypes of user stories derived out of business requirements before they are assigned for implementation. These prototypes are used to help refine business requirements and document acceptance criteria. Acceptance criteria are used to set the testability of requirements to meet operational need. If acceptance criteria do not address all operational needs for selected business requirements, the acceptance criteria and prototypes are updated until sufficient.

The user stories and associated acceptance criteria form the basis of all development work to be completed. For a user story to be accepted, the completed work must be demonstrable and must meet all acceptance criteria. In doing so, the implementation team ensures that all work done satisfies operational need.

5.10.3

Identifying the key design issues that shall be resolved to support successful development of the system; and

In too many large-scale projects, a great deal of upfront time is invested in attempting to gather complete business requirements and develop a perfect design. This is a noble effort but can be an inefficient use of time. Modern project management practices have improved on design and requirements gathering efforts.

By following Agile project management methodologies, Kalkomey gathers requirements in the form of acceptance criteria related to a small set of business requirements that can be delivered in a short timeframe (one or two weeks). Requirements that cannot be delivered in this timeframe are intelligently split into smaller deliverables.

Interface design is performed and reviewed with stakeholders. In this process, additional acceptance criteria and requirements may be uncovered. Once the interface and process design is accepted, the implementation team performs architecture design and builds functionality into the system to satisfy all acceptance criteria. Once these requirements are delivered, a new set of requirements is selected and design work begins on those user stories.

Agile project management methodologies and related development and design processes are flexible to support new and changing business requirements, and evolving interface and architectural design.

5.10.4

Integrating the disciplines that are essential to system functional requirements definition.

All stakeholders have a seat at the table during business requirements review, user story writing, acceptance criteria generation, and demonstration of delivered functionality. If a discipline (business role, business function) is not represented by a stakeholder in those meetings, the team works to identify someone who may represent that discipline so that their needs are addressed in acceptance criteria and ensure the delivered system satisfies all areas of the business.

5.11 CONFIGURATION MANAGEMENT

Vendors shall describe the methodology, processes and tools utilized for:

Kalkomey has included the methodology, processes, and tools utilized for configuration management in the sections below.

5.11.1

Control of changes to requirements, design and code;

Requirement, design, and code changes are communicated during sprint demos and user story grooming. Required changes are entered into the product backlog. With NDOW's input, these

changes are broken down into user stories and prioritized according business value and other factors.

Using Agile software development methodologies, changes are implemented and tested in a Quality Assurance environment. After sign-off from the project team, the changes are staged in a pre-production staging environment (not available to the public). From there, NDOW will be able to test and approve changes before deployment to the public-facing production environment; deployment will then take place during an agreed-upon, mutually acceptable maintenance window.

5.11.2

Control of interface changes;

Interface changes follow the same procedure as requirement, design, and code changes as explained in 5.11.1 [page 165].

- ***Changes are submitted to the project team.***
- ***Changes are prioritized according to business value.***
- ***Changes are implemented and tested in a QA environment.***
- ***Changes are staged in a pre-production environment (not publicly available).***
- ***NDOW reviews changes and approves.***
- ***Changes are deployed to the public-facing production environment.***

5.11.3

Traceability of requirements, design and code;

When a user-story is completed, a comment is made in the user story log with pull request details. Once the pull request is reviewed and merged, the story is closed. The source control system references the merged pull request in the configuration management baseline meaning that the implementation is traceable back to the user story which represents the business requirements leading to the change.

Some configuration changes are made directly in the AMS interface. Configuration changes are documented in a change log within the system and include when the change was made, who made the change, and what the previous setting was before the change.

5.11.4

Tools to help control versions and builds;

All Kalkomey source code is managed using Git. All builds are managed using the Ansible deployment scripting language for automated deploys. Builds are queued via an internal Jenkins automation server.

5.11.5

Parameters established for regression testing;

All design, code, and interface changes are subject to source code testing (unit tests), automated tests (Selenium), and manual test plans performed by QA resources. Each source code check-in executes unit tests. Stable builds are tested using both automated and manual tests. Staging builds (pre-release) are tested an additional time with both automated tests and manual test plans to ensure the highest quality release.

5.11.6

Baselines established for tools, change log and modules;

The Configuration Management baseline for an AMS implementation is the current Master branch. "Master" represents the source code build in the production environment. When source changes are made to the system, the changes can be compared to the most recent Master. When the changes are deployed to production, they are merged into Master and the change branch is archived.

It is always possible to view a history of changes to Master. Most configuration changes can be made through the NDOW Administrative Interface and result in a system update log record. The update log may be queried for configuration changes that are made in the database through the NDOW Administrative Interface. Each change results in a new baseline as the change is made to the live system. A history of configuration changes is maintained in the database. If a configuration change is not made through the NDOW Administrative Interface, then the change will be made using a data migration, which is a code change and will be present in a change branch and identifiable through a merge into Master.

5.11.7

Documentation of the change request process including check in/out, review and regular testing;

Kalkomey uses Git for source code management. Git has a sophisticated merge process. Many developers can work in the same source code at the same time by creating their own branches of the code to develop features (rather than a check in/check out process). When features are complete, a developer will utilize pull request and merge features of Git, allowing for easy resolution of any conflicts between each developer's branch and an opportunity for lead developers to review and approve any changes.

Before releasing code to production, a release branch containing all the relevant code is created. All the features in the release branch are tested. If any problems are found, fixes are applied directly to the release branch until issues are resolved. The release branch will then be merged into the master branch which will be deployed to production.

Release branches are preserved, providing a snapshot of code at each release.

5.11.8

Documentation of the change control board and change proposal process; and

When change requests are made, they are input into Kalkomey's project management system "inbox." From there, the change control board decides the priority of the change requested and moves the request to the appropriate position in the project's backlog. Requests are then developed in the order of prioritization from top priority through least priority as described in various sections related to Kalkomey's agile project management process.

5.11.9

Change log that tracks open/closed change requests.

Kalkomey's project management system manages open/closed change requests, and provides historical record of all changes.

5.12 PEER REVIEW MANAGEMENT

Vendors shall describe the methodology, processes and tools utilized for:

Kalkomey describes the methodology, processes, and tools for peer review management below.

5.12.1

Peer reviews conducted for design, code and test cases;

All design changes are reviewed by Kalkomey's Creative Director as well as the product team to ensure coherence, usability, and achievement of design standards set for the project. Code changes are implemented through a "pull request" process where each code change is reviewed by a second developer for functionality and to ensure coding standards are met. Tests are reviewed by both quality assurance engineers as well as developers to ensure application tests are applicable and adequately cover all aspects of the application.

5.12.2

Number of types of people normally involved in peer reviews;

Peer reviews involve at least two professional developers for simple changes and can include five or more developers for larger, complex changes.

5.12.3

Types of procedures and checklists utilized;

For peer reviews, Kalkomey utilizes the following procedures for ensuring high levels of code quality, and to ensure that changes meet the desired business and security requirements.

- ***Code must meet internal design and coding standards***
- ***All code changes must be peer-reviewed before being merged into the release***
- ***All design, code, and interface changes are subject to:***
    - ***source code testing (unit tests)***
    - ***automated tests (Selenium)***
    - ***manual test plans.***
- ***Git's pull request and merge features are used to check for any conflicts before code implementation***
    - ***All features in a release branch are tested before moving to production***
    - ***Each release branch is archived and available for future reference if needed***

5.12.4

Types of statistics compiled on the type, severity and location of errors; and

When team members complete user stories, they add a test plan to the story that is fleshed out by QA staff. When stories are implemented and merged into release branches, the release branch is tested against test plans associated with all completed stories. Test status is then tracked in Kalkomey's project management system.

Kalkomey also uses an exception tracking solution in production that logs all exceptions and generates emails and reports about exceptions experienced in the production system. Developers review the exception log to identify potential issues in the production system.

5.12.5

How errors are tracked to closure.

Errors are tracked the same way as other change request, and follow a similar workflow during the software development lifecycle. Errors are:

1. ***resolved in development;***
2. ***peer-reviewed to ensure quality, completeness, and adherence to standards;***
3. ***tested during the Quality Assurance phase;***
4. ***deployed to a pre-release environment;***
5. ***tested for final release approval; and***
6. ***deployed to production during a predetermined maintenance window.***

5.13 PROJECT SOFTWARE TOOLS

5.13.1

Vendors shall describe any software tools and equipment resources to be utilized during the course of the project including minimum hardware requirements and compatibility with existing computing resources as described in **Section 2.4, Current Computing Environment.**

<u>Software and Hardware Requirements for Both Kalkomey and NDOW</u>

- ***Internet connection and hardware***
- ***Internet browser (any modern browser)***
- ***Phone connection and hardware***
- ***Microsoft Office Suite (MS Word, MS Excel)***
- ***Microsoft Project (optional)***

<u>NDOW and Sales Agent Hardware</u> (provided by Kalkomey)

- ***Datamax E-4205A Mark III printer***
- ***Elo E Series POS Terminal with attached Barcode Scanner and Rear touch display***

<u>Kalkomey Software and Hardware Requirements</u>

- ***Text Editor: Atom, Sublime, Vim, or other***
- ***Source control management: Git Terminal tools***
- ***Deployment and Testing tools: Jenkins, BrowserStack, Selenium***
- ***Project management: TargetProcess enterprise project management tool***
- ***Database management: MySQL terminal, MySQL Workbench (SQL changes are scripted and modified by source code)***
- ***Hosting: Virtual Machine server (This roughly translates to 2-core CPUs and 2 Gigabytes of Random Access Memory (RAM).)***
- ***Customer support: enterprise customer support solution***

5.13.2

Costs and training associated with the project software tools identified shall be included in ***Attachment I, Project Costs***.

Kalkomey has included costs and training associated with project software tools in Kalkomey's response to Attachment I, Project Costs, Part II – Cost Proposal (attached separately as required in the solicitation).

Appendix A – PCI Compliance Certificate

Trustwave®

PCI DSS
Certificate of Compliance

7965-31E4-DFDE-CED6

Self-Assessment Questionnaire

Status: **Pass** 2017-01-31 15:56:58, valid through 2018-01-31

Version: SAQ D 3.2

Attested By: Kevin Clark, Director, Technology

Vulnerability Scan

Status: **Pass** 2017-03-12 14:43:44, valid through 2017-06-12

Scan Vendor (ASV): Trustwave

Awarded To: KALKOMEY ENTERPRISES INC

Client Authorization: Kevin Clark

Sign Name — Print Name

This signed contract at KALKOMEY ENTERPRISES INC agrees to the accuracy of all information provided within TrustKeeper PCI Manager

To maintain compliance, the above named client (referred to below as "CLIENT") must be aware of and validate against its individual requirements as set by the Payment Card Industry Security Standards Council and the payment card brands. For information on requirements, please visit www.pcisecuritystandards.org. In addition, CLIENT must continually identify and provide to Trustwave information regarding any new system that stores, processes, or transmits cardholder data, so that this system can be included in the scope of the validation process. This certificate is valid through the expiration date stated above. It is CLIENT's sole responsibility to achieve and maintain compliance with the card association security requirements and obtain validation at least a quarterly basis. Trustwave makes no representation or warranty as to whether CLIENT's systems are secure from either an internal or external attack or whether cardholder data is at risk of being compromised. This certificate of self-assessment is based on unverified information provided by CLIENT and is for the sole purpose of identifying attestation for compliance by CLIENT and cannot be used for any other purpose without the express written consent of Trustwave's legal counsel.

Participating organizations: Visa® Europe, Visa® Inc., MasterCard® Worldwide, American Express®, Discover® Financial Services, JCB Co., Ltd.

Appendix B – Project Plan

Kalkomey's preliminary project plan is included in the following pages. A full copy of the Microsoft Project plan is included with the electronic submission of this RFP.

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
1	**1**	**NDOW Licensing System Implementation**	**119 days**	**Tue 8/8/17**	**Fri 1/19/18**		
2	**1.1**	**Project Discovery and Planning**	**35 days**	**Tue 8/8/17**	**Mon 9/25/17**		
3	1.1.1	Anticipated Start Date of Contract/Execution of Agreement	0 days	Tue 8/8/17	Tue 8/8/17		
4	**1.1.2**	**Initial Application Configuration**	**27 days**	**Tue 8/8/17**	**Wed 9/13/17**		
5	**1.1.2.1**	**Contract-Level Configuration**	**8 days**	**Tue 8/8/17**	**Thu 8/17/17**		
6	1.1.2.1.1	Customer Details and Identifiers	1 day	Tue 8/8/17	Tue 8/8/17		Kalkomey Implementation Lead
7	1.1.2.1.2	Orders/Voids/Reversals/Invalidation Behavior	1 day	Wed 8/9/17	Wed 8/9/17	6	Kalkomey Implementation Lead
8	1.1.2.1.3	Agent Details and Identifiers	1 day	Thu 8/10/17	Thu 8/10/17	7	Kalkomey Implementation Lead
9	1.1.2.1.4	Suspension Types	1 day	Fri 8/11/17	Fri 8/11/17	8	Kalkomey Implementation Lead
10	1.1.2.1.5	HIP Survey Questions	1 day	Mon 8/14/17	Mon 8/14/17	9	Kalkomey Implementation Lead
11	1.1.2.1.6	Residency Model Set	1 day	Tue 8/15/17	Tue 8/15/17	10	Kalkomey Implementation Lead
12	1.1.2.1.7	Residency Proofs Set	2 days	Wed 8/16/17	Thu 8/17/17	11	Kalkomey Implementation Lead[50%]
13	**1.1.2.2**	**Registration/Titling Product Configuration**	**6 days**	**Wed 8/16/17**	**Wed 8/23/17**	**5**	
14	1.1.2.2.1	Products	1 day	Wed 8/16/17	Wed 8/16/17		Kalkomey Implementation Lead[50%]
15	1.1.2.2.2	Pricing	1 day	Thu 8/17/17	Thu 8/17/17	14	Kalkomey Implementation Lead[50%]
16	1.1.2.2.3	Agent Assignments	1 day	Fri 8/18/17	Fri 8/18/17	15	Kalkomey Implementation Lead
17	1.1.2.2.4	Sales Dates	1 day	Mon 8/21/17	Mon 8/21/17	16	Kalkomey Implementation Lead
18	1.1.2.2.5	Renewal Dates	1 day	Tue 8/22/17	Tue 8/22/17	17	Kalkomey Implementation Lead
19	1.1.2.2.6	Vessel Detail Collection	1 day	Wed 8/23/17	Wed 8/23/17	18	Kalkomey Implementation Lead
20	**1.1.2.3**	**Draw/Application Configuration**	**8 days**	**Thu 8/24/17**	**Mon 9/4/17**	**13**	
21	1.1.2.3.1	Application Products	1 day	Thu 8/24/17	Thu 8/24/17		Kalkomey Implementation Lead
22	1.1.2.3.2	Draw Application Components	1 day	Fri 8/25/17	Fri 8/25/17	21	Kalkomey Implementation Lead
23	1.1.2.3.3	Pricing	1 day	Mon 8/28/17	Mon 8/28/17	22	Kalkomey Implementation Lead
24	1.1.2.3.4	Business Rules	1 day	Tue 8/29/17	Tue 8/29/17	23	Kalkomey Implementation Lead
25	1.1.2.3.5	Initial Quota	1 day	Wed 8/30/17	Wed 8/30/17	24	Kalkomey Implementation Lead
26	1.1.2.3.6	License Years	1 day	Thu 8/31/17	Thu 8/31/17	25	Kalkomey Implementation Lead
27	1.1.2.3.7	Special Provisions	1 day	Fri 9/1/17	Fri 9/1/17	26	Kalkomey Implementation Lead
28	1.1.2.3.8	Controlled Hunts	1 day	Mon 9/4/17	Mon 9/4/17	27	Kalkomey Implementation Lead
29	**1.1.2.4**	**License/Permitting Configuration**	**7 days**	**Tue 9/5/17**	**Wed 9/13/17**	**20**	
30	1.1.2.4.1	License Products	1 day	Tue 9/5/17	Tue 9/5/17		Kalkomey Implementation Lead

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
31	1.1.2.4.2	Agent Assignments	1 day	Wed 9/6/17	Wed 9/6/17	30	Kalkomey Implementation Lead
32	1.1.2.4.3	Pricing	1 day	Thu 9/7/17	Thu 9/7/17	31	Kalkomey Implementation Lead
33	1.1.2.4.4	License Years	1 day	Fri 9/8/17	Fri 9/8/17	32	Kalkomey Implementation Lead
34	1.1.2.4.5	Business Rules	1 day	Mon 9/11/17	Mon 9/11/17	33	Kalkomey Implementation Lead
35	1.1.2.4.6	Print Documents (Generic)	1 day	Tue 9/12/17	Tue 9/12/17	34	Kalkomey Implementation Lead
36	1.1.2.4.7	Product Questions	1 day	Wed 9/13/17	Wed 9/13/17	35	Kalkomey Implementation Lead
37	**1.1.3**	**Project Kick-off Meeting and On-Site**	**2.8 days**	**Thu 9/14/17**	**Mon 9/18/17**		
38	**1.1.3.1**	**Kick-off Meeting**	**1.7 days**	**Thu 9/14/17**	**Fri 9/15/17**	**4**	
39	1.1.3.1.1	Deliverable Review Process	1 day	Thu 9/14/17	Thu 9/14/17		Kalkomey Project Manager [10%], Kalkomey Technical Lead[10%], Kalkomey Implementation Lead[5%], NDOW Project Manager[10%]
40	1.1.3.1.2	Determine format and protocol for project status meetings	1 day	Thu 9/14/17	Fri 9/15/17		Kalkomey Project Manager [10%], Kalkomey Technical Lead[10%], Kalkomey Implementation Lead[5%], NDOW Project Manager[10%]
41	1.1.3.1.3	Determine format for project status reports	1 day	Thu 9/14/17	Fri 9/15/17		Kalkomey Project Manager [10%], Kalkomey Technical Lead[10%], Kalkomey Implementation Lead[5%], NDOW Project Manager[10%], NDOW SMEs[3%]
42	1.1.3.1.4	Set schedule for meetings between NDOW and Kalkomey	1 day	Thu 9/14/17	Fri 9/15/17		Kalkomey Project Manager [10%], Kalkomey Technical Lead[10%], Kalkomey Implementation Lead[5%], NDOW Project Manager[10%], NDOW SMEs[3%]
43	1.1.3.1.5	Define lines of communication and reporting relationships	1 day	Thu 9/14/17	Fri 9/15/17		Kalkomey Project Manager [10%], Kalkomey Technical Lead[10%], Kalkomey Implementation Lead[5%], NDOW Project Manager[10%], NDOW SMEs[3%]

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
44	1.1.3.1.6	Review the project mission	1 day	Thu 9/14/17	Fri 9/15/17		Kalkomey Project Manager [10%], Kalkomey Technical Lead[10%], Kalkomey Implementation Lead[5%], NDOW Project Manager[10%], NDOW SMEs[3%]
45	1.1.3.1.7	Pinpoint high-risk or problem areas	1 day	Thu 9/14/17	Fri 9/15/17		Kalkomey Project Manager [10%], Kalkomey Technical Lead[10%], Kalkomey Implementation Lead[5%], NDOW Project Manager[10%], NDOW SMEs[3%]
46	1.1.3.1.8	Review issue resolution process	1 day	Thu 9/14/17	Fri 9/15/17		Kalkomey Project Manager [10%], Kalkomey Technical Lead[5%], Kalkomey Implementation Lead[10%], NDOW Project Manager[10%], NDOW SMEs[3%]
47	**1.1.3.2**	**Business Requirements Review and Demonstration of Initial Configuration**	**1 day**	**Fri 9/15/17**	**Fri 9/15/17**	**38**	
48	**1.1.3.2.1**	**Review Vessel Registration and Titling**	**0.2 days**	**Fri 9/15/17**	**Fri 9/15/17**		
49	1.1.3.2.1.1	Demonstrate Registration, Titling, and Renewal Functionality	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, NDOW Registration/Titling SMEs
50	1.1.3.2.1.2	Identify Gaps - Document User Stories and Configuration Updates	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, Kalkomey Technical Lead
51	**1.1.3.2.2**	**Review Licensing/Permitting Functionality**	**0.2 days**	**Fri 9/15/17**	**Fri 9/15/17**	**48**	
52	1.1.3.2.2.1	Demonstrate Licensing/Permitting Functionality	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, NDOWLicensing/Permitting SMEs
53	1.1.3.2.2.2	Identify Gaps - Document User Stories and Configuration Updates	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, Kalkomey Technical Lead
54	**1.1.3.2.3**	**Review License Agent Functionality**	**0.2 days**	**Fri 9/15/17**	**Fri 9/15/17**	**51**	
55	1.1.3.2.3.1	Demonstrate License Agent Functionality	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, NDOW Agent SMEs
56	1.1.3.2.3.2	Identify Gaps - Document User Stories and Configuration Updates	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, Kalkomey Technical Lead
57	**1.1.3.2.4**	**Review Drawing/Application Functionality**	**0.2 days**	**Fri 9/15/17**	**Fri 9/15/17**	**54**	

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
58	1.1.3.2.4.1	Demonstrate Drawing/Application Functionality	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, NDOW Draw SMEs
59	1.1.3.2.4.2	Identify Gaps - Document User Stories and Configuration Updates	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, Kalkomey Technical Lead
60	**1.1.3.2.5**	**Review Reporting Functionality**	**0.2 days**	**Fri 9/15/17**	**Fri 9/15/17**	**57**	
61	1.1.3.2.5.1	Demonstrate Reporting Capabilities	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, NDOW Reporting SMEs
62	1.1.3.2.5.2	Identify Gaps - Document User Stories and Configuration Updates	0.1 days	Fri 9/15/17	Fri 9/15/17		Kalkomey Implementation Lead, Kalkomey Technical Lead
63	**1.1.4**	**Planning and Administration**	**35 days**	**Tue 8/8/17**	**Mon 9/25/17**		
64	1.1.4.1	Risk Management Plan	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
65	1.1.4.2	Change Management Plan	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
66	1.1.4.3	Quality Assurance Plan	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
67	1.1.4.4	Knowledge Transfer Plan	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
68	1.1.4.5	POS Installation Plan	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
69	1.1.4.6	POS Training Plan	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
70	1.1.4.7	Business Resumption Plan	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
71	1.1.4.8	System Entity Relationship Diagram (ERD)	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
72	1.1.4.9	NDOW Licensing Project Plan - Approval	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
73	1.1.4.10	Communications Plan	35 days	Tue 8/8/17	Mon 9/25/17	3	Kalkomey Project Manager [10%]
74	**1.2**	**Project Execution**	**108 days**	**Tue 8/15/17**	**Thu 1/11/18**	**2**	
75	**1.2.1**	**Application Configuration and Development**	**43 days**	**Tue 9/26/17**	**Thu 11/23/17**		
76	**1.2.1.1**	**Vessel Registration and Titling**	**21 days**	**Tue 9/26/17**	**Tue 10/24/17**		
77	**1.2.1.1.1**	**Registration and Titling - JAD Session 1**	**13 days**	**Tue 9/26/17**	**Thu 10/12/17**	**37**	
78	1.2.1.1.1.1	Grooming - Kalkomey Internal	5 days	Tue 9/26/17	Mon 10/2/17		Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementation Team 1
79	1.2.1.1.1.2	Development/Configuration	3 days	Tue 10/3/17	Thu 10/5/17	78	Kalkomey Implementation Lead[10%], Kalkomey Implementation Team 1[75%]
80	1.2.1.1.1.3	Unit Test - Kalkomey Internal	3 days	Tue 10/3/17	Thu 10/5/17	78	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
81	1.2.1.1.1.4	Demo/Grooming with NDOW SME	5 days	Fri 10/6/17	Thu 10/12/17	79,80	Kalkomey Implementation Lead[20%], Kalkomey Project Manager [20%], NDOW Registration/Titling SMEs
82	**1.2.1.1.2**	**Registration and Titling - JAD Session 2**	**8 days**	**Fri 10/13/17**	**Tue 10/24/17**	**77**	
83	1.2.1.1.2.1	Grooming - Kalkomey Internal	1 day	Fri 10/13/17	Fri 10/13/17	81	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementation Team 1
84	1.2.1.1.2.2	Development/Configuration	3 days	Mon 10/16/17	Wed 10/18/17	83	Kalkomey Implementation Lead[10%], Kalkomey Implementation Team 1
85	1.2.1.1.2.3	Unit Test - Kalkomey Internal	6 days	Mon 10/16/17	Mon 10/23/17	83	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]
86	1.2.1.1.2.4	Demo/Grooming with NDOW SME	1 day	Tue 10/24/17	Tue 10/24/17	84,85	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], NDOW Registration/Titling SMEs
87	**1.2.1.2**	**Drawing/Application**	**43 days**	**Tue 9/26/17**	**Thu 11/23/17**		
88	**1.2.1.2.1**	**Draw/Lottery - Spring Turkey - JAD Session 1**	**18 days**	**Tue 9/26/17**	**Thu 10/19/17**	**37**	
89	1.2.1.2.1.1	Grooming - Kalkomey Internal	1 day	Tue 9/26/17	Tue 9/26/17		Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementaion Team 2
90	1.2.1.2.1.2	Development/Configuration	12 days	Wed 9/27/17	Thu 10/12/17	89	Kalkomey Implementation Lead[20%], Kalkomey Implementaion Team 2
91	1.2.1.2.1.3	Unit Test - Kalkomey Internal	3 days	Wed 9/27/17	Fri 9/29/17	89	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]
92	1.2.1.2.1.4	Demo/Grooming with NDOW SME	5 days	Fri 10/13/17	Thu 10/19/17	90,91	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], NDOW Draw SMEs

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
93	**1.2.1.2.2**	**Draw/Lottery - Sprint Turkey - JAD Session 2**	**25 days**	**Fri 10/20/17**	**Thu 11/23/17**	**88**	
94	1.2.1.2.2.1	Grooming - Kalkomey Internal	5 days	Fri 10/20/17	Thu 10/26/17	92	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementaion Team 2
95	1.2.1.2.2.2	Development/Configuration	15 days	Fri 10/27/17	Thu 11/16/17	94	Kalkomey Implementation Lead[20%], Kalkomey Implementaion Team 2
96	1.2.1.2.2.3	Unit Test - Kalkomey Internal	3 days	Fri 10/27/17	Tue 10/31/17	94	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]
97	1.2.1.2.2.4	Demo/Grooming with NDOW SME	5 days	Fri 11/17/17	Thu 11/23/17	95,96	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], NDOW Draw SMEs
98	**1.2.1.3**	**Licensing/Permitting**	**10 days**	**Tue 9/26/17**	**Mon 10/9/17**		
99	**1.2.1.3.1**	**Licensing/Permitting - JAD Session 1**	**5 days**	**Tue 9/26/17**	**Mon 10/2/17**	**37**	
100	1.2.1.3.1.1	Grooming - Kalkomey Internal	1 day	Tue 9/26/17	Tue 9/26/17		Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementation Team 3
101	1.2.1.3.1.2	Development/Configuration	3 days	Wed 9/27/17	Fri 9/29/17	100	Kalkomey Implementation Lead[20%], Kalkomey Implementation Team 3
102	1.2.1.3.1.3	Unit Test - Kalkomey Internal	3 days	Wed 9/27/17	Fri 9/29/17	100	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]
103	1.2.1.3.1.4	Demo/Grooming with NDOW SME	1 day	Mon 10/2/17	Mon 10/2/17	101,102	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], NDOWLicensing/Permitting SMEs[33%]
104	**1.2.1.3.2**	**Licensing/Permitting - JAD Session 2**	**5 days**	**Tue 10/3/17**	**Mon 10/9/17**	**99**	

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
105	1.2.1.3.2.1	Grooming - Kalkomey Internal	1 day	Tue 10/3/17	Tue 10/3/17		Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementation Team 3
106	1.2.1.3.2.2	Development/Configuration	3 days	Wed 10/4/17	Fri 10/6/17	105	Kalkomey Implementation Lead[20%], Kalkomey Implementation Team 3
107	1.2.1.3.2.3	Unit Test - Kalkomey Internal	3 days	Wed 10/4/17	Fri 10/6/17	105	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]
108	1.2.1.3.2.4	Demo/Grooming with NDOW SME	1 day	Mon 10/9/17	Mon 10/9/17	106,107	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], NDOWLicensing/Permitting SMEs[33%]
109	**1.2.1.4**	**Print Documents**	**10 days**	**Tue 9/26/17**	**Mon 10/9/17**		
110	**1.2.1.4.1**	**Print Documents - JAD Session 1**	**5 days**	**Tue 9/26/17**	**Mon 10/2/17**	**37**	
111	1.2.1.4.1.1	Grooming - Kalkomey Internal	1 day	Tue 9/26/17	Tue 9/26/17		Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementation Team 4
112	1.2.1.4.1.2	Development/Configuration	3 days	Wed 9/27/17	Fri 9/29/17	111	Kalkomey Implementation Lead[20%], Kalkomey Implementation Team 4
113	1.2.1.4.1.3	Unit Test - Kalkomey Internal	3 days	Wed 9/27/17	Fri 9/29/17	111	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]
114	1.2.1.4.1.4	Demo/Grooming with NDOW SME	1 day	Mon 10/2/17	Mon 10/2/17	112,113	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], NDOWLicensing/Permitting SMEs[33%]
115	**1.2.1.4.2**	**Print Documents - JAD Session 2**	**5 days**	**Tue 10/3/17**	**Mon 10/9/17**	**110**	

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
116	1.2.1.4.2.1	Grooming - Kalkomey Internal	1 day	Tue 10/3/17	Tue 10/3/17		Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementation Team 4
117	1.2.1.4.2.2	Development/Configuration	3 days	Wed 10/4/17	Fri 10/6/17	116	Kalkomey Implementation Lead[20%], Kalkomey Implementation Team 4
118	1.2.1.4.2.3	Unit Test - Kalkomey Internal	3 days	Wed 10/4/17	Fri 10/6/17	116	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]
119	1.2.1.4.2.4	Demo/Grooming with NDOW SME	1 day	Mon 10/9/17	Mon 10/9/17	118,117	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], NDOWLicensing/Permitting SMEs[33%]
120	**1.2.1.5**	**Reporting**	**10 days**	**Tue 9/26/17**	**Mon 10/9/17**		
121	**1.2.1.5.1**	**Reporting - JAD Session 1**	**5 days**	**Tue 9/26/17**	**Mon 10/2/17**	**37**	
122	1.2.1.5.1.1	Grooming - Kalkomey Internal	1 day	Tue 9/26/17	Tue 9/26/17		Kalkomey Project Manager [20%]
123	1.2.1.5.1.2	Development/Configuration	3 days	Wed 9/27/17	Fri 9/29/17	122	Kalkomey Implementation Lead[20%], Kalkomey Implementation Team 5
124	1.2.1.5.1.3	Unit Test - Kalkomey Internal	3 days	Wed 9/27/17	Fri 9/29/17	122	Kalkomey Implementation Lead[10%], Kalkomey Quality Assurance Team[50%]
125	1.2.1.5.1.4	Demo/Grooming with NDOW SME	1 day	Mon 10/2/17	Mon 10/2/17	123,124	Kalkomey Implementation Lead[10%],Kalkomey Project Manager [20%],NDOWLicensing/Permitting SMEs[30%]
126	**1.2.1.5.2**	**Reporting - JAD Session 2**	**5 days**	**Tue 10/3/17**	**Mon 10/9/17**	**121**	
127	1.2.1.5.2.1	Grooming - Kalkomey Internal	1 day	Tue 10/3/17	Tue 10/3/17		Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], Kalkomey Implementation Team 5

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
128	1.2.1.5.2.2	Development/Configuration	3 days	Wed 10/4/17	Fri 10/6/17	127	Kalkomey Implementation Lead[5%], Kalkomey Implementation Team 5
129	1.2.1.5.2.3	Unit Test - Kalkomey Internal	3 days	Wed 10/4/17	Fri 10/6/17	127	Kalkomey Implementation Lead[5%], Kalkomey Quality Assurance Team[50%]
130	1.2.1.5.2.4	Demo/Grooming with NDOW SME	1 day	Mon 10/9/17	Mon 10/9/17	128,129	Kalkomey Implementation Lead[10%], Kalkomey Project Manager [20%], NDOWLicensing/Permitting SMEs[33%]
131	**1.2.2**	**Build Integrations**	**35 days**	**Mon 9/18/17**	**Mon 11/6/17**	**37**	
132	1.2.2.1	State Accounting System Interface	35 days	Mon 9/18/17	Mon 11/6/17	37	Kalkomey Integration Dev Team[10%], Kalkomey Technical Lead[10%]
133	1.2.2.2	Department of Children and Families Support Enforcement Revocations Interface	35 days	Mon 9/18/17	Mon 11/6/17	37	Kalkomey Integration Dev Team[10%], Kalkomey Technical Lead[10%]
134	1.2.2.3	Department of Justice Link System Interface	35 days	Mon 9/18/17	Mon 11/6/17	37	Kalkomey Integration Dev Team[10%], Kalkomey Technical Lead[10%]
135	1.2.2.4	Nevada Circuit Court Interface	35 days	Mon 9/18/17	Mon 11/6/17	37	Kalkomey Integration Dev Team[10%], Kalkomey Technical Lead[10%]
136	1.2.2.5	Federal Duck Stamp Interface	35 days	Mon 9/18/17	Mon 11/6/17	37	Kalkomey Integration Dev Team[10%], Kalkomey Technical Lead[10%]
137	1.2.2.6	Department of Motor Vehicles Driver's License Interface	35 days	Mon 9/18/17	Mon 11/6/17	37	Kalkomey Integration Dev Team[10%], Kalkomey Technical Lead[10%]
138	1.2.2.7	Harvest Information Program (HIP) Extraction	35 days	Mon 9/18/17	Mon 11/6/17	37	Kalkomey Integration Dev Team[10%], Kalkomey Technical Lead[10%]

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
139	1.2.2.8	Spillman Interface	35 days	Mon 9/18/17	Mon 11/6/17	37	Kalkomey Integration Dev Team[10%], Kalkomey Technical Lead[10%]
140	**1.2.3**	**NDOW Acceptance Testing Phases**	**74 days**	**Mon 10/2/17**	**Thu 1/11/18**		
141	**1.2.3.1**	**Vessel Registration and Titling UAT**	**45 days**	**Mon 10/2/17**	**Fri 12/1/17**		
142	1.2.3.1.1	Test Plan Delivered to NDOW	0 days	Mon 10/2/17	Mon 10/2/17		Kalkomey Implementation Lead
143	1.2.3.1.2	NDOW Testing with Kalkomey Support	22 days	Thu 11/2/17	Fri 12/1/17	142	Kalkomey Implementation Lead, NDOW Registration/Titling SMEs
144	**1.2.3.2**	**Licensing/Permitting Acceptance Testing**	**42 days**	**Wed 11/15/17**	**Thu 1/11/18**		
145	1.2.3.2.1	Test Plan Delivered to NDOW	0 days	Wed 11/15/17	Wed 11/15/17		Kalkomey Implementation Lead
146	1.2.3.2.2	NDOW Testing with Kalkomey Support	20 days	Fri 12/15/17	Thu 1/11/18		Kalkomey Implementation Lead[50%], NDOWLicensing/Permitting SMEs
147	**1.2.4**	**Development of Training Plan and Materials**	**60 days**	**Tue 9/26/17**	**Mon 12/18/17**		
148	1.2.4.1	Develop NDOW Training Materials	15 days	Tue 9/26/17	Mon 10/16/17		Kalkomey Training Team
149	1.2.4.2	Develop Nevada License Agent Training	15 days	Tue 10/17/17	Mon 11/6/17	148	Kalkomey Training Team
150	1.2.4.3	Develop Helpdesk Support Training Materials	15 days	Tue 11/21/17	Mon 12/11/17	149	Kalkomey Training Team
151	**1.2.5**	**Data Migration/Import**	**102 days**	**Tue 8/15/17**	**Thu 1/4/18**		
152	**1.2.5.1**	**Customer Migration**	**42 days**	**Tue 8/15/17**	**Wed 10/11/17**		
153	1.2.5.1.1	Receive Data from NDOW	0 days	Tue 8/15/17	Tue 8/15/17		NDOW Project Manager
154	1.2.5.1.2	Joint Data Mapping Exercises	20 days	Tue 8/15/17	Mon 9/11/17	153	Kalkomey Migration Team[50%], NDOW SMEs
155	1.2.5.1.3	Import Scripts Created	10 days	Tue 9/12/17	Mon 9/25/17	154	Kalkomey Migration Team[50%]
156	1.2.5.1.4	Import Scripts Tested	10 days	Tue 9/26/17	Mon 10/9/17	155	Kalkomey Migration Team[50%]
157	1.2.5.1.5	Data Loaded to Production	2 days	Tue 10/10/17	Wed 10/11/17	156	Kalkomey Migration Team[33%]
158	**1.2.5.2**	**Vessel Titling/Registrations**	**62 days**	**Tue 8/15/17**	**Wed 11/8/17**		
159	1.2.5.2.1	Receive Data from NDOW	0 days	Tue 8/15/17	Tue 8/15/17		NDOW Project Manager
160	1.2.5.2.2	Joint Data Mapping Exercises	20 days	Tue 9/12/17	Mon 10/9/17	154	Kalkomey Migration Team[50%], NDOW SMEs[75%]
161	1.2.5.2.3	Import Scripts Created	10 days	Tue 10/10/17	Mon 10/23/17	160	Kalkomey Migration Team[50%]
162	1.2.5.2.4	Import Scripts Tested	10 days	Tue 10/24/17	Mon 11/6/17	161	Kalkomey Migration Team[50%]
163	1.2.5.2.5	Data Loaded to Production	2 days	Tue 11/7/17	Wed 11/8/17	162	Kalkomey Migration Team[50%]
164	**1.2.5.3**	**Hunting and Fishing Licenses**	**82 days**	**Tue 8/15/17**	**Wed 12/6/17**		
165	1.2.5.3.1	Receive Data from NDOW	0 days	Tue 8/15/17	Tue 8/15/17		NDOW Project Manager

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
166	1.2.5.3.2	Joint Data Mapping Exercises	20 days	Tue 10/10/17	Mon 11/6/17	160	Kalkomey Migration Team[50%],NDOW SMEs
167	1.2.5.3.3	Import Scripts Created	10 days	Tue 11/7/17	Mon 11/20/17	166	Kalkomey Migration Team[33%]
168	1.2.5.3.4	Import Scripts Tested	10 days	Tue 11/21/17	Mon 12/4/17	167	Kalkomey Migration Team[50%]
169	1.2.5.3.5	Data Loaded to Production	2 days	Tue 12/5/17	Wed 12/6/17	168	Kalkomey Migration Team[50%]
170	**1.2.5.4**	**Conservation Citations/Revocations**	**102 days**	**Tue 8/15/17**	**Wed 1/3/18**		
171	1.2.5.4.1	Receive Data from NDOW	0 days	Tue 8/15/17	Tue 8/15/17		NDOW Project Manager
172	1.2.5.4.2	Joint Data Mapping Exercises	20 days	Tue 11/7/17	Mon 12/4/17	166	Kalkomey Migration Team[50%], NDOW SMEs
173	1.2.5.4.3	Import Scripts Created	10 days	Tue 12/5/17	Mon 12/18/17	172	Kalkomey Migration Team[50%]
174	1.2.5.4.4	Import Scripts Tested	10 days	Tue 12/19/17	Mon 1/1/18	173	Kalkomey Migration Team[50%]
175	1.2.5.4.5	Data Loaded to Production	2 days	Tue 1/2/18	Wed 1/3/18	174	Kalkomey Migration Team[50%]
176	1.2.5.5	Milestone: NDOW Data Loaded to AMS for Initial Implementation	0 days	Thu 1/4/18	Thu 1/4/18	175,157,163,169	
177	**1.3**	**Project Deployment**	**2 days**	**Mon 12/4/17**	**Tue 12/5/17**		
178	**1.3.1**	**Deployment Tasks**	**2 days**	**Mon 12/4/17**	**Tue 12/5/17**		
179	1.3.1.1	Auto Deploy Latest Approved AMS Release to	1 day	Mon 12/4/17	Mon 12/4/17	141	Kalkomey Implementation Team 1
180	1.3.1.2	Auto Deploy Approved Configuration Assets to Production	1 day	Tue 12/5/17	Tue 12/5/17	179	Kalkomey Implementation Team 1
181	**1.4**	**Implementation Close**	**35 days**	**Fri 12/1/17**	**Fri 1/19/18**		
182	**1.4.1**	**Vessel Registration and Titling**	**10 days**	**Fri 12/1/17**	**Fri 12/15/17**		
183	1.4.1.1	Vessel Registration Renewal notices out	0 days	Fri 12/1/17	Fri 12/1/17		
184	1.4.1.2	Go-Live! Vessel Registration and Title Module	0 days	Fri 12/15/17	Fri 12/15/17		
185	**1.4.2**	**Licensing/Permitting**	**0 days**	**Fri 1/19/18**	**Fri 1/19/18**		
186	1.4.2.1	Go-Live! - Licenses and Permits Available for Sale on Application Site	0 days	Fri 1/19/18	Fri 1/19/18		
187	1.4.2.2	Milestone: Implementation Complete	0 days	Fri 1/19/18	Fri 1/19/18	184,186	
188	**2**	**Post Implementation Support and Maintenance for NDOW Licensing System**	**361 days**	**Tue 8/15/17**	**Tue 1/1/19**		
189	2.1	Post Implementation Evaluation Review (PIER)	3 days	Mon 7/2/18	Wed 7/4/18		Kalkomey Project Manager, NDOW Project Manager
190	**2.2**	**NDOW Acceptance Testing Phases for Post Implementation Releases**	**166 days**	**Tue 12/5/17**	**Tue 7/24/18**		
191	**2.2.1**	**Spring Turkey Application Acceptance Testing**	**39 days**	**Tue 12/5/17**	**Fri 1/26/18**		

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
192	2.2.1.1	Test Plan Delivered to NDOW	0 days	Tue 12/5/17	Tue 12/5/17		Kalkomey Implementation Lead
193	2.2.1.2	NDOW Testing with Kalkomey Support	16 days	Fri 1/5/18	Fri 1/26/18	192	Kalkomey Implementation Lead[50%], NDOW Draw SMEs
194	**2.2.2**	**Restricted Nonresident Guided Hunt**	**38 days**	**Mon 12/25/17**	**Wed 2/14/18**		
195	2.2.2.1	Test Plan Delivered to NDOW	0 days	Mon 12/25/17	Mon 12/25/17		Kalkomey Implementation Lead
196	2.2.2.2	NDOW Testing with Kalkomey Support	15 days	Thu 1/25/18	Wed 2/14/18		NDOW Draw SMEs[50%], Kalkomey Implementation Lead[33%]
197	**2.2.3**	**Big Game Draw Acceptance - Main**	**32 days**	**Thu 2/1/18**	**Fri 3/16/18**		
198	2.2.3.1	Test Plan Delivered to NDOW	0 days	Thu 2/1/18	Thu 2/1/18		Kalkomey Implementation Lead
199	2.2.3.2	NDOW Testing with Kalkomey Support	12 days	Thu 3/1/18	Fri 3/16/18		Kalkomey Implementation Lead[50%], NDOW Draw SMEs
200	**2.2.4**	**Big Game Draw Acceptance - Second**	**30 days**	**Sat 4/28/18**	**Fri 6/8/18**		
201	2.2.4.1	Test Plan Delivered to NDOW	0 days	Sat 4/28/18	Sat 4/28/18		Kalkomey Implementation Lead
202	2.2.4.2	NDOW Testing with Kalkomey Support	10 days	Mon 5/28/18	Fri 6/8/18		Kalkomey Implementation Lead[50%], NDOW Draw SMEs[50%]
203	**2.2.5**	**Big Game First Come First Serve**	**29 days**	**Wed 6/13/18**	**Mon 7/23/18**		
204	2.2.5.1	Test Plan Delivered to NDOW	0 days	Wed 6/13/18	Wed 6/13/18		Kalkomey Implementation Lead
205	2.2.5.2	NDOW Testing with Kalkomey Support	7 days	Fri 7/13/18	Mon 7/23/18		Kalkomey Implementation Lead[50%], NDOW Draw SMEs[50%]
206	**2.2.6**	**Swan Draw Acceptance**	**25 days**	**Wed 6/20/18**	**Tue 7/24/18**		
207	2.2.6.1	Test Plan Delivered to NDOW	0 days	Wed 6/20/18	Wed 6/20/18		Kalkomey Implementation Lead
208	2.2.6.2	NDOW Testing with Kalkomey Support	3 days	Fri 7/20/18	Tue 7/24/18		Kalkomey Implementation Lead[50%], NDOW Draw SMEs[50%]
209	**2.3**	**Hardware Rollout for License Agent Sales**	**64 days**	**Fri 12/1/17**	**Thu 3/1/18**		
210	2.3.1	Survey agents for readiness to receive	3 days	Fri 12/1/17	Tue 12/5/17		Kalkomey Training Specialists
211	2.3.2	Ship equipment	20 days	Wed 12/6/17	Tue 1/2/18	210	Kalkomey Training Specialists
212	2.3.3	Schedule license agent training	3 days	Wed 1/3/18	Fri 1/5/18	211	Kalkomey Training Specialists
213	2.3.4	Agent equipment installation and training	35 days	Mon 1/8/18	Fri 2/23/18	212	Kalkomey Training Specialists
214	2.3.5	License Sales at Agents and NDOW Offices Go-	0 days	Thu 3/1/18	Thu 3/1/18		
215	**2.4**	**Post Implementation Interface Development**	**70 days**	**Fri 1/12/18**	**Thu 4/19/18**		
216	2.4.1	Interstate Wildlife Violator Compact Interface	70 days	Fri 1/12/18	Thu 4/19/18		Kalkomey Technical Lead[50%], Kalkomey Integration Dev Team[50%]

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
217	2.4.2	Hunter Education Module Interface	35 days	Fri 1/12/18	Thu 3/1/18		Kalkomey Technical Lead[50%], Kalkomey Integration Dev Team[50%]
218	**2.5**	**Post Implementation Data Migration**	**194 days**	**Tue 8/15/17**	**Fri 5/11/18**		
219	**2.5.1**	**Harvest Information Reporting**	**144 days**	**Tue 8/15/17**	**Fri 3/2/18**		
220	2.5.1.1	Receive Data from NDOW	0 days	Tue 8/15/17	Tue 8/15/17		NDOW Project Manager
221	2.5.1.2	Joint Data Mapping Exercises	10 days	Thu 1/4/18	Wed 1/17/18	220,176	Kalkomey Migration Team, NDOW SMEs
222	2.5.1.3	Import Scripts Created	10 days	Thu 2/1/18	Wed 2/14/18	221	Kalkomey Migration Team[50%]
223	2.5.1.4	Import Scripts Tested	10 days	Thu 2/15/18	Wed 2/28/18	222	Kalkomey Migration Team[33%]
224	2.5.1.5	Data Loaded to Production	2 days	Thu 3/1/18	Fri 3/2/18	223	Kalkomey Migration Team[33%]
225	**2.5.2**	**Application Hunt/Tags And Draw/Bonus Point**	**154 days**	**Tue 8/15/17**	**Fri 3/16/18**		
226	2.5.2.1	Receive Data from NDOW	0 days	Tue 8/15/17	Tue 8/15/17		NDOW Project Manager
227	2.5.2.2	Joint Data Mapping Exercises	20 days	Thu 1/18/18	Wed 2/14/18	226,221	Kalkomey Migration Team[33%], NDOW SMEs
228	2.5.2.3	Import Scripts Created	10 days	Thu 2/15/18	Wed 2/28/18	227	Kalkomey Migration Team[33%]
229	2.5.2.4	Import Scripts Tested	10 days	Thu 3/1/18	Wed 3/14/18	228	Kalkomey Migration Team[50%]
230	2.5.2.5	Data Loaded to Production	2 days	Thu 3/15/18	Fri 3/16/18	229	Kalkomey Migration Team[50%]
231	**2.5.3**	**Volunteer Program**	**174 days**	**Tue 8/15/17**	**Fri 4/13/18**		
232	2.5.3.1	Receive Data from NDOW	0 days	Tue 8/15/17	Tue 8/15/17		NDOW Project Manager
233	2.5.3.2	Joint Data Mapping Exercises	20 days	Thu 2/15/18	Wed 3/14/18	227	Kalkomey Migration Team[50%], NDOW SMEs
234	2.5.3.3	Import Scripts Created	10 days	Thu 3/15/18	Wed 3/28/18	233	Kalkomey Migration Team[50%]
235	2.5.3.4	Import Scripts Tested	10 days	Thu 3/29/18	Wed 4/11/18	234	Kalkomey Migration Team[50%]
236	2.5.3.5	Data Loaded to Production	2 days	Thu 4/12/18	Fri 4/13/18	235	Kalkomey Migration Team[50%]
237	**2.5.4**	**Special Licenses and Permits**	**194 days**	**Tue 8/15/17**	**Fri 5/11/18**		
238	2.5.4.1	Receive Data from NDOW	0 days	Tue 8/15/17	Tue 8/15/17		NDOW Project Manager
239	2.5.4.2	Joint Data Mapping Exercises	20 days	Thu 3/15/18	Wed 4/11/18	238,233	Kalkomey Migration Team[33%], NDOW SMEs
240	2.5.4.3	Import Scripts Created	10 days	Thu 4/12/18	Wed 4/25/18	239	Kalkomey Migration Team[50%]
241	2.5.4.4	Import Scripts Tested	10 days	Thu 4/26/18	Wed 5/9/18	240	Kalkomey Migration Team
242	2.5.4.5	Data Loaded to Production	2 days	Thu 5/10/18	Fri 5/11/18	241	Kalkomey Migration Team
243	**2.6**	**Operational Activities to be supported by**	**273 days**	**Sun 12/17/17**	**Tue 1/1/19**		
244	**2.6.1**	**Spring Turkey**	**24 days**	**Sun 12/17/17**	**Fri 1/19/18**		

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
245	2.6.1.1	Review Hunter Choice and Season Tables for Spring Public Lands Turkey	0 days	Sun 12/17/17	Sun 12/17/17		Kalkomey Implementation Lead, NDOW Draw SMEs
246	2.6.1.2	Mail Spring Turkey Postcards	0 days	Mon 1/15/18	Mon 1/15/18		Kalkomey Implementation Lead
247	2.6.1.3	Go-Live! for Spring Turkey Application Period	0 days	Fri 1/19/18	Fri 1/19/18		
248	**2.6.2**	**Restricted Nonresident Guided Hunt Drawing**	**51 days**	**Mon 1/15/18**	**Mon 3/26/18**		
249	2.6.2.1	Provide lists of licensed master guides and valid units to administrator	0 days	Mon 1/15/18	Mon 1/15/18		NDOW Draw SMEs
250	2.6.2.2	Forward final Hunter Choice, Unit Group, and season information to the Administrator for update of the Master File for Restricted Nonresident Guided Deer Hunt draw	0 days	Tue 1/30/18	Tue 1/30/18		Kalkomey Implementation Lead, NDOW SMEs
251	2.6.2.3	Mail Master Guide online application packets to the guides	0 days	Fri 2/9/18	Fri 2/9/18		Kalkomey Implementation Lead
252	2.6.2.4	Restricted Nonresident Guided application deadline 11 p.m.	0 days	Wed 3/14/18	Wed 3/14/18		
253	2.6.2.5	Restricted Nonresident Guided online bonus point only and application withdraw deadline	0 days	Fri 3/16/18	Fri 3/16/18		
254	2.6.2.6	Execute Restricted Nonresident Guided	0 days	Mon 3/19/18	Mon 3/19/18		Kalkomey Implementation Lead
255	2.6.2.7	48-hour release of Restricted Nonresident Guided Drawing results to the website	2 days	Fri 3/23/18	Mon 3/26/18		Kalkomey Implementation Lead
256	**2.6.3**	**Big Game Drawing**	**240 days**	**Wed 1/31/18**	**Tue 1/1/19**		
257	2.6.3.1	Final Big Game Harvest Questionnaire	0 days	Wed 1/31/18	Wed 1/31/18		
258	2.6.3.2	Big Game non-return of harvest questionnaire Administrative Penalty Fee Letters mailed	0 days	Mon 2/5/18	Mon 2/5/18		Kalkomey Implementation Lead
259	2.6.3.3	Receive non-return penalty payments online	0 days	Mon 2/5/18	Mon 2/5/18		Kalkomey Implementation Lead
260	2.6.3.4	Forwards the Hunter Choice, unit group, and season information to the Administrator for update of the Hunt Master File for the Big	0 days	Wed 2/7/18	Wed 2/7/18		
261	2.6.3.5	Review, update, and approve the Hunt Master file season table for the Main Draw	15 days	Sat 2/10/18	Thu 3/1/18		Kalkomey Implementation Lead, NDOW Draw SMEs[0%]
262	2.6.3.6	Mail Big Game application reminder postcard	0 days	Fri 3/16/18	Fri 3/16/18		Kalkomey Implementation Lead
263	2.6.3.7	Big Game Application Period Go-Live! Look up for Big Game Nonreturn of harvest	0 days	Mon 3/19/18	Mon 3/19/18		
264	2.6.3.8	Big Game Application deadline 11 p.m.	0 days	Mon 4/16/18	Mon 4/16/18		

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
265	2.6.3.9	Big Game bonus point only application	0 days	Mon 4/23/18	Mon 4/23/18		
266	2.6.3.10	Update hunt quota with information provided	0 days	Wed 5/16/18	Wed 5/16/18		Kalkomey Implementation Lead
267	2.6.3.11	Reconcile monies PRE Draw with NDOW Fiscal Services prior to draw	3 days	Wed 5/16/18	Fri 5/18/18		Kalkomey Implementation Lead[50%], NDOW Draw SMEs[50%]
268	2.6.3.12	Review and approve quota in AMS	2 days	Thu 5/17/18	Fri 5/18/18		Kalkomey Implementation Lead[50%], NDOW Draw SMEs[50%]
269	2.6.3.13	Execute main draw	0 days	Wed 5/23/18	Wed 5/23/18		Kalkomey Implementation Lead
270	2.6.3.14	Review remaining tag information with NDOW for posting on NDOW website	4 days	Thu 5/24/18	Tue 5/29/18		Kalkomey Implementation Lead[25%], NDOW Draw SMEs[15%]
271	2.6.3.15	Process saleable list requests	22 days	Wed 5/23/18	Thu 6/21/18		Kalkomey Implementation Lead[25%]
272	2.6.3.16	Big Game Draw 48-hour draw results posting	0 days	Fri 5/25/18	Fri 5/25/18		
273	2.6.3.17	Review and approve Seasons Dates for second draw	10 days	Mon 5/28/18	Fri 6/8/18		Kalkomey Implementation Lead[25%], NDOW Draw SMEs[33%]
274	2.6.3.18	Big Game draw final results release date	0 days	Fri 6/8/18	Fri 6/8/18		
275	2.6.3.19	Application process available for second draw (remaining big game tags)	0 days	Fri 6/8/18	Fri 6/8/18		
276	2.6.3.20	Process hunting license refund requests	61 days	Fri 6/8/18	Fri 8/31/18		Kalkomey Implementation Lead[25%]
277	2.6.3.21	Process tag refund requests and issue to alternate tags if possible	148 days	Fri 6/8/18	Tue 1/1/19		Kalkomey Implementation Lead[25%]
278	2.6.3.22	Second Draw deadline 11 p.m.	0 days	Mon 6/25/18	Mon 6/25/18		
279	2.6.3.23	Start processing duplicate tag requests at regional offices. Reconcile tags at time of	0 days	Tue 7/3/18	Tue 7/3/18		Kalkomey Implementation Lead[25%], NDOW Draw SMEs
280	2.6.3.24	Second Draw bonus point only deadline 11	0 days	Mon 7/2/18	Mon 7/2/18		
281	2.6.3.25	Big Game Second Draw 48-hour draw results posting by 5 p.m.	0 days	Fri 7/13/18	Fri 7/13/18		
282	2.6.3.26	Big Game remaining tags final results	0 days	Sat 7/21/18	Sat 7/21/18		Kalkomey Implementation Lead[25%]
283	2.6.3.27	First Come First Serve tags go on sale	0 days	Sat 7/28/18	Sat 7/28/18		
284	2.6.3.28	Process applications for Big Game remaining tags daily	91 days	Sat 7/28/18	Fri 11/30/18		Kalkomey Implementation Lead[25%]
285	2.6.3.29	Process applications for Big Game harvest questionnaires as they are received.	91 days	Sat 7/28/18	Fri 11/30/18		Kalkomey Implementation Lead[25%]

Task ID	WBS	Task Name	Duration	Start	Finish	Predecessors	Resource Names
286	**2.6.3.30**	**Furbearing Harvest**	**74 days**	**Wed 4/18/18**	**Mon 7/30/18**		
287	2.6.3.30.1	Send out Furbearing Harvest Questionnaires to all Trapping License holders	0 days	Wed 4/18/18	Wed 4/18/18		Kalkomey Implementation Lead
288	2.6.3.30.2	Deadline for Furbearing Harvest	0 days	Thu 5/31/18	Thu 5/31/18		
289	2.6.3.30.3	Place supensions on trapping license holders that did not return questionnaires. Unless	22 days	Sun 7/1/18	Mon 7/30/18		Kalkomey Implementation Lead[25%]
290	**2.6.3.31**	**Swan Draw**	**112 days**	**Sat 7/28/18**	**Tue 1/1/19**		
291	2.6.3.31.1	Online applications for Swan become available	0 days	Sat 7/28/18	Sat 7/28/18		
292	2.6.3.31.2	Execute Swan Draw	0 days	Thu 9/6/18	Thu 9/6/18		Kalkomey Implementation Lead
293	2.6.3.31.3	Swan 48-hour release date	2 days	Sat 9/8/18	Mon 9/10/18		
294	2.6.3.31.4	Swan final hour release date	0 days	Sat 9/15/18	Sat 9/15/18		
295	2.6.3.31.5	Process swan applications received through First Come First Serve until close of the season	72 days	Mon 9/24/18	Tue 1/1/19		Kalkomey Implementation Lead[25%]
296	**2.7**	**Commission Meetings - 2018**	**171 days**	**Fri 1/26/18**	**Sat 9/22/18**		
297	2.7.1	Big Game Season setting - Carson City, Nevada	2 days	Fri 1/26/18	Sat 1/27/18		Kalkomey Project Manager, Kalkomey Implementation Lead[50%]
298	2.7.2	Migratory Bird and Swan Season setting - Laughlin, Nevada	2 days	Fri 3/16/18	Sat 3/17/18		Kalkomey Project Manager, Kalkomey Implementation Lead
299	2.7.3	Quota Setting - Carson City, Nevada	2 days	Fri 5/11/18	Sat 5/12/18		Kalkomey Project Manager, Kalkomey Implementation Lead
300	2.7.4	Upland Game Setting, Includes Wild Turkey - Lovelock, Nevada	2 days	Fri 6/22/18	Sat 6/23/18		Kalkomey Project Manager, Kalkomey Implementation Lead
301	2.7.5	Commission Meeting - Lincoln County, Nevada	2 days	Fri 8/10/18	Sat 8/11/18		Kalkomey Project Manager, Kalkomey Implementation Lead
302	2.7.6	Deliverable - Vendor presentation of draw report and statistics - Las Vegas, Nevada	2 days	Fri 9/21/18	Sat 9/22/18		Kalkomey Project Manager, Kalkomey Implementation Lead