Welcome, Lu Anne Cottrill | Procurement | Budgeting | Accounts Receivable | Accounts Payable

Solicitation Response(SR) | **Dept:** 0945 | **ID:** ESR02241900000003864 | **Ver.:** 1 | **Function:** New | **Phase:** Final | ▼ | **Modified by** batch , 02/26/2019

Header 📎 1

List View

| General Information | Contact | Default Values | Discount | Document Information |

Procurement Folder: 536534	**SO Doc Code:** CRFQ
Procurement Type: Central Master Agreement	**SO Dept:** 0945
Vendor ID: VS0000016283 ⬆	**SO Doc ID:** BOM1900000005
Legal Name: Eduloka, Ltd.	**Published Date:** 2/15/19
Alias/DBA: inLumon	**Close Date:** 2/26/19
Total Bid: $217,470.00	**Close Time:** 13:30
Response Date: 02/24/2019	**Status:** Closed
Response Time: 18:48	**Solicitation Description:** Addendum 1-Database and Maintenance Services
	Total of Header Attachments: 1

Apply Default Values to Commodity Lines | View Procurement Folder

Proc Folder : 536534

Solicitation Description : Addendum 1-Database and Maintenance Services

Proc Type : Central Master Agreement

Date issued	Solicitation Closes	Solicitation Response	Version
	2019-02-26 13:30:00	SR 0945 ESR0224190000003864	1

VENDOR

VS0000016283

Eduloka, Ltd.

inLumon

Solicitation Number: CRFQ   0945   BOM1900000005

Total Bid : $217,470.00   **Response Date:**   2019-02-24   **Response Time:**   18:48:54

Comments: inLumon is pleased to present this response to the West Virginia Board of Medicines' Request for
Quote for the Database and Maintenance Services Project.
Our response file (uploaded as PDF) contains all required RFQ documentation, requested items,
and comprehensive information and examples of how inLumon will meet and exceed the Board's
requirements for a new, highly-flexible regulatory software system. Furthermore, our pricing is
predicable and straight forward enabling the Board to no longer be subject to extra fees for
enhancements, upgrades, or unbudgeted and unexpected "change orders." inLumon looks forward
to answering any questions, providing clarifications, demonstrating our solution and ultimately
partnering with the Board for years to come.
Thank you!

FOR INFORMATION CONTACT THE BUYER

Jessica S Chambers

(304) 558-0246
jessica.s.chambers@wv.gov

Signature on File   **FEIN #**   **DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	LICENSING DATABASE MANAGEMENT PROGRAM				$0.00

Comm Code	Manufacturer	Specification	Model #	
81111507				

Extended Description : CONCURRENT USER LICENSE(S) FOR 16 BOARD OF MEDICINE STAFF USERS OF LICENSURE/RECORDS PRODUCT WITH CONTENT MANAGEMNET DATABASE SYSTEM (INCLUDING WEB SITE, ADMINISTRATIVE INTERFACE AND CLOUD BASED - PROGRAM) FOR UP TO 35,000 MEMBERS.

Comments: inLumon does not charge license fees on a per staff user basis.
Licensing of software for West Virginia Board of Medicine for use per scope of RFQ is included with installation and yearly support costs.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	IMPLEMENTATION AND INSTALLATION TO ACCEPTANCE				$19,770.00

Comm Code	Manufacturer	Specification	Model #	
81111508				

Extended Description : IMPLEMENTATION AND INSTALLATION TO ACCEPTANCE

Comments: inLumon is basing the offer on our monthly subscription model (See bid response for more detailed information) and with an 180 installation period, the contract amount reflects an equivalent 6-month subscription.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	YEAR 1 MAINTENANCE & SUPPORT/WARRANTY/HOSTING				$39,540.00

Comm Code	Manufacturer	Specification	Model #	
81111507				

Extended Description : YEAR 1 MAINTENANCE & SUPPORT/WARRANTY/HOSTING

Comments: inLumon is basing the offer on a monthly subscription model (See bid response for more detailed information) and contract amount reflects an equivalent 12-month subscription.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	YEAR 2 MAINTENANCE & SUPPORT/WARRANTY/HOSTING				$39,540.00

Comm Code	Manufacturer	Specification	Model #	
81111507				

Extended Description : YEAR 2 MAINTENANCE & SUPPORT/WARRANTY/HOSTING

Comments: inLumon is basing the offer on a monthly subscription model (See bid response for more detailed information) and contract amount reflects an equivalent 12-month subscription.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	YEAR 3 MAINTENANCE & SUPPORT/WARRANTY/HOSTING				$39,540.00

Comm Code	Manufacturer	Specification	Model #	
81111507				

Extended Description : YEAR 3 MAINTENANCE & SUPPORT/WARRANTY/HOSTING

Comments: inLumon is basing the offer on a monthly subscription model (See bid response for more detailed information) and contract amount reflects an equivalent 12-month subscription.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	YEAR 4 MAINTENANCE & SUPPORT/WARRANTY/HOSTING				$39,540.00

Comm Code	Manufacturer	Specification	Model #	
81111507				

Extended Description : YEAR 4 MAINTENANCE & SUPPORT/WARRANTY/HOSTING

Comments: inLumon is basing the offer on a monthly subscription model (See bid response for more detailed information) and contract amount reflects an equivalent 12-month subscription.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
7	YEAR 5 MAINTENANCE & SUPPORT/WARRANTY/HOSTING				$39,540.00

Comm Code	Manufacturer	Specification	Model #	
81111507				

Extended Description : YEAR 5 MAINTENANCE & SUPPORT/WARRANTY/HOSTING

Comments: inLumon is basing the offer on a monthly subscription model (See bid response for more detailed information) and contract amount reflects an equivalent 12-month subscription.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
8	ADDITIONAL LICENSE, PER USER (IF NECESSARY	5.00000	EA		

Comm Code	Manufacturer	Specification	Model #	
81111507				

Extended Description : ADDITIONAL LICENSE, PER USER (IF NECESSARY)

Comments: inLumon does not charge license fees on a per staff user basis.
Licensing of software for West Virginia Board of Medicine for use per scope of RFQ is included with installation and yearly support costs.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
9	new customization professional services	5.00000	HOUR	$0.000000	$0.00

Comm Code	Manufacturer	Specification	Model #	
81111507				

Extended Description : new customization professional services

Comments: inLumon INCLUDES future system changes, upgrades and enhancements with yearly support costs, and does not limit to 5 hours, hence $0 for New Customization Professional Services. Delivery days vary depending upon Board request.

State of West Virginia
Board of Medicine

Response to

Request for Quote

No. CRFQ 0945 BOM1900000005 for

Database and Maintenance Services

from

Cover Letter

Eduloka, Ltd. (dba inLumon)
5375 Kietzke Lane, Suite 150
Reno, NV 89511

February 22, 2019

Jessica S. Chambers, Senior Buyer
West Virginia Department of Administration, Purchasing Division
2019 Washington Street, East
Charleston, WV 25305

Dear Ms. Chambers,

inLumon is pleased to present this response to the West Virginia Board of Medicines' Request for Quote for the Database and Maintenance Services Project. Our firm is uniquely qualified to meet or exceed the specifications, performances and requirements having similarly implemented our off-the-shelf licensure / records and content management systems in a wide variety of related disciplines and professional fields including many health occupation regulatory agencies in Nevada, California, Louisiana and Wyoming.

inLumon helps dozens of government agencies across multiple certification and licensing disciplines, including physicians, podiatrists, drug dispensing professionals and corporations, to streamline operations, increase efficiency, and improve customer satisfaction with our unique, web-based licensing framework. Our clients benefit from a highly configurable, commercial-off-the-shelf (COTS) rules-driven database that includes proven operational components, faster implementation schedules, and reduced state risks. We do this with a flexible, rules driven, secure role-based database solution spanning the full gamut of our customer application, licensing and document management processes, and website functionalities. With intuitive web portals for agency staff, applicants, licensees, business partners and the public, we provide a comprehensive licensure solution for our customers. inLumon also provides a variety of ad-hoc query tools, reports, interfaces and other components to allow our customers to work within a modern user interface and overcome current challenges in certification reporting management and administration. We actively seek to optimize operations and are poised to easily address future changes inherent in credentialing regulation.

InLumon's Licensing Framework solution will meet the Board's new, single system vision by managing the entire lifecycle of licensure and permitting. Our solution tracks an individual's entire career from initial application through licensure approval, renewals, continuing education, discipline, and regulation. This all-in-one, user-friendly system automates complex certification business rules and regulations using a workflow and business rule driven process focused on ease of use and administration. Board stakeholders, business partners and the public will consistently benefit from our modern, intuitive web-based system. We believe our proposal and system can overcome current challenges and empower staff by leveraging our licensing framework's flexible configuration.

inLumon is focused on your business first and assesses the implications of the technology we design, develop, and implement to improve your operation, increase customer satisfaction, decrease operational inefficiencies and reduce overall costs for the West Virginia Board of Medicine.

Our expertise and extensive experience in licensing, permitting and enforcement systems includes a successful implementation track record of implementing our COTS solution across multiple public agencies. We consider our staff's experience implementing licensure systems, unique insights and functional understanding of inLumon's Licensing Framework increases our overall chances for success, helps in defining realistic, achievable timelines for the project and in becoming the Board's long-term partner.

As experience and industry knowledge are critical in deciding with whom to partner for the Board, inLumon provides exceptional;

- **People** (We have great CLIENTS supported by a team of highly qualified, talented and dedicated professionals),

- **Products** (Our flexible, intuitive LICENSING FRAMEWORK is proven to save agencies time, paperwork and headaches. We anticipate CHANGE. Our solution, agile implementation approach and ongoing support model enables our clients to quickly replace current system(s) and empowers them to easily adapt to future changes.), and

- **Pricing** models include secure hosting, future upgrades, enhancements, modifications and dedicated resource(s) providing personalized support. <u>GONE</u> are the days of unplanned "enhancements" or "change orders" costing the Board more money than originally budgeted!

The balance of our proposal outlines our approach and plan to migrate the existing data, providing detailed information on fulfilling the specifications, qualifications, and our intuitive, highly configurable COTS licensure solution. Within this proposal, you will find detailed information about inLumon, our Licensing Framework solution, technical and project approach, requested forms and documentation, along with specific responses to the RFQ Specifications and pricing.

We provide this information in confidence as our pricing, presentation materials and demonstration test sites may not be replicated, copied for any use, disseminated, distributed, or reverse engineered.

inLumon welcomes the opportunity to discuss this proposal, its contents, demonstrate our solution, negotiate and ultimately partner with the West Virginia Board of Medicine in achieving its strategic licensure objectives.

Thank you,

Nick Aliberti
Business Development Sales Manager
5375 Kietzke Lane, Suite 150
Reno, NV 89511
 (775) 400-1351
nick.aliberti@inlumon.com

Table of Contents

Executive Summary

Licensure and certification systems are a critical component of regulatory operations. Given how information systems can impact the effectiveness and efficiency of a government agencies, it is vitally important that the West Virginia Board of Medicine (WVBOM) partners with an experienced vendor that has the capability, capacity, and direct relevant experience implementing online licensure solutions on an enterprise level. inLumon is pleased to present this response to the WVBOM's Request for Quote for Database and Maintenance Services.

Our firm is uniquely qualified to meet the State's functional and stakeholder requirements having successfully implemented online initial licensing and enforcement management systems – projects that were completed within budget and on (or ahead) of schedule. Furthermore, inLumon's key team members' collective expertise, knowledge of the licensing domain, experience working together, face-to-face collaboration with clients, and familiarity with configuring our modern, user-friendly solution will all benefit WVBOM as well. inLumon is ideally poised to "hit the ground running" as the WVBOM's partner, saving stakeholder time and increasing overall project success.

inLumon's proven Licensing Framework serves to meet the West Virginia Board of Medicines' vision as the new Integrated Licensure/Records Content Management System Database, Website, Administrative Interface and Cloud Base Documentation Program. Our highly flexible, commercial off-the-shelf (COTS) solution will be configured to support the Board's regulation processes and unique workflows. WVBOM stakeholders, business partners and the public consistently benefit from our modern, intuitive web-based system.

The Benefits of Leveraging the Framework

When clients elect to leverage our Framework for solution design and development, they benefit by receiving

1. Proven functional and technical best practices
2. Reduced risk
3. Decreased cost
4. Shortened timeframes to deploy
5. Solution components designed to be easily modified
6. A comprehensive customer-centric solution model designed to be state-of-the-art, service-oriented, secure, and intelligent.

inLumon possesses a deep understanding and direct staff experience implementing our COTS licensing application across several states and agencies. We are confident our solution and approach provide the most qualified and low risk solution that exceeds WVBOM goals. We believe our experience and industry knowledge make a difference with whom WVBOM chooses to partner. inLumon is focused on your business first and assesses the implications of the technology we design, develop, and implement to improve your operation, increase customer satisfaction, decrease operational inefficiencies and reduce overall costs for the West Virginia Board of Medicine.

Based on our experience, maximizing key team members' meeting and working onsite with WVBOM staff face-to-face during a 'phased-in' approach timeframe is more successful for our clients. We are committed to the success of this project.

In summary, we have the tenure and successful experience implementing licensing and enforcement systems to help the West Virginia Board of Medicine implement a new, comprehensive licensing database system to best serve staff, applicants and licensees to ultimately benefit the professionals and citizens of West Virginia.

Why inLumon?	
Licensing System Design and Implementation Experience	inLumon has experts who were involved in design implementation for many of the successful Online Licensing System Implementations. From our experience we know what an implementation project such as WVBOM's can be. To reduce the risks, inLumon brings its expertise, best practices and lesson learned with the experience of several licensing, enforcement and web site implementations.
Thought Leadership and Proven Experience	inLumon staff have domain and technology expertise with a one point mission to create a Licensing Systems that are robust, intuitive and user friendly leveraging all the lessons learned from previous implementations. These individuals are extremely passionate about the Regulatory Licensing domain and have created a COTS based solution and approach that addresses the business, technical and implementation needs of state licensing agencies, commissions and boards.
Product Readiness:	inLumon has developed a configuration-based, customer-centric integrated Licensing solution that has core components / sub-systems for the end-to-end licensing agency and board operations and management. inLumon will use this base licensing solution to provide a demonstration per request that will be used during implementation for further enhancement to meet the specific requirements of WVBOM.
Delivery Experience	inLumon has a well-established delivery model with mature processes to ensure every project is delivered with quality and within the given time frame. inLumon has delivered many similar projects successfully.
Proposed Project Team	Proposed Key Personnel for the Project includes a Project Director, Project Manager (PM), Business Analyst, Implementation Lead, Software Developer, Quality Controller and Analyst. Each of these roles brings experience from serving in the same role for at least one other similar online licensing system implementation project. All the personnel proposed for this project and listed in this proposal have experience with licensing and enforcement implementations.
Commitment to quality and quality assurance methods and standards	The inLumon team adheres to practices to deliver high quality deliverables in the expected timelines and budgets.

About inLumon

Headquartered in Reno, NV, inLumon is part of the Eduloka Group, an organization with a strong presence in IT products and services, offering innovative and customer-centric information technology solutions. Our mission is to provide a superior level of service to all our customers while following inLumon's vision to excel and emerge as a clear winner.

inLumon has a long-standing commitment to the state licensing boards, commissions and regulatory agencies we serve and has significant, relevant cross-sector knowledge we can bring to the WVBOM to improve services, increase process and personnel efficiencies while reducing costs and risks. We surpass client expectations consistently and believe in integrity and transparency. inLumon delivers technology that enables our customer's business to succeed as opposed to simply looking for technology solutions that fit. We consider our staff's experience implementing online licensure systems, unique insights and functional understanding of inLumon's COTS Licensing Framework increases our overall chances for success and helps in defining realistic, achievable timelines for WVBOM's project. As the West Virginia Board of Medicines' strategic partner;

- o inLumon understands and knows how to integrate WVBOM requirements into the many program features necessary to form a complete vision of a new integrated licensure and website solution. inLumon brings a collaborative approach to design and development, with industry demonstrated and tested processes to meet the needs of the WVBOM.

- o We are technologists and architects with hands-on experience designing, customizing, developing and implementing the components that comprise the solution. Our unique team of industry experts understands government licensing, enforcement and cash management processes and is cognizant of the applicant, staff and members' system needs.

- o inLumon's fully developed COTS framework provides secure Licensing/Permitting, Enforcement, Cash Management functionality that includes Document Management, Workflow Management, Online Services, Task Management, Audit trails, Interface Management and much more.

- o We set high standards in our business and transactions and are an example for the industry and ourselves by relentlessly striving; constantly improving ourselves, our teams, our services and products to become the best.

- o inLumon's successful licensure system implementations for other state regulatory agencies has provided significant improvements in customer service, satisfaction, and workflow.

The WVBOM's new solution will be adapted from our base system that is designed with our clients in mind. We developed a highly client configurable system—putting the power and control into the hands of our clients without the need to rely on inLumon to make updates or changes.

Furthermore, inLumon has heard from a number of clients and other agencies who tell a similar story— how they invested a great deal of time and money into working with vendors that focused on process more than outcomes. Common terms like 'Best Practices' and 'Structured Approach' have been tossed around, all the while agency staff are tasked with documenting their system by detailing step-by-step what the system needs to do then making decisions and signing deliverable documents about a system that they have yet to work with. Continuing to hear these stories, inLumon learned that project after project, these vendors failed—failed to deliver a working system, failed to deliver a system that met client needs, and failed to meet agreed upon deadlines. Yet vendors didn't fail to bill their clients—and these "non-systems" were not cheap. At inLumon, we vowed to be different and demonstrate that by:

- Building upon a proven licensing system framework while constantly developing new functionality requested by our clients. This provides a stable, base system that can be replicated quickly—functionality is added when requested from the licensing user community. Many of our clients begin verifying their migrated data in their new inLumon system within two to six weeks after contract execution and reviewing/testing their applications shortly thereafter.

- Collaborating and communicating with our clients throughout the entire implementation process—meeting frequently to assess progress and coordinate activities. A key to successful project management is to repeat what works and avoid what does not. To that end, we work closely with our clients to ensure all requirements are met without adding workload to them or the unnecessary formalities of hard-to-follow, rigid processes. At inLumon, we share a common, secure environment with our clients to identify / track all requirements and business rules necessary to meet their needs. We then use this list of requirements to plan and manage our work, giving both the client and inLumon requirements traceability throughout the implementation in a collaborative environment.

- Using our Licensing Framework, inLumon is able to provide a User Acceptance Testing (UAT) area for our clients almost immediately following project 'kick-off.' This allows our clients to begin working in their new system, using their own data and identifying where changes to the system are needed. This approach not only helps our clients build a system that meets their needs, it also teaches our client every aspect of how the system works. Our clients get to understand their new system in detail, become comfortable with the system, and train their staff prior to Go Live - thereby reducing the need for expensive training sessions at the last minute.

- Working with our clients during requirements definition, assisting in the preparation and testing of the new system provides client opportunities for hands-on virtual and on-site training/tools. This helps our clients feel better prepared and knowledgeable about the system they will be using. Users feel invested in their new systems because inLumon ensures they are included in every step of the implementation process. 'Pride of Ownership' results from this level of client involvement in the process. inLumon is available to further discuss, demonstrate our solution and provide options for consideration.

In partnership, inLumon and WVBOM can meet the goals and timeline with our efficient, low risk, and proven solution and implementation approach. Using our experience, framework and proven artifacts, inLumon will implement the new system with a higher degree of quality, and significantly less risk and timeframe. We are confident inLumon is the most qualified partner and anticipate working with the WVBOM on this project.

About inLumon's Licensing Framework

inLumon's Licensing Framework has been successfully implemented by similar government agencies, including agencies in Nevada, Wyoming, California and Louisiana. Our framework incorporates a commercial off the shelf (COTS) solution and custom software which includes a public facing web portal, a business intelligence ad-hoc query tool, a meta-data dictionary and a database engine. By combining these components in a service-orientated architecture, inLumon provides a total business solution spanning the lifecycle of the Board's business processes, custom workflows, integrated multi-level security, data delivery, full audit and logging, and reports (both defined and 'ad hoc').

Being a Microsoft .Net, web-based system using industry renowned SQL Server, our configurable framework allows for fast design and development of integrated, comprehensive Licensing & Enforcement solutions without the challenges and risks of one-off software development projects or support. Clients receive the benefits of shorter implementation schedules along with the flexibility of a custom-developed solution. The foundation of our design is a secure, controlled and efficient business environment made of several underlying themes. All system components incorporate:

- Flexibility
- Customer Focused Transaction System
- Reduction of Manual Processing
- Modern Common User Interface

Flexibility—inLumon's business application framework utilizes unique components that can be easily modified and implemented independently: *Customer*, *Functional* and *Common Interface*.

Customer—One of the most important aspects of the framework is Customer-centricity. The Customer (individual, business, location and/or other entities) is one of the most important central entities and integrates with all other entities within the environment. One of the key underlying principles of the framework calls for having a single representation of the Customer within the entire system thus eliminating errors arising from duplicate data entry.

Functional—Underneath the Customer conceptual layer is the functional layer consisting of various functional blocks that perform the specific business functions such as License Issuance and Maintenance, Relationship between entities, Application Process, Complaints, Cash, Inspections and Administration management. These blocks also utilize specific interfaces to external systems or third-party systems.

Common Interface—Common Interfaces are shared among the Common Functional Components and provide services such as:

- ✓ Workflow for process execution and management

- ✓ Correspondence generation and Document management

- ✓ Security infrastructure that are used by the functional blocks

Coupling inLumon's application framework and our proven implementation approach enables our solution to meet WVBOM's requirements. Our Licensing Framework includes the following subsystems and any additional subsystems identified during the discovery phase of a new system implementation:

- Customer Management
- Privilege Management
- Licensee (Member) Services
- Business License Management
- Enforcement Management
- Financial Management
- Support System Components

Customer Management

Customer Management is the core subsystem of our framework. This approach enables WVBOM to maintain a customer profile with details of the customer including all license applications. All transactions revolve around the customer and provide the common link among permits, inspections, payments and other functions. A customer can be an individual, company or business, and the system allows maintaining customer demographics, multiple addresses, contact information, customer profile for the online portal, customer identity information, account, and other related information. The framework also provides robust search capabilities, whereby searches can be made by key fields. The figure below is a partial example (no sensitive information is shown) of an individual's record. The system maintains all current and historical information, documents (uploaded by Licensees/Applicants as well as State staff), correspondence along with licensure, credentials and licenses that a Licensee may hold:

The COTS Licensing Application system that inLumon will develop and implement for WVBOM allows for the issuance of new and renewal of existing licenses from both an online portal for educators to complete and submit online as well as from within the 'Back Office' (where staff with approved access can enter information from a paper application for example). The central customer subsystem includes:

- o Management of customer information
- o Demographics
- o Customer relationships
- o History
- o Correspondence
- o Problems

Our solution is managed at the user level by the creation of unique customer profiles. This unique customer profile is a central engine to support all services including name changes, address changes, credentials issued, correspondence, exam and/or education information, account management, and other related information.

Privilege Management

The concept of a generic Privilege Management subsystem is enabled by the analytical view that any service or product that is offered provides a privilege to the customer. Once this concept is adopted and all entities normalized, then the power of developing generic routines to grant, track, suspend, reinstate and renew privileges can be developed and deployed across the range of products and services offered by the WVBOM to its customers.

inLumon's framework is designed the same way. When an event triggers a suspension of an application (perhaps for failure to meet requirement(s)), the same software is activated triggering the suspension of the application. Or if the applicant's education is not recorded, the system will not issue a license until complete. The parameters of the two transactions are, of course different. But inLumon's generic privilege management routine parallels the WVBOM requirements.

Licensee (Member) Services

The License Services subsystem provides all capabilities related to licensure and issuance. These functions include:

- o Issuing new licenses
- o Maintenance and tracking of requirements
- o Interfacing with other systems as required
- o Permit Application Process

As part of our solution framework, this subsystem also allows the workflow management for issuance of any product to the customer, which allows the WVBOM to manage the process in accordance with its needs. Workflow management allows WVBOM to review all information at a central location before issuing a permit or license. It also provides additional functions such as cancellation of previous applications, checks for status, and a customer-centric credentials issuance process.

Business License Management

Business License Management subsystem supports the business requirement of processing and managing licenses for various types. General activities at the point of entry area will consist of some or all of the following:

- o Recall current permit information and review
- o Approve and process permits
- o Maintain location, inspection and other related information
- o Support permitting requirements
- o Correct permit information

Enforcement Management

inLumon's enforcement module allows for scheduling and performing inspections and other enforcement / compliance activities, such as conducting investigations, audits, surveys, managing outcomes, etc. Specific requirements related to Enforcement Management will be discussed during the Discovery Phase and implemented.

In terms of case management, investigations and enforcement activities, the system can support WVBOM's processes. For instance, when a Licensee or Applicant is being investigated, a case is assigned to that individual. Investigative notes are then tracked by individual/case. If, for example, a complaint is filed against a Licensee and it is determined by the investigation unit that the complaint is actionable, then a case is established and attached to that individual. All investigative notes that are collected, or supporting documents collected relating to that case are uploaded and managed in that case file. An example of this is the investigative (and enforcement) module developed for another client as shown in the following figure.

For some of our clients, those case notes are reviewed by legal staff before being forwarded to a hearing officer or Board, so as to not unduly influence the hearing officer/Board. This means that a sub-case file is created where only those documents in the case file that can be viewed by the hearing officer or Board are connected. The schedule for investigation meetings is managed via a calendar, as shown below:

Financial (Cash) Management

The Financial Management subsystem will consist of the management and calculation of fees, fines and taxes, and will interface with the WVBOM Financial system to account for monetary transactions. The Financial Management subsystem supports the business requirement of tracking activities associated with the control and accounting of funds. This capability is provided through a set of online applications (functions) and system processes and will specifically include the management of funds collected from WVBOM office(s), business partners, and self-service channels.

All financial processing and reporting functions reside within this logical subsystem. It encompasses processing of funds through electronic commerce (that is, credit card processing over the Internet) and point-of-sale (POS) transactions (for example, credit card, cash, check, debit card, and account processing through the POS functions). This subsystem provides associated system management functions and processes allowing daily, weekly, monthly, and yearly reporting at various levels. In addition, it encompasses the reporting characteristics required to support the ongoing monitoring, audit, and management of the various units.

The framework also provides the ability to maintain information about fees and taxes including type of tax or fee, effective dates, ending dates, account number, distribution amounts (including local levels), distribution percentages, and remittance information. The system also can configure fee types, including adding, modifying, and deleting fee types. The system can also record and process restitutions for NSFs.

Support System Components (of Framework)

The inLumon framework has core sets of support system components under the functional and user interface layer of the application. These components are the engine that drives the entire business layer of the application and, through predetermined rules, verifies that the data is consistent throughout the system. Support System Components of framework include the following subsystems:

- Workflow Management
- Deficiencies Management
- Document and Image Management
- Correspondence Management
- Fee Management
- Auditing
- Security Services
- Integration Engine
- Reporting Services
- Web Based Transactions and Mobile App
- Change Anticipated (Configurability)

Workflow Management

inLumon has developed a flexible workflow module that can be customized to meet the WVBOM transaction workflow requirements. Workflow may vary based on permit application type, regulatory processes, etc. and will need to be discussed and finalized with WVBOM during the Discovery phase of the project. inLumon's workflow module consists of two subsystems:

Workflow Setup—Used for setting up the workflow using the workflow framework in our system

Workflow Execution—Has business rules and routines to allow execution of workflow in transactions based on the setup.

Highlights of our solution's workflow capabilities include the following:

- Integration with roles, groups, and tasks that can be defined using our workflow screens
- Defining of activities and transactions with appropriate approval steps
- Integration with imaging and images associated with activities that will be routed using workflow
- Support of manual routing; this allows supervisors and authorized users to change and monitor assignments
- Reprioritization support of activities in work queues by authorized users
- Provision of features such as suspend/resume/cancel

Deficiencies Management

The Deficiency Management subsystem is responsible for capturing all the pre-requisites (e.g. mandatory information and documents to process a permit application) and manage these through the application life cycle, as shown in the following figure:
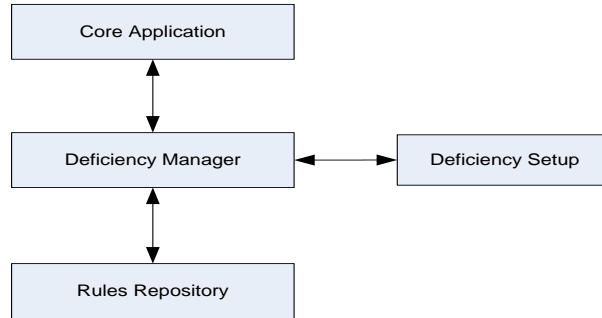

The Deficiency Management subsystem is used to manage mandatory data items or documents that depend on a transaction type in the system. The system runs based on predetermined rules. For any transaction, the system passes the transaction data to the deficiency component, and the deficiency manager identifies the deficient data based on predetermined business rules. It contains a provision to suspend the transaction and produce or print a notice or other correspondence to the customer. The system will automatically keep track of all deficiencies for each transaction and can notify customers of those deficiencies via print out, display on screen (web portal), email and text notification(s) for the customer to act on it.

## Document and Image Management

inLumon's Document and Image Management subsystem is responsible for managing the life cycle of various scanned images or electronic documents. The framework also supports integration with third-party content management systems. Highlights of the Document and Image Management subsystem include the following:

- Identification of supporting documents for each transaction
- Capturing of documents and bringing them into the system using scanning
- Indexing of documents to attach to a record or set of records
- Ability to export documents from the system
- Provision of privilege-based security to protect documents from unauthorized access
- Provision of enabled signature capture and automatic signature capture using document templates.
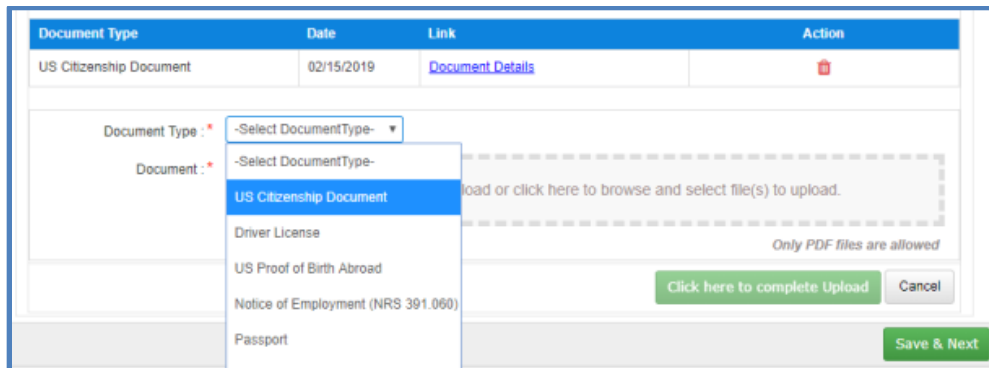
Correspondence Management

The customer communication process is varied and can include postal mail, e-mail and online portal methods. This correspondence is often system-generated in response to an event such as a permit nearing expiration. All correspondence is based on a set of standard templates that will be defined and maintained in the system. Each WVBOM transaction will have a set of standard templates that are applicable to it. The Correspondence Management subsystem manages the entire correspondence template as illustrated in the following figure.
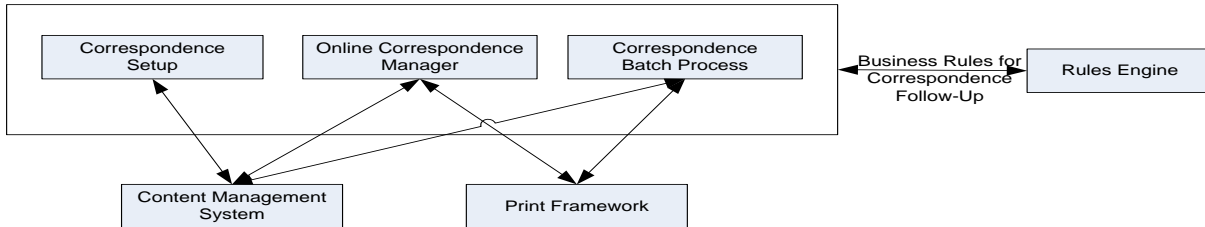
Fee Management

The Fee Management subsystem consists of calculating the various fees for a specific transaction and fees rules management as illustrated in the following figure.
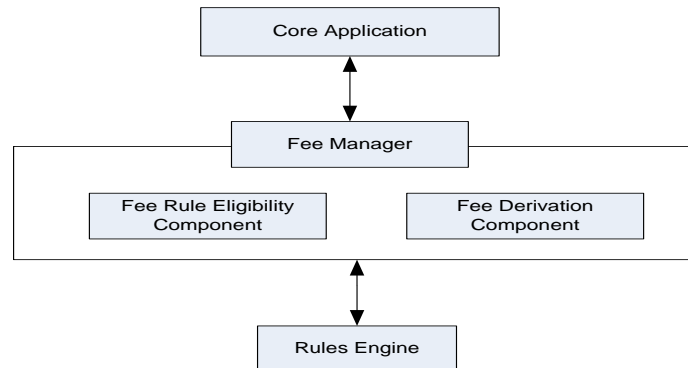
Fee management functionality is implemented based on a common rules engine that is used in other frameworks such as deficiency and supporting documents. The Fee Management framework consists of:

Fee Rule Eligibility— Identifies which fee derivation rules are applicable based on the parameters supplied as part of the transaction.

Fee Derivation Rule—Derives the exact fees required for the transaction by a percentage-fee-based rule or a fixed-fee-based rule. A fee rule derived that is based on the two foregoing (min of the two/max of the two).

Auditing

The framework employs the concept of activity. A business function carried out within the system is a type of activity. The system can be configured to log each activity being carried out with the system. This information is

stored in the database and can be retrieved to analyze or identify patterns for fraud prevention. As part of the business function audit, the system logs the following data points:

- Logged-in user
- IP Address from which the user is logged in
- Activity date and time
- Activity type
- Permit / License Number

Security Services

inLumon's Security Services provide authentication and authorization services for inbound requests from users and external applications. It exposes application programming interfaces (APIs) and objects to be interfaced from the core layers such as the user interface, navigation, and business services layers. Our framework uses role-based authorization across the application to allow access to different types of resources. These resources are granular and can be configured at the field, form, or process level. The framework allows different authorization stores to be used based on the system configuration. The design authorization is based on the concept of roles and resources. These resources can be coarse-grained resources, i.e. a complete function such as, "creating a new permit" or fine-grained objects such as a specific data field that contains sensitive data and needs to be encrypted (for example, social security number of an individual).

The system also manages the concept of sensitive information. This information is identified during the discovery phase and is stored in the database as encrypted data. This sensitive information is carried through the application layers in an encrypted manner and is decrypted only for a user with the appropriate roles. Each viewing event regarding a user's sensitive information is logged into the auditing storage. Our system also implements the concept of overriding the access control based on a high authorization (that is, a supervisor override). The supervisor override can be based on a combination of user name and password or a secure key that can be read with a barcode or entered by the supervisor.

Each control, operation, and menu option within is a resource that can have security permissions assigned to it. Each resource is uniquely identified and associated with a set of access rights in the authorization store. These access rights are associated with user roles.

Our framework uses role-based authorization to correlate users and groups with the permissions that they require to do their jobs. When a user or group is added to a role, the user or group automatically inherits the associated security permissions. These could be permissions to perform actions or to access various resources. The groups are used to determine user roles. In the figure below, Users-Roles Relationship shows the relationship between roles and permissions in role-based authorization. Implementing role-based authorizations can take a variety of forms, including the following:

- <u>Simple role-based authorization</u>—Allows the user access resources or services on a single system.

- <u>Multi-system role-based authorization</u>—Allows the user access resources or services on multiple systems.

- <u>Multi-system, action-based or operation-based authorization</u>—Allows individuals in certain roles to access resources or services on multiple systems, based on the action or operation the role is requesting.

Integration Engine

The Integration Engine subsystem provides services to implement inbound and outbound interfaces using both synchronous and asynchronous types of connections. The integration services layer exposes core business services to the external world through a Web services and file transfer gateway. This gateway can support inbound calls over Web services and interface to the business service components or exposes the business service components as Web services to the outside world through security provided by the infrastructure services layer. The integration services layer consists of interfaces for external systems (either within the State or external entities), as shown in following figure.
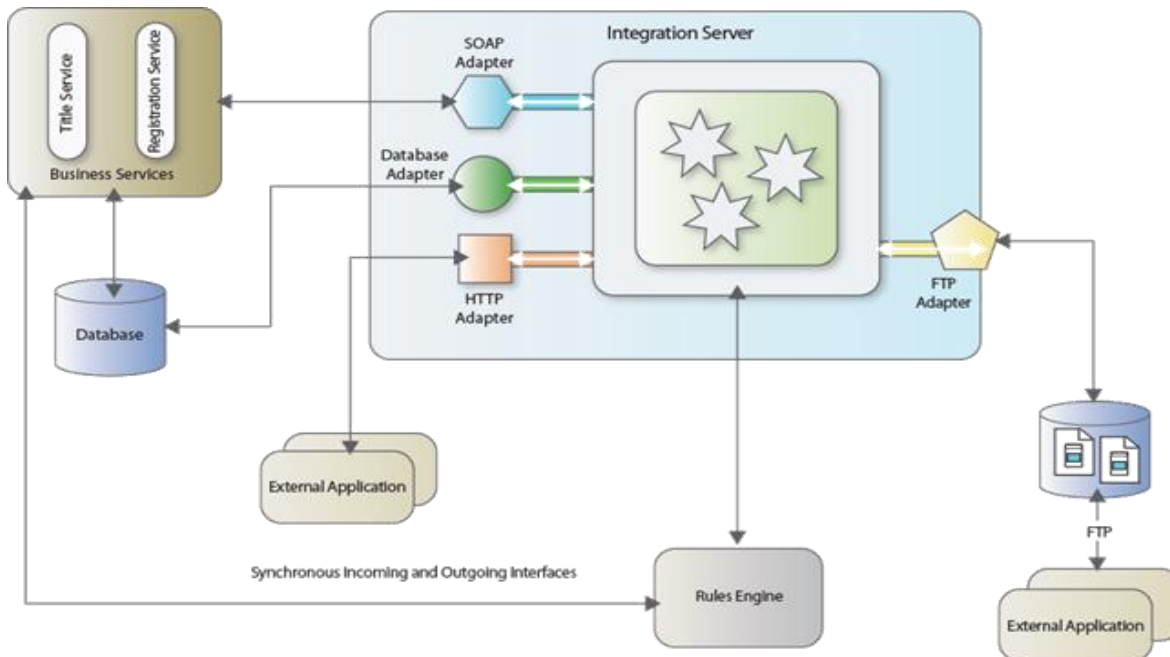
The integration layer provides interfaces to the various systems using hypertext transfer protocol (HTTP), file transfer protocol (FTP), simple object access protocol (SOAP), and database adaptors. The interface subsystem is flexible enough to provide following characteristics for interfaces:

- Handle external or internal interfaces to DDOE
- Handle inbound or outbound data exchanges
- Allow synchronous or asynchronous communication
- Allow batch transfer of data or one-off exchange of data records on an as needed basis
- Support message security (encryptions, non-repudiation, etc.)
- Handle multiple record formats
- Handle multiple protocols

Reporting Services

Our Reporting Services subsystem enables the generation and distribution of reports from either the operational database or the reporting database. The Reporting Services subsystem also helps in generating forms, correspondence, and other documents in printable format for distribution to various end users. The reports and document generation can happen in an online ad hoc manner and in batch mode.

inLumon provides both defined reports as well as a Query Tool, that can be used allowing the client to perform their own queries and reports. As shown in the figure below, both types of reports are available under the Report tab. 'Queries' display all of the defined reports, while the 'Query & Reporting' option opens the Query Tool:
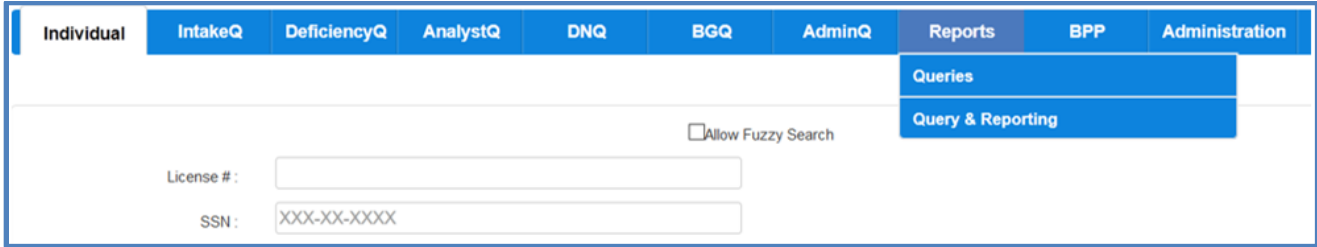
The client selects the desired report, provides any selection criteria as defined and the report results are displayed on the screen and output the results to Excel or PDF if desired.

When the Query & Reporting option is selected from the Reports tab drop-down, the Query Tool is displayed. Some of the highlights of this query tool are:

- Queries can be created and shared amongst staff

- An existing query can be updated and resaved.

- An existing query can be copied to be used as a starting point for a new query

- Saved queries can be managed from this tool

- Query results can be exported to Excel

- Duplicates can be filtered out of the results when the query is executed

- Bulk email can be started from the query tool, using the results of a query
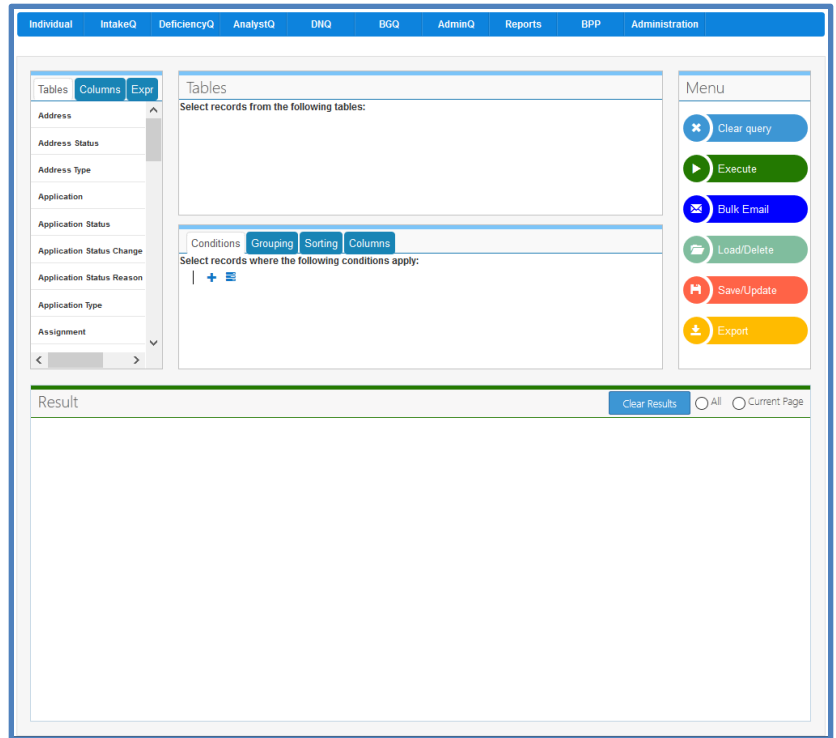
Web Based Transactions and Mobile App

Customers will be able perform online transactions only after they have been authenticated. Any business transaction over the web that requires fee collection will not be complete unless a fee (if required) has been successfully collected and customers will be provided a confirmation number at the end of every transaction which will be used for future correspondence.

All the customer information will be exchanged over a secure web connection. The web channel will interface with WVBOM database real time and utilize the same underlying system components as the rest of the system components. This will minimize the customization needed for the web. The re-use of common functionality will

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also allow for new web channel transactions to be easily added in the future. As with all other channels in the system, the web channel will maintain an audit-trail for all business transactions performed.
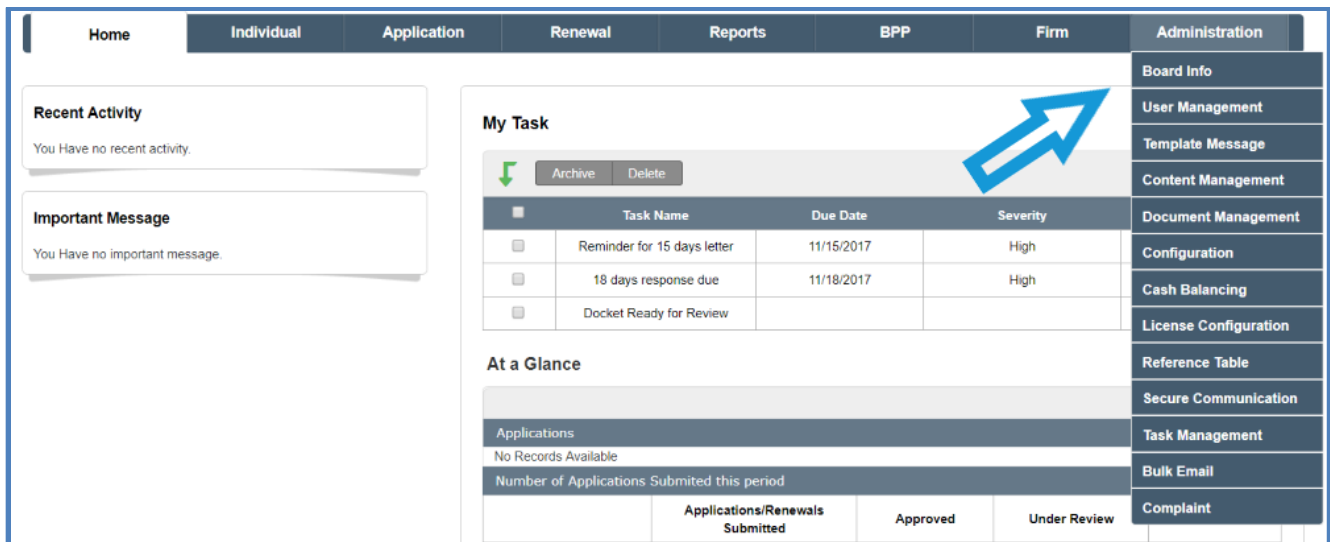
The web channel will allow members, businesses, and partners to perform transactions identified during the discovery phase via the Internet through secure portals. Our service-oriented architecture will allow for the flexibility to add new services and transactions easily as WVBOM business needs change.

The Mobile App will also interface with WVBOM database real time and utilize the same underlying system components as the rest of the system modules (similar to the web channel), thereby enabling staff, applicants, licensees and the/or the public use mobile technologies.

Change Anticipated (Configurability)

inLumon's Licensing Framework provides our clients an easy way to easily implement small (& large) changes to their system without custom development, additional programming, time or costs. inLumon takes pride in how the usability, configuration and development of our solution continually improves and is influenced by the latest software standards, technological improvements, and our clients' input and feedback – so much so, our clients' users become very proficient in the use and configuration of the application that training is minimized or in some cases eliminated due to the inherent intuitive nature of the software solution they are exposed to and work with during the implementation process.

Our solution has evolved into a user-friendly, efficient and flexible solution, enabling our clients to effectively perform and optimally automate their regulatory activities while empowering them to make changes to the system, such as business rules, correspondence templates, reports, screens and more, via the user interface without custom development or programming to accommodate. See an example Administration Menu below:
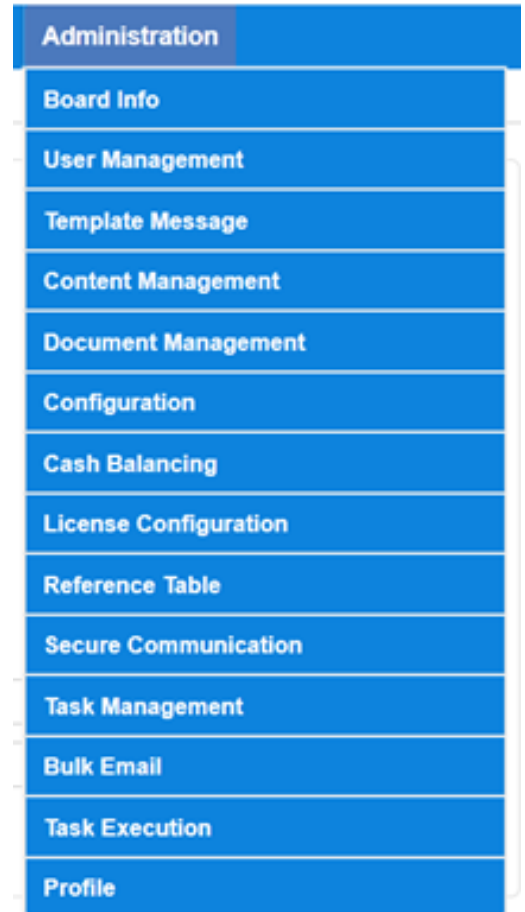

We have developed our solution anticipating change and to empower our clients to easily adapt their system. Whether it is updating templates to reflect new regulations in advance of effective dates, changing a fee amount, adding a new certification type, or case management process changes, inLumon trains and empowers clients to adapt their systems without custom programming.

inLumon provides training for user level staff in the new system as well as training Administrators where all the tasks identified under the Administration tab (are discussed in detail. Some of the highlights include:

- User Management—this is where user accounts can be inactivated when staff leaves, where passwords can be reset, etc.

- Template Message—This is where email and SMS (TXT) message templates are managed in the system. Staff can change message being sent to licensees without assistance from inLumon.

- Content Management—This allows clients to manage the content in their Application and Renewal forms without assistance from inLumon. Staff can make changes in minutes which are reflected immediately when licensees or applicants open new or renewal applications.

- Configuration—Here staff can manage several system values themselves without assistance from inLumon. This includes the number of days prior to expiration that a licensee can renew.

- Reference Table—This is where staff can manage all drop-down screens without assistance from inLumon.

- Secure Communication—This feature allows our clients to communicate directly with licensees and/or applicants, all of which occurs within the system.

- Task Management & Execution—This allows clients to create a message they wish to share (via email) to a select group of individuals within the database (task definition) and schedule when that task is to be run. Task Execution allows staff to see the results of the job and provides a list of individuals selected from the database by the task being run.

- Bulk Email—allows staff to define criteria to select individuals from the database and create the email message that will be sent to all those individuals.

Administration

- Board Info
- User Management
- Template Message
- Content Management
- Document Management
- Configuration
- Cash Balancing
- License Configuration
- Reference Table
- Secure Communication
- Task Management
- Bulk Email
- Task Execution
- Profile

Technical Approach

To determine an appropriate technical solution that meets the needs of WVBOM, the inLumon Team relies on its proven Licensing Framework designed as our core technical architecture that:

- Follows a Service-Oriented Architecture (SOA) philosophy.
- Uses a loose coupling between subsystems such as Core .Net transactional subsystem and Content Management subsystem
- Is architected for scalability and performance to support the customers current and future business needs
- Provides a platform that is readily maintainable
- Leverages COTS technology as much as possible
- "Partitioned" the subsystems into n-tiered, service oriented architecture
- Maximizes table-driven and rules engine-driven coding
- Migrates subsystems individually – not all at once
- Separates data management from system management
- Implements a reporting and analysis system consistent with the requirement
- Automates the Workflow process
- Is easy to integrate with document imaging products
- Creates user groups for ongoing subject matter management and requirements development
- Provides architecture and management oversight
- Supports component oriented architecture and service oriented architecture
- Provides the performance, capacity and throughput to handle the volume of transactions expected and forecasted by the State
- Supports on demand and batch printing in efficient manner preferably using the same solution for both
- Provides an efficient way to interface with external systems
- Is built on mainstream products and technologies making it easier to manage and enhance

The Technical Architecture Is a Layered Architecture

The architecture has five main layers and two supporting services layers. These layers allow common functionality of the system to be isolated and reused across the system. The layered approach provides clean separation and loose coupling – two key principles of Service-oriented Architecture. The primary benefits of a multi-layer architecture include the ability to:

- Integrate different types of interfaces into the system (including stateless clients)

- Manage complex interactions with the database through consistent representations in the business model (e.g., effective data processing)
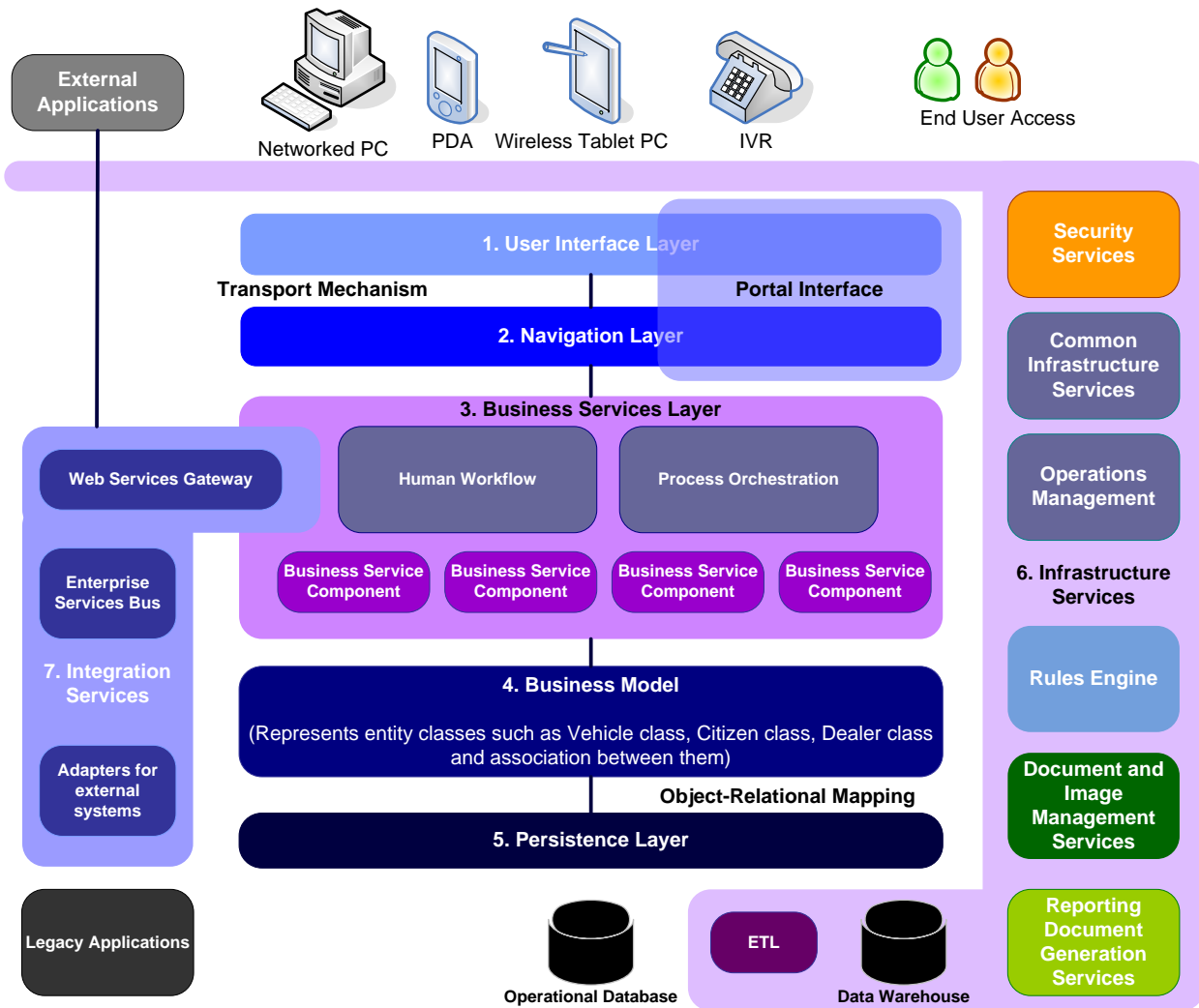
Features and Benefits of Our Proposed Technical Architecture

Considering the future enterprise direction of WVBOM and accounting for the current and future performance, capacity and functionality requirements, inLumon's solution is the right choice for WVBOM. Key highlights and benefits of the proposed solutions architecture are:

- Platform independent architecture approach
- Meets all functional, technical and implementation (i.e., phased implementation) requirements
- Thoroughly leverages Service-oriented Architecture philosophy and principles to provide highly integrated yet loosely coupled architecture
- Highly scalable, secure, flexible and maintainable architecture

Use of architectural components eliminate significant amount of custom development work allowing the focus to be more on the business aspect of the system rather than engineering aspects of the system. The foundation of our design is a secure, controlled and efficient business environment incorporating flexibility while reducing manual processing within a modern, user-friendly, color Graphical User Interface (GUI) for user presentation.

Project Implementation Approach

inLumon is committed to customer satisfaction and solutions that exceed requirements. Our implementation management approach focuses on achieving project and organizational objectives – implementing and maintaining the management framework needed to sustain collaborative relationships, and institutionalizing processes and procedures needed to meet the planned schedules while producing a quality product. It also includes rigorous monitoring and measurement tasks necessary to mitigate risks associated with all large system implementation efforts.

inLumon follows industry accepted best practices for project management. As such, we have PMI certified Project Managers on our team and they apply this knowledge, leverage past experiences and lessons learned, and utilize industry accepted project management tools and techniques, to monitor and control implementation activities, to meet or exceed our customer's needs and objectives of the project.

inLumon uses an adapted agile methodology. In general, the adapted agile methodology will deliver an updated build (code) depending on the frequency discussed and agreed. Builds will involve the team working through the full development life cycle including planning, requirements, design, development, unit and system testing, and acceptance testing.

<table>
<tr><td colspan="2">inLumon uses Adapted Agile Methodology as a Standard for implementing a Licensing System</td></tr>
<tr><td rowspan="5"></td><td>The benefits of inLumon's iterative implementation approach:</td></tr>
<tr><td>• A short deliverable cycle allows developers to achieve visible results and a sense of accomplishment resulting from having smaller development tasks to plan, execute and deliver.</td></tr>
<tr><td>• WVBOM management and staff stakeholders see visible, short-term results from the effort.</td></tr>
<tr><td>• Stakeholder 'owners' of different business processes automated by the effort get to see incremental results in their piece of the project with frequency, leading to better client buy-in for the project's goals.</td></tr>
<tr><td>• The WVBOM users and staff get to provide feedback as each prototype deliverable of software is released to them for testing. This results in a better, more frequent and more accurate communication of client requirements that will naturally evolve over the life of the development cycle.</td></tr>
</table>

The methodology will emphasize face-to-face communication and stakeholder feedback over extensive requirements gathering. It is expected that there will be three releases during the execution phase of the project. The Application will be released into production following the completion of all iterations and a comprehensive User Acceptance Test (UAT).

To avoid any implementation delays, the project will be monitored for the symptoms of occurrences of any of the risks that are identified and also for the occurrence of new risks. The potential risks and the risk mitigation plan should be discussed in the Project Status meetings and risk management plan is revised when necessary. Open communication in the team should be cultivated to obtain relevant information on potential risks. The steps that are being taken to mitigate the risks should be communicated as a part of the status report to all concerned. Where necessary, transparency should be maintained with the customer on potential risks to obtain guidance as well as support in mitigating/handling the risks.

inLumon has an in-house tool for managing all the project risks. We can use the inLumon tool or any other tool recommended by the Board. A few examples of typical risks (reasons for delays) in a project are:

- Availability of Subject Matter Experts
- Development and Implementation of bridging programs in a Phased Implementation approach
- Dependency on 3rd party and other external systems in interface development
- Performance of the critical transactions
- Timing of legislative changes from an implementation perspective

Our typical approach involves three work cycles. inLumon will identify any variances and develop necessary project plans, which are spread across two work cycles. The development work cycles will include post-UAT bug fix phases, with 30-day sprints. Upon group agreement on changes, the next phase shall begin.
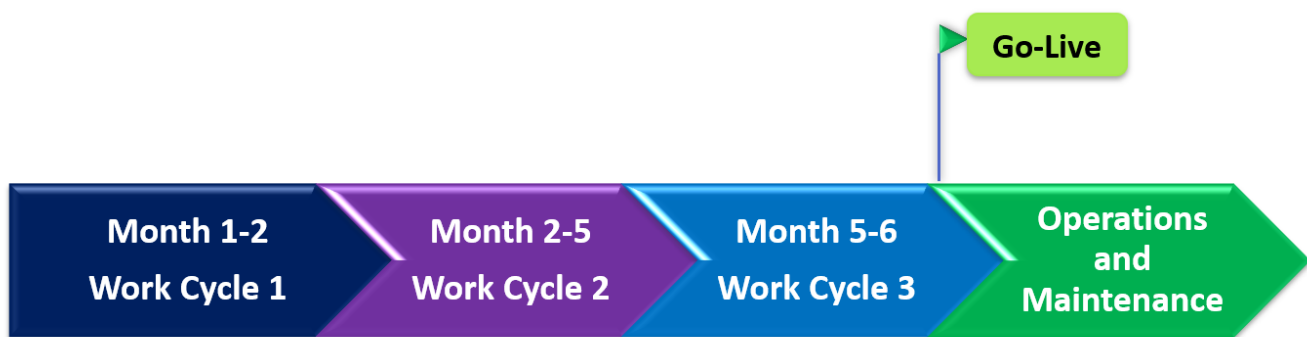
For inLumon, implementation starts on the first day of the engagement and finishes only when our customer is completely satisfied with the solution that we have implemented. Our implementation management approach focuses on achieving project and organizational objectives – implementing and maintaining the management framework needed to sustain collaborative relationships, and institutionalizing processes and procedures needed to meet the planned schedules while producing a quality product. It also includes the rigorous monitoring and measurement necessary to mitigate the risks associated with all large system implementation efforts.

Partnership, Professionalism, and Teamwork - These are words that describe the way we engage all of our customers and manage all of our implementation. While implementation success is often measured in terms of meeting contractual obligations, stated project metrics or specific deliverables, at inLumon success is also measured in terms of end user satisfaction and when stakeholders realize real benefits from the work we have performed. This is why we take great pride in our success. We apply simple principles when we engage in implementation to ensure satisfaction. Our management principles are discussed briefly on the following page.

Management Principle 1:
Collaborate – Manage in Partnership

inLumon recognizes the fundamental need to build a strong partnership with our customers. Because a partnership depends on open and effective collaboration, inLumon will employ management techniques based on values that are focused promoting open, timely, and forthright communications engaging stakeholders and participants in the implementation process. inLumon's collaborative approach has resulted in a synergy between the various participants and the inLumon Team built on mutual trust and respect enabling all to effectively implement the solution.

Management Principle 2:
Flexible Yet Robust – A Customer-Centric Management Approach

Applying inLumon's customer-centric implementation management approach to our technical services results in solutions specifically designed around the requirements and needs of our Customers.

Management Principle 3:
Communicate – Provide Visibility into the Project

Our collaborative implementation approach will be successful only if a strong commitment is made to establishing an open and comprehensive communication channel between the stakeholders from the customer team and the inLumon team. A robust communication plan will ensure that all stakeholders and constituencies are duly informed and consulted, on all matters related to the implementation.

Management Principle 4:
Leverage Lessons Learned and Previous Experience

By leveraging inLumon's enterprise Project Management experience, every project benefits from the success of previous projects. With this support, we ensure all implementations maintain the highest level of quality.

Management Principle 5:
Start with the Implementation Plan – End with Success

inLumon begins with developing and finalizing an implementation plan where everyone—staff, management, and especially sponsors and stakeholders—are in concurrence, enabling inLumon to build on this blueprint for successful implementation.

Management Principle 6:
Manage Proactively

inLumon's implementation team proactively manages efforts by conducting regular reviews where we review status reports—each milestone and task—to ensure that we are on schedule. inLumon pays particular attention to any tasks that have begun or finished late, evaluating potential trends that suggest the need to adjust resources or approach to keep the project on track. Issues are either resolved or escalated weekly, which continues the steady progress for achieving the required milestone. All deliverables go through a rigorous quality assurance process to ensure that our customer gets the best quality. inLumon uses a collaborative approach to ensure that nothing is "thrown over the fence."

After contract execution, the typical steps inLumon will take in partnership with the West Virginia Board of Medicine (WVBOM) for the new system implementation from project kick-off to Go-Live would include:

1. Defining an action plan for implementation and schedule in collaboration with the WVBOM
2. Obtaining a copy of WVBOM's database and working with the WVBOM to understand the unique data structure of that data
3. Migrate the data found in WVBOM's database into inLumon's base licensing system (BLS)
4. Providing access to the BLS in a User Acceptance Testing (UAT) environment for the WVBOM to evaluate and verify the data being migrated (steps 3 & 4 are repeated until accepted by WVBOM)
5. WVBOM & inLumon using the UAT to develop a 'gap analysis' list of requirements (LOC) between the BLS and WVBOM requirements
6. WVBOM provides inLumon with copies of all applications for renewal and new applications for licensure, which inLumon develops into online applications
7. Using the LOC, inLumon will make modifications to the BLS to display all of WVBOM's data, including role-based security, as defined until accepted by WVBOM
8. The WVBOM and inLumon will collectively define parameters for all drop-down values and various configuration parameters that the WVBOM will later use to manage the system
9. Starting with renewals, based on input from the WVBOM, inLumon will modify those applications to ensure all required data elements are provided and meet defined validation parameters
10. The WVBOM and inLumon will test and implement a user portal for all current licensee to register in the system and have access to a user 'dashboard'
11. Based on performance and other Service Level Agreement (SLA) parameters, inLumon will establish and make available to the WVBOM a robust production environment for the system
12. With approval from the WVBOM, inLumon will release the system into production
13. Once online renewals are approved by the WVBOM, the renewals will be released for use and the user portal is opened to licensees in production
14. Following with new applications for licensure, based on input from the WVBOM, inLumon will modify those applications to ensure all required data elements are provided and meet defined validation parameters
15. The WVBOM and inLumon will test and implement a user portal for all new applicants for licensure to register in the system and have access to a user 'dashboard'
16. Once online applications for new licensure are approved by the WVBOM, they will be released for use and the user portal is opened to new applicants in production
17. Throughout the implementation process, inLumon will train selected WVBOM staff on the various administrative tasks to configure and maintain the system, including but not limited to user management, email and TXT messaging management, system configuration, drop-down list management, bulk email and TXT messaging, use of the query & reporting tool as well as defined task management and scheduling
18. In collaboration with the WVBOM, inLumon will ensure that all defined reports are available and functioning properly in production
19. Using the current production environment, inLumon will refresh the UAT environment to keep it in a near-production status, as well as implementing a process to do this periodically, as well as maintaining the SLA for production system backups, etc.
20. Following the same approach as the periodic reviews held throughout the implementation process, inLumon and the WVBOM will participate in a final Lessons Learned session as part of the project closeout process.

RFQ Specifications

To provide the West Virginia Board of Medicine with a clear and comprehensive proposal addressing all qualifications, mandatory requirements and performances, inLumon is providing specific responses, screen shots and technical information demonstrating how our proposed solutions will meet or exceed the capabilities, product functionalities and services outlined within the RFQ. inLumon has structured our response within this section as follows:

- **3. Qualifications**
- **4. Mandatory Requirements**
- **5. Performances**
- **Certificate of Insurance**
- **inLumon's Support and Service Level Agreement**
- **inLumon's Terms and Conditions**

3. Qualifications

Vendor, or Vendor's staff if requirements are inherently limited to individuals rather than corporate entities, shall have the following minimum qualifications:

3.1   The Vendor must have supplied and supported a licensing database substantially similar to the specifications herein to another professional licensing board of a state or territory of the United States within the last three (3) years.

RESPONSE: Since 2008, inLumon has delivered flexible licensure and enforcement technology that enables state regulatory agencies to streamline workflow while maintaining compliance and tracking. Our experience and industry knowledge make a difference in interpreting and meeting requirements by focusing on the agency's business first and assessing the long-term implications of the technology we design, develop, and implement.

inLumon has a long-standing commitment to the regulatory boards we serve and has significant, relevant cross-sector knowledge we can bring to the WVBOM to improve services, increase process and personnel efficiencies while reducing overall costs and risks. Our expertise and extensive experience in licensing, permitting and enforcement systems across multiple public agencies, successful implementation track record of deploying similar Licensing and Enforcement Systems regulating health professions and occupations, and our elegant, highly flexible and state-of-the-art Licensing Framework qualify us to execute this engagement successfully.

inLumon has established and ongoing relationships with dozens of government regulatory agencies, state licensing boards and commissions across the United States. inLumon's growing list of state licensing and public sector clients include:

Client	Project
Nevada State Board of Dental Examiners	**Licensing Application implementation**
Alabama State Board of Professional Engineers and Land Surveyors	**Newly awarded contract to implement licensing application**
California Massage Therapy Council	**Implementation of Licensing Application**
Louisiana State Board of Medical Licensing Examiners	**Current Implementation of Licensing and Enforcement System for all Allied Health Boards**
Nevada Board of Funeral & Cemetery Services	**Implementation of Licensing Application**
Nevada Department of Education	**Implementation of Educator Licensing Application**
Nevada State Board of Cosmetology	**Mobile Inspection Application**
Nevada State Board of Dispensing Opticians	**Implementation of Licensing Application**
Nevada State Board of Examiners for Speech-Language Pathology, Audiology and Hearing Aid Dispensing	**Implementation of Licensing Application**
Nevada State Board of Nursing	**Online Renewal application and maintenance of existing database**
Nevada State Board of Pharmacy	**Implementation of Licensing Application and Online Renewals**
Nevada State Board of Physical Therapists	**Implementation of Licensing Application**
Nevada State Board of Professional Engineers	**Replacement of Licensing and Enforcement**

and Land Surveyors	**Database Implementation of Online Application**
Nevada State Board of Veterinary Medical Examiners	**Implementation of Licensing Application**
Nevada Transportation Authority	**Implementation of Driver Permit Application**
Wyoming Board of Professional Engineers and Professional Land Surveyors	**Implementation of Licensing Application**
Wyoming Professional Teaching Standards Board	**Implementation of Licensing Application**
Wyoming Real Estate Commission & Certified Appraisers Board	**Implementation of Licensing Application**

Wyoming State Professional Licensing Boards:
        Board of Acupuncture
        Board of Midwifery
        Board of Architects & Landscape Architects
        Board of Optometry
        Board of Athletic Training
        Board of Physical Therapy
        Board of Chiropractic Examiners
        Board of Registration in Podiatry
        Board of Dental Examiners
        Board of Psychology
        Dietetics Licensing Board
        Board of Radiologic Technologists
        Board of Funeral Service Practitioners
        Board for Respiratory Care
        Board of Hearing Aid Specialists
        Board of Speech Pathology & Audiology
        Mental Health Professions Licensing Board
        Board of Veterinary Medicine
	Implementation of Licensing Application for multiple professions and health related occupations

Wyoming Water Well Contractors Licensing Board	**Implementation of Licensing Application**

3.2   Compliance with experience requirements will be determined prior to contract award by the State through references provided by the Vendor with its bid or upon request, through knowledge or documentation of the Vendor's past projects, or some other method that the State determines to be acceptable. Vendor should provide a current resume which includes information regarding the number of years of qualification, experience and training, and relevant professional education for each individual that will be assigned to this project. Vendor must provide any documentation requested by the State to assist in confirmation of compliance with this provision. References, documentation, or other information to confirm compliance with this experience requirement are preferred with the bid submission but may be requested after bid opening and prior to contract award.

RESPONSE: inLumon has read, understands and will comply with these requirements. At inLumon, we understand that just having the required tools, frameworks, methodologies and so on in itself cannot translate to a successful project - we need a capable and experienced project delivery team, too. We strongly believe our tailor made approach and the consolidated experience of inLumon's team to WVBOM's advantage.

For this project, inLumon an industry-leading team of individuals with significant experience and expertise in implementing Licensing and Enforcement Systems. Furthermore, our unified team will work collaboratively with the WVBOM project stakeholders as a well-informed, well-coordinated, and highly skilled team proven

to work effectively together from the start. We believe no other team can offer the Licensing System domain expertise, capabilities and know-how we have built into our team.

inLumon's Project Management Framework follows industry accepted best practices for project management based on the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK®). inLumon employs PMI certified Project Managers who apply deep knowledge, leverage past experiences and lessons learned, and utilize industry accepted project management tools and techniques to monitor and control implementation activities. We do this on all projects to meet or exceed our customer's project needs and objectives.

The inLumon approach to staffing and project organization is built upon a belief that ensuring success in implementing licensing database systems starts with market focus. It is very difficult for any vendor to view it as just another systems integration project. It is very important that the company creates a focused application practice. inLumon hires the best industry talent to lead our technology practice. This team has successfully created the human resource talent structure essential for successful technical solution delivery.

The inLumon team possesses qualified staff with extensive, relevant technical knowledge and capabilities necessary to execute this project. We also bring a capable management leadership team that has the skills and experience to make the project a success for WVBOM's stakeholders. Leveraging best practices and lessons learned from previous professional licensure and enforcement system implementations and other large, enterprise wide system implementation projects, the inLumon leadership team's focus is on delivering project to the Board's specifications. The proposed individuals are proven leaders; each experienced in delivering large solutions using the technologies and tools prescribed in the RFQ. Individually, the members of our team are highly qualified for their assigned roles; collectively, their expertise provides the skills, knowledge, and proven performance needed to deliver the database replacement project. Consider the following highlights of inLumon's proposed Project Principals:

- *Strong Project Management and Program Governance* – key for Project Success, and hence inLumon has proposed to utilize a Strong Project Manager to manage Project Tracking, Planning, Communication and Customer Satisfaction.
- *Solution Management* - led by an industry veteran
- *Executive Management* - promising to pay frequent visits to WVBOM to ensure the project is tracked at the highest level. This project is as important to inLumon as it is important to the Board.
- *Dedicated Advisors* – Solution Architect and Project Manager cater the best of the breed business transformation roadmap
- *Deep Functional Expertise* - The Project Principals named in this proposal bring more than many years of domain, technology, business process consulting, solution conceptualization, system development, database implementation and integration experience.
- *Experienced Personnel* - Project Principals proposed have worked on similar, successful database implementation projects.
- *Technical Expertise* - Our proposed technical and functional resources have extensive experience working with the prescribed business processes, technology and tools.

Among dozens of our clients currently using inLumon's Licensing System, the following references are available for the Board to contact:

1) **Nevada Department of Education** (NVDOE)
   Jason Dietrich, Office of Educator Licensure Director, telephone # (702) 668-4328,
   jdietrich@doe.nv.gov

2) **Nevada State Board of Dental Examiners** (NVBOD)
   Rigo Morales, Information Technology (IT) Coordinator, telephone # (702) 486-7044,
   rmorales@nsbde.nv.gov

3) **Nevada State Board of Pharmacy** (NVBOP)
   Kris Mangosing, Assistant Board Coordinator, telephone (775) 850-1440,
   kmangosing@pharmacy.nv.gov

We are also confident that the inLumon employees proposed to work on the WVBOM project meet or exceed required staffing qualifications, as reflected by their resumes provided on the following pages. Individuals identified include:

- **Tuhin Verma, Solution Architect and Implementation Lead**
- **Chris M., Project Manager**
- **Pawandeep Singh, Software Engineer**
- **Eric Fritzinger, Software Engineer**
- **Hirav Parekh, Software Engineer**

Tuhin Verma
Solution Architect and Implementation Lead

VISIONARY, EXPERIENCED, RESOURCEFUL & TECHNICALLY PROFICIENT

My relevant experiences in Information Technology, State Government, software development and implementation as well as project management for different organizations have provided me with a solid foundation for growth, both personally and professionally. I am technically proficient and enjoy providing technical solutions for my clients. Proven skills include:

Project Management | State Government | Finding Technical Solutions | Goal-Oriented focus!

SUMMARY of RELEVANT EXPERIENCES

- Strong problem-solver, Solutions-oriented and Results-driven Information Technology professional with more than twenty years of experience in IT industry, managing and delivering projects of different size and complexity using multiple technologies
- Experience building interaction and collaboration in a highly cross- functional environment; advocating organizational ideas and positions effectively; influencing and negotiating successfully across organizational boundaries including peers, team members, executive management
- Proven success acquiring and retaining talent needed to reach goals; providing stretch assignments, coaching and feedback to reports to enhance their effectiveness and potential. Imparted strong quality orientation, responsibility and accountability to the development team
- Strong problem-solver with solid background in managing and architecting projects to implement business and technology solutions using Client-Server, Web and Service Oriented Architecture
- Experience with Agile development methodologies, Scrum project management techniques and Software Development Lifecycle methodologies
- Experience developing and creating training, test plans, roll out plan and policy and procedures
- Experience representing the State agencies at the Board of Examiners meeting, at the Budget hearings, meeting with the LCB Analyst, meeting with the US Department of Education representatives
- Current PMI certification (PMP Credential earned in Jan 2007) with experience in applying the PMBOK. Experience and knowledge of the PMBOK Project Management Process Group and Knowledge Areas
- Experience using Microsoft productivity tools like MS Project for developing detailed project timeline, Visio, Word, Excel, SharePoint, PowerPoint
- Course work from Software Engineering Institute (SEI), Carnegie Mellon, Pittsburgh, PA on Software Architecture Principles and Practices and Documenting Software Architecture
- Hands-on development experience in multiple technology (IBM Mainframe, Oracle, Microsoft) and quick learner that rapidly adapts to emerging technologies and business process

EXPERIENCE

inLumon (2013-present, Reno, Nevada)
Solution Architect and Implementation Lead
In this pivotal role, I:
- Worked on the implementation of Licensing and Enforcement Application Framework and implementation of the Licensing System for many boards as a Technical Lead including Nevada Board of Dental Examiners Licensing System implementation
- Worked with the technical team and client team to review the requirements
- Provided overall project management, business requirement gathering and documentation of the

Statewide Longitudinal Data Systems (SLDS) implementation for the Nevada Department of Education (NDE) in collaboration with the Nevada System of Higher Education (NSHE) and the Department of Employment Training and Rehabilitation (DETR). The project implementation was completed ahead of schedule and under budget

- Developed detailed project plans with timelines, resource allocation, activity sequencing, critical path and cost allocation. Management of the project plan to track project schedule and cost to completion
- Worked with the System Analyst on the Feasibility Study Report to include Cost Benefit and Return on Investment to the partner agencies and to the public
- Organized and coordinated meetings with stakeholders, business and technology groups, leadership team, external entities, partner agencies, project team and other entities as required. Documented and followed up on the meeting minutes, questions, issues, and risks
- Developed the Test Plan and Test Scripts for the User Acceptance Testing (UAT) and Load Testing. Participated in the UAT with the client to ensure the product works as per the requirement

Nevada Department of Motor Vehicles (2012 to 2013, Carson City, Nevada)
Consultant
In this key role, I:
- Worked as a Consultant to DMV, NV on the CDLIS Modernization project. Responsible for the technical delivery of the interface. Interface involves exchanging data with Law Enforcement and a federal agency
- Created Requirement document and technical documentation. Provided high-level consultation and training to the team
- Managed the development task and testing coordination with different Federal agencies and State of Nevada agencies for exchanging information
- Worked closely with different stakeholders to plan, define, and scope the requirement
- Implemented improved procedures and standards to significantly reduce the data validation error rate and improved the data quality when exchanging information

Hewlett Packard (2009 to 2012, Trenton, NJ)
In this key role, I:
- Managed delivery of 60 interfaces (internal and external) for exchanging data with different external entities, state agencies and federal agencies as part of NJ MVC modernization project.
- Managed the Data Bridging effort, reverse flow of data to legacy system and forward flow of data from the legacy to the system being developed.
- Worked with the Database team on the data architecture and data modeling.
- Worked on individual matching and address matching systems with the data architecture team
- Interface architecture and design using Microsoft, Oracle and JAVA technology
- Managed the deployment of the application in system test mode
- Worked with the Vehicle Registration and Driver License team as a functional analyst
- Responsibilities includes Business requirement gathering and documentation, System architecture design, research and evaluation of various alternatives, overall project management, encompassing estimation and planning, working with various business units, interacting with users for defining the project requirements, managing relationship with external entities and third-parties, defining project deliverables, risk management, quality management, execution, technical review, progress monitoring, program documentation, user training and ensuring seamless delivery of the software solution as per the requirements
- Managed cross functional team of internal and external partners, dependencies & stakeholder expectations, relationship with external entities and third-parties

- Created Requirement document and technical documentation. Provided high-level consultation and training to the team
- Worked closely with different stakeholders to plan, define, and scope the requirement
- Implemented improved procedures and standards to significantly reduce the data validation error rate and improved the data quality when exchanging information

Nevada Department of Motor Vehicles (1999-2008, Carson City, Nevada)
Consultant
As a consultant for the DMV, my role included:
- Working on system integration and framework development and NDMV modernization projects
- Documenting user requirements
- Developing common functions/ modules for Driver License functionality
- Providing support for Production & Go live phases of implementation

EDUCATION

Bangalore University, Bangalore, Karnataka ~ *Bachelor of Engineering (Mechanical Engineering)*
Project Management Institute ~ *Project Management Professional (PMP) certification (since 2007)*
Nevada Certified Public Manager

HARDWARE/SOFTWARE SUMMARY

Category	*Description*	*Experience (Years)*
Environments	Windows 20xx Server / UNIX / LINUX	18
Hardware	Intel based servers, PCs, Windows, Sun, IBM servers	18
Software	Microsoft Technology (ASP .Net, C#, VB .Net)	25
	AngularJS, COBOL, JCL, VSAM, CICS	14
	JAVA, Microsoft Dynamics	3
Tools	Microsoft Visio, Microsoft Project, Microsoft Office	15
	Message Broker, IBM Business Process Manager	3
	Team Foundation Server (TFS), Visual Source Safe (VSS) Rational Rose	10
Databases	DB2	12
	SQL Server 2000/2005/2008/2012/2014, MySQL	15
	Oracle 8i/9i/10g/11g/12c	7

REFERENCES

Name: *Glenn Meyer, IT Director*
Organization: *Nevada Department of Education*
Phone Number: *(775) 687-9126*   Email Address: *gmeyer@doe.nv.gov*

Name: *Will Goldschmidt, Program Manager*
Organization: *DB Driven, Inc.*
Phone Number: *(540) 419-5922*   Email Address: *will@dbdriven.net*

Name: *Mary Harmon, Chief IT Manager*
Organization: *Nevada Department of Employment, Training and Rehabilitation*
Phone Number: *(775) 684-3943*   Email Address: *mwharmon@nvdetr.org*

Chris M.
Project Manager

EXPERIENCED, DEPENDABLE, CONSISTENT & RESOURCEFUL

My experiences in Information Technology, State Government, business development, software development and implementation as well as project management from Fortune 100 corporations to small start-up companies have helped me mature personally and expand my roles professionally. I am genuinely interested and excited to learn the business needs and struggles my clients experience as well as collaborating on finding the right solution for them. I consider myself a team player and strive to make those around me rise to the challenge. Proven skills include:

Project Management | Business Development | Effective Communicator | Demonstrated Collaborator | Bridging the gap between business users and IT Technical Staff | Positive & Can-Do Attitude!

SUMMARY of RELEVANT EXPERIENCES

Chris is PMI/PMP certified, with more than twenty-five years in program / project management and applications support. Successfully led project / support teams – from requirements definition, development through implementation and finally ongoing support. This work included changes to COTS solutions as well as ground up application development projects – delivering value-added solutions to major organizations.
Proficient in multiple project management, requirements engineering, and system development disciplines, including PMBOK, DSDM, Agile, and Use Cases, with years of experience defining, documenting, and managing requirements and in process reengineering for both IT and non-IT corporate and State Government projects.

- Strong project management, product line development, operations and applications support.
- Excellent management skills working with State and Local Governments
- Expert at establishing and building strong customer relations, including all aspects of project development and implementation, as well as designing software solutions to meet client needs and ongoing applications support.
- Proficient at development of realistic plans, goals and aligning plans with company goals, managing resources and creating contingency plans.
- Proven track record managing / directing multiple project teams involved with system design, maintenance of existing systems and system conversions.
- Experience in engineering sales, account management and managing customer satisfaction.
- Ability to work independently and as part of a marketing and technical team.
- Extremely well versed in software development lifecycle (Agile and Waterfall) and custom development solutions.
- Self-Motivated and Results-Focused IT professional with more than 40 years of cross-industry experience using a wide spectrum of technologies and methodologies

inLumon (2016-present, Sacramento, CA and Nampa, ID)
Vice-President and Director of Project Management
Program Manager for various Licensing System implementation projects, including agencies in Nevada, California, Louisiana and Wyoming. Responsible for the daily management of project team consisting of Business Analysts and Developers and Testers.
Responsibilities:

- Management of all phases of client service projects in areas of information technology and business systems engineering

- Defined and documented business requirements and business processes
- Developed project plans identifying key dates and resource requirements for the following projects.
- Assembled and directed project teams
- Defined and controlled project budgets of overall project
- Create and achieve deliverable signoff status and initiate invoicing process
- Tracked key milestones and adjusted project plans accordingly
- Prepared and delivered reports and recommendations (Weekly, monthly and Executive Quarterly)
- Identify and manage issues and risks as well as Change Control Process
- Worked with Third Party companies and internal IT departments to coordinate project systems testing, installation and support

Pacific Project Management, Inc. (2005-2017, Sacramento, CA)
Senior Project Manager and acting President
This IT services company provided various IT services to private companies as well as the State of California. My role included:
- Obtaining California Small Business Certification, CMAS and IT MSA approved vendor status
- Developed and maintained hardware/software network and servers for enterprise
- Responsible for all business development and corporation branding/marketing
- Proposed and won a number of private industry and State of California contracts
- Provided project management, facilitator, trainer and business analysis services
- Championed the use of new collaboration software with State of California clients
- Provided in-house training to State of California staff in Microsoft and SAS software
- Appointed by Board as acting President in my last 18 months with corporation

Northrop Grumman Information Technology, Inc. (1997-2005, Sacramento, CA)
Senior Project Manager—Healthcare Practice Manager
This Fortune 100 Company provided IV&V and project management services to a number of Agencies for the State of California. My role included:
- Obtaining CMAS and IT MSA approved vendor status
- Performed Independent Verification and Validation (IV&V) and project management on State of California projects
- Managed all healthcare related projects for the State of California
- Proposed and won a total of $22.5M in State of California multi-year contracts
- Developed and conducted in-house training of 50 individuals for PMP Certification

KEY ROLES on PROJECTS
- 05-18 to present—Wyoming Professional Teaching Standards Board (PTSB) Licensing system implementation
- 11-17 to present—Wyoming Professional Licensing Boards system implementation
- 11-17 to present—Wyoming Real Estate Commission Licensing system implementation
- 05-17 to 02/18—Nevada Department of Education Licensing Modernization Project
- 05-16 to 08-18—CAMTC Application and Certification Modernization Project
- 01-99 to 06-14—California Office of Statewide Health Planning and Development (OSHPD) MIRCal Project, CORC Project, ICD-10 Readiness Project and SAS Enterprise Business Intelligence
- 10/04 to 01/05—Nevada SOS Electronic-Secretary of State (e-SOS) Project
- 06/03 to 09/04—California Child Support Automation Services Project (Franchise Tax Board &

Department of Child Support Services joint project)
- 10/02 to 06/03—State of Colorado Business Practice Manager
- 04/00 to 10/02—Northrop Grumman IT State & Local Health Services Practice Manager
- 03/97 to 01/99—Northrop Grumman IT California Health and Human Service, Child Welfare Services/Case Management System—the first State of California statewide system for CWS

EDUCATION

California State University, Sacramento ~ *Bachelor's Degree in Business Administration* (3.6 GPA)
Project Management Institute ~ *Project Management Professional (PMP) certification (1999—2021)*

HARDWARE/SOFTWARE SUMMARY

Category	*Description*	*Experience (Years)*
Environments	Mainframe; Mid-Range, Windows 20xx Server	25
Hardware	IBM 43xx, IBM AS/400, Intel based servers & PCs	12
Software	VM/SP, DOS/VSE, OS/400, Windows Server 2008 & 2012, SAS, SSRS, .Net, COBOL, ReXX, JCL, VSAM, CICS, HTML & SharePoint	25
Tools	Microsoft Office (Word, Excel, Power Point, Project, Visio & Outlook)	15
Databases	Microsoft SQL, Oracle, IBM DB2	25

ADDITIONAL WORK EXPERIENCE

- 01/94 to 02/97—Information Technology Manager, CH²M HILL, Sacramento, CA
- 08/87 to 12/93—Systems Analyst/Systems Programmer/Data Center Manager, Willamette Industries, Portland, OR
- 08/86 to 08/87—Applications and Systems Programmer, Bingham International, Portland, OR
- 11/80 to 08/86—Senior Programmer Analyst/Systems Programmer, Farm Credit Banks, Sacramento, CA
- 07/75 to 11/80—Programmer Analyst, Department of Defense, McClellan AFB, CA

REFERENCES

Name: *Sheryl LaFlamme*
Title: *President*
Organization: *Synchronicity Consulting Group, Inc.*
Phone Number: *(916) 410-6836*
Email Address: *slaflamme@syncgroup1.com*

Name: *Kary Houston*
Title: *Owner and President*
Organization: *Certified Testers, LLC.*
Phone Number: *(916) 752-9069*
Email Address: *certifiedtesters@gmail.com*

Name: *Jeff Boone*
Title: *Co-Managing Director*
Organization: *California Statewide Credit Development Corporation (CSCDC)*
Phone Number: *(530) 297-2140*
Email Address: *jeff@calstatewide.com*

Pawandeep Singh
Software Engineer

EXPERIENCED, CONSISTENT, TECHNICALLY PROFICIENT & PASSIONATE

With inLumon, (2016-present, Reno, Nevada) worked on the following projects: Nevada Department of Education Licensing System Implementation, Nevada State Board of Dental Examiners, Wyoming Real Estate Commission, Wyoming Board of Professional Engineers and Professional Land Surveyors, Wyoming Board of Certified Public Accountants, Wyoming Professional Licensing Board, and the Wyoming Professional Teaching Standards Board

SUMMARY of RELEVANT EXPERIENCES

- Experience in Regulatory Licensing domain
- Worked on multiple Licensing System implementation
- 4+ years of experience as Software Developer, Team Lead in software design, analysis, development, testing and implementation of web and client server applications using Microsoft Technologies
- Hands on application development using Angular JS 1.x, C#, MVC, Windows forms, Web Forms in ASP.NET using C# as the code-behind language, SQL Server, MySQL and ADO.NET and LINQ as the Database data consumer
- Experience in IIS, AJAX
- Experience in Web Api, Web Services
- Worked in MVC-5 with EF-6 (Code-First and Data-First).

Software Engineer (.Net) and Front-End Developer
In these roles, I:
- Was involved in Requirement gathering and design document
- Developed the applications in AngularJS, ASP.NET MVC (C# as the code-behind language)
- Implemented the Identity for user access
- Managed the MySQL and SQL Server databases for multiple clients
- Implemented the payment process for processing the payment at the time of application
- Involved in test module developed for managing creating test
- Used the Jquery plugins for enhancing the interface responsiveness

EDUCATION

Global Institute, Punjab Technical University, India ~ *Bachelor of Technology (Computer Science)*

HARDWARE/SOFTWARE SUMMARY

Category	*Description*	*Experience (Years)*
Environments	Windows 20xx Server / Windows	4
Hardware	Intel based servers, PCs, Windows	4
Software	Asp.net Identity, Asp.net Web API, Asp.net MVC, Asp.net Web Forms, IIS Server, Microsoft Azure, Service Orientated Architecture, Multithreading and Caching	4
Tools	Version Control, Reporting, Third Party Tools, CMS Packages / Servers, Database Design and Development Methodologies	4
Databases	SQL Server, MySQL	4

Eric Fritzinger
Software Engineer

EXPERIENCED, RESOURCEFUL, FOCUSED, AND ADROIT

Experienced .NET full-stack software engineer of databases, back-end services, web service implementation, and front-end websites, with a broad knowledge of languages and frameworks. Experience working on Nevada Department of Education Licensing System Maintenance.

EXPERIENCE

inLumon (July 2018 – Present, Reno, NV)
Software Engineer
Develop web applications, services, and databases to create, track, and renew regulatory board licensing processes and reporting:
- Develop intuitive web applications for use by state regulatory board staff and licensees
- Create web service APIs to act as the middleware between the web application and the databases
- Maintain and expand databases to facilitate new features to the application
- Interact with customers to provide training and demonstrations
- Customize each software release to the individual needs of each regulatory board across numerous vocational domains and locales

University of Nevada, Reno (October 2009 – July 2018, Reno, NV)
Software Developer
Development of applications and services to meet the needs of scientists that supply and utilize environmental sensor data:
- Windows Server and Ubuntu system administration
- Microsoft SQL Server database administration
- Design and implement a graphical user interface-based framework for climate model coupling
- Utilize third-party web services for data consolidation and processing
- Create new websites and services for scientific data-driven applications using Angular and ASP.NET
- Develop and manage microservices architecture using WCF
- Advise student projects

Hamilton Company (December 2006 – October 2009, Reno, NV)
Software Engineer
Create and maintain code developed to program and operate robotic Microlabs:
- Design, implement, and maintain software for robotic fluid handling Microlabs
- Create third-party device drivers and integrate them into an existing software framework
- Research new algorithms for robots that make efficient use of resources over time
- Author software documentation

EDUCATION
University of Nevada, Reno – August 2006 - M.S. in Computer Science
- 3.94 GPA
- Focused study on software requirements, specification, and design

University of Nevada, Reno - December 2003 – B.S. in Computer Science
- Minor in Mathematics

TECHNICAL SKILLS SUMMARY

Category	Description	Experience (Years)
Languages	C#, C/C++, Python, Java, JavaScript, HTML, CSS	12+
Frameworks	ASP.NET, WCF, WPF, Bootstrap, jQuery, AngularJS/4	9
Software	IIS Server, Nginx, Apache	7
Tools	Team Foundation Server, Git	10
IDEs	Visual Studio, Netbeans	14
OSes	Windows Server, Ubuntu	10
Databases	Microsoft SQL Server, PostgreSQL, MySQL	10

PROJECTS

- NRDC Main Website: http://sensor.nevada.edu/
- NRDC Webcam Image Archive: http://sensor.nevada.edu/WebcamImageArchive/
- NRDC Data Search Interface: http://sensor.nevada.edu/SENSORDataSearch/
- NRDC Data Search Interface (Reprised): http://sensor.nevada.edu/Data%20Search/

REFERENCES

Name: *Dr. Sergiu Dascalu*
Title: *Professor*
Organization: *University of Nevada, Reno*
Phone Number: *(775) 784-4613*
Email Address: *dascalus@cse.unr.edu*

Name: *Dr. Fred Harris*
Title: *Professor*
Organization: *University of Nevada, Reno*
Phone Number: *(775) 784-6571*
Email Address: *Fred.Harris@cse.unr.edu*

Name: *Dr. Scotty Strachan*
Title: *Director of Cyberinfrastructure*
Organization: *University of Nevada, Reno*
Phone Number: *(775) 784-1110*
Email Address: *strachan@unr.edu*

Hirav Parekh
Software Engineer

EXPERIENCED, POSITIVE ATTITUDE AND QUICK LEARNER

With inLumon, (2018-present, Reno, Nevada) worked on the following projects: Nevada Department of Education Licensing System Implementation, Wyoming Real Estate Commission and the Wyoming Professional Teaching Standards Board

EXPERIENCE

inLumon (Feb 2018 – Present, Reno, NV)
Software Engineer
- Developed UI for adding, searching and editing a new Continuing Education (CE) course functionality for Wyoming Real Estate Board
- Worked on the Business Partner Portal for Nevada Department of Education Licensing System and Wyoming Professional Teaching Standards Board
- Implemented interactive stacked column charts for Nevada Department of Education using Google Charts and AngularJS
- Implemented the .Net APIs and stored procedure for retrieving the data from MySQLdatabase

Tata Consultancy Service (2012-2015)
Software Developer
Working on the Timesheet Discrepancy application for Saudi Telecom Company (STC), I:
- Designed & developed the User Interface using ExtJS, HTML and CSS
- Scheduled a PL/SQL proc to automate discrepancy report saving 20% time of PMO team
- Emailed discrepancy details in tabular format by coding a UNIX script with HTML code
Working on the Defect Dashboard for STC, I:
- Developed a Dashboard to show defects raised in graphical format
- Created a Database Link to access QA data stored in testing team schema
- Implemented interactive charts using Google charts and Highcharts to show defects raised
- Retrieved data in JSON format by making an AJAX call
Working on the Kaizen Report Automation for STC, I:
- Automated process of CR status report generation
- Scheduled a PL/SQL procedure for recording and mapping CR status
- Eliminated PMO's monthly labor and decreased Turn Around Time (TAT) by 75%
Working on an Action Item tracker for STC, I:
- Developed a Web app to track action items and record Minutes of Meeting
- Brainstormed the idea with team using Mind Mapping technique for project planning
- Designed UI using ExtJS, HTML, CSS & developed the application using Struts framework
- Headed a team of 3 and was in charge of delivery as well as technical documentation

EDUCATION

Ganpat University, India ~ *Bachelor of Technology, Mechatronics Engineering*
University of Nevada Reno, Reno, Nevada ~ *Master of Science, Computer Science*

HARDWARE/SOFTWARE SUMMARY

Category	Description	Experience (Years)
Environments	Windows 20xx Server / LINUX / ROS / Android / Windows / Virtual Reality / Augmented Reality	4
Hardware	Intel based servers, PCs, Windows	4
Software	HTML, CSS, jQuery, ExtJS, AJAX, JSON, Google Charts, etc. Struts, Spring, Hibernate, JSP, Servlets, Maven, JDBC, Angular JS, Agile (Scrum & FDD), .Net API	4
Tools	Eclipse, Unity 3D, Visual Studio, SQL developer, Tomcat, Github, Blender, Tortoise SVN, MATLAB	4
Databases	Oracle, MySQL	4

4. Mandatory Requirements

4.1   **Mandatory Contract Item Requirements and Deliverables: Vendor shall provide Agency with the Contract Item and Services below on an open-end and continuing basis.** Contract Item and Services must meet or exceed the mandatory requirements listed below.

RESPONSE: For the West Virginia Board of Medicine (WVBOM), applicants, licensees and other stakeholders, inLumon's COTS Licensing Framework will be configured to serve as the new, single system managing the entire lifecycle of licensure; tracking individual's entire career from initial application, exams, continuing education, compliance and more as desired. To highlight how our proven COTS solution can be configured to meet and/or exceed the Mandatory Requirements, inLumon is providing specific responses, information, examples and screenshots for WVBOM's consideration based on the requirements and deliverables outlined within the RFQ.

4.1.1   **Website:** Vendor must provide and design an integrated website as described in this subsection of the Solicitation, utilizing the Board's existing website content located at http://www.wvbom.wv.gov/. It must allow Board staff to add web pages, make changes to all informational web pages, and upload documents for public viewing. It must also create a system for the Board to manage Member applications, Member renewals, practice agreements and status changes for all Board Authorizations and all Members. It must allow Members to securely access the website to perform the actions and functions below, without any cost from the Vendor to the Member. And, it must allow for public access (also at no cost) to view records and other documentation with limited constraints.

RESPONSE: Some of our customers have asked that inLumon assist them in developing a new website to coincide with the deployment of their new licensing system. While this is not our primary business, inLumon is quite capable of setting up an initial website, training the client on how to manage the website content using an industry best practices tool, and then turning over the maintenance of the website to the client after website launch.

inLumon has read, understands and agrees that we will develop a website based on the design by WV BOM and agrees to work with WV BOM staff in order to train them on how to maintain this website content, which will provide a method for the Board to manage access to the licensing system for member applications, member renewals, practice agreements and status changes for all Board Authorizations and all members. This website will also allow members to securely access the website to perform the actions and functions outlined in below, without any additional or hidden costs from inLumon to the members. Lastly, this website will allow for public access at no cost, allowing them to view records and other documentation with limited restrictions or constraints.

Below are examples from one of those clients, the Nevada State Board of Veterinary Medical Examiners that is currently updating the content of their website in preparation for deployment. The example below is a screen capture of the main 'landing page' for their website:
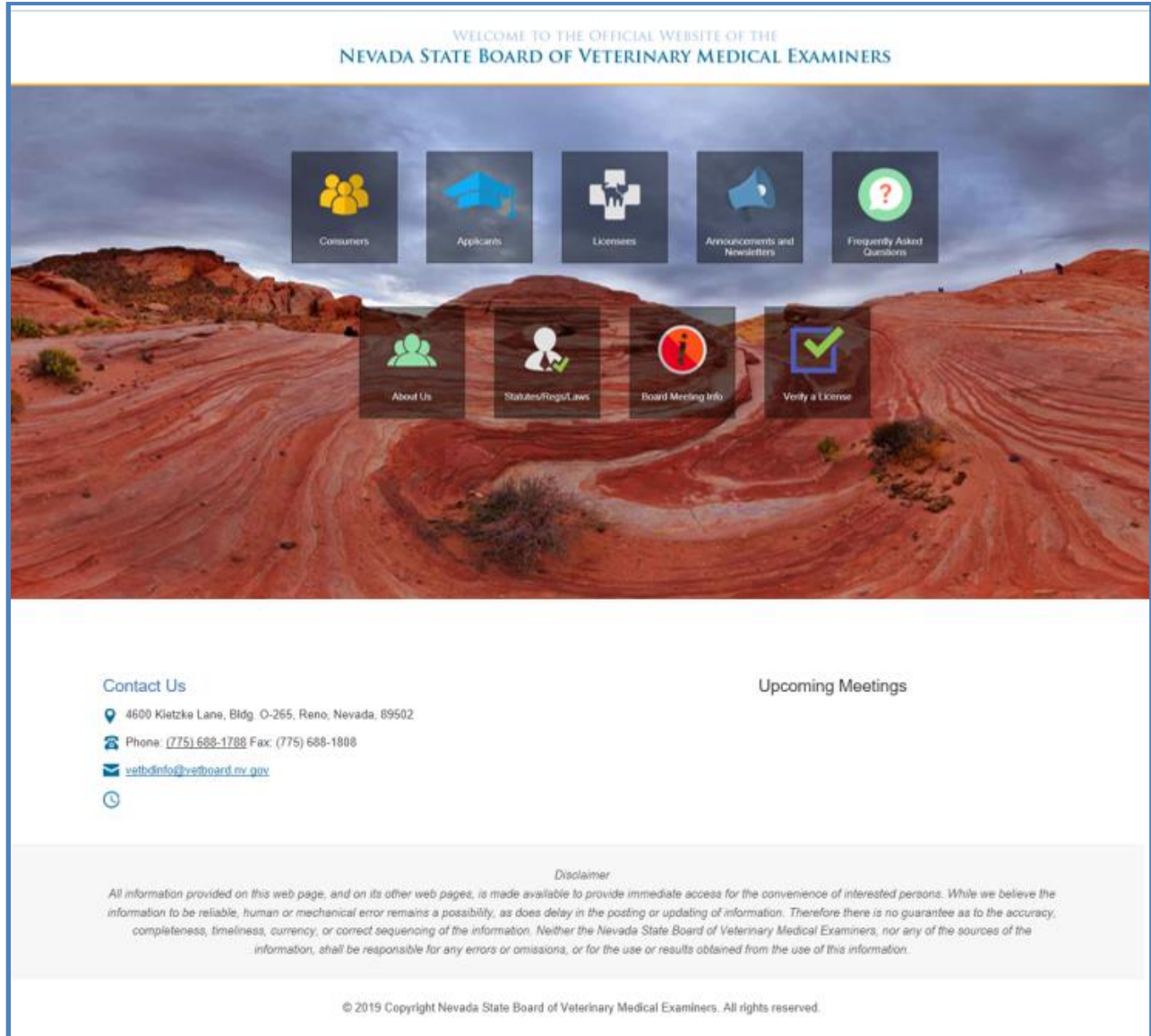
inLumon provides training on how to manage client websites. We provide hands-on training on Umbraco, the tool that is used to maintain the website. Training does not stop here, however, because inLumon provides additional as needed support while the client is under Maintenance & Operation (M&O) contract.
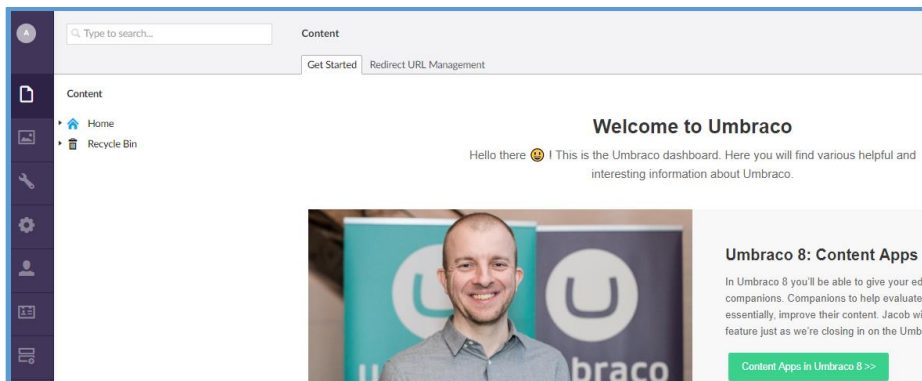
Below is a sample of how the website content is managed in Umbraco:
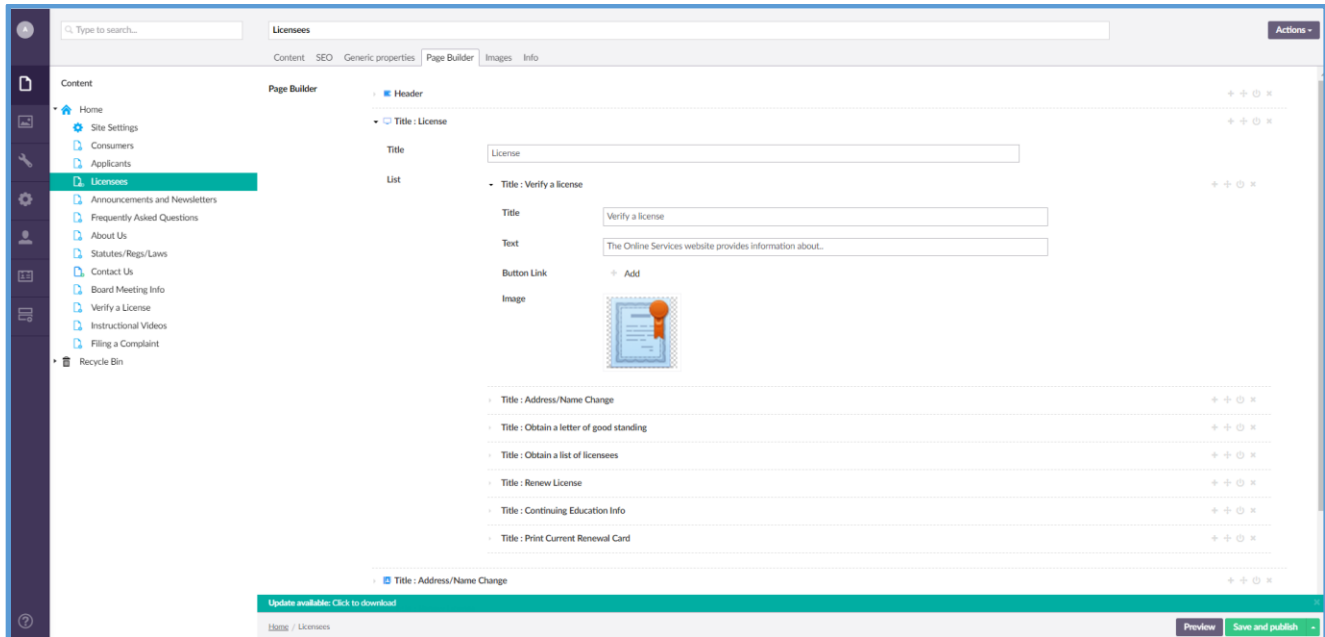
The website must be fully integrated with the Content Management Database System (outlined in Section 4.1.2) and Cloud Based Documentation Program (outline in Section 4.1.4) to allow the accurate and seamless transfer of data and information as needed, while also retaining all Historical Data. The website must, at a minimum:

4.1.1.1 Provide detailed real-time verification capabilities to provide an online search feature that can be utilized by the public to obtain a Member's Board Authorization Member Status, Member Type, malpractice history, work address or other such categories, and includes the ability for disciplinary orders to be viewed through the website. It must also have the capability to allow the public to create a mass list of exportable information (i.e. a roster), of Members using any of the public information listed above, without limitation. For example, this function should allow a user to search and create a list of all Members having active allopathic physician licensees practicing in Charleston, West Virginia.

RESPONSE: inLumon has read, understands and will comply with this requirement as we typically deploy the system to provide detailed real-time verification capabilities. inLumon's Licensing System provides users with real-time, accurate data, public portals and can allow citizens to easily search for and access licensee credentials and any other public information the Board desires to share, including final legal notices, board actions, affidavits, etc. One of many examples, include one of our client's public facing website illustrated below demonstrating how real-time licensure and compliance information can be displayed:

VERIFY LICENSE

License information on this site reflects information in the Nevada State Board of Dental Examiners database; however, applications and forms are subject to standard processing time, and the information here does not reflect pending changes which are being reviewed.

Enter License Number or First Name or Last Name to check on the license status of your dental examiners. If you don't know the exact spelling of the name, type only the first few letters. You do not need to enter value in all fields to begin a search.

Last Name :

First Name :

License Number :

[Search] [Reset]

License Information :

License Status Code	Dentist Count	Hygienist Count
Active	2072	1429
Suspended-Non Renewal	31	145
Inactive	294	246
Revoked-Non Renewal	731	642
Retired	77	43
Disabled	11	9
Suspended-Board Action	5	0
Voluntary Surrender-Board Action	6	0
Revoked-Board Action	8	0

When a search is executed the user is presented results linking to the relevant records, licensure status information and data the Board would like to share. Furthermore, associated documents, etc. that the agency determined is for public consumption, including board actions can be linked and accessed, as reflected in the next figure:

4.1.1.2 The website must contain an application and renewal system incorporated within a Member portal that allows Members to: complete and submit applications and renewals for Board Authorizations online; access a Member dashboard which provides Members real time information concerning member status, application and renewal application status and the member's historical record with the Board. The Member portal should permit Members to access the Member's application materials and send and receive secure messages with Board Staff. The portal must have a HIPAA compliant level of security to handle confidential information and communications. Vendor should submit an attestation verifying that the system has a HIPAA compliant level of security, along with supporting documentation with their bid submission, this documentation will be required before award. The portal must allow for Members and Board staff communicate during the application process and allow for the secure uploading and sharing of documents as needed.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon will provide all application and renewal data retention as requested, while protecting the integrity of historical data and providing all information to the Member in real time. The solution will maintain the HIPAA compliant level of security and attestation will be provided. The portal will also allow Members and Board staff to communicate throughout the process. The solution will also allow secure uploading and sharing of needed documents.

The new system inLumon will develop and implement allows for the issuance of new and renewal of existing licenses from both an online portal for applicants to complete and submit online forms as well as from within the 'Back Office' (where WVBOM staff with approved access can enter information from a paper application for example). inLumon works with our clients to design the dashboard layout and workflows for Licensees and Applicants, empowering users to do as much of the work on their own without having to call the State for assistance. An example of an application for initial licensure, in which the application is logically segmented and presented in an intuitive manner for members to complete and submit, is below:
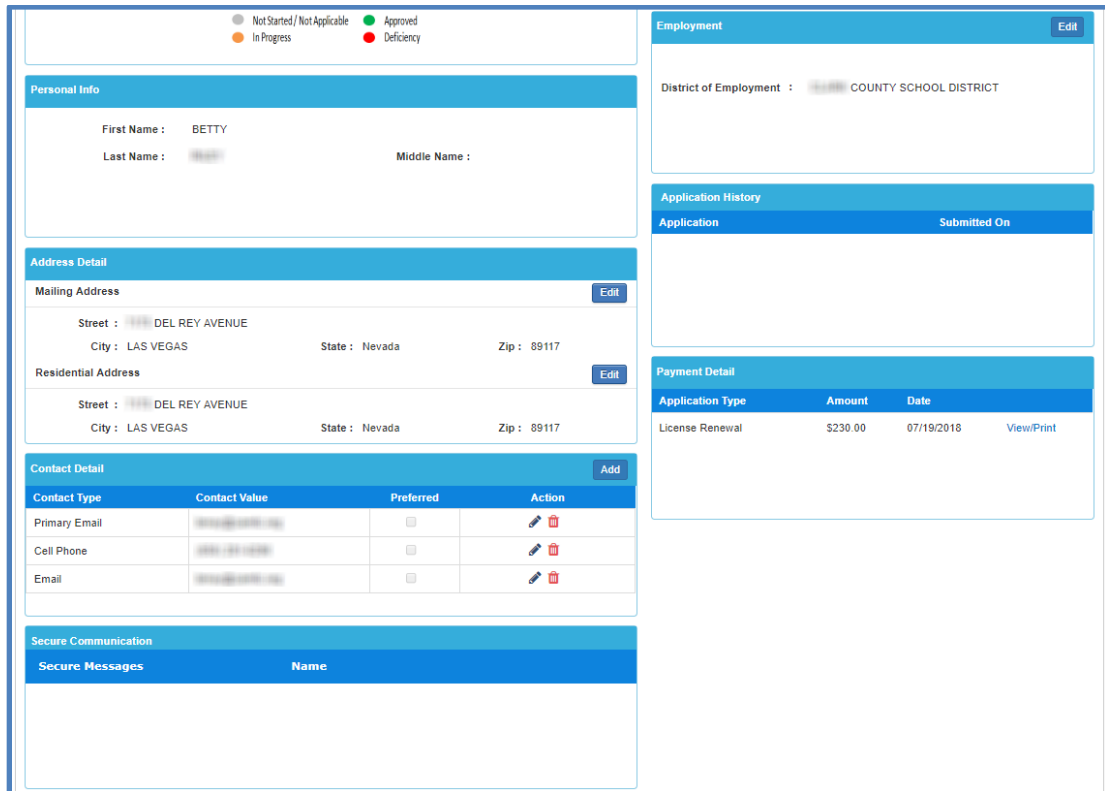
Typical features that inLumon incorporates into online portals include but are not limited to:

- **The ability for first-time users to register for access to the system thereby creating a unique User ID and Password that is generated by the system. After completing the routine to create their unique password, applicants will then have access to their online profile within the system**
- **External user (Applicants and Licensees) are limited to ONE login session and thus cannot be logged into the system more than once at any given time**
- **Limits any user to a total of 3 failed login attempts before the account is automatically 'locked'**
- **The Username and Password fields will inform the user if the Caps Lock is turned on**
- **Providing a 'forgot password' link that users can use when they forget their password or if they wish to easily change their existing password (as this function will reset the user's account using a temporary**

password and email that temporary password to the email address noted when the link is clicked)—resetting the temporary password requires entering that password, along with a new password and then verification of that new password (this will be altered as necessary to support the State's security policy)

- **A notification is the system is down or unavailable**

Licensees/Applicants can also access their historical information on file with the Board. The member can also manage secure messages from their portal (- all secure messages are managed within the system and are associated with the Licensee/Applicant and are viewable by authorized state staff). Examples of this are shown in a partial screen, provided in the following figure:

Our highly secure framework's data encryption capabilities coupled with our hosting partner, HiVelocity, provides a HIPAA compliant level of security for the WVBOM. See Appendix XX – Hosting Services for more detailed information.

4.1.1.3 The application and renewal system must have a status capacity so that Members login and check to see the application or renewal status themselves from the web and can see and print or download the application or renewal status and supporting documentation from the website The Member should also be able to review their licensure status and history.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution will provide Members the ability to log into their portal and check status of application or renewal processes, view and print applications, renewal data, supporting documentation, view licensure status and history from their account to meet the requirement as specified.

As shown in the figure below, the status of the most recent application allows the Licensee or Applicant) to monitor the real-time progress of the application. Our clients have found that providing this transparency into the application process, with real-time status of their application, has significantly reduced the number of calls from Licensees/Applicants asking about the status of their application.

4.1.1.4 Members must be able to login into the application and renewal system using their email address as a username and a customizable password that contains at least eight (8) letters and requires at least one capital letter, number and symbol. The password system must allow for Member to change/update their username (i.e. email) and/or password after logging on, and also provide a secure retrieval system if Members forget their password.

RESPONSE: inLumon has read, understands and will comply with this requirement as our typical approach for Usernames is to utilize the user's email address as their unique identification login, along with passwords in compliance with the Board's requirements, and an industry-standard 'forgot my password' mechanism for retrieval and resetting of account passwords as displayed in the following example login screen figure:

4.1.1.5 Members must have the ability to provide a change in contact information online (i.e. address, telephone, email) through the Member portal. The system must allow for any functionality which allows for the Member to change data and include additional functionality which allows Board staff to review, revise, and approve such changes before the changes take effect and are reflected in the database or on the website. The system must store all Historical Data related to a Member's contact information.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution will allow the Member to view or change contact information, including mailing address, residential address, contact information and employment information as per the needs of the Board. Examples of this are shown in a partial screen, provided in the following figure:

Furthermore, inLumon will configure the system and workflows to enable WVBOM staff to review, revise and approve before changes are reflected in the system. All historical data related to Member contact information will be retained in the system, and the following is an example of an individual's addresses, contact data and historical information (current or previous) displayed in the 'back-office' portal for Board staff. This information is client configurable in terms of what is to be shown:

4.1.1.6 Allow for PCI Compliant Payment Processing through an interface with the West Virginia State Treasurer's payment applications systems, "E-Gov" for payment processing for electronic revenue.

RESPONSE: inLumon has read, understands and will comply with this requirement by configuring a secure interface between the Board's new system and PCI Compliant Payment Processor designated by the West Virginia State Treasurer. inLumon's system allows for online credit card, debit card and EFT payments using an API (Application Program Interface). We have interfaced with numerous merchant services, as determined by our clients' requirements – many specified by the State or agency's financial institution. An example payment portal screen is on the following page:

Other items shown in the screen shot above include:

- **Override feature—this is only available for authorized State staff when entering payment for a paper application which has been entered via the 'Back Office'. This can be used to override any amount, including waiving of Late Fees, reduced rate for veteran status, etc.**
- **Method of Payment—while the online Licensee/Applicant can only see Credit/Debit Card or EFT, authorized State staff can see additional options such as Check, Money Order, Cashier's Check, etc.; some clients have decided that credit card information will not be taken by State staff.**
- **Client managed message regarding payments as being non-refundable, etc.**
- **Credit Card Processing—this is a link to the client's policy regarding credit card processing. Other clients also post a separate link regarding Privacy of Information, etc. Most of these are driven by merchant services requirements or customer legal department/staff.**

4.1.1.7 Allow for the upload of various documents and storage of those documents with associated records in the associated database.

RESPONSE: Electronic document management is an inherent capability of inLumon's Licensing Framework, allowing for single and multiple documents, images and other files to be uploaded and associated with the applicable record(s) for ease of access, review and retention.

The following figure illustrates how scanned documents and files can be uploaded, associated to an individual record and stored:

4.1.1.8 Allow for the placement of incoming data in a chronological sequence.

RESPONSE: inLumon has read, understands and will comply with this requirement by configuring the system store and timestamp incoming data in order to present in a chronological sequence.

4.1.1.9 All Historical Data from changes must be retained and viewable by staff internally, including a timestamp when changes were made.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's framework employs the concept of activity. A business function carried out within the system is a type of activity. The system can be configured to log each activity being carried out with the system. This information is stored in the database and can be retrieved to report against, analyze and/or identify patterns for fraud prevention.

As part of the business function audit, the system logs the following data points which can be reported on:

- Logged-in user (user who accessed record / performed activity)
- IP Address from which the user is logged in
- Activity date and time
- Activity type
- License / Application number

All actions taken within the system are logged into an audit file. The logged can be viewed by looking at an individual's record in the database using the Individual Info function, and clicking on the Log tab. Here all actions taken against this user are displayed. Additionally, with proper access, the entire audit log may be searched to see actions taken on a specific individual within the database, or by a specific user, within any range of dates. This helps answer who did what to whom in the system. Below is an example of an Action Log from OPAL, when viewing and individual Licensee's record:

In the figure above, the date & time stamp is shown for each action, as well as a description of that action. The Username (or 'System') responsible for that change is also shown for each logged action. The system also includes the Search and Print functionality within the audit log.

4.1.1.10 The applications and renewal system must have a portal for Board staff that has the capability to allow Board staff to review applications and documents submitted by Members and save as Adobe.pdf document and/or print any Member forms (including applications, communications, reports and supporting documentations from the Members' access on the website). This portal should allow Board staff to oversee and manage the application and renewal process. For example, Board staff should be able to approve applications, communicate with Members through email, text alerts and/or a secure messaging system which alerts a Member to communications from the Board which are accessible through the Member portal. Board staff should also be able to make revisions to applications, hold applications or archive applications depending on the status of the application. It should also allow Board staff to place documents for any Member or group of Members in chronological sequence and allow for future deletion according to the Board's document retention policy. This portal should be a customizable workspace depending on the tasks needed to be performed by Board staff.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution will provide Board staff the capability to review applications, Member information, documents, and print all documents as required above. The system will be configured to support the Board's true application processes, including initial review of application information forms, uploaded documents, placing holds, archiving, and more. All current and historical data related to Members will be retained in the system and available for deletion according to the Board's retention policy.

inLumon's licensing system provides a user-friendly system that automates complex certification, enforcement and licensing regulations using a workflow and business rule driven process focused on ease of use and administration. inLumon's customer-centric focus and approach of putting the control of the system into the hands of the users has culminated into intuitive systems supporting complex licensing workflows, regulatory processes and services. For example, the figure below is a staff view showing various application types (new application, renewals, reapply, additional license/ endorsement, etc.) submitted by the Licensee or Applicant via their online, secure, personalized portal (noted with an 'OL' in the Started By column) or those entered by State staff from paper applications (noted with a 'BO' in the Started By column).

The figure above also shows the following information for the submitted application:

- ✓ **The type of application**
- ✓ **License number (only for Licensees)**
- ✓ **First and Last Name**
- ✓ **Submitted on Date**
- ✓ **(State staff the application is) Assign to**
- ✓ **Who (and where) started the application**
- ✓ **Status (i.e., where the application is in the workflow—these map to terms defined by the client)**
- ✓ **Lock By (who has the application open at the moment—an application is 'locked' when opened by State staff so no two people can update the application at the same time)**
- ✓ **Action icons (this shows the stages of the workflow as well as status: Green = passed; Red = issue; Amber = not yet processed; the lock shows Green when unlocked [available to update]; Red when locked [currently being updated by State staff])**

For all of our clients, the application workflow is clearly defined to meet their already defined application workflow process. For instance, applications that are initially received (in what some call an 'Intake queue') are reviewed for "completeness" by 'front office' staff. Any application that is found to be incomplete for any reason, is noted as 'deficient'. The application itself is then 'gated' into a 'Deficiency queue' where it is queued for a user configured amount of time.

In cases of a deficiency, the front office staff will note the deficiency(ies) in the application, send a secured message (a message inside the system that is forever associated with the Licensee/Applicant) detailing those deficiencies to the Licensee/Applicant who submitted that application. After any deficiencies are corrected and resubmitted by the Licensee/Applicant, it is automatically moved from the Deficiency queue back into the Intake queue, where staff will once again review the application for completeness.

This system has the capability of sending emails and/or SMS (text) messages to a Licensee or Applicant as the application moves through the application submission, review and outcome portions of the application workflow as well as the status of background checks. This provides real-time information to the Licensee/Applicant about the processing of their application in order to improve initial data quality and reduce phone calls. For instance, notifications and alerts can be automatically sent to an individual Licensee or Applicant as their application moves through the application submission, review and outcome portions of the application workflow as well as the status of background checks. This provides real-time information to the Licensee/Applicant about the processing of their application.

4.1.1.11 The application and renewal system must permit Board staff to customize and modify application content as needed. It must maintain legally sufficient archival copies of all prior iterations of all applications which have been utilized by any Member. For example, Board staff must be able to obtain a true and complete copy of all application questions and content as viewed by a Member and which was in use on a specified date. Application content which is common to multiple Member Types should be easily transferable from one application type to another. For example, if Board staff develop one or more common sets of questions applicable to multiple types of Members, such content must be easily incorporated by Board staff into any application and must also be easily customized in the subsequent application as needed.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution will provide the Board with the required specifications as listed above for full modification and customization of the application content as needed.

The solution's Content Management system allows an authorized WVBOM staff 'super-user'(s) to manage the content in their system, including Application and Renewal forms without assistance from inLumon. Authorized staff can make changes in minutes which are reflected _immediately_ when licensees or applicants open a new or renewal application. Prior versions are archived, stored and associated to Members' records thereby providing a true and complete copy of what was submitted.

Content Management is one of many Administrative functions provided to our clients in the system. The current categories that clients can manage are displayed in the figure below, available in under the Administration tab on the main menu:
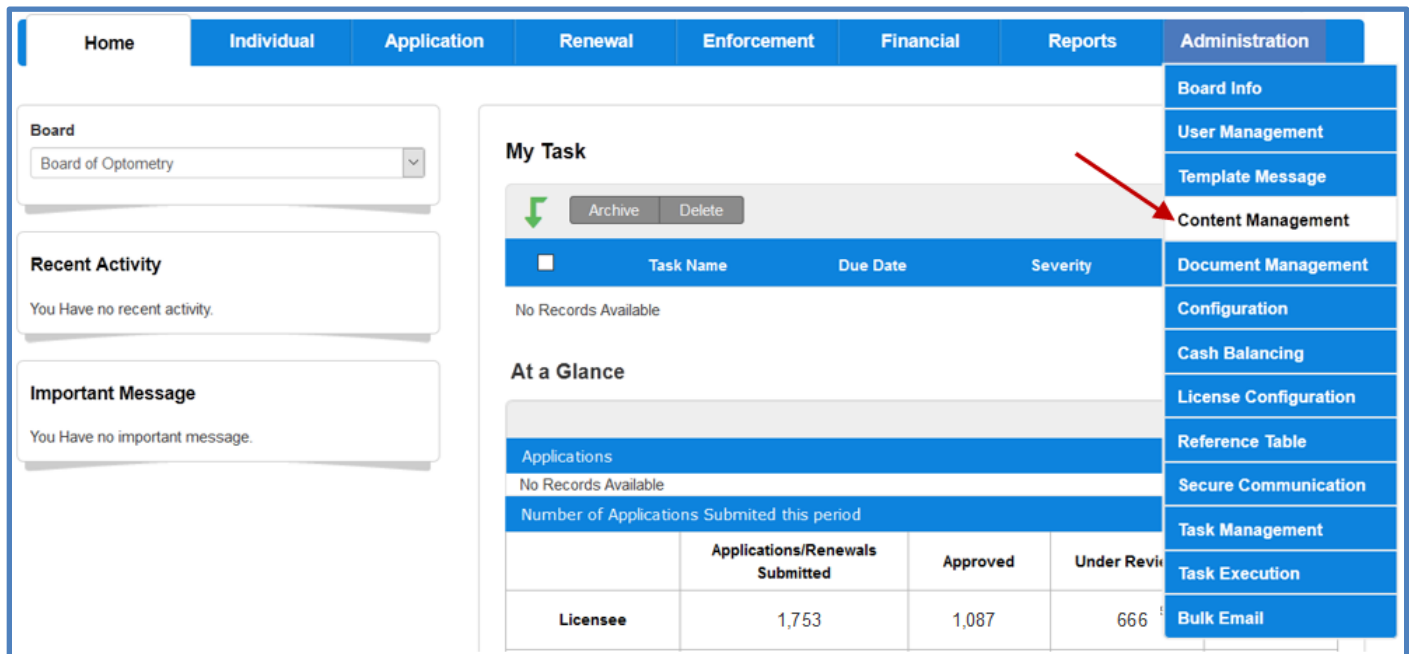
From the Content Management menu, the desired content is selected for edit as shown in the following figure:

Content Management

Content Item Code	Content Item#	Content Description	Effective Date	End Date	Action
OptRenAppInst	1	**Application:** The renewal fee of $175.00 (non-refundable) must be submitted with the application.	02/01/2017	02/11/2017	
OptRenAppInst	2	Please note, the renewal application asks for a valid email address. Any issues with your renewal will be emailed to the email address listed on your renewal form. Failure to provide a valid email may cause delay in contacting you and subsequently, in renewing your license.	05/15/2016	05/15/2018	
OptPHInst	1	Any 'Yes' response requires an explanation and upload of supporting documentation.	02/09/2017	02/10/2017	
OptPH	1	1. Within the last five (5) years have you ever had any application for licensure or certification refused, dismissed, denied, or withdrawn by any professional licensing authority?	05/15/2016	03/08/2018	
OptPH	2	2. Within the last five (5) years have you ever allowed any professional license to lapse in lieu of disciplinary action, or had a limited, conditioned, restricted, or probationary license issued by any licensing authority?	02/10/2017	03/08/2018	
OptPH	3	3. Within the last five (5) years have you had a professional license revoked, voluntarily surrendered, suspended, reprimanded, censured, conditioned, restricted, or otherwise disciplined?	05/15/2016	03/08/2018	
OptPH	4	4. Within the last five (5) years have you ever had a registration issued by a controlled substance authority revoked, voluntarily surrendered, suspended, reprimanded, censured, conditioned, restricted, or otherwise disciplined.	05/15/2016	03/08/2018	
OptPH	5	5. Within the last five (5) years have you had an application for registration refused, dismissed, denied, or withdrawn by a controlled substance authority?	05/15/2016	03/08/2018	
OptPH	6	6. Within the last five (5) years, have any unresolved or pending complaints ever been filed against you with any licensing agency or association?	05/15/2016	03/08/2018	

The content is then edited and saved. Upon clicking the 'Save' button, the change is reflected _immediately_ in the system. That is, the next Applicant or Licensee that opens an application (new or renewal, whichever was changed), will now display the change. A sample of how the editing tool looks is shown in the figure below:

Effective Date : 05/15/2016

End Date : 03/08/2018

Styles   Normal   Font   Size

Content Text :

1. Within the last three (3) years have you ever had any application for licensure or certification refused, dismissed, denied, or withdrawn by any professional licensing authority?

body p

Save   Cancel

4.1.1.12 The application and renewal system must allow Members with multiple renewal types to have the option of completing all available renewal applications in a cohesive process prior to remitting a single, combined renewal fee calculated by the system. For example, if a Member is eligible to renew a medical license and a drug dispensing registration, the Member should be able to complete all necessary renewal information for both renewals and be charged a combined fee (MD license renewal fee and drug dispensing registration fee) which can be paid in one single payment.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution will provide Members the ability to complete all renewal applications in one cohesive process as desired with one payment applied and processed for all applicable fees.

4.1.1.13 The application and renewal system must provide Board staff the capability to establish which applications require staff review and approval prior to database content changes being effectuated with the data from the application.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution will provide the Board staff the capability to determine which applications require review and approval, as well as those with prior data and application content. The application review process is typically achieved by segmenting the applications and renewals within workflow queues based on WVBOM's business processes.

For instance, once an application is determined to be 'complete' after initial review, it can then be 'gated' to an 'Analyst queue' where a more experienced State staff reviews the application and determines if the application requirements have been met for licensure for final approval and so on. As shown in the figure below, all applications to be reviewed by analysts are listed. The information can be sorted by any of the columns, in either ascending or descending sequence.

The preceding figure illustrates the following:

✓ A Green 'I' icon in the Action column notes that the application has successfully completed the Intake queue workflow stage
✓ A Green 'BC' icon in the Action column notes that the application has successfully completed the Background Check workflow stage
✓ A Green deficiency icon in the Action column notes that the application had a deficiency, but that has been addressed
✓ A Green '$' icon in the Action column notes that the application has been paid for
✓ A Green padlock icon in the Action column notes that the application is 'unlocked' and can be opened
✓ A Red padlock icon in the Action column notes that the application is 'locked' and cannot be opened; it also notes in the Locked By/On column WHO has the application open and the date they opened the file

inLumon looks forward to working with the WVBOM to identify necessary workflows in order to satisfy all requirements to capture online applications and VWBOM staff review via configurable workflow routing.

4.1.1.14 The application and renewal system must employ an address verification tool for all address fields. The application and renewal system must employ uniform formatting for similar filed types, such as telephone numbers. The application and renewal system must accept international addresses and telephone numbers.

RESPONSE: inLumon has read, understands and will comply with this requirement as address verification is typically provided within the solution. The solution also provides uniform formatting throughout and will support the ability to maintain domestic and international information.

4.1.1.15 All application and renewal data must be recordable in the Content Management System Database at the discretion of Board staff, and field content history must be preserved and remain searchable after a renewal or other subsequent member application is submitted.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution will ensure that all data is recordable at the discretion of the Board staff into the Content Management System Database as required. All field content history will be preserved and searchable as required above.

4.1.1.16 The application and renewal system must generate a legally sufficient and accurate record of a Member's final responses to all application questions. At a minimum, the legally sufficient record of application must: mirror all written content and application instructions viewable to Members (but not necessarily the format); accurately reflect the information entered and saved by the Member in response to each question; be automatically saved in .pdf format in the Member's database record resources; contain Member identity and page number information on each page of the .pdf record; include the date of electronic submission by the Member; utilize readable font no smaller than the visual size of 11 point Times New Roman font; be accessible to the Member through the Member portal.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution provides the ability to record and store Members' final responses to all application questions in accordance with legal requirements. The information will be formatted as required and will be accessible through the Member portal.

Members can be provided a copy of their completed application (in pdf format)—that pdf will be associated with their individual record and available for viewing or printing by the Applicant or Licensee as well as WVBOM staff via the database at any time in the future.

4.1.1.17 The physician application portion must be able to interface with the FSMB Uniform Application and Federation Credential Verification Service packet so that applicable Members are able to electronically transfer data from that system into this one.

RESPONSE: inLumon has read, understands and will comply with this requirement as we have direct experience implementing FSMB's Universal Application (UA) interface. inLumon will create the interface to allow electronic transfer of data from the FSMB Uniform Application and Federation Credential Verification Service packet into the database as required.

4.1.1.18 All components of the website, including the application renewal system, must be fully functional on all mobile device formats currently m use.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon will deploy functionalities on mobile devices utilizing the same underlying system components as the Board's system, empowering Member's and the public to perform activities, submit and/or access information using mobile technologies.
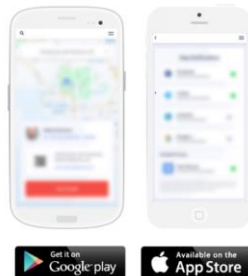
4.1.1.19 The Vendor must be capable of developing a mobile application with a HIPAA compliant level of security that may be freely downloaded from an "App Store" on any mobile device for Members to access the Board's website and which is fully integrated into the application and renewal system and Content Management Database System.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon has direct experience providing an integrated inspection solution APP from an "App Store" for client use as well.

4.1.1.20 A complete Historical Record of the website must be retained to allow Board staff to determine what content was on the website on any given previous day.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's solution will provide a complete cached historical record of content and maintained in the system.

4.1.2   **Content Management Database System:** The Content Management Database System ("Database") must handle all Board Authorization Member Types, including future types, required by the Board and meet the following requirements, at a minimum:

4.1.2.1   Must be a replacement for the Board's current Database.

RESPONSE: inLumon's COTS Licensing Framework will be configured to serve as the new, single system managing the entire lifecycle of licensure; tracking individual's entire career from initial application, exams, continuing education, compliance and more as required per the RFQ to replace the Board's current Database. Due to our framework's high configurability and scalability, the Board's new system will be configured to handle all Board Authorization Member Types, including future types, as required.

4.1.2.2   Must be housed in a centralized location. The Board's preference is for a Linux or SQL server (or equal) for the application.

RESPONSE: inLumon has read, understands and will comply with this requirement. Being a Microsoft .Net based, commercial off the shelf (COTS) system using industry renowned SQL Server in a service-orientated architecture, inLumon's configurable framework allows for fast design and development of integrated, comprehensive Licensing & Enforcement solutions without the challenges and risks of one-off software development projects or support.

See Appendix 2 – for more detailed information regarding hosting and the Board's new, centralized database location.

Clients receive the benefits of shorter implementation schedules along with the flexibility of a custom-developed solution. inLumon's system includes public facing web portals, business intelligence ad-hoc query tool, a database engine and other components within a modern, intuitive user interface. Our framework provides a total business solution spanning the lifecycle of your regulatory processes, including custom workflows, integrated multi-level security, document and correspondence management, automated notifications, secure interfaces, full audit and logging, reports and more.

4.1.2.3   The complete enterprise solution (content management, software/application licensing, web design, etc.) _shall be provided by a single Vendor and shall be functional with all current mobile device formats._

RESPONSE: inLumon has read, understands and will comply with this requirement as inLumon will be providing the entire enterprise solutions and will not be utilizing subcontractors. The solution will also be functional on all current mobile device formats.

4.1.2.4   The Vendor and system must provide secure functionality for a redesign/replacement and integration of the Board's current website and data system, new database, online applications, licensure and renewal applications and processing of such, plus provide documents, calendars, news and articles to meet the Board's requirement to communicate to its constituents.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon will provide secure functionality for a replacement and integration of the current website to meet the Board's requirements to communicate effectively to its constituents. The following figure is an example of another client's website provided by inLumon:

4.1.2.5 Must provide for document and data repository capability and indexing capability to store application, renewal, malpractice, disciplinary and historical documents, Historical Data and images. Storage of all documentation, information and materials shall take the place of current paper historical files of Members, and **remains the property of the Board**. The system must also provide for searching, sorting and exporting records for staff to manage record changes.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon will provide the repository for data and indexing capability, as well as, storage for all documents, data and images. inLumon will meet or exceed this requirement.

4.1.2.6 Must enable access controls to protect documents from unauthorized viewers.

RESPONSE: inLumon has read, understands and will comply with this requirement. Being a security-roles driven application, the system inherently provides the ability to define and enable access controls to protect all documents from unauthorized viewers. A very typical scenario of this is where enforcement and/or investigative documents associated to a Member's record are marked "Confidential" thereby triggering the associated business rule to NOT allow for the document to be displayed or viewed by users whom do not possess the adequate permissions to do so.

4.1.2.7 Must allow for scanned document uploads for any required documentation (in Adobe .pdf format).

RESPONSE: inLumon has read, understands and will comply with this requirement. Scanned documents will be uploaded in Adobe .pdf format as required.

Electronic document management is an inherent capability of inLumon's Licensing Framework, allowing for single and multiple documents, images and other files to be uploaded and associated with the applicable record(s) for ease of access, review and retention. The figure below illustrates how scanned documents and files can be uploaded, associated to an individual record and stored:
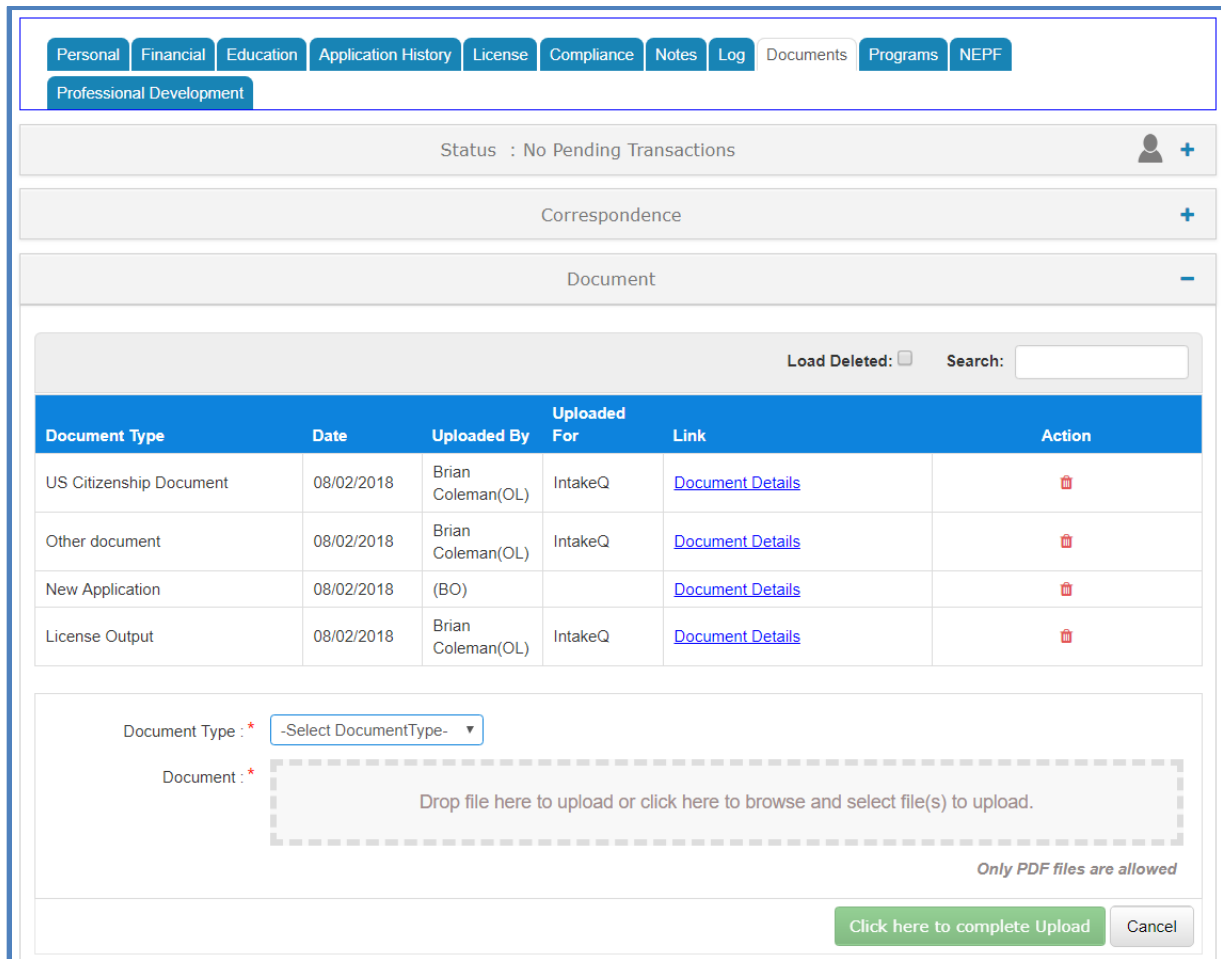
4.1.2.8 Must provide the Board branding into screens, web pages, reports, documents, printed licenses, certifications, permits, letters, email correspondence, etc.
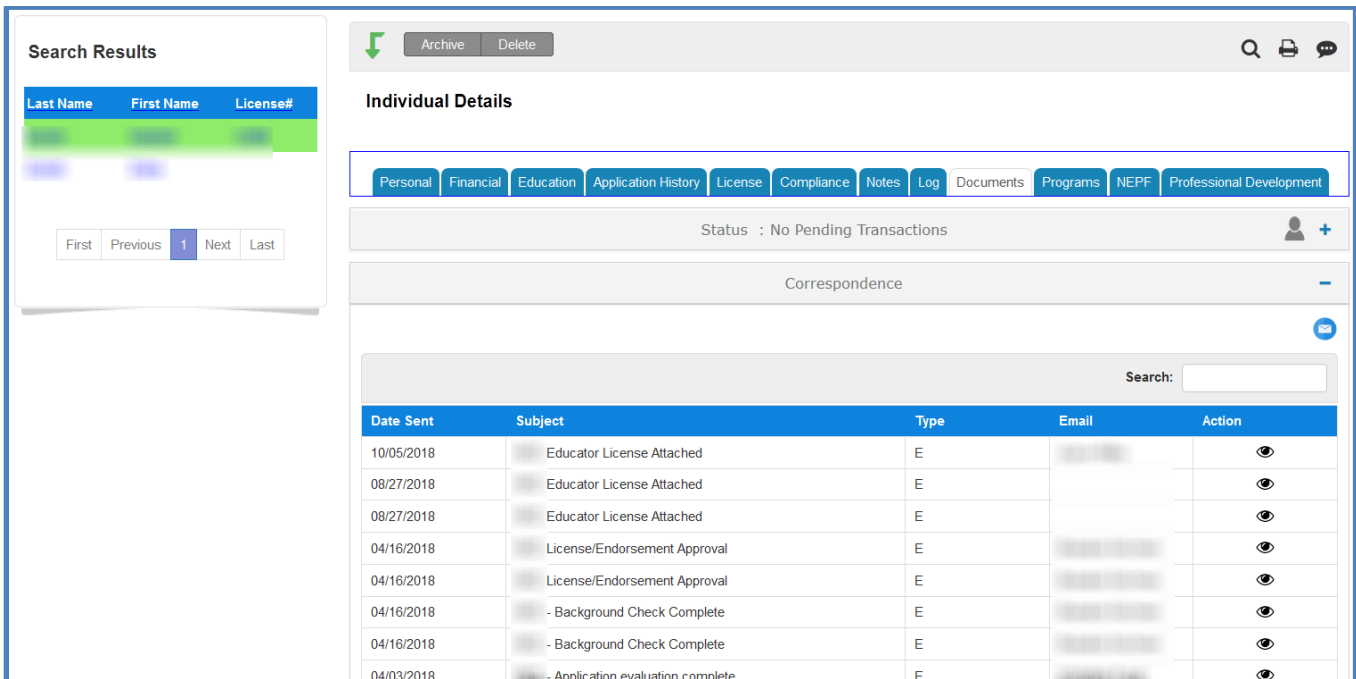
RESPONSE: inLumon has read, understands and will comply with this requirement as inLumon will request copies and templates of all documents, certificates, licenses, correspondence, etc. utilized for the Board to ensure incorporation into the new system to properly brand all content as required.

4.1.2.9   Must allow Board staff to manually enter applications and documents submitted to the Board directly.

RESPONSE: In the (unfortunate) event the Board receives an application directly, the system provides staff the ability to manually enter the application and scanned documents into the system for tracking and processing per the Board's processes.

4.1.2.10   Must provide the functionality to automatically generate customizable and form email, text and secure Member portal messaging confirmations for all Board required applications, reports, and document submissions, without limitations on character counts, and to maintain a legally sufficient record and of any such communications to each Member. It must also notify the Board if the email was undeliverable.

RESPONSE: inLumon has read, understands and will comply with this requirement. First, all communication to/from Applicants/Licensees (individual) are stored in the system, under the individual's unique record. In this manner, all communication to/from that individual can be viewed in one location. This is viewed via Individual Info, Documents tab, in the Correspondence region. All communications, Email (type 'E') as well as SMS (TXT) messages (type 'S') are listed here in reverse chronological order. The exact contents of that communication can be viewed by clicking on the action icon on a line item. An example of how this list looks is shown below:

Secondly, both Email and SMS message 'templates' are managed within the Template Management feature of the ELS. This allows the client to quickly update email templates that are used within the ELS. In fact, templates can be created ahead of time and a 'start date' specified for when the template will first be used.

An example of how the Template Management function looks is provided:

To update any template, staff can simply click on the 'Edit' icon in the Action column. A partial screen of this email template is shown in the figure below. What is not shown is a previews screen for the template as well as the 'Save' and 'Cancel' buttons at the bottom of the screen.

inLumon plans to work closely with the WVBOM to train staff on how these templates are managed and can be tested during User Acceptance Testing (UAT).

Lastly, our Secure Communications capability allows communications to take place between staff and Applicants/Licensees within the system securely. An example of this would be if an application is deemed to be deficient, a secure communication is sent to the Applicant/Licensee, which appears on their dashboard. To notify the individual of the secure communication, an email and/or text is sent to the individual. This is similar to secure communications used within the banking industry.

4.1.2.11 Must provide the functionality to generate emails to all or any specific Members, or cohort of Members, at the Board's convenience for informational purposes, without limitations on characters counts, and to maintain a legally sufficient record of any such communications for each Member.

RESPONSE: inLumon has read, understands and will comply with this requirement. The system provided by inLumon has been designed to be highly client configurable. We firmly believe that all content in the system, including settings, rules, templates for email and SMS (TXT) messaging, managing bulk (mass) emailing, etc., are all configurable by the client. Email can be sent directly from the system within an individual's record as well as in bulk to automatically send emails using a template that dynamically populates desired individual record information (i.e. First name, last name, application / license number, etc.) into the email template, sends and keeps a copy of the specific email associated to the individuals' record.

Furthermore, at the following figure is an example of bulk email management within the system in which authorized Board staff can select and utilize different parameters to send email to a select group of individuals within the system without limitations:

4.1.2.12 Must have a reminder system that supports recurrence and notification to multiple parties and includes disciplinary compliance and monitoring.

RESPONSE: inLumon has read, understands and will comply with this requirement as the system can be configured to automatically send notifications per the Board's requirements, including to multiple parties.

4.1.2.13 Transactional contact history must record multiple contact types including email, telephone, in-person meetings and written correspondence.

RESPONSE: inLumon has read, understands and will comply with this requirement as all activity, including contact history, emails, correspondence, etc. will be recorded and stored in the system. The image below illustrates how contacts can be recorded by WVBOM staff and stored associated to an individual:

4.1.2.14 Must have a web portal dashboard that can allow for staff access security levels based upon the Board's determination of their need to know.

RESPONSE: inLumon has read, understands and will comply with this requirement. InLumon will provide a web portal dashboard as required. Once implemented, WVBOM's new system allows the local administrator to add internal users and assign permissions via the Back Office, Administration tab, User Management, User Accounts to align the viewing of data within the system to "their need to know." This provides authorized staff with a screen, similar to the following figure, where pressing the green 'Add New User' button at the top-right of the screen presents the fields as illustrated:

From the screen, the administrator has to provide the required fields at a minimum before pressing the 'Create Account' button. This creates the new internal user's account and emails a temporary password to the Email Address provided for that individual user to fully register for access to the system according to their corresponding security role's permissions.

4.1.2.15 Must provide for Disciplinary and Complaints case management and reporting. Must allow for tracking and managing enforcement and compliance activities, such as recording complaints received, opening complaints, conducting investigations, managing outcomes, etc. The system should have the capacity for up to 500 complaints per year. The system must have the ability to retain historical information about prior complaints indefinitely or subject to the discretion of the Board in accordance to the record retention requirements of the Board.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's enforcement module allows for the creation and tracking of investigation cases and other enforcement / compliance activities, such as conducting inspections, audits, surveys, etc. Following the creation and assignment of a case to an individual that is being investigated, all investigative notes are managed therein through all the statuses as defined by WVBOM. This can include the outcome of the investigation and recommended / proposed disciplinary action, managing outcomes, etc. Specific requirements related to Enforcement Management will be discussed during the Discovery Phase and implemented.

For instance, following the creation and assignment of a case to an individual that is being investigated, all investigative notes are managed therein, and the outcome of the investigation and recommendation to the enforcement side is managed, including proposed disciplinary action and so on. An example of this is the investigative (and enforcement) module developed for another client as shown in the figure below.

The schedule for investigation meetings is managed via a calendar, as shown below:

An interesting note in the figure below are the traffic symbols in the bottom right of the screen.

To better communicate between staff managing the application workflow and those involved in the investigations, the inLumon COTS solution includes specific controls to help the right-hand share with the left-hand. That is, if an individual is being investigated, when the individual is assigned a case, that action will automatically turn on a 'caution' flag (represented by the yellow triangle with the red exclamation point). This

lets the application processing staff know that if they are working on or receive an application from this individual, they need to be aware that this person is being investigated and to NOT approve the application (system business rules prevent this at any rate). Should the investigation unit determine that disciplinary action should be taken on an individual, the Stop sign is used to notify all staff to STOP working on anything related to this individual. As one might imagine, it would not be desirable to give or renew a license for an individual if the organization is about to impose say a revocation for example as the form of discipline. These rules are built into the system, but the visual symbols help to keep all staff on the same page.

4.1.2.16 Must provide for compliance management and reporting. System must be able to store documents, video and audio files with each case. System must have HIPAA compliant level of security (see Specification Item: 4.1.1 .2).

RESPONSE: inLumon has read, understands and will comply with this requirement. All compliance data tracked and stored in the system can be reported against by users authorized to view compliance data. As addressed in our response to item 4.1.1.2, the system will comply with HIPAA security standards.

Electronic document management is an inherent capability of inLumon's Licensing Framework, allowing for single and multiple documents, images and other files to be uploaded and associated with the applicable case record(s) for ease of access, review and retention. The figure below illustrates how scanned documents and files can be uploaded, associated to an individual record and stored:
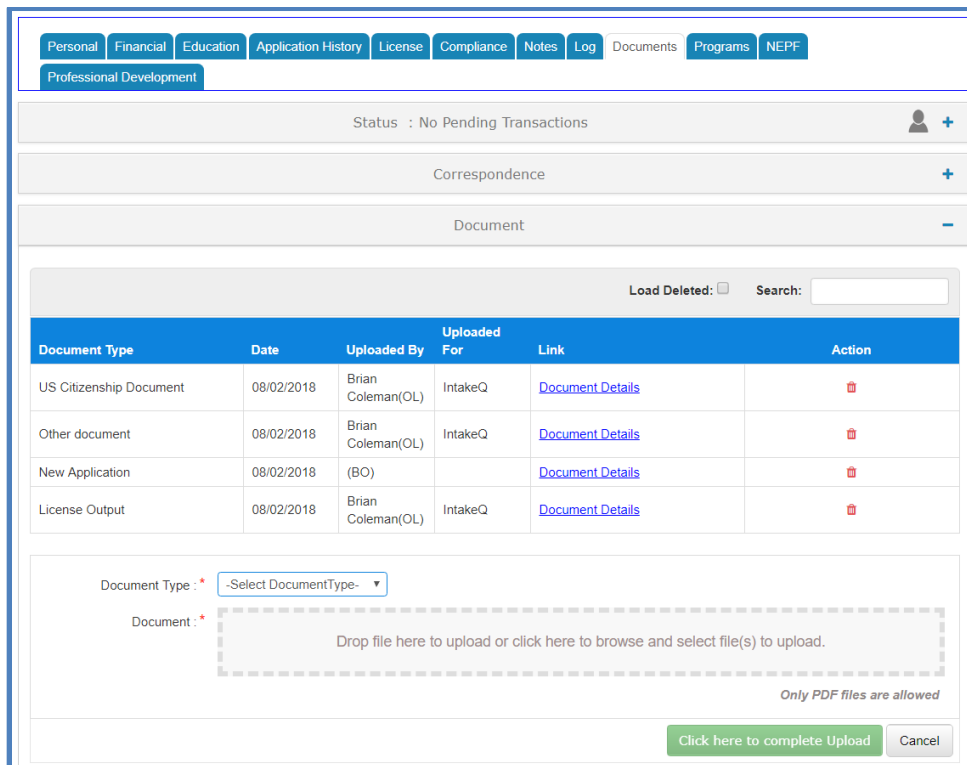
inLumon looks forward to working with the WVBOM to design and implement an investigative and compliance module to meet specific requirements as part of the new system.

4.1.2.17 Must provide for Continuing Medical Education data collection, management, and reporting.

RESPONSE: inLumon has read, understands and will comply with this requirement. The inLumon COTS solution provides Licensees the ability to manage their own continuing education via their dashboard. An example of this is shown in the figure below:
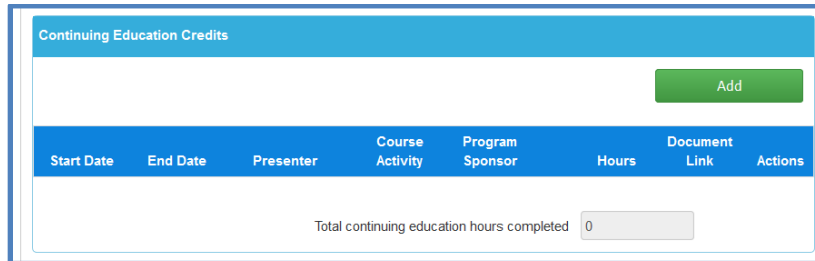
From their dashboard, the Licensee can click the green Add button to see the following screen, where specific details about the continuing education is entered:
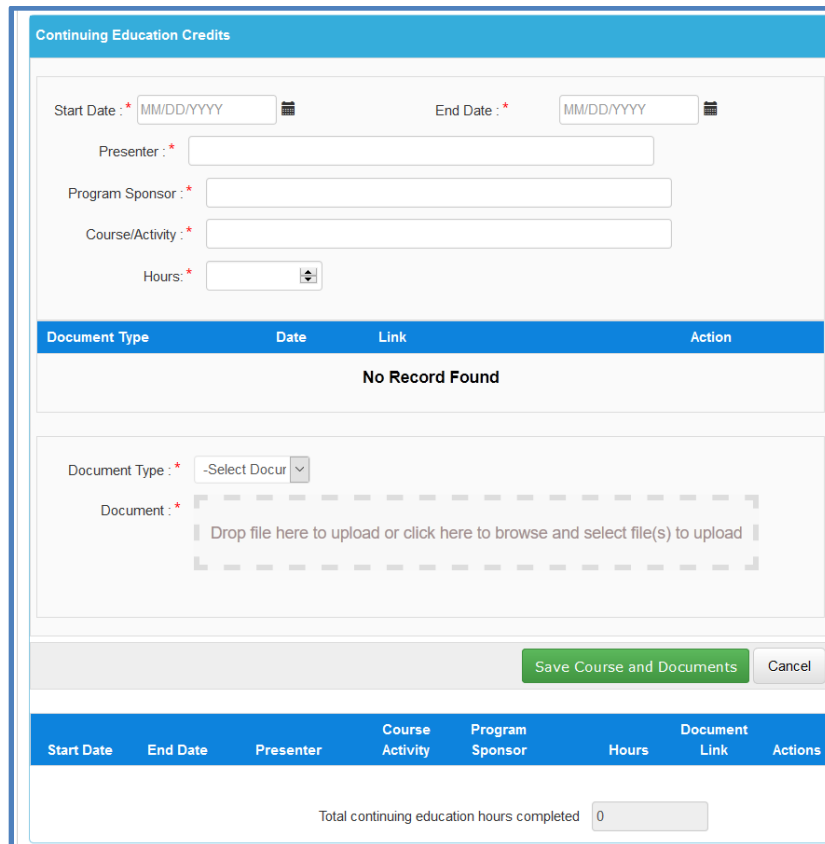
Client defined validation rules are applied while the Licensee enters information into this form online, including the uploading of supporting documentation. Documents can be searched for or the 'drag & drop' feature used to attach supporting documentation to each continuing education record. In this manner, Licensees may add continuing education at any time during their renewal period, thus making the renewal function easier for Licensees and State Staff alike.

4.1.2.18 Must have printing capability for Board Authorizations, reports, wallet cards, address labels and correspondence/envelopes with mail merges, all of which should be simple to use, meaning requiring no more than one point-and-click action, if possible, but otherwise minimizing the number of steps required to produce a printed document.

RESPONSE: inLumon has read, understands and will comply with this requirement as the system will be configured to generate Board-specific reports, labels, wallet cards and other correspondence individually or in batch by merging with applicable record information stored in the system.

4.1.2.19 All changes to data must be stored in a transactional record so historical audit reports can be generated. Must provide for the ability to scan, upload, store, archive and retrieve documents and tie them to an individual's or entity's relevant record.

RESPONSE: inLumon has read, understands and will comply with this requirement. All actions taken within the system are logged into an audit file. The log can be viewed by looking at an individual's record in the database using the Individual Info function, and clicking on the Log tab. Here all actions taken against this user are displayed, including uploaded documents. Additionally, with proper access, the entire audit log may be searched to see actions taken on a specific individual within the database, or by a specific user, within any range of dates.

4.1.2.20 Must provide file naming mechanism to ensure standardization.

RESPONSE: inLumon has read, understands and will comply with this requirement as business rules will be configured to standardize all data being stored in the system based on WVBOM specifications, and name entities and records based on the Board's schema.

4.1.2.21 Must provide for complete Board staff content management over reports/exports, modules and front-end user screens, which will allow staff to customize reports and build templates for reusable reports.

RESPONSE: inLumon has read, understands and will comply with this requirement. In addition to our response to item 4.1.1.11 highlighting the content management capabilities of the system, authorized staff can create, edit and update reports and templates within the system.

4.1.2.22 Must provide an audit trail for all scanned, uploaded, stored, archived and retrieved documents.

RESPONSE: inLumon has read, understands and will comply with this requirement. The framework employs the concept of activity. A business function carried out within the system is a type of activity. The system can be configured to log each activity being carried out with the system. This information is stored in the database and can be retrieved to analyze or identify patterns for fraud prevention. As part of the business function audit, the system logs the following data points; Logged-in user, IP Address from which the user is logged in, Activity date and time, Activity type, Permit / License Number, etc.

4.1.2.23 All changes to data and Historical Data, including audit trail of the user making the change(s), must be stored in a transactional record so historical audit reports can be displayed and generated. The system must accurately record and display the user making the change(s) and the date and time of the change(s).

RESPONSE: inLumon has read, understands and will comply with this requirement. All actions taken within the system are logged into an audit file. The logged can be viewed by looking at an individual's record in the database using the Individual Info function, and clicking on the Log tab. Here all actions taken against this user are displayed. Additionally, with proper access, the entire audit log may be searched to see actions taken on a specific individual within the database, or by a specific user, within any range of dates. This helps answer who did what to whom in the system. Below is an example of an Action Log from another client's system, when viewing and individual Licensee's record:

In the figure above, the date & time stamp is shown for each action, as well as a description of that action. The Username (or 'System') responsible for that change is also shown for each logged action. The system also includes the Search and Print functionality within the audit log.

4.1.2.24 Must have ability for Board staff to perform data-mining searches and save those searches for later use.

RESPONSE: inLumon has read, understands and will comply with this requirement. The framework provides robust search capabilities, whereby searches can be made by key fields WVBOM desires and saved for future use.

4.1.2.25 Must be able to store and provide Member data for management and reporting purposes.

RESPONSE: inLumon has read, understands and will comply with this requirement as all data captured within the Board's new system can be reported and queried against, providing the user has authority (privileges) to access that data based on their role. inLumon will provide storage and will provide Member data for management and reporting purposes.

4.1.2.26 Must be able to generate custom inspection reports and be able to provide a roster of Member applicants.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon's enforcement module allows for scheduling and performing inspections and other enforcement / compliance activities, such as conducting investigations, audits, surveys, managing outcomes, etc. thus inLumon can provide the ability to generate customer inspection reports.

Furthermore, the Reports Management capability of the system includes automated scheduling and distribution of reports, on demand reports and ad-hoc reporting. Reports can include a roster of Member applicants

4.1.2.27 Must provide the capability to search, sort, export, and/or create reports to enable Board Staff to manage each Member's status at any juncture of the application or renewal process. For example, the reports should include but are not limited to: quarterly reports of newly licensed, registered, permitted or certified individuals or entities; total number of I3oard Authorizations by Member Type, Member Status and/or Member Type and Member Status; quarterly revenue reports of fees received by Member Type; reports of all Board Authorization holders by Member Type and Status and/or county of residence for the current fiscal period, etc.

RESPONSE: inLumon has read, understands and will comply with this requirement. inLumon will provide the capability to search, sort, export, and/or create reports to enable Board staff to manage each Member's status at any juncture of the application or renewal process.

Our Reporting Services subsystem enables the generation and distribution of reports from either the operational database or the reporting database. The Reporting Services subsystem helps in generating forms, correspondence, and other documents in printable format for distribution to various end users. The operational reports provide a more tactical view of the business operations. The operations report can run against the operational data source or the reporting database depending on the type and nature of the report being generated.

The same architecture can be used to generate a variety of business documents such as forms (blank or with data filled in), correspondence, and instructions. The reports and document generation can happen in an online ad hoc manner and in batch mode. In addition to creating user defined reports (many with parameters for filtering the data), the inLumon system provides the capability for clients to create ad hoc reports using our built-in Query Tool.

4.1.2.28 Must provide the capability to generate a printable and downloadable report which provides the following current public data for any member: full name, member type, member status, Authorization types and numbers, authorization issue date, date authorization was last renewed, date of next authorization renewal, complete preferred mailing address and complete work/practice address. For entity Members, the report shall also include data specific to the ownership of the entity. For non-entity Members, the report shall also provide, as applicable, education and training information (for non-entity Members), any company affiliation, current WV hospital privileges, current specialties, current supervision or collaboration, board actions and reported malpractice.

RESPONSE: inLumon has read, understands and will comply with this requirement. Our response to item 4.1.1.1 highlights how public information and data can be searched for and report(s) generated per WVBOM's requirements.

4.1.2.29 Must provide the capability to generate a printable and downloadable report which provides current public data for any member as set forth in the preceding paragraph, as well as the Member's historical record with the Board to include license renewal history, member status change history, previous hospital privileges, previous names and previous supervision/collaboration.

RESPONSE: In addition to the information in the preceding paragraph, when executed (in this example search for last names including 'test'), the user is presented results linking to the records, data and associated documents, etc. that the agency determined is for public consumption and then provided the ability to export as ExCel file or PDF report. Data includes what the agency deemed as public including licensee information, endorsements, provisions, history, statuses, etc. as illustrated:

4.1.2.30 Reports identified in the preceding two paragraphs must be customizable for internal use by Board Staff and Board Members to include other current data fields as needed, such as date of birth and email address.

RESPONSE: All data fields, report and content in the system is highly configurable by WVBOM.

4.1.2.31 Must store and report on the history of a record by way of a User ID and time stamp of when record was updated and saved.

RESPONSE: In addition to our response to item 4.1.2.23 above, the figure below is an example of information available related to an individual's history of which actions can be tracked and stored with User ID and date / time stamp data. In this example, all the licensee's work assignments that have been submitted by the Licensee or agency over time. The inLumon system can display as much or as little of this information that is available to be imported into the system for viewing by authorized state staff.

The inLumon solution provides the capability to retrieve historical records, as long as they can be migrated and associated with a specific individual in the database. Furthermore, the inLumon system provides the ability to retrieve historical records associated with every individual (Licensee or Applicant) maintained in the system. This figure shows all historical information related to education (note the assignment information that is being displayed for the last 20 years):

4.1.2.32 Must have functionality that allows staff to create and manage workflow for automatic and ad-hoc generated tasks. Task management, user assignment, templates, reports, new Member Types and workflow modules must be customizable by the Board via user interface without custom development, coding or programming to accommodate.

RESPONSE: We have developed our solution anticipating change and to empower our clients to easily adapt their system. Whether it is updating templates to reflect new regulations in advance of effective dates, changing a fee amount, adding a new certification type, or case management process changes, inLumon trains and empowers clients to adapt their systems without custom programming.

inLumon provides training for user level staff in the new system as well as training Administrators where all the tasks identified under the Administration tab (are discussed in detail. Some of the highlights include:

- **User Management**—this is where user accounts can be inactivated when staff leaves, where passwords can be reset, etc.

- **Template Message**—This is where email and SMS (TXT) message templates are managed in the system. Staff can change message being sent to licensees without assistance from inLumon.

- **Content Management**—This allows clients to manage the content in their Application and Renewal forms without assistance from inLumon. Staff can make changes in minutes which are reflected immediately when licensees or applicants open new or renewal applications.

- **Configuration**—Here staff can manage several system values themselves without assistance from inLumon. This includes the number of days prior to expiration that a licensee can renew.

- **Reference Table**—This is where staff can manage all drop-down screens without assistance from inLumon.

- **Secure Communication**—This feature allows our clients to communicate directly with licensees and/or applicants, all of which occurs within the system.

- **Task Management & Execution**—This allows clients to create a message they wish to share (via email) to a select group of individuals within the database (task definition) and schedule when that task is to be run. Task Execution allows staff to see the results of the job and provides a list of individuals selected from the database by the task being run.

- **Bulk Email**—allows staff to define criteria to select individuals from the database and create the email message that will be sent to all those individuals.

4.1.2.33 Must maintain a viewable and searchable record of Members' application responses and information. For example, Board staff should be able to query the database for all Members (or all Members of a specific Member Type or Member Status) who responded "yes" or "no" to a particular application question during a particular renewal cycle. If new questions are added to an application type, the database system should identify the date the question and associated data field were added.

RESPONSE: Member records within the system will provide the common link among licenses, history, exams, finance and other functions. A customer can be an individual, location or business (dental practice for instance) and the system allows maintaining customer demographics, addresses, contact information, online portal profiles, account, payments and other related information. The framework provides a common link among a customer, credentials applied for and issued, education, employment history, exams, names, etc.

For exam management, inLumon provides the ability for the WVBOM to develop, manage, maintain and administer exams within the system. The figure below illustrates how a client's system is configured to support an examination process:

Authorized Board staff can add / update / edit exam sections, questions, exam type and more to automate the exam process for applicants and licensees. As with all actions taken in the system, changes are logged for ease of audit purposes and after an exam taken, a historical record of the exam associated to the Applicant / Licensee record searchable and reportable by authorized users.

4.1.2.34 Must allow for revenue collections from the online applications (renewals and all other online services), but also be able to allow the Board to process manual payment in one interface that interfaces that payment data with the West Virginia Treasurer's Office "E-Gov" system for posting to the Board's revenue account in the State of WV's accounting system.

RESPONSE: inLumon's system allows for online credit card, debit card and EFT payments using an API (Application Program Interface) enabling Applicants, Licensees and Board staff to process payments via the secure interface. We have interfaced with numerous merchant services, as determined by our clients' requirements – many specified by the State or agency's financial institution.

Educator License Renewal

Fee and Payment

			Payment Method	Amount	Action
Override : * ☐			Credit / Debi ▼	150	🗑
Do not Send Payment Receipt : * ☐			Balance	0	
Application Fees : *	150				
License/Endorsement Fee *	0				
Veteran Exemption *	0				
Total Fees : *	150				

SECURE PAYMENT PORTAL

Order Information — Billing Information — * Required Fields

Total : US $150.00

Payment Information

☐ Copy details from application

Credit Card Information
VISA MasterCard DISCOVER

First Name : *
Last Name : *

Card Number : *
(no dash or space accepted)

Street : *
City : *

CVV : *

State/Province : *

Expiration Date : *

Zip/Postal Code : *
Country : * USA ▼

Your credit/debit card will be charged by Nevada Department of Education. The Nevada Department of Education fees are NON REFUNDABLE, PLEASE ENSURE THE ACCURACY OF YOUR INFORMATION.

Credit Card Processing

Save   Cancel

Additionally, the system is capable to split any payment over multiple forms of payment (i.e., different credit cards).

Other items shown in the screen shot above include:

- **Override feature**—this is only available for authorized State staff when entering payment for a paper application which has been entered via the 'Back Office'. This can be used to override any amount, including waiving of Late Fees, reduced rate for veteran status, etc.
- **Method of Payment**—while the online Licensee/Applicant can only see Credit/Debit Card or EFT, authorized State staff can see additional options such as Check, Money Order, Cashier's Check, etc.; some clients have decided that credit card information will not be taken by State staff.
- **Client managed message** regarding payments as being non-refundable, etc.
- **Credit Card Processing**—this is a link to the client's policy regarding credit card processing. Other clients also post a separate link regarding Privacy of Information, etc. Most of these are driven by merchant services requirements or customer legal department/staff.

4.1.2.35 Must have capability to create an infinite number of compliance form letters to inform a Member of his/her/its current status with the Board.

RESPONSE: Due to the high configurability of the system, the Board can create a virtually unlimited number of compliance form letters, notifications, emails, texts and other correspondence for the system to automatically generate and send to Members to communicate status information, etc.

4.1.2.36 Must have the capability to allow a Member to log-in to his/her/its record and print and download or email to a digital wallet a copy of any correspondence generated by the Board and/or a current Board Authorization, including correspondence/information related to Member's status and history with the Board.

RESPONSE: As described in our response to item 4.1.1.3, the system will provide the capability for a Member to log into their portal and access their record information. In addition to current licenses and certificates, wallet cards, payment receipts, and other digital items related to their record the Board desires to allow Members to access will be made available via the portal.

4.1.2.37 Must provide the ability for a Member to save any application(s) in process and log back in later to pick up where he/she/it left off.

RESPONSE: Our system complies with this requirement as applications in process are saved allowing applicants to pick back up where they left off upon the next time they log into the system.

4.1.2.38 Must provide the ability for Members to log-in to the Member portal and view the current status of his/her/its application throughout the approval process.

RESPONSE: As shown in the figure below, the status of the most recent application allows the Licensee or Applicant) to monitor the real-time progress of the application. Our clients have found that providing this transparency into the application processing, with real-time status of their application, has significantly reduced the number of calls from Licensees/Applicants asking about the status of their application.
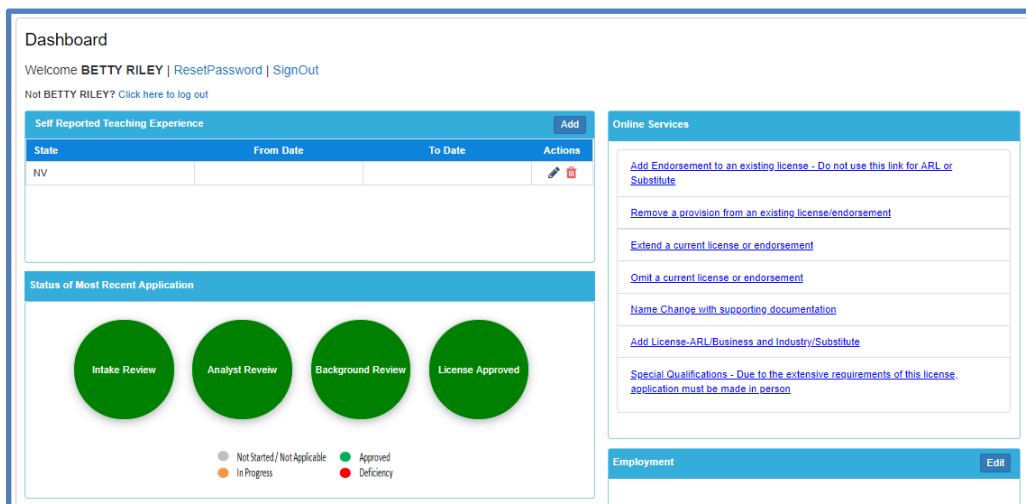
4.1.2.39 Must protect access to a Member's social security number (SSN), birthdate, medical information, home address, and other Personally Identifiable information (PII).

RESPONSE: The system manages the concept of sensitive information. This information is identified during the discovery phase and is stored in the database as encrypted data. This sensitive information (typically includes SSN, DOB, address and other PII) is carried through the application layers in an encrypted manner and is decrypted only for a user with the appropriate roles.

Each viewing event regarding a user's sensitive information is logged into the auditing storage. Our system also implements the concept of overriding the access control based on a high authorization (that is, a supervisor override). The supervisor override can be based on a combination of user name and password or a secure key that can be read with a barcode or entered by the supervisor.

4.1.2.40 Must provide the ability to add new Member Types or sub-types as needed.

RESPONSE: As described in detail within our response to item 4.1.2.32 above, the WVBOM's new system will be highly configurable, allowing for the ability to add Member types and sub-types as needed.

4.1.2.41 Must be able to generate a customizable roster listing all Members or defined cohort of Members (by Member Type and/or Member Status and/or any timeframe) containing the Member's name, Board Authorization number, contact information, etc.)

RESPONSE: inLumon has read, understands and will comply with this requirement by configuring the system to generate a customizable roster per WVBOM's stated parameters containing the required information and exportable via ExCel, PDF and/or on-screen as desired.

4.1.2.42 Must migrate all financial activity and member status activity information located in current system for historical purposes.

RESPONSE: It has been inLumon's experience that all new licensing system implementations require data migration from existing systems. In many cases, we have migrated data from existing vendor's systems and have extensive experience in mapping their data to our proprietary database. We also understand that data migration is not a one-time activity, but more a series of data migrations until the client and inLumon are satisfied that all data has been migrated successfully. In fact, our project plan calls for multiple data migrations with one last data migration, a 'dress rehearsal' of sorts, before the final data migration for Go Live. In this manner, we help to reduce risk involved with data migration and increase the success of a smooth transition into production.

4.1.2.43 Must generate status reports at the end of each renewal cycle for all Member Types.

RESPONSE: As with all reports WVBOM currently utilizes, generates or wishes to have configured, inLumon will develop and deploy, including renewal cycle status reports.

4.1.2.44 Must provide quarterly and fiscal year financial reports of revenue collected broken down by each member type as well as totals.

RESPONSE: All financial transactions that take place within the system occur in real time. That is, as a financial transaction (such as a Licensee paying to renew their license) takes place in the licensing system, the associated transaction is available in reports, queries, etc. In the new system, for example, there will be a built-in report called the Daily Deposit Report. When selected from the Reports menu, as shown in the figure below, this report first prompts for a From Date and then for a To Date—it will select only transactions that occurred during that window of time. The report lastly prompts for the Payment Method:

Daily Deposit Report

| From Date : | 11/20/2018 | | To Date : | 11/21/2018 |
| Payment Method : | All Payment Methods | | | |

Search   Cancel

When the report is run, it will list all transactions that occurred during the defined time, even if that transaction took place just seconds before hitting the 'Search' button. For example, in the following figure we selected a date range (11/1/2018 through 11/21/2018) and selected All Payment Methods to display. The results of that search are shown at the bottom of the page in that figure. Additionally, the figure shows that the information may be exported to either Excel or to a PDF.

Daily Deposit Report

| From Date : | 11/01/2018 | | To Date : | 11/21/2018 |
| Payment Method : | All Payment Methods | | | |

Search   Cancel

Export To Excel   Export To Pdf   Show : 20 entries

Revenue Code	Revenue Code Description	Transaction Date	Transaction Time	Receipt#	Quantity	Price	Payment Amount	Payment Method	Check No.	License Number	Name	Staff Initials	Comments
07	Business Entity Registration	11/13/2018	10:50:10	71930	1	75	75	CC				ONL	0
07	Business Entity Registration	11/12/2018	04:37:49	71929	1	75	75	CC				ONL	0
07	Business Entity Registration	11/12/2018	03:13:27	71928	1	75	75	CC				ONL	0
07	Business Entity Registration	11/12/2018	03:05:11	71927	1	75	75	CC				ONL	0

First   Previous   1   Next   Last

4.1.2.45 Must allow Board Staff access to all fields to create customized reports. Must allow Board Staff to create custom report templates that may be saved and applied to different data and/or record sets.

RESPONSE: inLumon's system will provide authorized Board staff the ability to create customized reports and templates within the system that can then be saved, utilized and applied to specified data sets in the system. In addition to creating customized reports, the system's Query Tool allows staff to:

- **Save any query to be used later or used by other authorized State staff**
- **Execute any saved query**
- **Update an existing query and resave it**
- **Make a copy of an existing query in order to modify and save it as another query**
- **Manage saved queries**

4.1.2.46 Must provide Board Staff access to a report generator to create and store frequently queried information and reports.

RESPONSE: The system will allow staff access to the query tool as described above and below to create and store frequently used queries and reports.

4.1.2.47 Must allow Board Staff to create ad-hoc reports using any field or data contained in system.

RESPONSE: In addition to creating user defined reports (many with parameters for filtering the data), the inLumon system provides the capability for clients to create ad hoc reports using our built-in Query Tool. As shown in the figure below, clients can select information to report on (from tables and columns), select data based on various selection criteria, as well as group and sort the output from the query. Results are displayed on the screen, but with the click of a button, can be exported to PDF, Excel or Word. Results exported to Excel can also be filtered and sorted by the client.
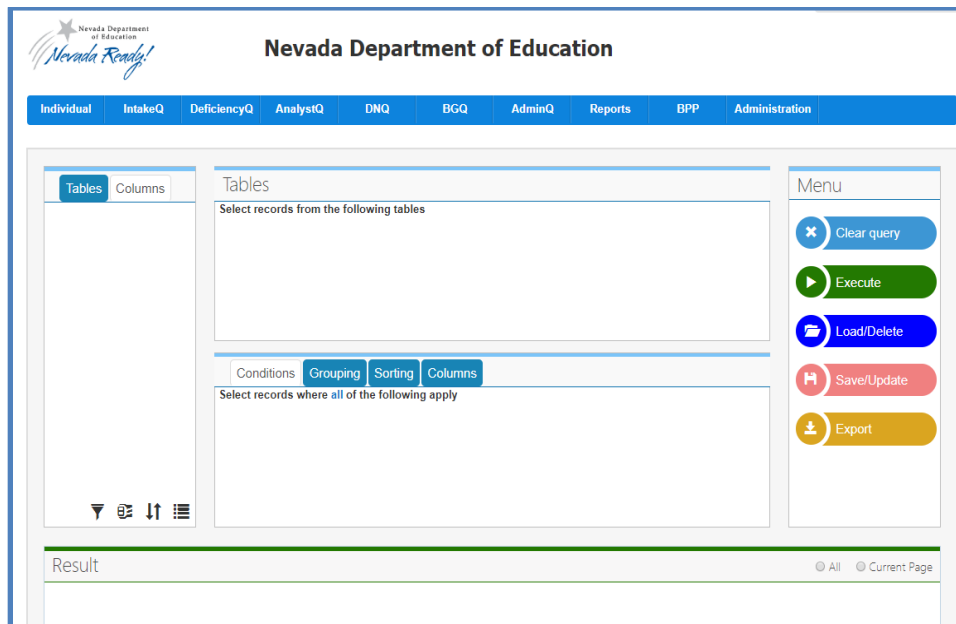
4.1.2.48 Mobile Application. Must allow for functionality on mobile devices for Members to login and complete all tasks and submit applications when applying for and renewing Board Authorizations, including the upload of any documents associated therewith.

RESPONSE: Customers will be able perform online transactions only after they have been authenticated. Any business transaction over the web that requires fee collection will not be complete unless a fee (if required) has been successfully collected and customers will be provided a confirmation number at the end of every transaction which will be used for future correspondence.

All the customer information will be exchanged over a secure web connection. The web channel will interface with WVBOM database real time and utilize the same underlying system components as the rest of the system components. This will minimize the customization needed for the web. The re-use of common functionality will also allow for new web channel transactions to be easily added in the future. As with all other channels in the system, the web channel will maintain an audit-trail for all business transactions performed.

The web channel will allow members, businesses, and partners to perform transactions identified during the discovery phase via the Internet through secure portals. Our service-oriented architecture will allow for the flexibility to add new services and transactions easily as WVBOM business needs change.

The Mobile App will also interface with WVBOM database real time and utilize the same underlying system components as the rest of the system modules (similar to the web channel), thereby enabling staff, applicants, licensees and the/or the public use mobile technologies.

4.1.2.49 Must include a component that captures all pre-requisites, mandatory information and documents needed to process Board Authorizations, applications/renewals, and automatically tracks all deficiencies for each transaction and can notify individuals of any deficiencies.

RESPONSE: The new COTS Licensing System inLumon will configure and implement for WVBOM enables electronic (online) filing for the issuance of new and renewal of existing licenses from both an online portal for applicants to complete and submit information, upload required documentation, and make payments as well as from within the 'Back Office' (where staff with approved access can enter information from a paper application for example). These are some of the basic, inherent capabilities of inLumon's Licensing Framework.

Furthermore, for the tracking of application requirements and deficiencies, the system will automatically keep track of all requirements and deficiencies for each transaction and license application process (initial, renewal, reinstatement, reactivation, etc.) according to predetermined rules based on WVBOM's processes. The system can also notify customers and staff of those requirements fulfilled and deficiencies via display along with notification(s) to the appropriate individual to act on them. A sample of a New Application screen from one of our licensing board client's system is following:

As you can see, the application is separated by logical section, which are referenced by 'tabs', shown on the left-side of the screen. This navigation is used to help Applicants (and Licensees) through the New (Renewal) application process. As a tab is completed and the validation rules are satisfied, the red circle with a white 'X' (—referred to as the "Red X") is replaced with a green circle with white check mark (—referred to as a "Green Checkmark"):

The system captures all the pre-requisites (e.g. mandatory information and documents to process an application, background and/or fingerprint checks) and manage these through the application life cycle based on the Board's requirements. inLumon has included validation rules management within the new system. First, the application for licensure will be broken down into tabs, divided by logical groupings. As each tab is completed, the system performs a series of validations based on rules defined by WVBOM. If there are errors, the user is notified and required to correct the fields before the next tab is entered. In this manner, data validation is performed before the application is submitted, thereby placing the burden for data validation on the rules and the Applicant / Licensee that is filling out the application, and thereby correcting errors before an application is allowed to be submitted.

Electronic document management is also an inherent capability of inLumon's Licensing Framework, allowing for single and multiple documents, images and other files to be uploaded and associated with the applicable record(s) for ease of access, review and retention. The figure below illustrates how scanned documents and files can be uploaded by the applicant, associated to their record and stored for future access:

Professional Development   [Add]

Course Title	Dates Attended/Completed	Credit	Actions

Document Type	Date	Link	Action
Renewal Application	07/19/2018	Document Details	🗑
Military ID	07/19/2018	Document Details	🗑
History Disclosure	07/19/2018	Document Details	🗑
License Output	07/19/2018	Document Details	🗑

Degree Information   —

College/University	State	Degree	# of Credits Earned	Date Conferred	Student Teaching Credits Earned	Student Teaching Grade Level
	Florida	MASTERS OF ARTS				

Maj/Min

Type	Description

Assignment

Assignment List   +

Click here to view the Correlation Directory

Still have questions? Email us at license@doe.nv.gov

4.1.2.50 Must allow for capability to automatically change Member Status from active to inactive, inactive to active or any other status to expired at a specified predetermined time set by the Board.

RESPONSE: The foundation of our design is a controlled and efficient business environment with emphasis placed on overall flexibility, customer-focused transactions, and reduction of manual intervention. The entire application is driven through configured business rules that can be easily modified and implemented independently. Through the setup and execution of these rules, the system will verify accurate data throughout and consistently process, route and perform tasks in alignment with the agency's legislative mandate, statutes and requirements - thereby enforcing how the agency regulates.

By implementing the business rules in the system in alignment with the WVBOM's status specifications, the system will automatically change Member Statuses (active, inactive, expired, etc.) based on the predetermined rules and timeframes.

4.1.2.51 Board Staff must have the ability to access the Database remotely and on their mobile device.

RESPONSE: The architecture of our solution and underlying system components enable staff, applicants, licensees and the/or the public use mobile technologies.

4.1.2.52 The Database must allow for video/audio files to be uploaded to the cloud documentation program.

RESPONSE: inLumon's Licensing Framework allows for single and multiple documents, images, video, audio and other files to be uploaded and associated with the applicable record(s) for ease of access, review and retention.

4.1.3 **Administrative Interface:** The system must provide for an administrative interface that allows the Board staff the ability to manage and edit the website components, while tracking and recording any changes. It must support Board staff being able to manage all content on the website including:

4.1.3.1 News articles

RESPONSE: inLumon agrees that the website will provide, based on our current understanding, the ability to manage News Articles. Below are two screen captures that show where this is done on their website.

On the landing page, this is one icon that takes the website visitor to the 'inner page' where news articles are managed by the client:

This is a portion of one of the 'inner pages' that displays the news articles:

4.1.3.2   Documents, applications and other various forms

RESPONSE: inLumon agrees that the website will provide, based on our current understanding, the ability to manage documents, applications and other various forms. Below are two screen captures that show where this is done on their website.

On the landing page, this is one icon that takes the website visitor to the 'inner page' where documents, applications and other various forms are managed by the client:

This is a portion of one of the 'inner pages' that displays the documents, applications and other various forms:
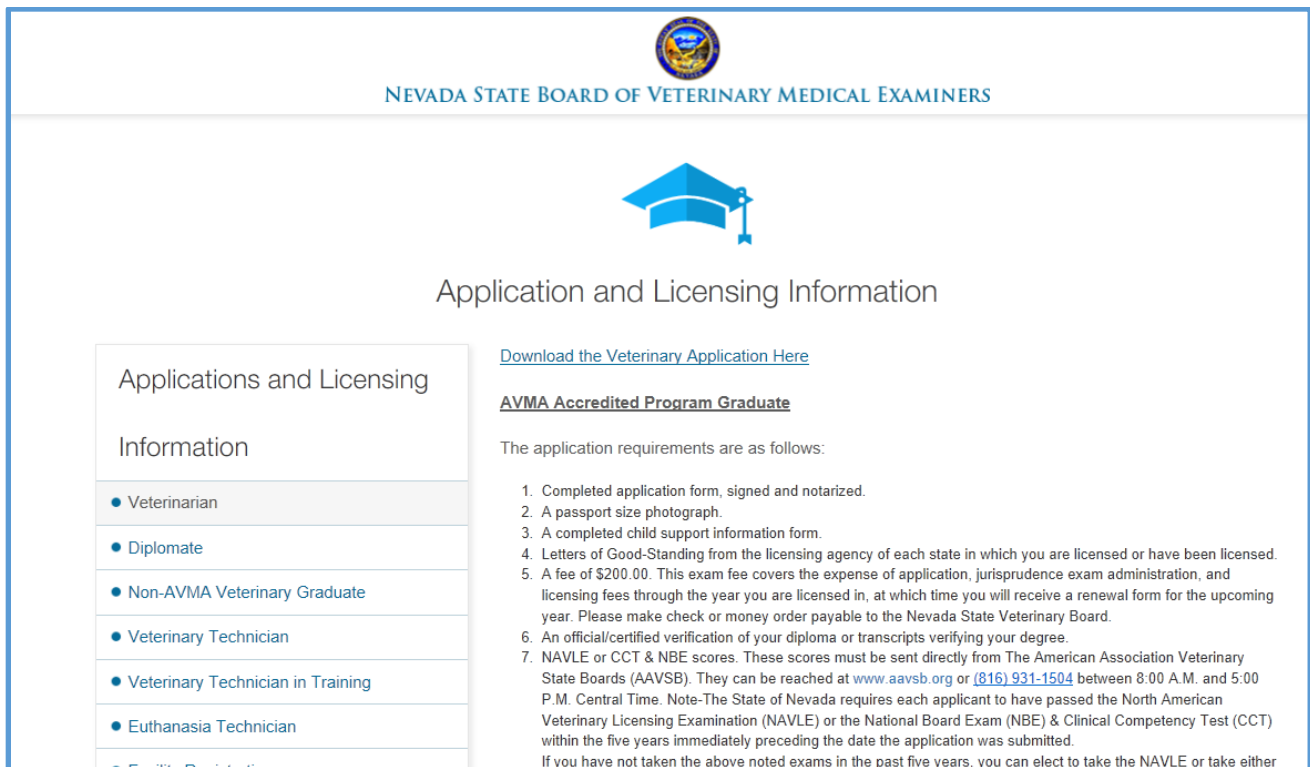
4.1.3.3 *Photos, media and video*

RESPONSE: inLumon agrees that the website will provide, based on our current understanding, the ability to manage photos, media and videos. Below are two screen captures that show where this is done on their website.

On the landing page, this is one icon that takes the website visitor to the 'inner page' where photos, media and videos are managed by the client:

This is a portion of one of the 'inner pages' that displays photos, media and videos:
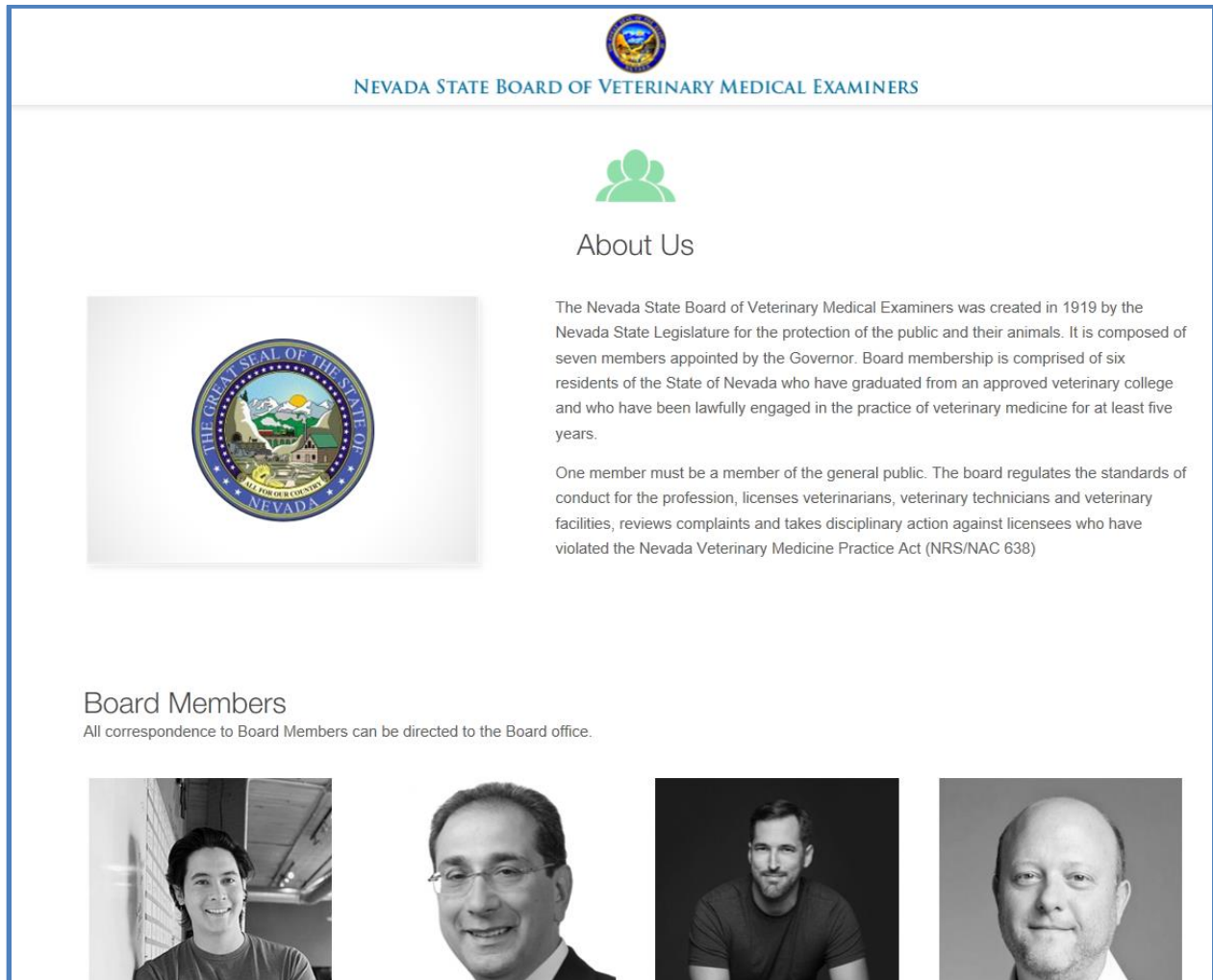
4.1.3.4 Calendars, schedules and newsletters

RESPONSE: inLumon agrees that the website will provide, based on our current understanding, the ability to manage calendars, schedules and newsletters. Below are two screen captures that show where this is done on their website.

On the landing page, this is one of the icons that takes the website visitor to the 'inner page' where calendars, schedules and newsletters are managed by the client:

This is a portion of one of the 'inner pages' that displays the calendars, schedules and newsletters:

4.1.3.5 Events management

RESPONSE: inLumon agrees that the website will provide, based on our current understanding, the ability to control events management. This particular client has not completed this portion of their website and thus cannot be displayed.

However, inLumon agrees that this can easily be added to the website for WV BOM. Another client website that can be viewed, albeit not as concise as NV VME's website, one that is in production, is the California Massage Therapy Council (CAMTC) at: www.camtc.org

4.1.3.6 Surveys

RESPONSE: inLumon agrees that the website will provide, based on our current understanding, the ability to include and manage surveys. At the present time, the NV VME's website does not include any surveys. It is, however, as easy as adding a link to an existing 'inner page'. This can be demonstrated by the screen capture below, where both a link to an Email Address is provided, as well as a button that will launch an online utility function. Either of these methods could be used to include a survey on a website:
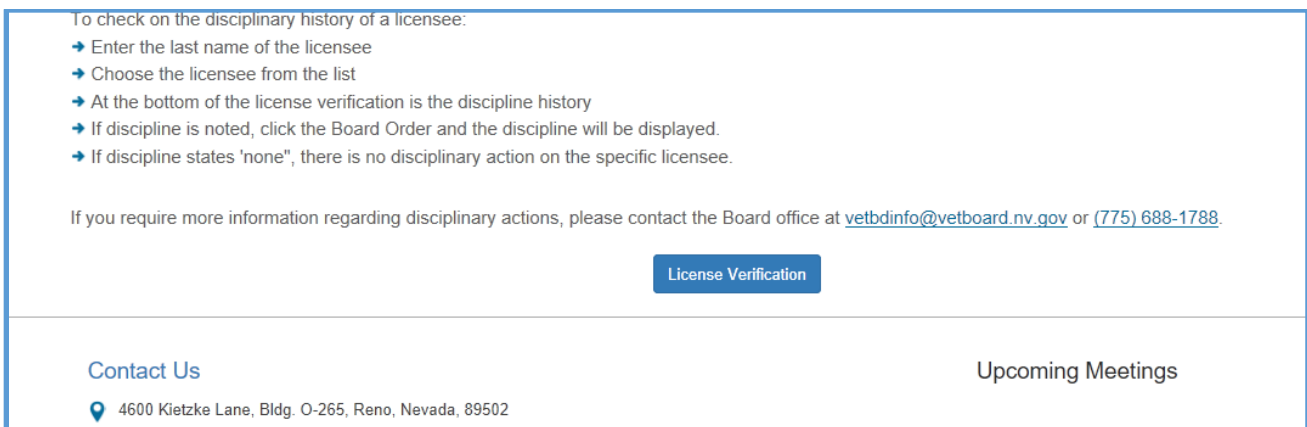
Although it presently does not appear to have a survey link available on their website, CAMTC had had Survey Monkey links active on their site as a means to gather information from their members.

4.1.3.7 Information pages

RESPONSE: inLumon agrees that the website will provide, based on our current understanding, the ability to manage information pages for members. Below are two screen captures that show where this is done on their website.

On the landing page, this is one icon that takes the website visitor to the 'inner page' where specific information is managed by the client:

This is a portion of one of the 'inner pages' that displays information provided to members:
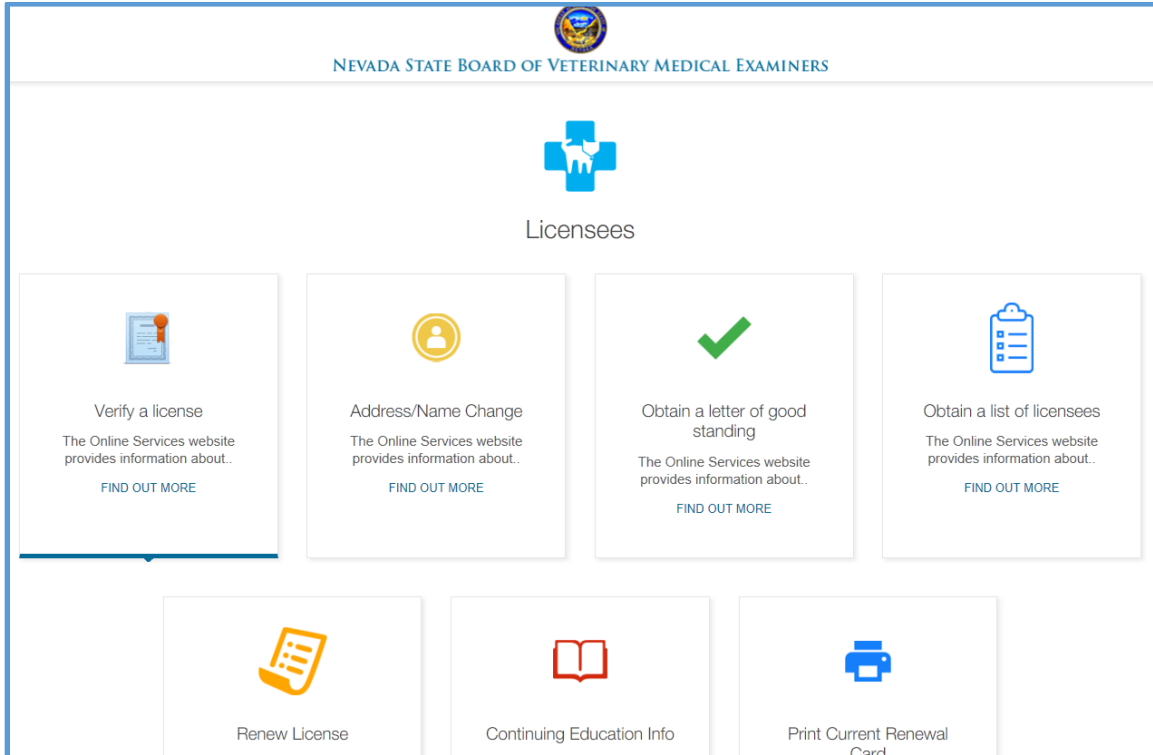
There is additional information provided to members on this page including:

- **How to Change an Address**
- **How to Change a Name**

4.1.3.8   Banners, headers and footers

RESPONSE: inLumon agrees that the website will provide, based on our current understanding, the ability to manage all banners, headers and footers. Below are two screen captures that show more about this.

The screen capture below shows where on the website footer, disclaimer and copyright information is displayed:
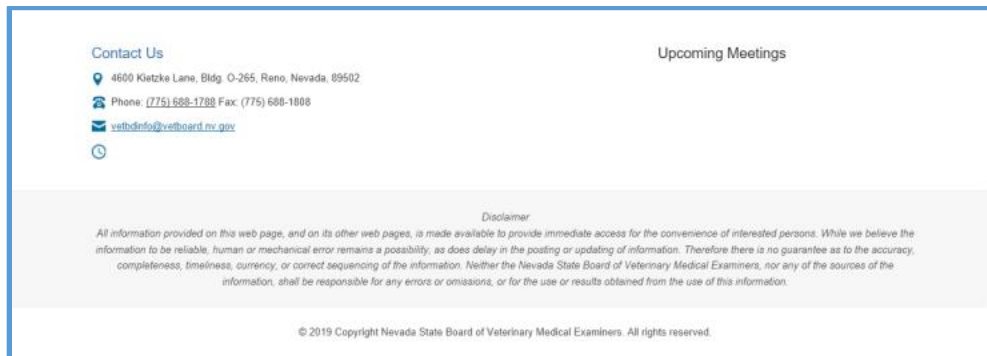
The screen capture below shows where the website disclaimer and copyright information are managed in Umbraco. The tabs where 'landing page' images as well as page footers are managed is also shown:
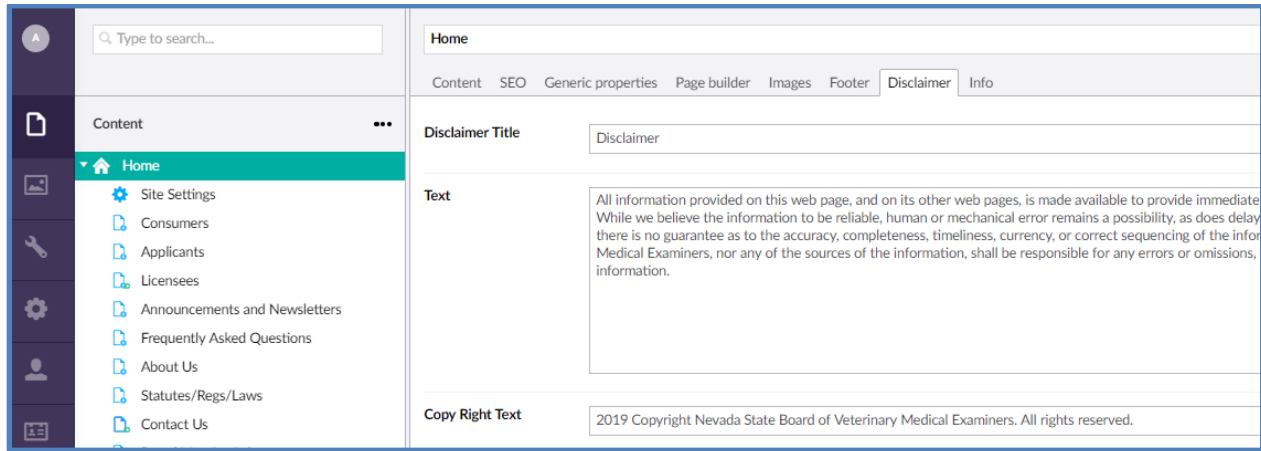
4.1.3.9 A notification system that is integrated into the database to pull and merge information and enable mass email for informational purposes

RESPONSE: inLumon agrees that our solution will provide a notification system that is integrated into the database to pull and merge information and enable mass email for informational purposes. We refer to this as 'Mass Email' or 'Bulk Email'. This functionality however is not provided in the website, but rather within the licensing system itself via the staff portal or 'Back Office'.

In fact, there are currently two methods in the licensing system by which bulk email is generated.

The first is built into the Query Tool. Using this method, data is selected from the database, via the query tool by first clicking the 'Bulk Email' button shown on the right in the screen capture below:
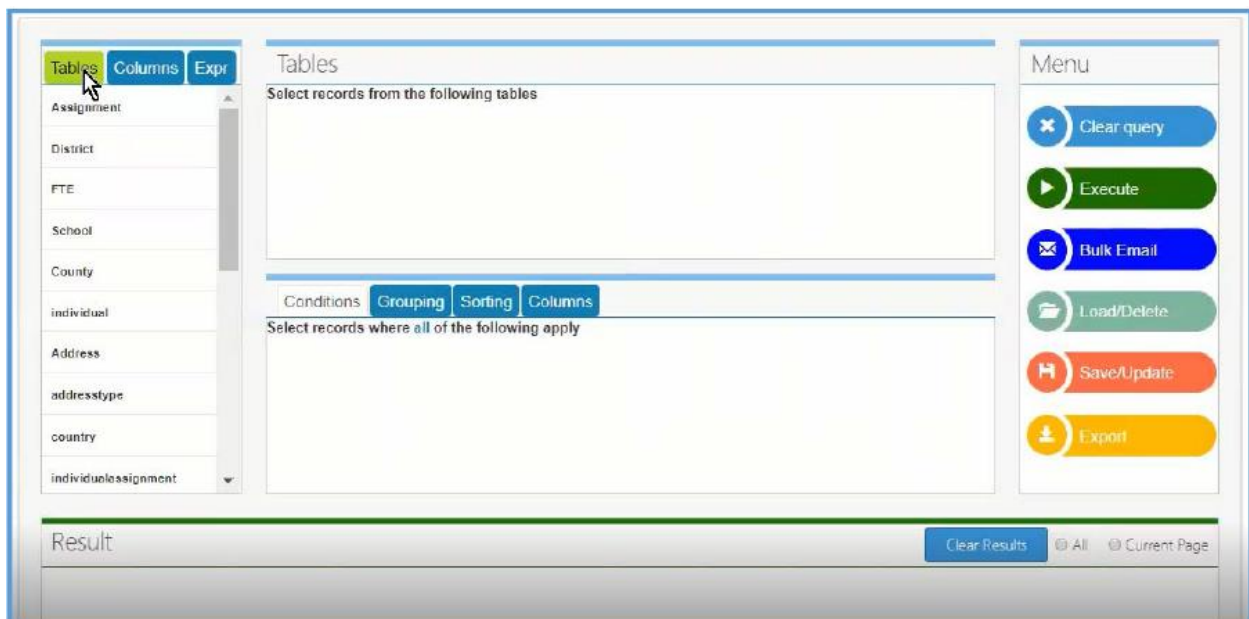
Once the data is selected from the database, the Back Office staff will select a specific email template that is to be sent to the selected members and initiates the bulk emailing process.

The second method is selecting the 'Bulk Email' option from the Administration tab drop-down, where first an email is created as shown below:
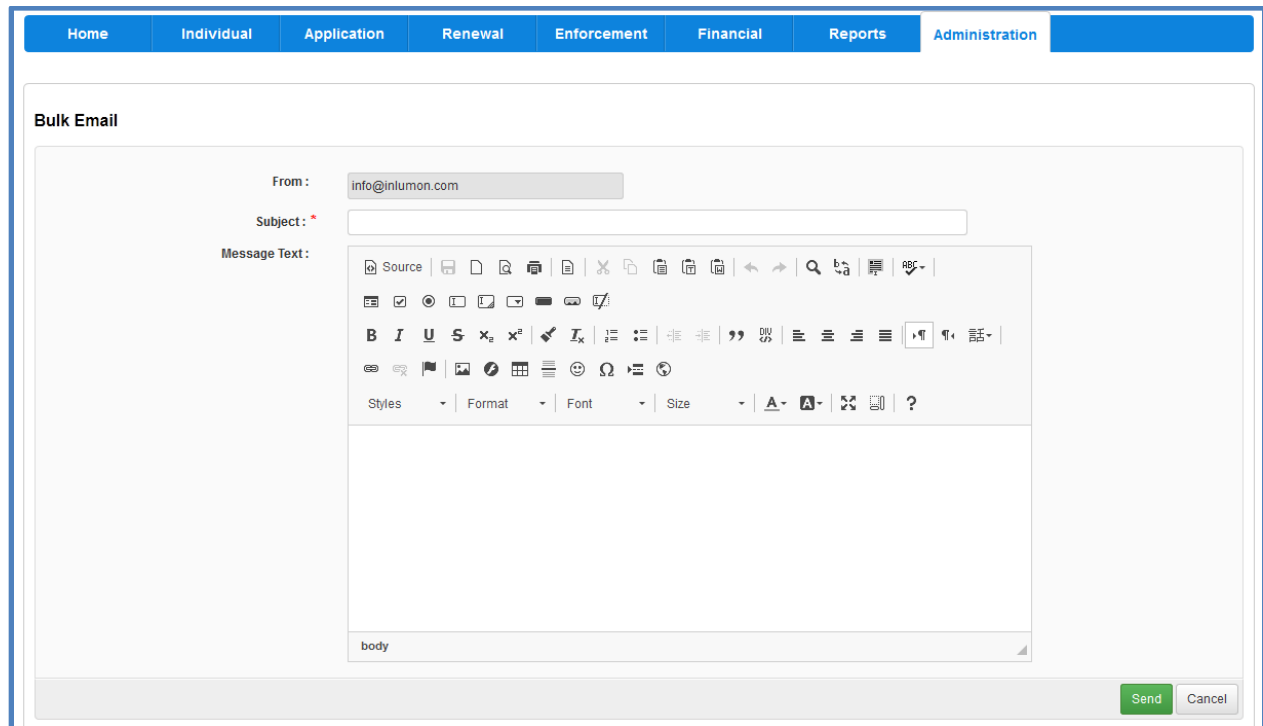
Once the email is created and the 'Send' button is pressed, the Back Office staff will define the data selection criteria where data meeting that criteria is selected to be used in the Bulk Email process.

inLumon clients have found this Bulk Email function quite useful when wanting to notify a subset of members about a certain subject. For example, when the Board is made aware of a specific training or conference that is being provided and they wish to notify members with a specific license or credentials or perhaps members in a specific geographic location, they can select these members form the database and send all of them the same, personalized email from the Board. Thus, our clients have found this an effective and easy way of communicating with their members.

4.1.4 **Cloud-Based Documentation Program:** The system must include an integrated and secure cloud-based documentation program whose interface should require minimal steps to access the managed content. The cloud-based program must not allow for documentation to be locally stored on a machine or device. The program must permit:

> **4.1.4.1** Board staff to upload documents and audio/video files.

RESPONSE: inLumon's Licensing Framework allows for single and multiple documents, images, video, audio and other files to be uploaded and associated with the applicable record(s) for ease of access, review and retention.

> **4.1.4.2** Board staff and Board Members (at no additional user license cost) must have secure access to uploaded documents and audio/video files. Must be able to process, store and make viewable large file size documents and audio/video files without system delay.

RESPONSE: inLumon does not charge on a user-license basis as may other vendors. Users will

inLumon's Security Services provide authentication and authorization services for inbound requests from users and external applications. Our framework uses role-based authorization across the application to allow access to different types of resources. These resources are granular and can be configured at the field, form, or process level. The framework allows different authorization stores to be used based on the system configuration, including those for Board Staff and Board Members to securely access system data, documents and files via their own portal.

Our framework uses role-based authorization to correlate users and groups with the permissions that they require to do their jobs. When a user or group is added to a role, the user or group automatically inherits the associated security permissions. These could be permissions to perform actions or to access various resources. The groups are used to determine user roles. In the figure below, Users-Roles Relationship shows the relationship between roles and permissions in role-based authorization. Implementing role-based authorizations can take a variety of forms, including the following:

- **Simple role-based authorization**—Allows the user access resources or services on a single system.
- **Multi-system role-based authorization**—Allows the user access resources or services on multiple systems.
- **Multi-system, action-based or operation-based authorization**—Allows individuals in certain roles to access resources or services on multiple systems, based on the action or operation the role is requesting.

> **4.1.4.3** Must be functional for ease of use on mobile devices.

RESPONSE: The architecture of our solution and underlying system components enable staff, applicants, licensees and the/or the public use mobile technologies.

4.1.4.4   Must allow users to reset their password twenty-four (24) hours a day, seven (7) days a week.

RESPONSE: The system allows for users to reset their password at any time, provided their new password complies with WVBOM specified parameters (i.e. One capital letter, number, special characters, etc.)

4.1.4.5   Must allow functionality to limit access of any specific user(s) to workspaces or specific documents/files.

RESPONSE: See response to item 4.1.4.2 above for detailed information of how inLumon's security roles driven application limits access to documents, files and data contained in the system based on the user's role.

4.1.4.6   Must provide for a portal that allows the Board to securely send or receive confidential documents with an authorized third-party. Must be an encrypted file transfer platform with HIPAA compliant level of security.

RESPONSE: Leveraging our framework's security and business partner portal capabilities, the solution will meet or exceed this requirement. For instance, with our Nevada Department of Education client, the State has provided the ability for organizations that initiate the fingerprint/background checks, both private companies and law enforcement, using either Live Scan or paper cards, to have limited access via a 'Business Partner Portal' (BPP) to inform the system when the background check process has started. In this manner, the State knows when an individual has started the background check process. As shown in the figure below, the system allows for State staff to monitor the background check process from the time it has started until the results are received. It displays the status of both FBI and State background checks, along with the date of each status change. In the case of Nevada, State law does not allow for background check results to be stored electronically, but the system is can do this if required.
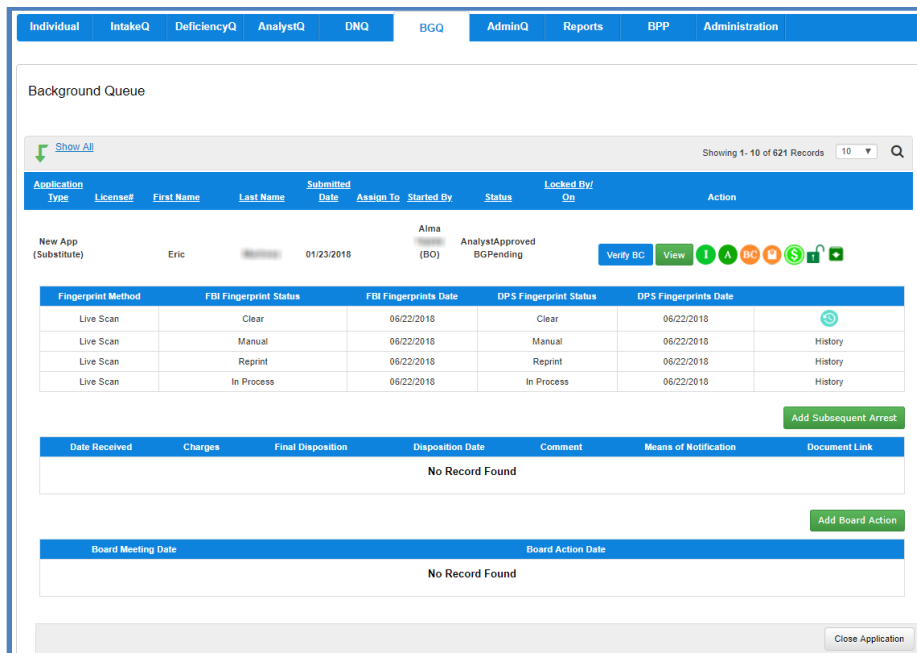
4.1.4.7 As the entire system must be integrated, meaning that it operates from a single unified database, this Contract Item must operate from the same database as all other components.

RESPONSE: inLumon's COTS Licensing Framework will be configured and operate as the new, single system managing the entire lifecycle of licensure, compliance and more as desired to meet and/or exceed the Requirements outlined within the RFQ, and on an ongoing basis as long as the WVBOM is contracted with inLumon for system support.

4.1.4.8 Must be an internet-based solution with the capability to be changed after implementation to support the Board 's needs.

RESPONSE: WVBOM will benefit from inLumon's intuitive web-based, COTS application using SQL server configured with the functions and capabilities needed to meet the new Integrated Licensure/Records Content Management System Database, Website, Administrative Interface and Cloud Base Documentation Program requirements. This flexible, highly configurable foundation empowers the West Virginia Board of Medicine to overcome future regulatory, business process and technology changes in the years to come!

inLumon's Licensing Framework provides our clients an easy way to easily implement small (& large) changes to their system without custom development, additional programming, time or costs. inLumon takes pride in how the usability, configuration and development of our solution continually improves and is influenced by the latest software standards, technological improvements, and our clients' input and feedback – so much so, our clients' users become very proficient in the use and configuration of the application that training is minimized or in some cases eliminated due to the inherent intuitive nature of the software solution they are exposed to and work with during the implementation process.

Our solution has evolved into a user-friendly, efficient and flexible solution, enabling our clients to effectively perform and optimally automate their regulatory activities while empowering them to make changes to the system, such as business rules, correspondence templates, reports, screens and more, via the user interface without custom development or programming to accommodate. See an example Administration Menu below:

We have developed our solution anticipating change and to empower our clients to easily adapt their system. Whether it is updating templates to reflect new regulations in advance of effective dates, changing a fee amount, adding a new certification type, or case management process changes, inLumon trains and empowers clients to adapt their systems without custom programming.

inLumon provides training for user level staff in the new system as well as training Administrators where all the tasks identified under the Administration tab (are discussed in detail. Some of the highlights include:

- **User Management**—this is where user accounts can be inactivated when staff leaves, where passwords can be reset, etc.

- **Template Message**—This is where email and SMS (TXT) message templates are managed in the system. Staff can change message being sent to licensees without assistance from inLumon.

- **Content Management**—This allows clients to manage the content in their Application and Renewal forms without assistance from inLumon. Staff can make changes in minutes which are reflected immediately when licensees or applicants open new or renewal applications.

- **Configuration**—Here staff can manage several system values themselves without assistance from inLumon. This includes the number of days prior to expiration that a licensee can renew.

- **Reference Table**—This is where staff can manage all drop-down screens without assistance from inLumon.

- **Secure Communication**—This feature allows our clients to communicate directly with licensees and/or applicants, all of which occurs within the system.

- **Task Management & Execution**—This allows clients to create a message they wish to share (via email) to a select group of individuals within the database (task definition) and schedule when that task is to be run. Task Execution allows staff to see the results of the job and provides a list of individuals selected from the database by the task being run.

- **Bulk Email**—allows staff to define criteria to select individuals from the database and create the email message that will be sent to all those individuals.

5. Performances:

5.1   **Installation and Implementation:**   This contract becomes effective upon Vendor's receipt of the notice to proceed. The Installation and Implementation part of the Contract, as fully described in these specifications, must be completed within one hundred-eighty (180) calendar days. Upon completion of the Installation and Implementation process, and upon Acceptance by the Agency as defined in these specifications, a Change Order will be issued by the agency with approval of the Purchasing Division that will start the five-year fixed term for maintenance, support, warranty and hosting services by the Vendor.

RESPONSE: inLumon has read, understands and will comply with this requirement and has provided an initial project plan within this proposal (See Appendix 1 – Preliminary Project Plan) reflecting the deliverables and milestones to be completed within one hundred-eighty (180) days or less.

We recognize that planning and administration for a project of this magnitude constitutes one of the most critical tasks requiring attention from all stakeholders throughout the entire process. Simply stated, project management is the engine that drives the project towards its intended goals. See inLumon's Project Approach section of this response for more information about our typical installation and implementation methodology.

The successful Vendor must:

5.1.1   Meet with the Board staff and current database Vendor (if new Vendor is awarded contract) as is necessary to plan data conversion, data migration, system customization end implementation. At least two (2) on-site visits are required, but the vendor shall include the costs of this required visits and any additional visits they expect to need to conduct in their bid.

RESPONSE: inLumon is pleased to comply with this requirement as meeting and working face-to-face with our clients is paramount for project success and our long-term partnership! All travel expenses incurred by inLumon staff are included in our proposal.

5.1.2   Provide a complete schedule for installation and implementation within ten (I0) calendar days of award of the contract. The schedule should indicate all phases of installation and implementation, note any meetings for which Board staff attendance is required and explain how installation and implementation will affect the availability of current website services to Members and availability of the database to Board Staff. Installation and implementation should minimize the amount of time during which Members and Board Staff cannot access the Board's business services.

RESPONSE: inLumon will comply this requirement and has provided a preliminary project plan within this proposal as Appendix 1 – Preliminary Project Plan for the Board's consideration as it outlines phases and milestones of installation and implementation.

The inLumon Program Manager will provide the agency's Project Manager and upper management with the semi-monthly overall status/progress reports for project and weekly status/progress reports for each sub-project for the duration of the contract. The inLumon Team methodology requires regular and consistent communication with WVBOM project personnel and stakeholders. This interaction is a key to the success and health of a project and provides transparency into the project.

The Communications Plan developed by the inLumon Team and approved by the WVBOM will contain details of program and project level meetings, reports, and report distribution, which includes semi-monthly overall project and weekly sub-project status reports. Status reports will partially consist of upcoming tasks towards the

completion of deliverables, variances, activities completed, activities to be completed, and will keep team members clearly informed about risks and their potential impact to assist in analyzing the execution of requirements and identifying areas of improvement, while also confirming expectations.

Since status reports and regularly scheduled meetings are critically important to not only communicate progress but also escalate risks/issues and obtain guidance as well as decisions in order to properly facilitate schedule management and mitigation strategy, the inLumon Team expects the appropriate WVBOM personnel to review the status reports in a timely manner and be present at meetings and we will gather feedback from the department staff in order to refine the format, content and timing of these reports.

5.1.3 All data conversion is to be part of the implementation process. **The Board will retain ownership of all data related to the project, including any fields with codes appended by the Vendor to create a join between data tables.**

RESPONSE: It has been inLumon's experience that all new licensing system implementations require data migration from exiting systems. In many cases, we have migrated data from existing vendor's systems and have extensive experience in mapping their data to our proprietary database. We also understand that data migration is not a one-time activity, but more a series of data migrations until the client and inLumon are satisfied that all data has been migrated successfully. In fact, our project plans call for one last data migration, a 'dress rehearsal' of sorts, before the final data migration for Go Live. In this manner, we help to reduce risk involved with data migration and increase the success of a smooth transition into production.

In instances where it is a new vendor or unique, in-house system and/or multiple locations that we are migrating the data from, we can expect that it will take longer, and more care is required to ensure a successful data migration into the new inLumon system. This is our expectation with the system—it will take longer than usual, but we are confident that we will have a successful data migration.

inLumon commits to working with WVBOM to identify and understand existing data necessary for migration, including assessing levels of effort or alternative options to convert records into the new licensing system. All data is owned by the Board.

5.1.4 Provide and execute a plan, in coordination with the Board staff, for notifying Members and others of the new website and system.

RESPONSE: inLumon will work with the Board staff to develop and execute a plan for notifying members of the new website and system.

5.1.5 On or before acceptance of the Contract, provide at least one electronic copy of an instruction manual for Board staff (which allows the Board staff the ability to reproduce as needed to circulate to staff during the life of the contract). The instruction manual must be updated from time-to-time as may be needed due to changes made by the Vendor to the Contract Item and Services over time.

RESPONSE: inLumon will comply with this requirement. inLumon provides a variety of training materials to effectively transfer knowledge of the concepts and functionalities related to the new system. The following types of training materials will be developed for learning and reference:
- User Manual (Instruction Manual)
- Quick Reference Guide
- Online Help Documents

Examples include a User Guide (See example by clicking on embedded PDF document icon below).

UserGuide(WY_PLB)P
LEBS.pdf

Furthermore, inLumon provides other tools and training opportunities to ensure clients have the information and ability to apply knowledge of their new system. In addition to documents, inLumon has produced videos to provide audio and visual materials for training on specific functionalities, system utilities, and client-centric topics. Some examples of video links are provided below:

- **Licensee Registration**
- **New User Registration**
- **Running a 'Canned' Report**
- **Viewing the Renewal Queue**

5.1.6   Provide training for use of the system to all Board staff (currently numbering 16), including intensive software training for Board's IT staff and high-end users. Initial training must be on site at the Board's office in Charleston, West Virginia. Training must cover both the system software and the customized processes of the Board as they exist in the system. Vendor will be expected to provide training to any additional license users during the life of the Contract (at the cost of the Unit Price for the additional license, see Section 6.2.8, below). Training for any subsequent additional users may be on site or remote by electronic communication.

RESPONSE: inLumon will comply with this requirement. inLumon has developed and executed training for various customers across the globe, catering to different training requirements including soft skills, business products and processes. Owing to the rapid growth in technology, with more and more organizations adopting various systems to execute their critical functions, inLumon has shifted its focus to system-based / application – based training. To ensure that these training experiences are effective, inLumon has specialized in the following types of training approaches:

- o **Web-based training (WBTs) or e-learning for users of the system**
- o **Instructor-led training (ILTs) for users of the system**
- o **Train-the-Trainer (TTT) training for trainers**
- o **Technical training for the developers and other technical team members**
- o **Training for system administrators**
- o **Online help modules embedded within the application**
- o **Training for help-desk personnel**

We combine (blend) these training approaches to deliver high impact training for our customers. inLumon will deliver the training as part of the overall project plan. The training courseware development will commence once the technical design has been signed off and the application development has been started. The milestones will be aligned to the master plan. These include key milestones relevant to training:

- I.   **Comprehensive Training Plan: This plan will detail the role-based training approach and curriculum, learner assessment and evaluation strategy, courseware development process and review mechanism, and the approval and sign-off process. It will incorporate findings from the Training Needs Analysis (TNA), such as audience assessment, prerequisites, training facility requirement details, logistics, and training content.**

II. **Courseware Development:** inLumon will align the courseware (training materials) development and delivery to the development and rollout of the application. As the application functionalities are developed, courseware development will follow closely to capture the most current course content.

III. **Delivery of Training before UAT:** inLumon will deliver an application training overview to prepare testers for their testing tasks. Courseware will be updated according to findings realized from UAT results.

IV. **Delivery of Training:** Training will be delivered prior to final application roll-out so all support staff and end-users are prepared for their respective tasks.

V. **Delivery of Courseware Files:** inLumon will deliver all courseware files and training documents to WVBOM upon project completion.

5.1.7 Vendor shall be responsible for all mileage and travel costs, including travel time, associated with performance of the contract.

RESPONSE: inLumon will comply with this requirement as all inLumon staff travel and related expenses are included in our proposal.

5.2 **Acceptances:** Acceptances shall be defined as successful demonstration and testing of all system requirements including training, with the ability for all users to navigate and utilize the system to perform their roles. The Agency with the Vendor's acceptance will issue a written letter and Change Order request to WV Purchasing Division as formal Acceptance of the system. Upon mutual agreement of Acceptance by both the Agency and Vendor, the Change Order issued by WV Purchasing will start the Five-Year term for maintenance, support, warranty and hosting by providing a signed/dated letter agreeing to the start date of the Maintenance and Support to the Board.

RESPONSE: inLumon has read, understands and will comply with this requirement.

5.3 **Maintenance and Support:** The five-year term for maintenance and support will be added by formal Change Order after completion of the Installation and Implementation process and upon the Agency's formal Acceptance of the system. The successful Vendor must provide maintenance and support at a fixed annual cost that meets the following requirements, as well as any other requirements set forth in this Solicitation.

RESPONSE: inLumon has read, understands and will comply with this requirement. Furthermore, inLumon's maintenance and support agreement includes ongoing, dedicated support and future enhancements, upgrades and updates. Gone are the days of unplanned and unbudgeted "change orders"

Vendor must include in their bid the fixed annual cost of maintenance and support for years 1, 2, 3, 4 and 5. The successful Vendor must provide maintenance and support meeting the following requirements:

5.3.1 User Help Desk

5.3.1.1 Vendor must provide 24 hour-per-day, 7 days per-week access to online or telephonic

technical support to both the Board staff and the end user Members during the life of the contract. Such must be provided at no additional cost to the Board beyond the annual base cost for maintenance and support.

RESPONSE: inLumon complies with this requirement at no additional cost.

5.3.1.2 Support must also include support to Board's administrative users and IT staff for configuration to the website, the database, the administrative interface and the cloud-based program. Such must be provided at no additional cost to the Board beyond the annual base cost for maintenance and support.

RESPONSE: inLumon complies with this requirement by providing training for user level staff in the new system as well as training for Administrators. To aid in this training, inLumon develops a 'How Do I...?' manual which outlines how various tasks are accomplished using the system vs. a technical user's manual. Our clients have found that this How Do I manual is most useful and allows staff using the electronic version of this manual to quickly search and find what they are looking for.

Detailed Administrator level training is also provided by inLumon, where all the tasks identified under the Administration tab are discussed in detail. In fact, inLumon supports hands-on training, and encourages the users to take a hands-on approach to training, by having them complete each task after being shown. This way, it helps to reinforce the training staff has just observed.

5.3.1.3 Vendor must also be able to provide remote desktop support for both Members and Board staff. Such must be provided at no additional cost to the Board beyond the annual base cost for maintenance and support.

RESPONSE: inLumon can and will comply with this requirement as remote desktop support is one of many ways inLumon supports our clients and included within our proposal.

5.3.2 Software Patches and New Releases

5.3.2.1 During the life of the contract, Vendor shall make available to the Board all new software versions and patches of defects. Though the expectation is that software updates and patches will be installed remotely, none shall be undertaken without the prior notification, in writing, to the Board and without the Board's prior approval. Such must be provided at no additional cost to the Board beyond the annual base cost for maintenance and support.

RESPONSE: inLumon has read, understands and will comply with this requirement and includes within our proposal.

5.3.3 Customization of the System

5.3.3.1 All customization of software required to meet the requirements of the Solicitation and the Board, and to achieve Acceptance, shall be included in the Base Bid.

RESPONSE: inLumon has included all customization of software required to meet the requirements set forth within the RFQ.

5.3.3.2 Any defects/errors discovered (post-acceptance) in the system that relate to requirements/specifications in the original Solicitation must be cured by the Vendor, and any work performed by the Vendor related thereto shall not be considered new customizations such that the defects shall be cured by the Vendor at no additional cost to the Board beyond the annual base cost for maintenance and support. Defects/errors include functions/capabilities/specifications that were included in the original Solicitation specifications but are not working properly, are non-compliant or were omitted from the system.

RESPONSE: inLumon warrants the accepted work performed and will comply with this requirement.

5.3.3.3 Each year of subsequent support shall include (up to) at least five (5) hours of development hours from the Vendor to be used by the Board for making new customizations to the system (including, but not limited to, adding a new type of license, etc.), at no additional cost to the Board beyond the annual base cost of maintenance and support.

RESPONSE: inLumon includes additional development, enhancements, updates and upgrades with our maintenance and support agreement. inLumon's support model includes secure hosting, future upgrades, enhancements, modifications and dedicated resource(s) providing personalized support. Gone are the days of unplanned "enhancements" or "change orders" costing the Board more money than originally budgeted.

5.3.3.4 Should a (post-Acceptance) customization require hours from the Vendor in addition to the five provided each year, the Vendor shall be required to create a scope of work and a signed, dated quote for the actual cost of the work (with hours billed per the Unit Price – Item #9 on the Pricing Page provided in wvOASIS and Section 6.2.9 below, and noting that the contractually provided five hours are first used), to be processed as a Change Order request for increasing the Contract amount. Note: only upon approval by the State Purchasing Division and the WV Attorney General's Office (as to form only) shall any work be undertaken on such customization request. This "Scope of Work" should also include a timeline for deliverables, and notifications of any potential downtime (including estimated dates and times of occurrence and duration) required for its implementation. After the change order is processed and Vendor commences work on new customizations, Vendor shall submit itemized invoices to the Board with sufficient descriptions of the work performed.

RESPONSE: inLumon will comply with this requirement as needed. inLumon's support model includes secure hosting, future upgrades, enhancements, modifications and dedicated resource(s) providing personalized support. Gone are the days of unplanned "enhancements" or "change orders" costing the Board more money than originally budgeted.

5.3.3.5 All (post-Acceptance) customization requiring hours from the Vendor shall include an installation, testing and post-installation defect correction. Any defects/errors discovered to any new customizations after implementation must be cured by the Vender at no additional cost to the Board. Defects/errors include functions/capabilities/ specifications arising from or related to the new customizations but are not working properly, arc non-compliant or were omitted.

RESPONSE: inLumon complies with this requirement as our support model includes secure hosting, future upgrades, enhancements, modifications and dedicated resource(s) providing personalized support. Gone are the days of unplanned "enhancements," customizations or "change orders" costing the Board more money than originally budgeted.

5.3.3.6 No (post-Acceptance) customization will result in a change of the cost of basic support, maintenance or hosting as provided in the original Contract or any subsequent years.

RESPONSE: inLumon complies with this requirement as our support model includes secure hosting, future upgrades, enhancements, modifications and dedicated resource(s) providing personalized support. Gone are the days of unplanned "enhancements," customizations or "change orders" costing the Board more money than originally budgeted.

5.3.4 Hosting Services

5.3.4.1 The Vendor shall install and maintain the system on their own server.

RESPONSE: inLumon complies with this requirement. See Appendix 2 – inLumon's Hosting Services for more detailed information about inLumon's hosting services.

5.3.4.2 The Vendor should provide continuous access to the system. However, it is understood that the system may require expected outages for maintenance. Vendor shall perform all planned system outages during off-peak hours (between 12:00 am and 6 am EST) and shall notify Board in writing (email suffices) prior to any such outage, providing the estimated date and time of the outage and a brief explanation of the cause of the outage.

RESPONSE: inLumon complies with this requirement. See Appendix 2 – inLumon's Hosting Services for more detailed information about inLumon's hosting services.

5.3.4.3 In the event of an unplanned outage, the Vendor shall notify the Board (in writing, email suffices) within one hour after the outage, and shall provide the time of the beginning of the outage and the estimated time for when the outage will end.

RESPONSE: inLumon complies with this requirement. See Appendix 2 – inLumon's Hosting Services for more detailed information about inLumon's hosting services.

5.3.4.4 The Vendor shall have and provide as part of this Contract a disaster recovery plan which Vendor shall have in place for insuring remote backup of the Board's data. Vendor shall work with the Board staff to develop a secondary backup system on the agency's existing equipment.

RESPONSE: inLumon complies with this requirement. See Appendix 2 – inLumon's Hosting Services for information about disaster recovery.

5.3.5 Vendor should provide with their bid a copy of any and all Software Terms and Conditions or licenses that the State of West Virginia or the Agency will have to agree to or accept as part of this solicitation. **This information will be required before Purchase Order is issued.**

RESPONSE: inLumon is providing a copy our standard Support and Service Level Agreement within this proposal. Appendix 4 contains inLumon's Subscription Agreement should the Board opt to utilize that offering.

Vendor should include a copy of any Maintenance Terms and Conditions or Licenses that the State of West Virginia of the Agency will be required to agree to and accept as a part of this solicitation. <u>This information will be required before Purchase Order is issued.</u>

RESPONSE: inLumon has provided both our typical <u>Support and Service Level Agreement</u> and <u>Terms and Conditions</u> within this section of our proposal for the State's review and consideration. inLumon welcomes the opportunity to discuss and negotiate these items. Appendix 4 contains <u>inLumon's Subscription Agreement</u> should the Board opt to utilize that offering.

5.3.6 Ninety (90) calendar days before the Contract expiration and/or termination, or as soon as practicable thereafter, the Vendor shall work jointly with the Board and any subsequent Vendor during the conversion and new system startup, to ensure a smooth transition and changeover, prior to releasing the Vendor's Performance Bond.

RESPONSE: inLumon has read, understands and will comply with this requirement.

5.3.7 At the close of the Contract, the Board shall retain control of any intellectual property that is developed for the Board and essential to on going operations. During the Contract period, and any renewal periods the Board shall be licensed to use, for its own purposes, the intellectual property furnished for use with the System, including software, communications protocols, processes and procedures.

RESPONSE: inLumon will comply with the terms of the finalized contract.

11.3 Contract Manager:

During its performance of this Contract, Vendor must designate and maintain a primary contract manager responsible for overseeing Vendor's responsibilities under this Contract. The Contract manager must be available during normal business hours (EST) to address any customer service or other issues related to this Contract. Vendor should list its Contract manager and his or her contact information below.

Contract Manager: Tuhin Verma

Telephone Number: (800)246-0541

Fax Number: (800)246-0541

Email Address: tuhinverma@inlumon.com

Certificate of Insurance

In compliance with the insurance terms outlined within the RFQ, inLumon is providing our insurance certifications.

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
7/8/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:		
TechInsurance *in Zurmman company*	PHONE (A/C, No, Ext): (800) 668-7020		FAX (A/C, No): 877-826-9067
TechInsurance 30 N. LaSalle, 25th Floor, Chicago, IL 60602	E-MAIL ADDRESS:		

	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A: Hiscox	10200
INSURED Eduloka Limited 9645 Gateway Dr Ste A , Reno, NV, 89521	INSURER B: Trumbull Insurance Company	27120
	INSURER C: The Hartford	30104
	INSURER D: Philadelphia Indemnity Insurance Company	18058
	INSURER E:	
	INSURER F:	

COVERAGES   **CERTIFICATE NUMBER:**   **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
C	✓ COMMERCIAL GENERAL LIABILITY CLAIMS-MADE ✓ OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: ✓ POLICY ☐ PRO-JECT ☐ LOC ☐ OTHER:			468BMUK5036	7/3/2018	7/3/2019	EACH OCCURRENCE	$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 1,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 1,000,000
							GENERAL AGGREGATE	$ 2,000,000
							PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
C	AUTOMOBILE LIABILITY ☐ ANY AUTO ☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS ✓ HIRED AUTOS ✓ NON-OWNED AUTOS			468BMUK5036	7/3/2018	7/3/2019	COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
							BODILY INJURY (Per person)	$
							BODILY INJURY (Per accident)	$
							PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ✓ OCCUR ☐ EXCESS LIAB ☐ CLAIMS-MADE ☐ DED ☐ RETENTION $						EACH OCCURRENCE	$
							AGGREGATE	$
								$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? No (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A		46WECAI0322	4/25/2018	4/25/2019	✓ PER STATUTE / OTH-ER	
							E.L. EACH ACCIDENT	$ 500,000
							E.L. DISEASE - EA EMPLOYEE	$ 500,000
							E.L. DISEASE - POLICY LIMIT	$ 500,000
A	Professional Liability (Errors and Omissions)			UDC-1337727-EO-18	4/1/2018	4/1/2019	Occurrence/Aggregate	$5,000,000 / $5,000,000
D	Cyber Liability			PHSD1354945	6/9/2018	6/9/2019	Each Occurrence	$5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER	CANCELLATION
inLumon 5375 Gateway Dr, Suite 150 Reno, NV 89521	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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ACORD 25 (2016/03)   The ACORD name and logo are registered marks of ACORD

AGENCY CUSTOMER ID: 766018

LOC #: _____

ADDITIONAL REMARKS SCHEDULE

Page __1__ of __1__

AGENCY	NAMED INSURED
	Eduloka Limited
POLICY NUMBER	9645 Gateway Dr Ste A
	Reno, NV 89521

CARRIER	NAIC CODE	
		EFFECTIVE DATE:

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: ACORD 25   FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

ACORD 101 (2008/01)

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inLumon's Support and Service Level Agreement

The inLumon Service Level Agreement (SLA), Support Plan Guide detail the parameters of the Support Plans inLumon offers and what the West Virginia Board of Medicine (WVBOM) should expect in terms of product and support services.

Support Services

* As per the needs and requirements of our clients, both on-site and off-site support service is provided
* The off-site support is carried on through remote login, telephone, e-mail, messenger, letters, etc. On-site support is provided by inLumon's technical staff by visiting WVBOM's office
* To ease out the implementation process, training sessions are provided

inLumon Support Desk Hours

The inLumon Support Desk operates from 7:00 AM to 6:00 PM Pacific Time, Monday through Friday except for federal holidays. Customers may use the inLumon Support Desk as a single point of contact for all support inquiries regarding inLumon products. The inLumon Support Desk provides first and second level diagnostic support including analysis of the issue, problem solving and resolution.

Technical Support Options

Customer's Named Support Contacts have access to the following options:

- **inLumon Support Portal** - This allows Customers to log and track incident requests and for certain products, new feature requests, 24 hours a day, 365 days a year. The portal can only be accessed by inLumon Customers with valid User IDs and passwords.
- **Email** - support@inlumon.com Email is the best way to contact the inLumon Support Desk. Every email is assigned a ticket number.
- **Telephone** - Toll free.

Reporting Support Incidents

Support Incident: A support incident is defined as a single, reproduceable issue displaying specific symptoms relating to one specific feature, function, action, or facet of the product, or one aspect of its operation or performance. Each Support Incident is a problem that inLumon cannot divide into separate, subordinate issues. If a problem can be broken down into subordinate issues, inLumon will consider each a separate incident. inLumon may expand the definition of a Support Incident to include accompanying occurrences or events that arise because of, or are dependent on it.

What is not a Support Incident?

* A problem with consulting deliverables not covered under contract
* Post implementation changes not covered under contract and scope
* Request for functionality outside the scope
* A problem caused by a Customer's unsupported alteration of an inLumon product

Incident Resolution: Once the inLumon Support Desk reviews an incident, inLumon in discussion with the customer will define resolution of the incident as accomplishing any one of the following:

* Provides a reasonable solution to the incident
* Provides a reasonable Workaround to the incident until the issue is resolved
* Determines the incident is related to an action that does not follow a published guideline or specification
* Determines the incident is an enhancement request

Support Ticket Creation

Upon receiving the support call or email, the inLumon Support Desk will log an incident and provide an incident number to the Customer. This number signifies that the issue has been received, logged and will be assigned to the appropriate work group.

Support Ticket Prioritization

inLumon will prioritize Support tickets based on:
* The severity of the issue
* The urgency of the issue
* The effort involved in resolution
inLumon will work with the WVBOM to determine the appropriate Severity and priority.

Support Ticket Severity and Response Times: The table below describes the severity inLumon will associate with each support ticket. The table also list the standard response time for each level of severity.

Severity	Description	Response Time
P1	• System crash, major system portion unusable and no reasonable workaround within application, irretrievable data loss • Requires immediate resolution and should be fixed in the next release or patch	30 mins to 4 hours
P2	• Some portions of the system not working as intended/planned, resulting in noticeable deficiency or difficulty with allowing system use • Application is usable with functional restrictions and impacted operations • Workarounds should be provided and plan for next available patch release is created	4 hours to 12 hours
P3	• Superficial defect and minor imperfection bug does not impede system functionality • Should be fixed in the next major release	Within 48 hours
P4	• No impact on performance or usability and does not impede functionality • Should be reviewed for a future release	48 hours to 96 hours

Customer Notification: For all Severity levels, inLumon will update the Customer on the Support Ticket status as agreed upon at the time inLumon contacts the Customer with the initial response. inLumon will always attempt to resolve the incident on the first contact, but at times, additional contacts may be necessary.

Customer Escalation: The inLumon Support Desk is the single point of contact for all support issues. Please contact the inLumon Support Desk to escalate a Support Ticket. Additionally, Customers may contact their Account Manager for any questions about support procedures, escalation, or any other business needs.

Additional Support-Related Policies

Planned System Outages: inLumon will work with the WVBOM to schedule any planned outages for maintenance. inLumon will notify Customers one week prior to the scheduled maintenance window with the details.

Unplanned System Outages: In the course of resolving support incidents and software bugs, it may become necessary to temporarily bring services offline, or to block users' access. The support team will work closely with WVBOM to schedule these outages to minimize any interruption of service.

Business Continuity Plan: inLumon maintains a Business Continuity Plan to ensure the continuity of its critical business functions.

Service Level Review: inLumon will review and/or renew SLA at least once per year or as required. WVBOM may request a review of SLA at any time by contacting their inLumon Account Manager.

inLumon's Terms and Conditions

* The tasks, steps, techniques and tools that are proposed are based on the current level of understanding and technology levels prevailing in the project domain. The proposed approach will be validated and may have to be refined and modified for the actual project requirement after discussing with the WVBOM team.

* inLumon will start the project within one week of acceptance of proposal or signing of the contract.

* Acceptance criteria shall be mutually discussed and decided by WVBOM and inLumon's Project Manager during the project requirements phase.

* inLumon and WVBOM will come into an agreement to fulfill the scope and whenever there is change in scope, mutually will agree and then document same in the agreement as and when it arises. Any other product or service required during implementation or at a later date shall be covered under a separate agreement.

* Transactional cost associated with electronic payment (Credit Card, Debit Card, eCheck) if any, is the responsibility of WVBOM and must be discussed between WVBOM and their financial institution.

* Training will be provided to the designated staff at client's end to use the application.

* Implementation time may vary depending on WVBOM requirement(s) and other factors beyond inLumon and WVBOM.

* If WVBOM and inLumon consider that, due to existing circumstances, the achievement of agreed upon objectives are no longer possible at all or not to a satisfactory degree, services may terminate with a written notice of not less than sixty (60) days.

* Monthly rates if applicable are billed monthly at month end. Payment is required within 30 days from date of receipt of invoice; late invoices will be charged at 1.5% interest per month.

* On an annual basis, the support and/or subscription amount may be adjusted by cost of living factor percentage not to exceed 3% with approval from both parties.

* The solution we are proposing will include software that will be developed specifically for this project and pre-existing software owned by inLumon. The different types of software will be identified specifically in the definitive contract, consistent with our proposal. We can agree that the State will have ownership of the software specifically developed for this project although inLumon retains non-exclusive royalty-free and fully paid-up license rights to use of that software for other projects. We also agree that the State will have a nonexclusive, royalty-free and irrevocable license to use the pre-existing software owned by inLumon for internal use only by WVBOM for purposes of the project. The definitive contract will specify project deliverables, but source code and other escrowed materials should be deliverable as per an escrow mechanism.

* Force Majeure: inLumon shall be under no liability whatsoever on the occurrence of any Force Majeure event such as act of war, sabotage, strikes, fires, freight embargoes, floods, explosions, epidemics, orders of government or other duly constituted authority, any natural calamities or Act of God or other causes or events beyond the control and without the fault or negligence of Buyer (WVBOM) or Seller (inLumon).

Designated Contact, Certification and Signature

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

(Name, Title)
Tuhin Verma, Director of Technology

(Printed Name and Title)
5375 Kietzke Lane, Suite 150, Reno NV 89511

(Address)
(800)246-0541
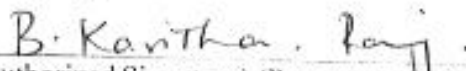
(Phone Number) / (Fax Number)
tuhinverma@inlumon.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Eduloka Limited (dba inLumon)

(Company)

B. Kavitha. Raj.

(Authorized Signature) (Representative Name, Title)

Kavitharaj Basavaraj, President

(Printed Name and Title of Authorized Representative)

2/19/19

(Date)

(800) 246-0541

(Phone Number) (Fax Number)

Purchasing Affidavit

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (*W. Va. Code* §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: _____ Eduloka Limited (dba inLumon) _____

Authorized Signature: _____ B. KuGhu Ruj. _____ Date: _2/19/2019_

State of _Nevada_

County of _Washoe_ , to-wit:

Taken, subscribed, and sworn to before me this _19th_ day of _Feb_ , 20_19_ .

My Commission expires _Sept. 19th day_ , 20_22_ .

AFFIX SEAL HERE

JONAH LISH
Notary Public - State of Nevada
County of Washoe
APPT. NO. 16-3961-2
My App. Expires Sept. 19, 2022
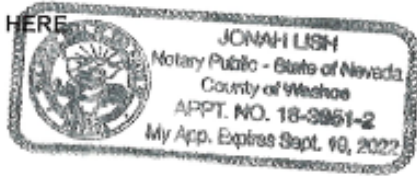
NOTARY PUBLIC _Jonah Lish_

Purchasing Affidavit (Revised 01/19/2018)
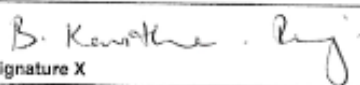
CRFQ Forms

Purchasing Divison 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130	**State of West Virginia** **Request for Quotation** **21** — Info Technology	

Proc Folder: 536534

Doc Description: Database and Maintenance Services

Proc Type: Central Master Agreement

Date Issued	Solicitation Closes	Solicitation No		Version
2019-01-16	2019-02-19 13:30:00	CRFQ	0945 BOM1900000005	1

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON   WV   25305

US

VENDOR

Vendor Name, Address and Telephone Number:

Eduloka Ltd. (dba inLumon)
5375 Kietzke Lane, Suite 150
Reno, NV 89511
(800)246-0541

FOR INFORMATION CONTACT THE BUYER

Jessica S Chambers
(304) 558-0246
jessica.s.chambers@wv.gov

Signature X   FEIN # 45-3361278   DATE 2/19/19

All offers subject to all terms and conditions contained in this solicitation

Page : 1   FORM ID : WV-PRC-CRFQ-001

Purchasing Divison
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25305-0130

State of West Virginia
Request for Quotation
21 — Info Technology

Proc Folder: 536534			
Doc Description: Addendum 1-Database and Maintenance Services			
Proc Type: Central Master Agreement			

Date Issued	Solicitation Closes	Solicitation No	Version
2019-02-15	2019-02-26 13:30:00	CRFQ 0945 BOM1900000005	2

BID RECEIVING LOCATION

BID CLERK
DEPARTMENT OF ADMINISTRATION
PURCHASING DIVISION
2019 WASHINGTON ST E
CHARLESTON   WV   25305
US

VENDOR

Vendor Name, Address and Telephone Number:

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All offers subject to all terms and conditions contained in this solicitation

Page : 1   FORM ID : WV-PRC-CRFQ-001

Addendum Acknowledgements

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: _____

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

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

Addendum Numbers Received:
(Check the box next to each addendum received)

[X] Addendum No. 1   [   ] Addendum No. 6

[   ] Addendum No. 2   [   ] Addendum No. 7

[   ] Addendum No. 3   [   ] Addendum No. 8

[   ] Addendum No. 4   [   ] Addendum No. 9

[   ] Addendum No. 5   [   ] Addendum No. 10

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

Eduloka Ltd. (dba inLumon)
_____
Company

B. Kanche. Ley
_____
Authorized Signature

February 19, 2019
_____
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012

Contract Exceptions

inLumon does not take any exception(s)

Disclosure of Interested Parties to Contracts

Although contract value is well below the $1M threshold requiring this disclosure, inLumon is providing a completed copy of the form for reference:

West Virginia Ethics Commission
Disclosure of Interested Parties to Contracts
(Required by W. Va. Code § 6D-1-2)

Name of Contracting Business Entity: *Eduloka Ltd (dba) inLumon*   Address: *5375 Kietzke Lane Suite #150, Reno, NV 89511*

Name of Authorized Agent: *Karitharaj Basavaraj*   Address: *5375 Kietzke Lane Suite #150, Reno NV 89511*

Contract Number: _____   Contract Description: _____

Governmental agency awarding contract: _____

☐ **Check here if this is a Supplemental Disclosure**

List the Names of Interested Parties to the contract which are known or reasonably anticipated by the contracting business entity for each category below *(attach additional pages if necessary)*:

1. **Subcontractors or other entities performing work or service under the Contract**
   ☑ Check here if none, otherwise list entity/individual names below.

2. **Any person or entity who owns 25% or more of contracting entity (not applicable to publicly traded entities)**
   ☑ Check here if none, otherwise list entity/individual names below.

3. **Any person or entity that facilitated, or negotiated the terms of, the applicable contract (excluding legal services related to the negotiation or drafting of the applicable contract)**
   ☑ Check here if none, otherwise list entity/individual names below.

Signature: *B. Kulki. Raj*   Date Signed: *2/19/2019*

Notary Verification

State of *Nevada* , County of *Washoe* :

I, *p Karitharaj Basavaraj* , the authorized agent of the contracting business entity listed above, being duly sworn, acknowledge that the Disclosure herein is being made under oath and under the penalty of perjury.

Taken, sworn to and subscribed before me this *19th* day of *February* , *2019* .

_____ Notary Public's Signature

To be completed by State Agency:
Date Received by State Agency: _____
Date submitted to Ethics Commission: _____
Governmental agency submitting Disclosure: _____

[Notary Stamp: JONAH USH, Notary Public - State of Nevada, County of Washoe, APPT. NO. 18-3851-2, My App. Expires Sept. 19, 2022]

Revised June 8, 2016

Appendix 1 – Preliminary Project Plan

This is the preliminary (draft) Project Plan that we are including in our proposal to assist the State of West Virginia, Board of Medicine with this Database and Maintenance Services Implementation Project. We base our Project Plan on the combined experiences of our seasoned, PMI Certified Project Managers (PMPs) as well as our experience of implementing our COTS systems for a number of satisfied clients, including a number of Licensing Boards in many different states, including we anticipate West Virginia very soon.

This preliminary (draft) Project Plan includes all milestones and deliverables traditionally included in this type of Design, Development and Implementation (DD&I) project. Any client specific deliverables required for this project not included in this preliminary Project Plan can be discussed and scheduled during the contract negotiations phase of this project.

Database and Maintenance Services Project Plan

(Draft)

Prepared for

State of West Virginia
Board of Medicine

Prepared by

inLumon
Proven Results.

Version 0.1

Release Date February, 2019

Document Version Control

Version	Release Date	By	Description of Release
0.1	02-14-2019	Chris M.	Initial release (draft) to client as part of the proposal.

Table of Contents

1. Project Plan Overview

This plan is a high-level plan to support the implementation of a Database and Maintenance Services solution for the West Virginia Board of Medicine. For this specific engagement, this plan will:

- Outline the Implementation Approach
- Provide a Project Schedule
- Identify all Project Activities
- Identify all Project Milestones
- Identify all Project Deliverables
- State inLumon's Commitment to Project Success

2. Implementation Approach

inLumon's approach to implementation for this online licensing application system project is based on our combined industry experience. That is, both in terms of combined experience from our seasoned design, development, training and implementation team as well as our recent, relevant experience with assisting another State to successfully implement an online licensing application and enforcement system.

In short, the following steps are taken to implement a licensing system, which our included Project Schedule will reflect:

- Obtain a copy of WVBOM's Legacy Data and begin to analyze it for migration
- Migrate the Legacy Data into the inLumon licensing database
- Establish both a Development as well as a User Acceptance Test (UAT) & Training environments
- Build the base licensure system from the most current, relevant online licensing application and enforcement system
- Connect the base licensing system with the migrated data
- Provide WVBOM staff with access to the base system to verify data (GAP Analysis performed)
- Develop Renewal Applications and make available to WVBOM to verify (Gap Analysis performed)
- inLumon to modify data based on WVBOM Gap Analysis (WVBOM to review again)
- inLumon to modify Renewal Applications based on WVBOM Gap Analysis (NE to review again)
- inLumon to provide necessary training on licensure system including System Configuration
- Develop Licensee Registration and Dashboard for WVBOM to test (Gap Analysis performed)
- inLumon to modify data based on WVBOM final review
- inLumon to modify Renewal Applications based on WVBOM final review
- inLumon to modify Registration and Dashboard based on WVBOM review
- Develop License Verification as needed for WVBOM

- Schedule 'Soft Release' of Back Office, Licensee Renewal Applications

- Monitor and modify as needed in support of Soft Release

- Develop New Application and make available to WVBOM to verify (Gap Analysis performed)

- inLumon to develop all defined reports and make available to WVBOM for testing, as well as provide training on built-in Query Tool

- inLumon to modify New Applications based on WVBOM Gap Analysis (WVBOM to review again)

- inLumon to modify New Applications based on WVBOM final review

- Schedule 'Soft Release' of New Applications

- Monitor and modify as needed in support of Soft Release

- Schedule and Go Live on or before scheduled Go Live Date

inLumon anticipates that these project activities may change throughout the life of the project, both before and during project execution. Our plan is to therefore confer with the WVBOM Project Manager on a regular basis, to report to WVBOM Executives as needed and to maintain the project schedule during the engagement.

3. Project Schedule

The project schedule, in Microsoft Project format (mpp), will be provided to the WVBOM upon request.

In short, in the project scheduled, the start date is planned as Monday, March 18, 2019. The project end date is currently calculated to be Friday, September 27, 2019.

High-level Project Tasks	**Scheduled to begin...**	**Scheduled to end...**
• **Project 'Kick-Off'**	Monday, March 18, 2019	Monday, March 18, 2019
• **Data Migration to UAT**	Tuesday, March 19, 2019	Tuesday, April 16, 2019
• **Establish Base NV System in UAT**	Tuesday, March 19, 2019	Thursday, April 4, 2019
• **Perform Gap Analysis**	Wednesday, April 17, 2019	Tuesday, May 7, 2019
• **Perform Update and Test Renewals**	Wednesday, May 8, 2019	Monday, June 17, 2019
• **Perform Update and Test Back Office/Workflow**	Friday, June 14, 2019	Friday, August 30, 2019
• **Perform Update and Test New Applications, Online & Dashboards**	Tuesday, July 23, 2019	Friday, August 30, 2019
• **Perform Update and Test Reports & Misc.**	Wednesday, May 8, 2019	Monday, July 29, 2019
• **Soft Launch**	Monday, September 2, 2019	Friday, September 20, 2019
• **Go Live**	Monday, September 23, 2019	Friday, September 27, 2019

Please refer to Attachment A of this document that provides the Project Gantt Chart.

4. Project Activities

The project activities for this engagement are outlined on the next two pages. The details of these activities includes:

- WBS (Work Breakdown Structure) Number
- Task (Activity) Name
- Duration (in days)
- Start Date
- Finish Date

West Virginia Board of Medicine

Database and Maintenance Services Project

WBS	Task Name	Duration	Start	Finish
1	**WV Licensing Project**	**140 days**	**Mon 3/18/19**	**Fri 9/27/19**
1.1	Kick-Off	1 day	Mon 3/18/19	Mon 3/18/19
1.2	**WV Licensing System Project Plan**	**5 days**	**Tue 3/19/19**	**Mon 3/25/19**
1.2.1	Develop Project Plan	2 days	Tue 3/19/19	Wed 3/20/19
1.2.2	Deliver Project Plan	0 days	Wed 3/20/19	Wed 3/20/19
1.2.3	WV Client Reviews Project Plan	3 days	Thu 3/21/19	Mon 3/25/19
1.2.4	WV Approves Project Plan	0 days	Mon 3/25/19	Mon 3/25/19
1.3	**Data Migration to UAT**	**21 days**	**Tue 3/19/19**	**Tue 4/16/19**
1.3.1	Obtain Copy of Legacy Data	1 day	Tue 3/19/19	Tue 3/19/19
1.3.2	Review Legacy Data	7 days	Wed 3/20/19	Thu 3/28/19
1.3.3	Develop Database Map	7 days	Wed 3/20/19	Thu 3/28/19
1.3.4	Migrate Data into UAT	5 days	Fri 3/29/19	Thu 4/4/19
1.3.5	Data Available in UAT	1 day	Fri 4/5/19	Fri 4/5/19
1.3.6	WV Client Review Migrated Data #1	5 days	Fri 4/5/19	Thu 4/11/19
1.3.7	Modify Migrated WV Data	3 days	Fri 4/12/19	Tue 4/16/19
1.3.8	Data Migration to UAT Accepted by DE	0 days	Tue 4/16/19	Tue 4/16/19
1.4	**Establish Base WV System in UAT**	**13 days**	**Tue 3/19/19**	**Thu 4/4/19**
1.4.1	Copy LSBME Licensing System as base	10 days	Tue 3/19/19	Mon 4/1/19
1.4.2	Connect Base WV System w/Data	0 days	Thu 4/4/19	Thu 4/4/19
1.5	**Perform Gap Analysis**	**15 days**	**Wed 4/17/19**	**Tue 5/7/19**
1.5.1	Define differences (base and WV needs)	10 days	Wed 4/17/19	Tue 4/30/19
1.5.2	Develop Gap Analysis Deliverable	10 days	Wed 4/17/19	Tue 4/30/19
1.5.3	Submit Gap Analysis	0 days	Tue 4/30/19	Tue 4/30/19
1.5.4	WV Client Reviews Gap Analysis	5 days	Wed 5/1/19	Tue 5/7/19
1.5.5	WV Client accepts Gap Analysis	0 days	Tue 5/7/19	Tue 5/7/19
1.6	**Perform Update and Test Renewals**	**29 days**	**Wed 5/8/19**	**Mon 6/17/19**
1.6.1	Update the system based on Gap Analysis	10 days	Wed 5/8/19	Tue 5/21/19
1.6.2	WV Client begins testing in UAT	5 days	Wed 5/22/19	Tue 5/28/19
1.6.3	Changes Noted	5 days	Wed 5/22/19	Tue 5/28/19
1.6.4	Update System based on Noted Changes	5 days	Wed 5/29/19	Tue 6/4/19
1.6.5	WV Client tests Changes	5 days	Wed 6/5/19	Tue 6/11/19
1.6.6	Final Changes Noted	5 days	Wed 6/5/19	Tue 6/11/19
1.6.7	Update System based on Final Changes	2 days	Wed 6/12/19	Thu 6/13/19
1.6.8	WV Client tests Final Changes	2 days	Fri 6/14/19	Mon 6/17/19
1.6.9	WV Client approves Renewals	0 days	Mon 6/17/19	Mon 6/17/19
1.7	**Perform Update and Test Back Office/Workflow**	**56 days**	**Fri 6/14/19**	**Fri 8/30/19**
1.7.1	Update system based on Gap Analysis	10 days	Fri 6/14/19	Thu 6/27/19
1.7.2	WV Client begins testing in UAT	5 days	Fri 6/28/19	Thu 7/4/19
1.7.3	Changes Noted	5 days	Fri 6/28/19	Thu 7/4/19
1.7.4	Update System based on Noted Changes	5 days	Fri 7/5/19	Thu 7/11/19
1.7.5	WV Client tests Changes	5 days	Fri 7/12/19	Thu 7/18/19
1.7.6	Final Changes Noted	5 days	Fri 7/12/19	Thu 7/18/19
1.7.7	Update System based on Final Changes	2 days	Fri 7/19/19	Mon 7/22/19
1.7.8	WV Client tests Final Changes	2 days	Tue 7/23/19	Wed 7/24/19
1.7.9	WV Client approves Back Office/WWVkflow	0 days	Fri 8/30/19	Fri 8/30/19

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WBS	Task Name	Duration	Start	Finish
1.8	**Perform Update and Test New Applications, Online & Dashboards**	**29 days**	**Tue 7/23/19**	**Fri 8/30/19**
1.8.1	Update system based on Gap Analysis	10 days	Tue 7/23/19	Mon 8/5/19
1.8.2	WV Client begins testing in UAT	5 days	Tue 8/6/19	Mon 8/12/19
1.8.3	Changes Noted	5 days	Tue 8/6/19	Mon 8/12/19
1.8.4	Update System based on Noted Changes	5 days	Tue 8/13/19	Mon 8/19/19
1.8.5	WV Client tests Changes	5 days	Tue 8/20/19	Mon 8/26/19
1.8.6	Final Changes Noted	5 days	Tue 8/20/19	Mon 8/26/19
1.8.7	Update System based on Final Changes	2 days	Tue 8/27/19	Wed 8/28/19
1.8.8	WV Client tests Final Changes	2 days	Thu 8/29/19	Fri 8/30/19
1.8.9	WV Client approves New Applications, Online & Dashboards	0 days	Fri 8/30/19	Fri 8/30/19
1.9	**Perform Update and Test Reports & Misc.**	**59 days**	**Wed 5/8/19**	**Mon 7/29/19**
1.9.1	Identify all Needed Reports	10 days	Wed 5/8/19	Tue 5/21/19
1.9.2	Identify Needed Changes to Query Tool	5 days	Wed 5/22/19	Tue 5/28/19
1.9.3	Develop Reports	20 days	Wed 5/29/19	Tue 6/25/19
1.9.4	Modify Query Tool	10 days	Wed 6/26/19	Tue 7/9/19
1.9.5	WV Client Tests Reports	5 days	Wed 7/10/19	Tue 7/16/19
1.9.6	WV Client Approves Reports	0 days	Tue 7/16/19	Tue 7/16/19
1.9.7	Move Reports into Production	2 days	Wed 7/17/19	Thu 7/18/19
1.9.8	WV Client Tests Query Tool	5 days	Fri 7/19/19	Thu 7/25/19
1.9.9	WV Client Approves Query Tool	0 days	Thu 7/25/19	Thu 7/25/19
1.9.10	Move Query Tool into Production	2 days	Fri 7/26/19	Mon 7/29/19
1.10	**Soft Launch**	**15 days**	**Mon 9/2/19**	**Fri 9/20/19**
1.10.1	Renewals	5 days	Mon 9/2/19	Fri 9/6/19
1.10.2	Back Office/Workflow	5 days	Mon 9/2/19	Fri 9/6/19
1.10.3	New Applications, Online & Dashboards	5 days	Mon 9/2/19	Fri 9/6/19
1.10.4	Reports & Misc.	5 days	Mon 9/2/19	Fri 9/6/19
1.10.5	Full System Test during Soft Launch	10 days	Mon 9/9/19	Fri 9/20/19
1.11	**Go Live**	**5 days**	**Mon 9/23/19**	**Fri 9/27/19**
1.11.1	Renewals	5 days	Mon 9/23/19	Fri 9/27/19
1.11.2	Back Office/Workflow	5 days	Mon 9/23/19	Fri 9/27/19
1.11.3	New Applications, Online & Dashboards	5 days	Mon 9/23/19	Fri 9/27/19
1.11.4	Reports & Misc.	5 days	Mon 9/23/19	Fri 9/27/19

A brief description of each of these activities is outlined in the table beginning on the next page:

Table 1

WBS	Task (Activity) Name	Task (Activity) Brief Description
1	**WV Licensing Project**	Overall Name assigned to the project in Microsoft Project
1.1	Kick-Off	Initial meeting to formally start the project with WVBOM and inLumon
1.2	**WV Licensing System Project Plan**	Formal task to review and agree to the project plan/schedule
1.2.1	Develop Project Plan	Task to develop the project plan/schedule
1.2.2	Deliver Project Plan	Formal task to submit the project plan/schedule (deliverable)
1.2.3	WV Client Reviews Project Plan	Meeting to discuss and agree upon the project plan/schedule
1.2.4	WV Approves Project Plan	Formal task where WV accepts the project plan/schedule
1.3	**Data Migration to UAT**	Formal task to migrate data from legacy system into UAT
1.3.1	Obtain Copy of Legacy Data	A copy of the legacy system data is obtained for inLumon use
1.3.2	Review Legacy Data	Technical Team (inLumon) to review the Legacy Data in detail to understand the data being extracted
1.3.3	Develop Database Map	Technical Team (inLumon) creates a database map between legacy system data to new system database structure
1.3.4	Migrate Data into UAT	Technical Team (inLumon) to translate the legacy data provided, using the maps created, into inLumon's database
1.3.5	Data Available in UAT	Technical Team (inLumon) makes the migrated data available for User Acceptance Testing in the UAT environment (deliverable)
1.3.6	WV Client Review Migrated Data	The WV client will use the new inLumon system to review and document any missing data
1.3.7	Modify Migrated WV Data	Technical Team (inLumon) modifies the migrated data based on findings reported by the WV client
1.3.8	Data Migration to UAT Accepted by WV	Format task where WV accepts the migrated data
1.4	**Establish Base WV System in UAT**	Formal task to create a base system for WV in UAT
1.4.1	Copy LSBME Licensing System as base	Task to copy an existing system in production that closely relates to this new Board (client)
1.4.2	Connect Base WV System w/Data	Technical Team (inLumon) connects the migrated data to the system ready for WVBOM in UAT
1.5	**Perform Gap Analysis**	Formal task to review and document the differences between the base system and the defined requirements by the WVBOM

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WBS	Task (Activity) Name	Task (Activity) Brief Description
1.5.1	Define differences (base and WV needs)	Identify the differences between the base system and WVBOM's defined requirements
1.5.2	Develop Gap Analysis Deliverable	Prepare a deliverable that identifies the differences between the base system and WVBOM's defined requirements
1.5.3	Submit Gap Analysis	Submit the Gap Analysis document to WVBOM for review (deliverable)
1.5.4	WV Client Reviews Gap Analysis	WVBOM reviews the Gap Analysis and notes any required changes
1.5.5	WV Client accepts Gap Analysis	After the noted changes are made to the document, the document is formally accepted by the WVBOM
1.6	**Perform Update and Test Renewals**	Formal task to update the base system and WVBOM conducts UAT on renewal applications
1.6.1	Update the system based on Gap Analysis	Technical Team (inLumon) to update the base system based on Gap Analysis (report).
1.6.2	WV Client begins training/testing in UAT	The WVBOM client begins their training with inLumon as well as testing Individual Info and Renewal Applications in UAT
1.6.3	Needed Changes Noted	WVBOM documents what needs to be changed in the system related to Individual Info and Renewal Applications
1.6.4	Update system based on Needed Changes	Technical Team (inLumon) to update the base system based on identified needed changes
1.6.5	WV Client tests Needed Changes	The WVBOM client tests Individual Info and Renewal Applications again in UAT once inLumon has completed the changes
1.6.6	Final Changes Noted	WVBOM provide inLumon with documentation on what remains to be changed in the system related to Individual Info and Renewal Applications
1.6.7	Update System based on Final Changes	Technical Team (inLumon) to update the base system based on notice of final changes
1.6.8	WV Client tests Final Changes	The WVBOM client tests Individual Info and Renewal Applications for one final time in UAT
1.6.9	WV Client approves Renewals	WVBOM accepts Individual Info and Renewal Applications in UAT
1.7	**Perform Update and Test Back Office/Workflow**	Formal task to update the base system and WVBOM conducts UAT on the Back Office and Application Workflow
1.7.1	Update system based on Gap Analysis	Technical Team (inLumon) to update the base system based on Gap Analysis (report).
1.7.2	WV Client begins training/testing in UAT	The WVBOM client begins their training with inLumon as well as testing Back Office and Application Workflow in UAT
1.7.3	Needed Changes Noted	WVBOM documents what needs to be changed in the system related to Back Office and Application Workflow
1.7.4	Update system based on Needed Changes	Technical Team (inLumon) to update the base system based on identified needed changes

WBS	Task (Activity) Name	Task (Activity) Brief Description
1.7.5	WV Client tests Needed Changes	The WVBOM client tests Back Office and Application Workflow again in UAT once inLumon has completed the changes
1.7.6	Final Changes Noted	WVBOM provide inLumon with documentation on what remains to be changed in the system related to Back Office and Application Workflow
1.7.7	Update System based on Final Changes	Technical Team (inLumon) to update the base system based on notice of final changes
1.7.8	WV Client tests Final Changes	The WVBOM client tests Back Office and Application Workflow for one final time in UAT
1.7.9	WV Client approves Back Office/Workflow	WVBOM accepts Back Office and Application Workflow in UAT
1.8	**Perform Update and Test New Applications, Online & Dashboards**	Formal task to update the base system and WVBOM conducts UAT on New Applications in Back Office and Online and Licensee/Applicant Dashboards
1.8.1	Update system based on Gap Analysis	Technical Team (inLumon) to update the base system based on Gap Analysis (report).
1.8.2	WV Client begins training/testing in UAT	The WVBOM client begins their training with inLumon as well as testing New Applications and User Dashboards in UAT
1.8.3	Needed Changes Noted	WVBOM documents what needs to be changed in the system related to New Applications and User Dashboards
1.8.4	Update system based on Needed Changes	Technical Team (inLumon) to update the base system based on identified needed changes
1.8.5	WV Client tests Needed Changes	The WVBOM client tests New Applications and User Dashboards again in UAT once inLumon has completed the changes
1.8.6	Final Changes Noted	WVBOM provide inLumon with documentation on what remains to be changed in the system related to New Applications and User Dashboards
1.8.7	Update System based on Final Changes	Technical Team (inLumon) to update the base system based on notice of final changes
1.8.8	WV Client tests Final Changes	The WVBOM client tests New Applications and User Dashboards for one final time in UAT
1.8.9	WV Client approves New Applications, Online & Dashboards	WVBOM accepts New Applications and User Dashboards in UAT
1.9	**Perform Update and Test Reports & Misc.**	Formal task to update the system and develop all the test reports
1.9.1	Identify all Needed Reports	WVBOM defines all needed reports
1.9.2	Identify Needed Changes to Query Tool	WVBOM identifies any changes needed to the Query Tool after training received by inLumon on Query Tool
1.9.3	Develop Reports	Technical Team (inLumon) develops all defined reports
1.9.4	Modify Query Tool	Technical Team (inLumon) to modify Query Tool (if needed)

WBS	Task (Activity) Name	Task (Activity) Brief Description
1.9.5	WV Client Tests Reports	WVBOM tests developed reports in UAT and identifies all necessary changes
1.9.6	WV Client Approves Reports	After inLumon completes identified changes to reports this task represents where WVBOM would approve the reports.
1.9.7	Move Reports into Production	Technical Team (inLumon) moves the approved reports from the UAT into the Production environment
1.9.8	WV Client Tests Query Tool	The task where the WVBOM client begins training and testing on the Query Tool in UAT
1.9.9	WV Client Approves Query Tool	After inLumon completes identified changes to the Query Tool, WVBOM would approve the tool.
1.9.10	Move Query Tool into Production	Technical Team (inLumon) moves the approved Query Tool from the UAT into the Production environment
1.10	**Soft Launch**	Formal task to perform a limited release of system in production—this depends on the agreed upon phased-in implementation approach
1.10.1	Renewals	Renewal Applications are made available in Production
1.10.2	Back Office/Workflow	Back Office and Application Workflow are made available in Production
1.10.3	New Applications, Online & Dashboards	New Applications (both Back Office and Online) as well as User Portal Dashboards are made available in Production
1.10.4	Reports & Misc.	Reports, Query Tool and all other system items are made available in Production
1.10.5	Full System Test during Soft Launch	Here the full system is tested in Production, giving the WVBOM an opportunity to work out processes and to request any last minute changes to the system before Go Live is formally announced to the public
1.11	**Go Live**	Formal task to Go into Production with the system after announcing to the public
1.11.1	Renewals	Renewal Applications are being submitted into Production by Licensees via their dashboard
1.11.2	Back Office/Workflow	WVBOM staff is using the Back Office and processing Renewal Applications in Production
1.11.3	New Applications, Online & Dashboards	Both WVBOM staff as well as first time applicants are filling out and submitting NEW Applications into the Production environment
1.11.4	Reports & Misc.	The Query Tool, canned reports and other system functions are being executed in Production

inLumon looks forward to discussing these project activities with the WVBOM and adjusting the Activities and timelines based on WVBOM's specific requirements.

5. Project Milestones

Project Milestones that have been identified in this project plan include:

- Project Kick-Off
- Deliver Project Plan
- WVBOM Approves Project Plan
- Data Available in UAT
- Data Migration to UAT Accepted by WVBOM
- Connect Base WVBOM System w/Data
- Submit Gap Analysis
- WVBOM Client accepts Gap Analysis
- WVBOM Client approves Renewals
- WVBOM Client approves Back Office/Workflow
- WVBOM Client approves New Applications, Online & Dashboards
- WVBOM Client Approves Reports
- WVBOM Client Approves Query Tool
- Soft Launch: Renewals
- Soft Launch: Back Office/Workflow
- Soft Launch: New Applications, Online & Dashboards
- Soft Launch: Reports & Misc.
- Go Live: Renewals
- Go Live: Back Office/Workflow
- Go Live: New Applications, Online & Dashboards
- Go Live: Reports & Misc.

6. Project Deliverables

inLumon has accounted for and agrees to provide all Project Deliverables as identified in the Scope of Work for this engagement. In addition, because this is a Design, Development & Implementation (DD&I) project, inLumon considers ALL of the Project Milestones identified above as Project Deliverables.

7. inLumon's Commitment to Project Success

inLumon is incredibly committed to this project for the State of West Virginia as this is our 1st engagement in West Virginia and we recognize first impressions are critical. We want to be successful for both the West Virginia Board of Medicine as well as inLumon, as we recognize this can also lead to future engagements for inLumon, both within West Virginia as well as other States, in Board of Medicine agencies.

We also recognize that things happen during the lifecycle of a project, and sometimes these are outside the control of inLumon or our client. Experience has taught us that the best course of action is to partner for success with our client and do whatever is necessary to have a successful project. We make that same commitment here for this Database and Maintenance Services solution for the West Virginia Board of Medicine.

Attachment A

The project plan for the West Virginia Board of Medicine, Database and Maintenance Services solution project is displayed by pdf page on the following pages. The project activities and schedule is best viewed in Microsoft Project.

ID	WBS	Task Name	Duration	Start	Finish
1	1	**WV Licensing Project**	**140 days**	Mon 3/18/19	Fri 9/27/19
2	1.1	Kick-Off	1 day	Mon 3/18/19	Mon 3/18/19
3	1.2	**WV Licensing System Project Plan**	**5 days**	Tue 3/19/19	Mon 3/25/19
4	1.2.1	Develop Project Plan	2 days	Tue 3/19/19	Wed 3/20/19
5	1.2.2	Deliver Project Plan	0 days	Wed 3/20/19	Wed 3/20/19
6	1.2.3	WV Client Reviews Project Plan	3 days	Thu 3/21/19	Mon 3/25/19
7	1.2.4	WV Approves Project Plan	0 days	Mon 3/25/19	Mon 3/25/19
8	1.3	**Data Migration to UAT**	**21 days**	Tue 3/19/19	Tue 4/16/19
9	1.3.1	Obtain Copy of Legacy Data	1 day	Tue 3/19/19	Tue 3/19/19
10	1.3.2	Review Legacy Data	7 days	Wed 3/20/19	Thu 3/28/19
11	1.3.3	Develop Database Map	7 days	Wed 3/20/19	Thu 3/28/19
12	1.3.4	Migrate Data into UAT	5 days	Fri 3/29/19	Thu 4/4/19
13	1.3.5	Data Available in UAT	1 day	Fri 4/5/19	Fri 4/5/19
14	1.3.6	WV Client Review Migrated Data #1	5 days	Fri 4/5/19	Thu 4/11/19
15	1.3.7	Modify Migrated WV Data	3 days	Fri 4/12/19	Tue 4/16/19
16	1.3.8	Data Migration to UAT Accepted by DE	0 days	Tue 4/16/19	Tue 4/16/19
17	1.4	**Establish Base WV System in UAT**	**13 days**	Tue 3/19/19	Thu 4/4/19
18	1.4.1	Copy LSBME Licensing System as base	10 days	Tue 3/19/19	Mon 4/1/19
19	1.4.2	Connect Base WV System w/Data	0 days	Thu 4/4/19	Thu 4/4/19
20	1.5	**Perform Gap Analysis**	**15 days**	Wed 4/17/19	Tue 5/7/19
21	1.5.1	Define differences (base and WV needs)	10 days	Wed 4/17/19	Tue 4/30/19
22	1.5.2	Develop Gap Analysis Deliverable	10 days	Wed 4/17/19	Tue 4/30/19
23	1.5.3	Submit Gap Analysis	0 days	Tue 4/30/19	Tue 4/30/19
24	1.5.4	WV Client Reviews Gap Analysis	5 days	Wed 5/1/19	Tue 5/7/19
25	1.5.5	WV Client accepts Gap Analysis	0 days	Tue 5/7/19	Tue 5/7/19
26	1.6	**Perform Update and Test Renewals**	**29 days**	Wed 5/8/19	Mon 6/17/19

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ID	WBS	Task Name	Duration	Start	Finish
27	1.6.1	Update the system based on Gap Analysis	10 days	Wed 5/8/19	Tue 5/21/19
28	1.6.2	WV Client begins testing in UAT	5 days	Wed 5/22/19	Tue 5/28/19
29	1.6.3	Changes Noted	5 days	Wed 5/22/19	Tue 5/28/19
30	1.6.4	Update System based on Noted Changes	5 days	Wed 5/29/19	Tue 6/4/19
31	1.6.5	WV Client tests Changes	5 days	Wed 6/5/19	Tue 6/11/19
32	1.6.6	Final Changes Noted	5 days	Wed 6/5/19	Tue 6/11/19
33	1.6.7	Update System based on Final Changes	2 days	Wed 6/12/19	Thu 6/13/19
34	1.6.8	WV Client tests Final Changes	2 days	Fri 6/14/19	Mon 6/17/19
35	1.6.9	WV Client approves Renewals	0 days	Mon 6/17/19	Mon 6/17/19
36	1.7	**Perform Update and Test Back Office/Workflow**	**56 days**	**Fri 6/14/19**	**Fri 8/30/19**
37	1.7.1	Update system based on Gap Analysis	10 days	Fri 6/14/19	Thu 6/27/19
38	1.7.2	WV Client begins testing in UAT	5 days	Fri 6/28/19	Thu 7/4/19
39	1.7.3	Changes Noted	5 days	Fri 6/28/19	Thu 7/4/19
40	1.7.4	Update System based on Noted Changes	5 days	Fri 7/5/19	Thu 7/11/19
41	1.7.5	WV Client tests Changes	5 days	Fri 7/12/19	Thu 7/18/19
42	1.7.6	Final Changes Noted	5 days	Fri 7/12/19	Thu 7/18/19
43	1.7.7	Update System based on Final Changes	2 days	Fri 7/19/19	Mon 7/22/19
44	1.7.8	WV Client tests Final Changes	2 days	Tue 7/23/19	Wed 7/24/19
45	1.7.9	WV Client approves Back Office/WWVkflow	0 days	Fri 8/30/19	Fri 8/30/19
46	1.8	**Perform Update and Test New Applications, Online & Dashboards**	**29 days**	**Tue 7/23/19**	**Fri 8/30/19**
47	1.8.1	Update system based on Gap Analysis	10 days	Tue 7/23/19	Mon 8/5/19
48	1.8.2	WV Client begins testing in UAT	5 days	Tue 8/6/19	Mon 8/12/19
49	1.8.3	Changes Noted	5 days	Tue 8/6/19	Mon 8/12/19
50	1.8.4	Update System based on Noted Changes	5 days	Tue 8/13/19	Mon 8/19/19
51	1.8.5	WV Client tests Changes	5 days	Tue 8/20/19	Mon 8/26/19
52	1.8.6	Final Changes Noted	5 days	Tue 8/20/19	Mon 8/26/19

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ID	WBS	Task Name	Duration	Start	Finish
53	1.8.7	Update System based on Final Changes	2 days	Tue 8/27/19	Wed 8/28/19
54	1.8.8	WV Client tests Final Changes	2 days	Thu 8/29/19	Fri 8/30/19
55	1.8.9	WV Client approves New Applications, Online & Dashboards	0 days	Fri 8/30/19	Fri 8/30/19
56	1.9	**Perform Update and Test Reports & Misc.**	**59 days**	**Wed 5/8/19**	**Mon 7/29/19**
57	1.9.1	Identify all Needed Reports	10 days	Wed 5/8/19	Tue 5/21/19
58	1.9.2	Identify Needed Changes to Query Tool	5 days	Wed 5/22/19	Tue 5/28/19
59	1.9.3	Develop Reports	20 days	Wed 5/29/19	Tue 6/25/19
60	1.9.4	Modify Query Tool	10 days	Wed 6/26/19	Tue 7/9/19
61	1.9.5	WV Client Tests Reports	5 days	Wed 7/10/19	Tue 7/16/19
62	1.9.6	WV Client Approves Reports	0 days	Tue 7/16/19	Tue 7/16/19
63	1.9.7	Move Reports into Production	2 days	Wed 7/17/19	Thu 7/18/19
64	1.9.8	WV Client Tests Query Tool	5 days	Fri 7/19/19	Thu 7/25/19
65	1.9.9	WV Client Approves Query Tool	0 days	Thu 7/25/19	Thu 7/25/19
66	1.9.10	Move Query Tool into Production	2 days	Fri 7/26/19	Mon 7/29/19
67	1.10	**Soft Launch**	**15 days**	**Mon 9/2/19**	**Fri 9/20/19**
68	1.10.1	Renewals	5 days	Mon 9/2/19	Fri 9/6/19
69	1.10.2	Back Office/Workflow	5 days	Mon 9/2/19	Fri 9/6/19
70	1.10.3	New Applications, Online & Dashboards	5 days	Mon 9/2/19	Fri 9/6/19
71	1.10.4	Reports & Misc.	5 days	Mon 9/2/19	Fri 9/6/19
72	1.10.5	Full System Test during Soft Launch	10 days	Mon 9/9/19	Fri 9/20/19
73	1.11	**Go Live**	**5 days**	**Mon 9/23/19**	**Fri 9/27/19**
74	1.11.1	Renewals	5 days	Mon 9/23/19	Fri 9/27/19
75	1.11.2	Back Office/Workflow	5 days	Mon 9/23/19	Fri 9/27/19
76	1.11.3	New Applications, Online & Dashboards	5 days	Mon 9/23/19	Fri 9/27/19
77	1.11.4	Reports & Misc.	5 days	Mon 9/23/19	Fri 9/27/19

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Appendix 2 – inLumon's Hosting Services

inLumon is flexible based on WVBOM requirements but plan to use either AWS or Azure for application hosting. inLumon has experience hosting and managing environments on AWS (Amazon Web Services) and Azure.

inLumon's current hosting partner is HiVelocity (See: https://www.hivelocity.net) and has extensive experience hosting and managing our government regulatory clients' systems on servers within data centers owned and operated by HiVelocity across multiple data center locations. This is a full-service hosting provider with a Service Level Agreements (SLA) to meet or exceed those defined by the WVBOM. Below are some of the specifications of the current hosting site and services.

Infrastructure

- N+1 data center 20 miles inland, outside 500 year flood zone
- Concrete block and steel construction
- 22,000 square feet of raised floor data center space
- N+1 high efficiency UPS
- Diesel generator power redundancy
- 1000 gallons of diesel fuel allowing 7 days generator run time
- 120 tons of N+2 CRAC cooling (420 tons at full capacity)
- Dry pipe dual-interlock pre-action overhead fire suppression system
- Fire Pro-Inert 300 gas sub-floor fire suppression system
- Sub-floor leak detection system
- 24/7 Falcon monitoring of all critical infrastructure assets
- Routine preventive maintenance on all critical infrastructure assets
- Extensive lightning protection and grounding system
- 7" concrete perimeter walls
- Rear loading dock and ramp
- Dual entry diverse fiber

Security

- 24/7 on premise staff
- 24/7 monitoring of all facility entry points
- 20+ motion activated cameras throughout facility
- Dual-factor authentication for entry
- Man-trap entrance

Audits & Compliance

- HIPAA compliant
- PCI compliant
- SSAE-16 SOC 1 Type 1 certified
- SSAE-16 SOC 2 Type 1 certified
- ISAE-3402

The full service hosting includes the following services:

- Hosting the servers—Physical as well as Virtual Server configurations
- 24x7 system and network monitoring services—Call escalation including TXT or email alerts
- Network & Hardware SLAs
- Hardware Diagnostics & Replacement
- Network Intrusion Monitoring
- Support Remote & Manual Reboots
- Manual OS Reloads
- "Top of Queue" Support Ticket Escalation
- Proactive Bootless OS Security Updates and Patches
- Instant Reactive Remediation Efforts during Service or Hardware Failure
- Service Discovery Alerts
- Hardening of LAMP Stack and Ongoing Security Audits
- Initial WHM/cPanel Setup using customer provided information
- Firewall configuration setup and monitoring
- Proactive Malware Scanning
- RAID monitoring
- Recovery assistance if needed
- 2 hours per month of "anything but the code"
- Configuration changes (upon request)
- Virus and Spam Protection

Furthermore, inLumon commits to ensuring the various threats and vulnerabilities to which business today is exposed are addressed. These can include:

- Catastrophic events such as floods, earthquakes, or acts of terrorism
- Accidents or sabotage
- Outages due to an application error, hardware or network failure

Some of them come unwarned. Most of them never happen. The key is to be prepared and be able to respond to the event when it does happen, so that the organization survives; its losses are minimized; it remains viable and it can be "business as usual", even before the customers feel the effects of the downtime. The following figure illustrates recommended Disaster/Recovery:

SUGGESTED DR #1
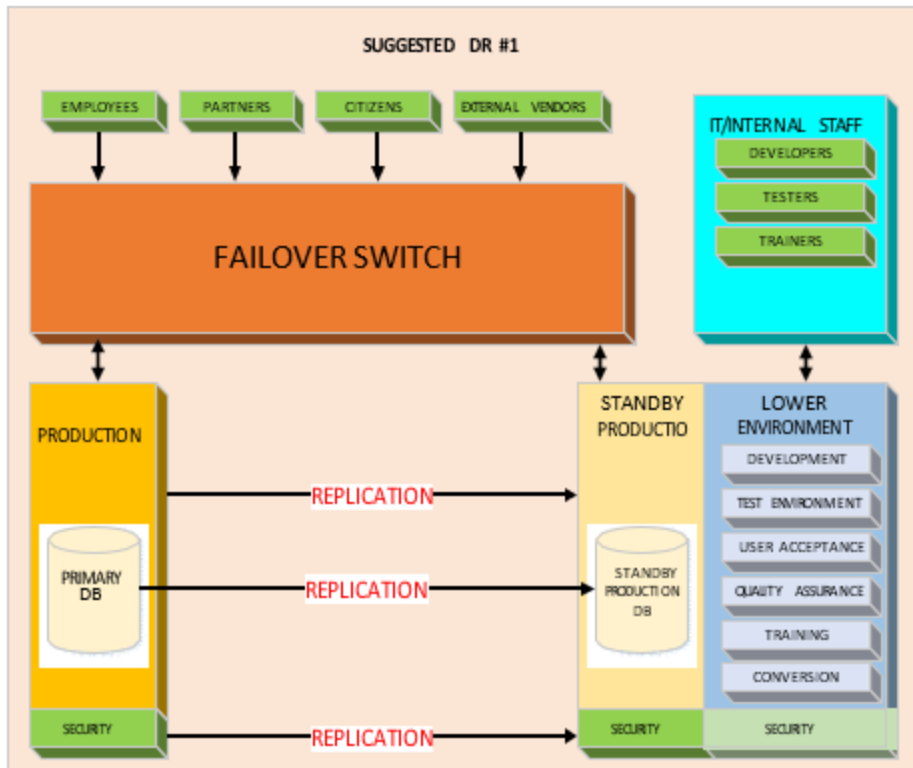
A solution for Business Continuity and Disaster Recovery should be designed to ensure minimal impact to the State business in the event of a disaster, where "disaster" is defined to be the "loss of a physical facility", "loss of technology", or "loss of staff". The Business continuity plan should ensure:

- Delivery of the critical services to customers within defined timelines
- Safety of human resources and other assets
- Adherence to applicable WVBOM Regulatory and contractual requirements
- Compliance to WVBOM process for risk management considering adequacy of existing controls and risk acceptance, as applicable
- Reduction in the period of disruption and resumption of normal working conditions at WVBOM
- Reduction of the WVBOM operational and financial impacts
- Continual review and improvement of the resilience of the infrastructure with WVBOM management
- Enhanced awareness amongst stakeholders of WVBOM and participation in activities
- Similar hardware for production landscape in WVBOM Primary and DR sites

inLumon will work with WVBOM and other stakeholders to ensure that necessary BC/DR plans are developed, deployed, tested and reviewed periodically for its effectiveness to handle disasters. Without adequate planning or regular testing, a DR plan is nothing more than theory. inLumon's approach to establishing a DR plan is structured and results-oriented and allows for check- pointing at every stage within each phase to ensure that the deliverables are produced on time and meet the project requirements. See figure below which illustrates inLumon's Disaster Recovery Approach.
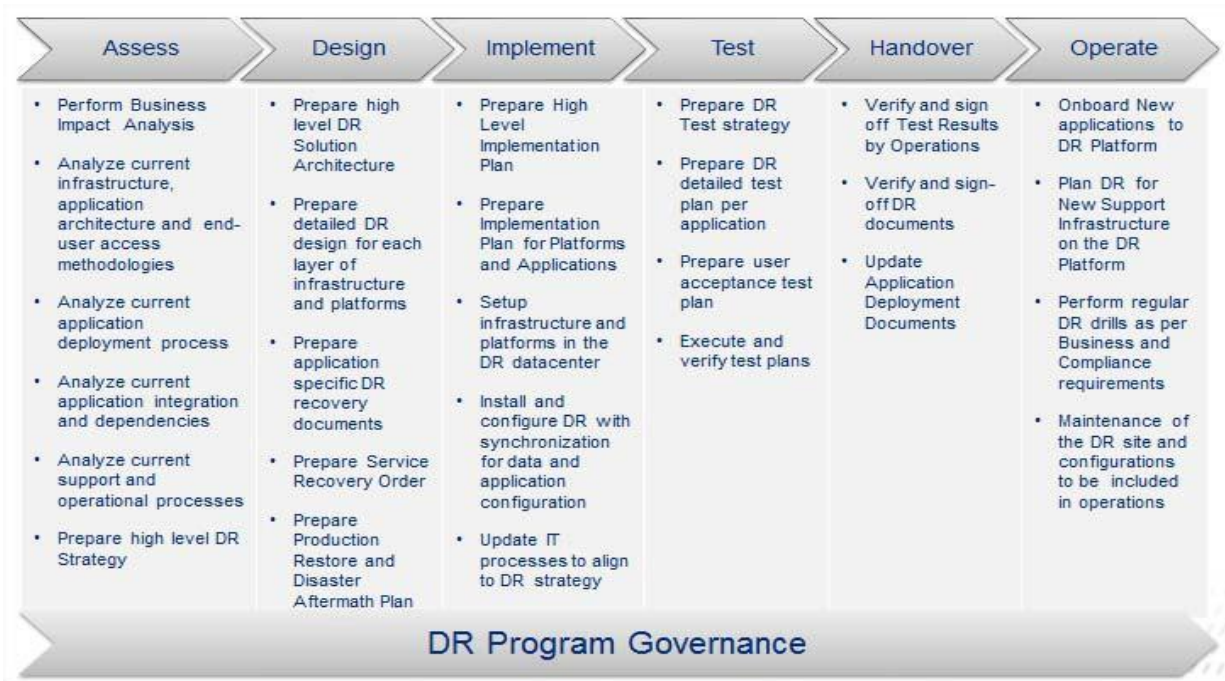
Risk Assessment

inLumon will work with the WVBOM to conduct a preliminary risk assessment to identify the different threats present in the environment. The team shall together assess the exposure of WVBOM to these threats by prioritizing threats based on the probability of their occurrence and their corresponding impact.

This section provides an illustrative overview of a threat landscape, the vulnerabilities to these threats and the steps that can be taken to mitigate the risks associated with these threats. The risk assessment sets priorities for the threats in the environment. For the purpose of the Risk Assessment, the threats listed below can be considered.

IT Threats	General Threats
Hardware Failure	Power Failure
Software Failure	Utilities Failure
Virus Attack	Earth Quake
Network Penetration	Snow and Ice Storms
Denial of Service	Sabotage, Vandalism and Terrorism
Vendor Support Failure	Hurricane and Wind Storms
Communications failure	Pandemic
	General strike/civil unrest

For each of the above threats, a rating will be made based on the following:

1. *Probability*: To find work out the probability of occurrence of any threat, the team shall evaluate the inherent vulnerabilities in the environment and the existing mitigation.
2. *Impact*: Indicating impact of the threat. This is a function of the technology enablers or facilities or resources that may be affected due to occurrence of the threat.

This Risk Assessment results in prioritization of the threats depending on the overall risk which will then be used as the basis for further planning i.e. threats with high probability and high impact need more emphasis compared to low probability and high impact. The Risk Assessment is qualitative in nature, the metrics used for rating probability and impacts are High, Medium and Low. In the absence of past site review documents, this assessment can be arrived at based on the following:

- Public Data and inputs from the WVBOM team
- inLumon experience with similar clients

An illustrative scatter plot of event impact vs. its probability is provided in the following figure.
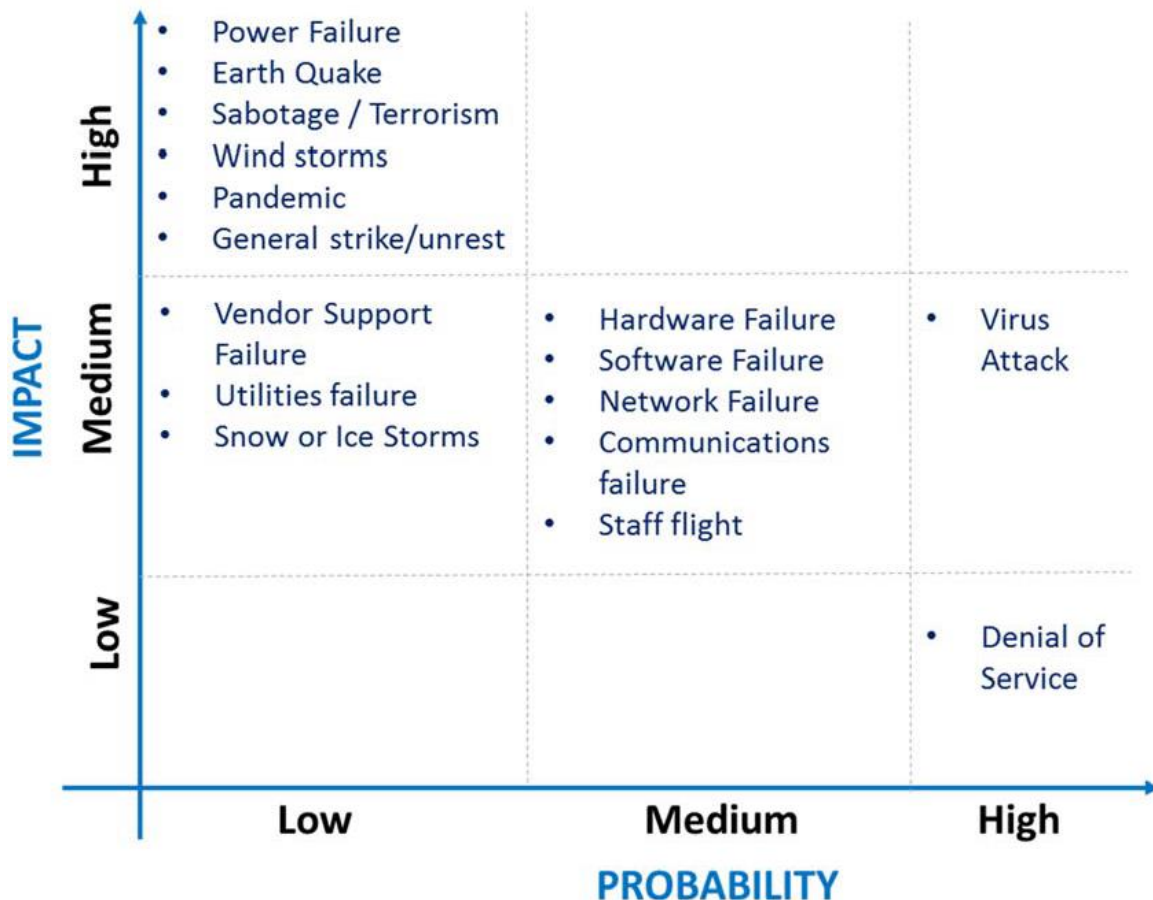
BC/DR plan

The BC/DR plan for the program will be based on the initial risk assessment conducted, as detailed above. It comprises of a BC/DR organization and governance track, identification of appropriate facility locations to comply with WVBOM requirements, DR architecture, backup and archival plan and staff retention plan to ensure minimal business, evaluation and continuous improvement plan and testing frequency. An illustrative high level plan for

BC/DR is summarized in figures following.

| Type of Disaster	Procedures	
	BCP	**DR**
Loss of facility due to natural disasters or infrastructure failure	▪ *Establishment of a backup center* ▪ *Infrastructure redundancy at the backup center* ▪ *Data redundancy* ▪ *Identification of critical processes and key personnel who have to restore operations*	▪ *Communication to all stakeholders* ▪ *Invoke the DR process Movement of key personnel to the backup location* ▪ *Communication of loss of service to all customers, partners and stakeholders* ▪ *Restoration of critical services from backup location* ▪ *Recovery of base location facility* ▪ *Re-establishment of services from base location* ▪ *Restoration of BAU through additional support personnel* ▪ *Communication of service restoration to customers, partners and stakeholders* ▪ *Documentation of lessons learned and incorporation into BCMS plan*

Type of Disaster	Procedures	
	BCP	**DR**
Loss of technology	▪ *Establishment of redundant infrastructure* ▪ *Backup and archival of business data* ▪ *Identification of critical processes and key personnel who have to restore operations*	▪ *Communication to all stakeholders* ▪ *Invoke the DR process* ▪ *Communication of loss of service to all customers, partners and stakeholders Restoration of critical services using redundant infrastructure* ▪ *Recovery of full technology infrastructure* ▪ *Re-establishment of services* ▪ *Restoration of BAU through additional support personnel, if required* ▪ *Communication of service restoration to customers, partners and stakeholders* ▪ *Documentation of lessons learned and incorporation into BCMS plan*
Loss of staff	▪ *Identification of critical processes and key personnel* ▪ *Identification of backup personnel* ▪ *Knowledge redundancy*	▪ *Communication to all stakeholders* ▪ *Invoke the DR process* ▪ *Communication of loss of service to all customers, partners and stakeholders* ▪ *Restoration of critical services using backup personnel at backup data center, if required* ▪ *Re-establishment of services* ▪ *Communication of service restoration to customers, partners and stakeholders* ▪ *Documentation of lessons learned and incorporation into BCMS plan*

The WVBOM applications are interconnected to a significant degree, and for this reason, separating out the individual function/activity/processes and delivering multiple RTOs is not practical.

Location of Facilities

inLumon will provide hosting services from multiple locations which will ensure that the loss of any single facility will not cause a violation of the business continuity. During normal operations, data from the primary facility can be

replicated to the DR facility.
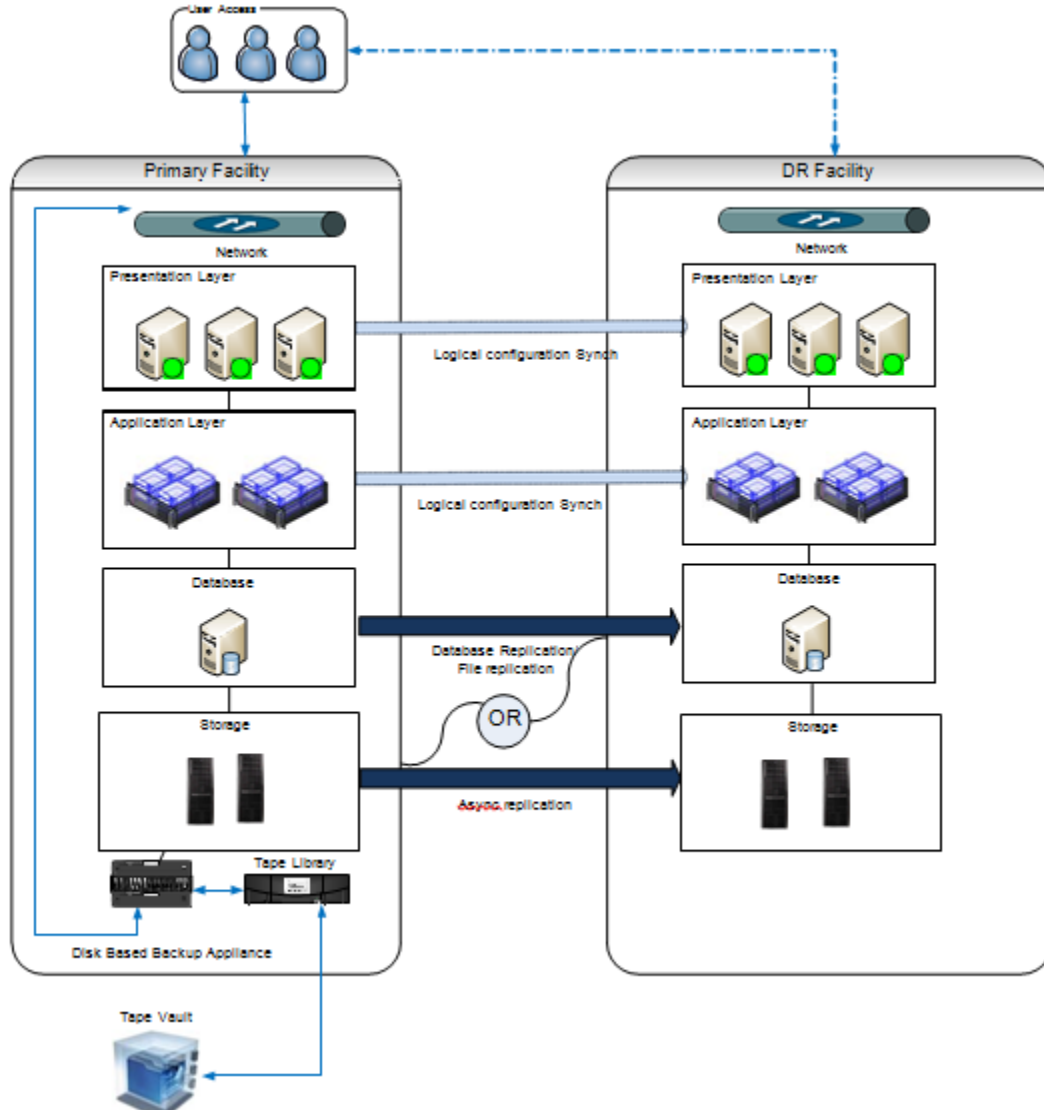
Backups and Archiving

Beyond replicating the data from the primary site to the DR, the solution should include backup and archiving. Backups should ideally be performed daily of all production data, which is stored on dedicated (i.e. physically distinct from all other) disk storage and retained for a month. Restores, when needed are therefore simple and fast.

Restore required from t time ago	Restore granularity
1 day < t ≤ 1 month	1 day
1 month < t ≤ 1 year	1 week
t > 1 year	1 month

Staff/knowledge retention

Loss of staff due to attrition is a standard risk for any IT/ITES organization; indeed, most organizations plan for such a risk by keeping a certain percentage of its workforce under- utilized, so that they could be quickly deployed in the event of a mass flight of talent. Fair and transparent HR policies with high performance work ethic, will also prevent

the risk to a certain extent – inLumon has such policies, established and refined over the last many years of our existence to ensure that workforce is retained as much as possible.

Knowledge retention and dissemination across the organization will be another key aspect to mitigate staff flight risk. WVBOM business and IT knowledge will be documented on an ongoing basis and disseminated across the workforce to reduce people dependency and facilitate replacement of staff within a short span. Audio/video recordings of systems and process information, CBT's, up to date process documentation, frequent knowledge sharing through sessions, seminars, cross training and rotation of staff across applications or processes, etc., will be some of the mechanisms for knowledge dissemination. These will be across business operations and IT.

inLumon has tied up with accredited, local staffing agencies to source resources at short notice. The recruitment and onboarding process will be optimized, without compromising on the quality of staff and services to WVBOM clients. Roles and responsibilities of the BC/DR team are detailed in the table below:

Roles and Responsibilities

Role	Responsibility	
	During regular operations	*During an event*
Program Manager	▪ **Ultimate responsibility for BCP/DR** ▪ **Review and approve BCMS plan** ▪ **Periodically review the plan and suggest improvements**	▪ **Authorize external communications**
Implementation Lead	▪ **Responsible for the DR plan creation and compliance** ▪ **Ensure dissemination of the plan across the program** ▪ **Conduct BCP/DR tests** ▪ **Ensure implementation of corrective and preventive actions from DR tests**	▪ **Declare a disaster and invoke the DR plan** ▪ **Guide the team in responding to the disaster and monitor progress** ▪ **Update management on DR progress** ▪ **Ensure that all response and recovery actions are documented** ▪ **Ensures that all production services have been restored** ▪ **Conduct post-disaster assessment and establish corrective and preventive controls as necessary**
Technical team member	▪ **Representative for respective function or technology within the program** ▪ **Ensure implementation of corrective/preventive measures**	▪ **Handle responsibilities as per the plan** ▪ **Document response and recovery actions** ▪ **Participate in post-disaster assessment**
Security and infrastructure lead	▪ **Help the Implementation lead with the establishment of the plan** ▪ **Identify continuous improvement opportunities in terms of response and recovery planning based on best practices**	▪ **Ensure that the security-related controls are not compromised**
Project Manager	▪ **Help the Implementation lead with the establishment of the plan** ▪ **Identify continuous improvement opportunities in terms of response and recovery planning based on best practices**	▪ **Ensure that all actors operate as a unified team**

Performance evaluation and continuous improvement

The BC/DR plan will be reviewed for its effectiveness every six months using the following methods:

- Evaluation of the business continuity procedures at regular intervals through tests and mock drills
- Internal audits – compliance audits conducted by the audit team
- Review with the management committee

Continuous improvement in the form of preventive and corrective actions will be introduced based on information from multiple sources.

- Audit non-conformance
- Results monitored after mock drills and tests
- Results monitored after event occurrence and response
- Issues identified during events
- Issues detected during day-to-day operations
- Newly identified and emergent risks

These recommendations will form part of the pre-emptive measures, which will aid in lowering risk of a threat causing a disaster or aid in a quicker response should a disaster event occur. These recommendations will then be incorporated in the final Disaster Recovery Plan document as pre-event steps.

Proposed data centers are tier 3 facilities that are geographically separated to mitigate any physical /natural disaster event.

DR Testing Frequency

inLumon and the WVBOM should perform full disaster recovery testing by switching over to the DR data center once every six months, and between switchovers, conduct mock DR drills. The team should publish the results of the test with remediation plans to correct all failures – if any.

Appendix 3 - PR & Case Studies

The following press release and case studies are examples of how inLumon's Licensing Framework has been successfully implemented to positively impacted other agencies, their staff, constituents and the public.

The Nevada Department of Education published this press release after deployment of our system providing online applications, automated notifications and other functionalities enhancing their ability to process application and increase efficiencies:

PRESS RELEASE

For Immediate Release
Wednesday, April 4, 2018

NEVADA DEPARTMENT OF EDUCATION DEBUTS ONLINE PROCESSING OF APPLICATIONS FOR LICENSURE (OPAL) TODAY

CARSON CITY, Nev. – Beginning today, Educators in Nevada can initiate the licensure process online.

The new system named OPAL – Online Processing for Application for Licensure – can be accessed through http://www.doe.nv.gov/Educator_Licensure/. In addition to being able to conduct licensure transactions online, applicants will know where they are in the process through text and email messaging, as well as status notifications in their personal applicant portal, throughout the process.

"Once educators establish an account, they can apply, update their name, renew, remove provisions and add endorsements all online," said Jason Dietrich, the Nevada Department of Education's (NDE) Director of Educator Licensure. "You will no longer need to do a paper application through our offices in Las Vegas and Carson City. The majority of licensure related business can now be done from anywhere, at any time."

Initial licensure and renewal fees have increased by $19 in order to run and maintain OPAL. However, fees for additional endorsements to an existing license will not increase. Active duty, Veterans and retired military personnel, as well as their spouses will receive a $50 reduction in the application and renewal fees.

NDE received approval from the 2017 Legislature to begin developing an online licensure system using $650,000 of licensure fees. No general fund tax dollars have been allocated in creating the new system through Nevada-based vendor InLumon.

"Creating an educator licensure system that works for our educators ultimately benefits our students," State Senator Joyce Woodhouse said. "I'm thrilled that this new system will be faster, streamline the licensure process and make everything more transparent. This new system will not only save a lot of time for new educators and those getting or renewing licenses, but I also believe it will help us recruit the very best educators from out of state. The bottom line is this will help get more qualified educators into our classrooms working with students."

Dietrich added that the Office of Educator Licensure is pleased to be able to offer this technology to the educational community, streamlining and modernizing all licensing processes and decreasing barriers from the previous paper-based application system.

Licensing Solution

Case Study

Nevada Transportation Authority

Updated, Streamlined, and Confident.

The Nevada Transportation Authority was buried under a new state driver permitting program mandate. They needed a way to streamline, organize the application process, record background check and payment for Nevada taxicab drivers and issue permits. They also needed a way to print permits.

The Board had to get all the functionality working in a very short period of time and also be able to meet the deadline for issuing permits. As the existing system used by the Board did not had the capability to issue permits, the Board was worried about meeting their deadlines.

The customized software program developed by inLumon was creat- ed working with the Nevada Transportation Authority users. The Nevada Transportation Authority was able to create a solution for driver permitting exactly to their requirement. All with ability to issue driver permits including printing of the permits and permit search using a user friendly interfaces.

"In a 45 minute meeting, we were able to effectively communicate with the inLumon team exactly what the board needed. I could not believe how intuitive the inLumon team was in creating a custom program just for the Transportation Authority."

Marilyn Skibinski, Deputy Commissioner, Nevada Transportation Authority

Who is inLumon?

inLumon is an innovative technology provider based in Reno, NV. We are a team of software developers and business leaders with deep industry knowledge and business process experience.

Complex business challenges require customizable solutions. inLumon provides certainty and reliability as a technology partner for businesses.

We believe in nurturing relationships that reflect our culture of unwavering ethics and mutual respect. It will come as no surprise, then, that significant part of our revenues comes from existing clients.

9645 Gateway Dr, Suite A, Reno, NV 89521, 800-246-0541   www.inlumon.com

Licensing Solution

Case Study

Nevada State Board of Professional Engineers & Land Surveyors

No more paper traffic jams, no more missed deadlines.

With renewal every six months, several application deadlines, and exam administration for their approximately 24,000 members, the BOE needed a smooth software integration that would not interrupt their work flow.

"Working with inLumon was easy from the beginning; the software has made an improvement in our day to day work flow. The licensees really like the ease of applying and paying online." **Noni Johnson, Executive Director, NV Board of Professional Engineers & Land Surveyors**

The Board was looking for an efficient way to streamline the application process, store forms, manage documents and data, as well as communicate effectively with licensees.

"We are way ahead this year compared to the piles of paper I was sorting last year at this time." **Nancy Gonzales, NV Board of Professional Engineers & Land Surveyors**

inLumon developed a customized, automated system to capture and process licensee and firm information. The system also allows licensee to renew and pay online.

"We have experienced up to 75% in work flow reduction... maybe more."

Noni Johnson, Executive Director, NV Board of Engineers

Who is inLumon?

inLumon is an innovative technology provider based in Reno, NV. We are a team of software developers and business leaders with deep industry knowledge and business process experience.

"I work with the licensing software every day, since inLumon is a local company;I have had immediate response from developers for any questions or problems"
Lynell Higashi, Exam Administrator

Complex business challenges require customizable solutions. inLumon provides certainty and reliability as a technology partner for businesses.

inLumon 9645 Gateway Dr, Suite A, Reno, NV 89521, 800-246-0541 www.inlumon.com

Appendix 4 – inLumon Subscription Agreement

Should the West Virginia Board of Medicine opt to engage inLumon's implementation and support services via a Monthly Subscription ("SaaS") model, inLumon is providing our standard agreement for the Board's review, reference and execution.

This Agreement ("Agreement") is made and entered into on this date _____, 20___ by and between **Eduloka Limited d/b/a inLumon** ("inLumon" or "Vendor") a Nevada company, with its principal place of business at 5375 Kietzke Lane, Suite 150, Reno, Nevada 89511 and **West Virginia Board of Medicine** ("Customer" or "Client" or "Subscriber"), with its principal place of business at **101 Dee Drive, Suite 103, Charleston, WV 25311** The Parties hereto agree as follows:

1. Contract Period

This Agreement is effective when signed by Customer and Vendor representatives ("Effective Date") Initial term of this Agreement is 5 Years starting from the Effective Date. This Agreement shall automatically renew for additional terms of one (1) year each unless either Party shall give notice of cancellation at least thirty (30) days prior to the expiration of the original term or any renewal thereof.

2. Billing and Payment

A Payment in the amount of $3,750 is due monthly at month end. Payment is required within 30 days from date of receipt of invoice; late invoices will be charged 1.00% interest per month.

3. Representations and Warranties

General. Each Party represents and warrants that it has the right and authority to enter into this Agreement, and that by entering into this Agreement, it will not violate, conflict with or cause a material default under any other contract, agreement, indenture, decree, judgment, undertaking, conveyance, lien or encumbrance to which it is a party or by which it or any of its property is or may become subject or bound.

Compliance with the Laws. Each Party represents and warrants that no consent, approval or authorization of or designation, declaration or filing with any governmental authority is required in connection with the valid execution, delivery, and performance of this Agreement. Each Party shall, at its own expense, comply with all laws, regulations and other legal requirements that apply to it and this Agreement, including copyright, privacy and communications decency laws.

Acceptable Use. Customer is solely responsible for the content of any postings, data, or transmissions using the Services, or any other use of the Services by Customer or by any person or entity Customer permits to access the Services. Customer represents and warrants that it will: (a) not use the Services in a manner that: (i) is prohibited by any law or regulation, or to facilitate the violation of any law or regulation; or (ii) will disrupt a third parties' similar use or Licensed Materials; (b) not violate or tamper with the security of any inLumon computer equipment or program. If inLumon has reasonable grounds to believe that Customer is utilizing the Services for any such illegal or disruptive purpose inLumon may suspend the Services immediately with or without notice to Customer. inLumon may terminate the Agreement as contemplated in Section 9 if Customer in fact fails to adhere to the foregoing acceptable use standards.

4. Notice

All communications, including notices, required or permitted to be given under this Contract shall be in writing and directed to the parties at the addresses stated above. Notices may be given: (i) by delivery in person; (ii) by a nationally recognized next day courier service, return receipt requested; or (iii) by certified mail, return receipt requested. If

specifically requested by the party to be notified, valid notice may be given by facsimile transmission or electronic mail to the address(es) such party has specified in writing.

5. Limitation of Liability

Excluding the liability under the section entitled "NO INFRINGEMENT" below, In no event shall inLumon officers, directors, employees or agents be liable for any indirect, punitive, special, incidental or consequential damage (including but not limited to loss of business, revenue, profits, use, data or other economic advantage), however it arises, whether in an action of contract, or other tortious action, or arising out of or in connection with the services provided by inLumon. inLumon liability to customer will not exceed the amount paid to inLumon by customer during the previous three months. Vendor's obligation to indemnify the Customer shall apply in all cases except for claims arising solely from the Customer's own negligence or willful misconduct. Vendor waives any rights of subrogation against the Customer.

NO INFRINGEMENT: inLumon warrants the Licensed Material will not infringe any patent, trademarks, copyright or any proprietary rights of a third party or constitute a misuse or misappropriation of a trade secret. Customer shall notify inLumon promptly in writing of any known action brought against Customer based on an allegation that Customer's use of any materials infringes any patent, trademark, copyright, or infringes any right of a third party, or constitutes misuse or misappropriation of a trade secret ("Infringement"). inLumon will defend, indemnify and hold Customer harmless from any such action at inLumon's sole expense, provided that inLumon shall have the sole control of the defense of any such action, all negotiations and/or its settlement, and Customer reasonably cooperates with inLumon in such defense.

6. Confidential Information

Definition. For purposes of this Agreement "Confidential Information" shall mean information including, without limitation, all Customer data, computer programs, code, algorithms, names and expertise of employees and consultants, know-how, formulas, processes, ideas, inventions (whether patentable or not), schematics and other technical, business, financial and product development plans, forecasts, strategies and information marked "Confidential", or if disclosed verbally, is identified as confidential at the time of disclosure. In addition to the foregoing, Confidential Information shall include third party software, if any, that may be provided to Customer under this Agreement, including any related source or object codes, technical data, data output of such software, documentation, or correspondence owned by the applicable licensor. Confidential Information excludes information that: (i) was or becomes publicly known through no fault of the receiving Party; (ii) was rightfully known or becomes rightfully known to the receiving Party without confidential or proprietary restriction from a source other than the disclosing Party; (iii) is independently developed by the receiving Party without the participation of individuals who have had access to the Confidential Information; (iv) is approved by the disclosing Party for disclosure without restriction in a written document which is signed by a duly authorized officer of such disclosing Party; and (v) the receiving Party is legally compelled to disclose; provided, however, that prior to any such compelled disclosure, the receiving Party will (a) assert the privileged and confidential nature of the Confidential Information against the third party seeking disclosure and (b) cooperate fully with the disclosing Party in protecting against any such disclosure and/or obtaining a protective order narrowing the scope of such disclosure and/or use of the Confidential Information. In the event that such protection against disclosure is not obtained, the receiving Party will be entitled to disclose the Confidential Information, but only as, and to the extent, necessary to legally comply with such compelled disclosure.

Nondisclosure. During this the term of this Agreement and for a period of 1 years thereafter, each Party agrees to maintain all Confidential Information in confidence to the same extent that it protects its own similar Confidential Information, but in no event using less than reasonable care, and to use such Confidential Information only as permitted under this Agreement; Each Party agrees to only disclose the other Party's Confidential Information to its employees: (a) with a need to know to further permitted uses of such information; and (b) who are informed of the nondisclosure/ non-use obligations. Both parties shall take steps each determines appropriate to implement and enforce such non-disclosure/non-use obligations.

Terms of Agreement Confidential. Each of the Parties agrees not to disclose to any third party the terms of this Agreement, including pricing, without the prior written consent of the other Party hereto, except to advisors, investors and others on a need-to-know basis under circumstances that reasonably ensure the confidentiality thereof, or to the extent required by law.

7. Customer Responsibility

Customer is solely responsible for the content of communications transmitted by Customer using the Services, and shall defend, indemnify and hold harmless inLumon from and against all liabilities and costs (including reasonable attorneys' fees) arising from any and all third-party claims by any person based upon the content of any such communications.

Customer is not permitted to resell the Services.

Customer shall use the Services only for lawful purposes. To the extent deemed necessary by Customer, Customer shall implement security procedures necessary to limit access to the Services to Customer's authorized users and shall maintain a procedure external to the Services for reconstruction of lost or altered files, data or programs.

8. Licenses

inLumon hereby grants to customer a nonexclusive, nontransferable license during the term of this Agreement to use, in object code form, all software and related documentation provided by inLumon ("Licensed Material"), which may be furnished to Customer under this Agreement. Customer agrees to use commercially reasonable efforts to ensure that its employees and users of all Licensed Material hereunder comply with the terms and conditions set out in this Agreement. Customer also agrees to refrain from taking any steps, such as reverse assembly or reverse compilation, to derive a source code equivalent to the Licensed Material. All Licensed Material furnished to Customer under this Agreement shall be used by Customer only for Customer's internal business purposes, shall not be reproduced or copied in whole or in part.

9. Customer Data

All data is owned by Customer and is to be strictly held as confidential. inLumon will delete and destroy all copies of data once the Agreement is terminated with or without default. Customer has the option to receive a backup of data prior to deletion. InLumon will deliver a full backup of customer Data in in a USB drive by US priority mail

All right, title and interest in and to the Licensed Material, and all copyrights, patents, trademarks, service marks or other intellectual property or proprietary rights relating thereto, belong exclusively to inLumon. Any modification to the Software performed by Customer directly or indirectly extending the current capabilities shall be the property of inLumon and all copyrights and other rights are hereby assigned to inLumon.

10. Termination

If a Party fails to perform or observe any material term or condition of this Agreement and the failure continues unresolved for fifteen (15) days after receipt of written notice, (1) the other Party may terminate this agreement, or (2) where the failure is a nonpayment by Client of any charge when due, inLumon, may, at its option, terminate or suspend Services with or without any notice.

If a Party fails to perform or observe any material term or condition of this Agreement and the failure is not resolved for thirty (30) days after receipt of written notice, the other Party may terminate this agreement; provided, however, that where the breach is the failure of payment by Customer of any charge when due, inLumon, may, at its option, terminate or suspend Services if Customer does not cure said breach within fifteen (15) days following notice to Customer of the delinquency.

This Agreement may be terminated immediately upon written notice by either Party if the other Party becomes insolvent or involved in a liquidation or termination of business, files a bankruptcy petition, has an involuntary

bankruptcy petition filed against it (if not dismissed within thirty days of filing), becomes adjudicated bankrupt, or becomes involved in an assignment for the benefit of its creditors.

Customer shall be responsible for payment of all charges under a terminated Agreement incurred as of the effective date of termination.

11. Insurance Schedule

Unless expressly waived in writing by the Customer, Contractor must carry policies of insurance and pay all taxes and fees incident hereunto. Policies shall meet the terms and conditions as specified within this agreement.

(Please include the insurance requirements here)

12. General Provisions & Force Majeure

(a) This Agreement, including any amendments and attachments hereto that are incorporated herein, constitute the entire agreement between the parties and shall be binding on the parties when accepted by Customer. No modification, termination or waiver of any provisions of this Agreement shall be binding upon a Party unless in writing signed by an authorized officer of the relevant parties. No provision of any purchase order or other document issued by Customer, which purports to alter, vary, modify or add to the provisions of this Agreement, shall be binding upon inLumon or effective for any purpose, unless accepted by inLumon in writing

•

(b) It is further expressly understood and agreed that, there being no expectations to the contrary between the parties, no usage of trade or other regular practice or method of dealing either within the computer software industry, inLumon's industry or between the parties shall be used to modify, interpret, supplement, or alter in any manner the express terms of this Agreement or any part thereof.

•

(c) Vendor represents that it is an independent contractor, warrants that it will perform all work under this contract as an independent contractor, and warrants that the Customer will not incur any employment liability by reason of this Contract or the work to be performed under this Contract. Nothing contained in this Agreement shall be construed as creating a joint venture, partnership, or employment relationship between the parties, nor shall either Party have the right, power, or authority to create any obligation or duty, express or implied, on behalf of the other.

(d) This Agreement may not be assigned, sublicensed or transferred, in whole or in part, by Customer without the prior written consent of inLumon. Any attempted assignment, subletting or transfer shall be void.

(e) If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

(f) In the event that either Party is unable to perform any of its obligations under this Agreement or to enjoy any of its benefits because of natural disaster, terrorism, fire, explosion, power blackout, earthquake, flood, the elements, strike, embargo, labor disputes, acts of civil or military authority, war, acts of god, acts or omissions of carriers or suppliers, acts of regulatory or governmental agencies, actions or decrees of governmental bodies or communication line failure not the fault of the affected Party or other causes beyond such Party's reasonable control (a "Force Majeure Event") the Party who has been so affected shall immediately give notice to the other Party and shall do everything possible to resume performance. Upon receipt of such notice, all obligations under this Agreement shall be immediately suspended. If the period of nonperformance exceeds fifteen (15) days from the receipt of notice of the Force Majeure Event, the Party whose ability to perform has not been so affected may by giving written notice immediately terminate this Agreement as provided in Section 9.

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(g) Vendor warrants that all services, deliverables, and/or work products under this Contract shall be completed in

a workmanlike manner consistent with standards in the trade, profession, or industry; shall conform to or exceed the specifications set forth in the incorporated attachments; and shall be fit for ordinary use, of good quality, with no material defects.

-

(h) Vendor shall procure and maintain for the duration of this Contract any state, county, city or federal license, authorization, waiver, permit qualification or certification required by statute, ordinance, law, or regulation to be held by Vendor to provide the goods or services required by this Contract. Vendor shall provide proof of its compliance upon request of the Contracting Agency. Vendor will be responsible to pay all taxes, assessments, fees, premiums, permits, and licenses required by law.

-

(i) Except as otherwise provided for by law or this Contract, the rights and remedies of the parties shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, actual damages, and to a prevailing party reasonable attorneys' fees and costs. For purposes of an award of attorneys' fees to either party, the parties stipulate and agree that a reasonable hourly rate of attorneys' fees shall be two hundred dollars ($200.00) per hour.

(j) This Agreement may be executed in two or more counterparts, each of which shall be deemed to be an original, and each of which together shall constitute a single instrument.

(k) This Contract and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Nevada, without giving effect to any principle of conflict-of-law that would require the application of the law of any other jurisdiction.

Signature below by your authorized representative is your consent to the terms and conditions of this agreement

---

Customer:
West Virginia Board of Medicine

Vendor:
Eduloka Limited d/b/a inLumon

Signature: _____

Signature: _____

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Pricing

inLumon acknowledges that the West Virginia Board of Medicine (WVBOM) is on the threshold of a major modernization effort and that having partner with deep knowledge of regulatory processes, technology and project management that provides cost-effective solutions and services will be a tremendous benefit. As such, inLumon is providing pricing per RFQ requirements using our monthly subscription model as a basis for the costs reflected within Pricing Page – Exhibit A for the Board of Medicine Database Project. Appendix 4 – inLumon Subscription Agreement is available for review and utilization should the Board opt to utilize that offering.

Please note: inLumon does not charge license fees on a per staff user basis. Licensing of software for WVBOM use per scope of RFQ is included with installation (Spec 6.2.2) and yearly Maintenance and Support (Specs 6.2.3-7) costs. Furthermore, inLumon includes New Customization Professional Services (Spec 6.2.9) in our technical support model.

inLumon's Monthly Subscription ("SaaS") pricing model includes:

- ✓ Implementation and Installation to Acceptance per RFQ requirements within 180 days.
- ✓ Maintenance and technical support including *future enhancements, upgrades and modifications!*
- ✓ System Email, Address Verification, and Text (SMS) Messaging Services
- ✓ Hosting of Application and Data in highly secure, interconnected data centers (See Appendix 2 for hosting information)
- ✓ For work performed onsite at WVBOM office(s), project travel and expenses for inLumon staff

Provided Products and Services	Monthly Cost
• **Implementation, Development and Configuration of inLumon's Licensing Framework application** • **Design, Customization and integration of functionalities supporting regulatory processes** • **Configure Security Services, User Roles and Workflow Management** • **Self Service browser-based portal for applicants and online users (licensees) to apply & renew license(s), make payments, change address, upload documents electronically and other features identified during the requirements phase** • **Integration of PCI Compliant Payment Gateway processing** • **Online browser-based portal for real-time, public verifications** • **Data Conversion: Convert existing data to the new environment provided data is available in MS Excel or database format like MS Access, MySQL, SQL Server** • **System Testing, Staff Training (both business user and system administration) and Relevant Documentation prior to Go-Live** • **Annual maintenance, hosting, ongoing dedicated support after Go-Live** *including future enhancements and modifications!*	**$3,295 / month**

Pricing and services are subject to the inLumon Support and Service Level Agreement, Terms and Conditions (Provided as requested within the RFQ Specifications section of this response), which detail the parameters of the support plans inLumon offers and what the Board should expect in terms of product and support services.

Pricing Page - Exhibit A

Item	Spec	Description	Vendor Description	Unit of Measure	Unit Price	Quantity	Extended Cost
1	6.2.1	Concurrent User License(s) for 16 Board of Medicine staff users of Licensure/Records Product with Content Management Database System (including web site, administrative interface and cloud based-program) for up to 35,000 Members	inLumon does not charge license fees on a per staff user basis. Licensing of software for West Virginia Board of Medicine for use per scopr of RFQ is included with installation and yearly support costs.	Lump sum	0.00	1	0.00
2	6.2.2	Implementation and Installation to Acceptance	(180 days = 6 months @ $3,295 / month)	Lump sum	19770.00	1	19770.00
3	6.2.3	Year 1 Maintenance and Support/Warranty/Hosting	(12 months @ $3,295 / month)	Year	39540.00	1	39540.00
4	6.2.4	Year 2 Maintenance and Support/Warranty/Hosting	(12 months @ $3,295 / month)	Year	39540.00	1	39540.00
5	6.2.5	Year 3 Maintenance and Support/Warranty/Hosting	(12 months @ $3,295 / month)	Year	39540.00	1	39540.00
6	6.2.6	Year 4 Maintenance and Support/Warranty/Hosting	(12 months @ $3,295 / month)	Year	39540.00	1	39540.00

Exhibit A
Board of Medicine Database Project

7	6.2.7	Year 5 Maintenance and Support/Warranty/Hosting	(12 months @ $3,295 / month)	Year	39540.00	1	39540.00
	Unit prices are to be provided for the following two (2) items and will only be used to execute formal Change Orders during the life of						
	of the contract, if necessary. Estimates are included for bid evaluation only, there is no guarantee that any quantity of the item(s)						
	will be purchased						
8	6.2.8	Additional License, per User (if necessary)	inLumon does not charge license fees on a per staff user basis. Licensing of software for West Virginia Board of Medicine for use per scopr of RFQ is included with installation and yearly support costs.	Each	0.00	5	0.00
9	6.2.9	New Customization Professional Services	inLumon INCLUDES future system changes, upgrades and enhancements with yearly support costs, and does not limit to 5 hours.	Per Hour	0.00	5	0.00
					Total Bid Amount:		217470.00