

**Regulatory Licensing and Permitting**  
[www.maine.gov/online/licensing](http://www.maine.gov/online/licensing)

Government to Business Category  
State of Maine

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Project Initiation: June 2010

Project Completion: September 2011 and substantial revisions deployed July 2015

## **Executive Summary**

Maine's regulatory licensing and permitting online service is a custom-developed, scalable framework for professional licensing and permitting, created as an enterprise service that can be used for any state or regulatory agency. The service was developed by the Maine Department of Professional and Financial Regulation (PFR) in partnership with InforME, the state's eGovernment portal, and integrates with the Agency License Management System (ALMS) developed by Sauper Associates.

PFR, InforME and Sauper first developed an online professional license renewal service in 2002, with substantial upgrades in 2006, 2009, and a complete system rewrite which deployed in 2011. Since that time additional functionality including more efficient backend processing, new web methods for finding courses and providers, and the ability to upload supporting information along with the license transaction were deployed as recently as July 2015. These improvements were necessary to support current and future license and permit transaction types and to position the online regulatory licensing and permitting service as an enterprise solution.

At this time, fifty different regulatory agencies that are overseen by PFR, the Department of Health and Human Services (DHHS), and the Department of Public Safety (DPS) participate in the online service. The list of participants grows annually as other regulatory agencies look to the system for their database and online transaction needs; for instance, at the end of 2015, the service had 48 participating regulatory agencies. Since launch, the service has processed more than 308,000 licensing transactions resulting in a savings of more than 26,000 staff hours, a value of \$1,400,000.

## **Project Narrative: Concept, Significance and Impact**

### *Concept*

This service was developed in an effort to provide businesses and professionals a one-stop, streamlined service where they can complete all licensing and permitting transactions with their state regulatory agency. In addition, the State sought to create an enterprise solution that could be leveraged by multiple agencies to generate efficiencies and cost savings.

As state regulatory agencies and boards have modernized their data management over the years, historically they have made separate technology decisions and developed or purchased separate backend databases. These databases vary in sophistication, some being very simple Microsoft Access databases, while others are large, complex systems.

Several of these agencies had developed online license renewal services, which were created separately and customized for each agency's business rules and backend database. These services were effective; however, creating and maintaining separate online services required more resources than using one enterprise service.

Additionally, because of issues with some agency databases, online licensure was not a viable option for all regulatory agencies in the State, either because their database was too limited to interface with an online application, or because they did not have the database support/resources to build an interface.

In response to these challenges, PFR, InforME, and Sauper collaborated to create an enterprise framework that provided a cost-effective, long-term solution. Released in 2011, this framework instantly improved many aspects of the online licensing and permitting process and highlighted the diversity and scale of customer needs.

Specifications, HTML design, and key details about business rules, application flow, hosting environment and the coding language were finalized in the summer of 2010. Because the system is so large and complex, it took nearly a full year for development of both the backend and the frontend user interface to be completed. The system launched in pilot form for renewals for the Electrical Board in September 2011; the Boards of Medicine and Nursing quickly followed launching in November 2011. The remaining boards were migrated to the new system over the course of the next six months.

Revisions to the service are constantly evaluated. The most recent enhancements were deployed in July 2015 after a four-month development cycle. The enhancements allow for users to upload supporting information in the form of Word documents, CAD files, PDF files, or image files along with their licensing application.

The online service is developed in Perl. All transaction details are passed to the ALMS backend system and stored in a MySQL database for administrative transaction reporting. The regulatory authority that oversees the licensee (a department, agency or

board within the State of Maine) is the custodian of the final data submitted via the online services; the data is held within ALMS.

The online service communicates back and forth with ALMS through web services. Most of the business rule logic resides in ALMS and is configurable using administrative tools provided to the regulatory agency.

Over the four years that the service has been live, many boards are seeing very high adoption rates, many over 85%. For example, the Board of Nursing is seeing 95% of its licensees renew online. Since this is a fully integrated one-stop solution, the intent is that over time, nearly all licensing transactions of participating agencies will be submitted through the online service.

This service is unique in its enterprise approach to regulatory licensing. Its design allows for several different licensing functions, it is scalable to serve multiple regulatory agencies, and it is flexible enough to handle a wide variety of business rules and application types. The application data submitted online and transmitted to the web service requires a complex arrangement of education and training information, supervisor information, and other relevant licensee and/or worksite details.

The online service was implemented using the latest Maine.gov web application interface design. The interface template utilizes CSS media queries (the heart of responsive design) to adapt to varying device screen sizes, such as smartphones and tablets (e.g., iPhone, iPad, Android) and/or desktop or laptop computer environments. This means that all of the online licensing functions are available on mobile devices as well.

To improve the success rate of application completion, the service utilizes inline live validation and masking. By providing users with real-time feedback (live validation) as they input form data, we greatly improved the accuracy of the data entered. Some form elements, such as date of birth or phone number, can have a specific format - mm/dd/yyyy or (123) 456-7890. By masking these form elements, we can ensure users will enter data in a predefined format.

### *Significance*

The online service provides a fast, paperless method for a business or professional to complete licensing and permitting transactions with their state regulatory agency. The online service includes functionality to issue a new license, renew a license, complete an examination, apply for a permit, or notify the user that they must submit supplemental information before their application can be completed.

The regulatory agency saves an estimated five minutes of staff time for each licensing transaction completed online. In addition, the agency saves on costs associated with printing and mailing application forms. PFR, DHHS, and DPS regulatory agencies have collectively received over 308,000 licensing transactions since the application was

deployed in Fall 2011 resulting in savings of approximately 26,000 staff hours, a value of \$1,400,000.

The participating regulatory agencies are experiencing very high adoption rates (80-98% for many license types) and hope to see nearly all licensing transactions entering their workflow through this single source. The system was designed as an enterprise solution through which the State can potentially save millions of dollars over time as compared to having each regulatory agency build or purchase and maintain its own backend system and online service.

### *Impact*

This service benefits the businesses and professionals who need to interact with the State of Maine for their professional licensing and permitting, as well as the state regulatory agencies.

Maine businesses and professionals now have a one-stop site where they can quickly and easily apply for a new license, renew an existing license, apply for an examination, or apply for a permit. Previously, they needed to obtain paper forms and mail those along with a check or money order for payment. The online service is convenient, fast, user-friendly, and secure, and allows for credit card payments. Many licensees wait until the last day to renew their licenses and this allows them to still complete it on time and avoid late fees. The service is also available on mobile devices.

The regulatory agencies and boards within PFR, DHHS and DPS have seen significant cost savings and efficiencies from the service. Online transactions result in better data and save staff time, as well as the costs of printing and mailing. The online service integrates with their backend system and ensures that the data flowing into their system is accurate and complete.

In addition, the State of Maine benefits in a broader sense by having an enterprise system that can accommodate multiple agencies and functions. This strategy is much more efficient and will potentially save millions of dollars over the years through avoidance of separate purchasing or development costs if each agency were to have its own unique database and online service.

The online solution was created in partnership with Sauper Associates and InforME, the State of Maine's eGovernment portal. InforME provides Web portal for the state of Maine, [www.Maine.gov](http://www.Maine.gov), and approximately 175 unique online services. InforME is a collaborative effort between the State of Maine and Maine Information Network, LLC, part of the NIC family of companies.