

Wyoming Enterprise Learning Management System

Improving State Operations

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Project Initiation and End Dates
2013 - 2015

Enterprise Learning Management System

Executive Summary

In 2011, prior to the State of Wyoming's Information Technology (IT) consolidation, a leading Learning Management System (LMS) was selected by a new education division created at the University of Wyoming. As the contract was nearing renewal, it was found that only a single course had made it to production. It was offered three times to a total of 59 students. Continuing with that expensive, yet capable, system did not make fiscal sense. It was time to look at new solutions and Moodle, a well vetted open source solution, quickly rose to the top of the virtual class.

A test instance of Moodle was stood up to begin evaluating the look and feel of the solution. In comparison, Moodle was able to accomplish all that had been intended with the contracted version of the outgoing LMS. Using employees familiar with Moodle's functionality and the consolidated approach to enterprise IT, the Department of Enterprise Technology Services (ETS) was able to quickly deploy Moodle into production as WyoTraining, paving a new path to distance learning that was available to all state agencies at a nominal cost of a virtual server.

Moodle is a worldwide open source solution and accomplishes the core features of the previous contracted LMS at an absolute fraction of the cost. ETS found Moodle to be very easy to use and support. With additional plugins available at no cost, ETS was able to greatly enhance its ability to create and offer engaging content.

Today, a Google+ Community fosters a grassroots feel around online training in the State of Wyoming. Wyoming Department of Administration and Information (A&I), Department of Family Services (DFS) and the Wyoming Law Enforcement Academy (WLEA) regularly collaborate with each other as they buildout online content. These agencies jump wholeheartedly in to assist new agencies with learning about distance learning for the first time and continue to successfully deliver training to their students at no cost. WyoTraining has been a successful win for agencies, students and the state.



Concept

A leading LMS was the previous multi-agency solution maintained by a new division of instructors at the University of Wyoming known as the Wyoming Distance Learning Center (WyoDLC). As a paid LMS solution, it provided the blank slate needed to deliver online content to students across the state from DFS to WLEA. It provided mechanisms to track training, embed video, gauge knowledge and be the infrastructure for successful online learning. Five agencies began the long road of transitioning existing in-house trainings to be available 24x7 to citizens and employees across Wyoming.

WyoTraining My courses 0 Anthony

Welcome to WyoTraining!

BROWSE COURSES

We are constantly adding courses to this site. Some are offered to certain groups of employees and some are open to everyone. There are agency specific courses and general "soft skills" training. If you find something you think would improve your skill set or just sounds interesting, click on the course. If the course requires a password (key), contact us to see if it is available.

[Browse Courses](#)

WYOTRAINING SURVEY

Please help us improve both the WyoTraining system and the courses offered by giving us your feedback. Responses are anonymous, so please be as honest and as specific as you can.

[Survey](#)

BROWSER INFORMATION

At this point, Internet Explorer is the best browser option. You can use Chrome, but there is a small problem with certain activities. You can click the button below to see a short video that explains the easy fix for this problem.

Many courses have new browser windows open with activities in them (popups). This means that **you will need to disable popup blocker in your browser**. Click [here](#) for Google Chrome help. Click [here](#) for Internet Explorer help.

[Chrome Fix Video](#)

Search courses: [Go](#)

My courses

- 2015 Use of Force Update**
- Personnel Rules**

This is the first course required for the WISE Certificate, and a self-enrollment password is required for each course in this series.

The Online WISE Certificate series is currently undergoing a pilot phase, and the self-



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As a multi-agency solution, it was not realistic to deliver content at a reasonable cost and provide a stable, reliable system. WyoDLC held many online and in person training sessions to assist the five agencies in creating and expanding content. Unfortunately, only a single agency was able to finish their course and deliver training. That course was offered online three different times to a total of 59 students. There had to be a better way to deliver the same content without paying those kind of costs.

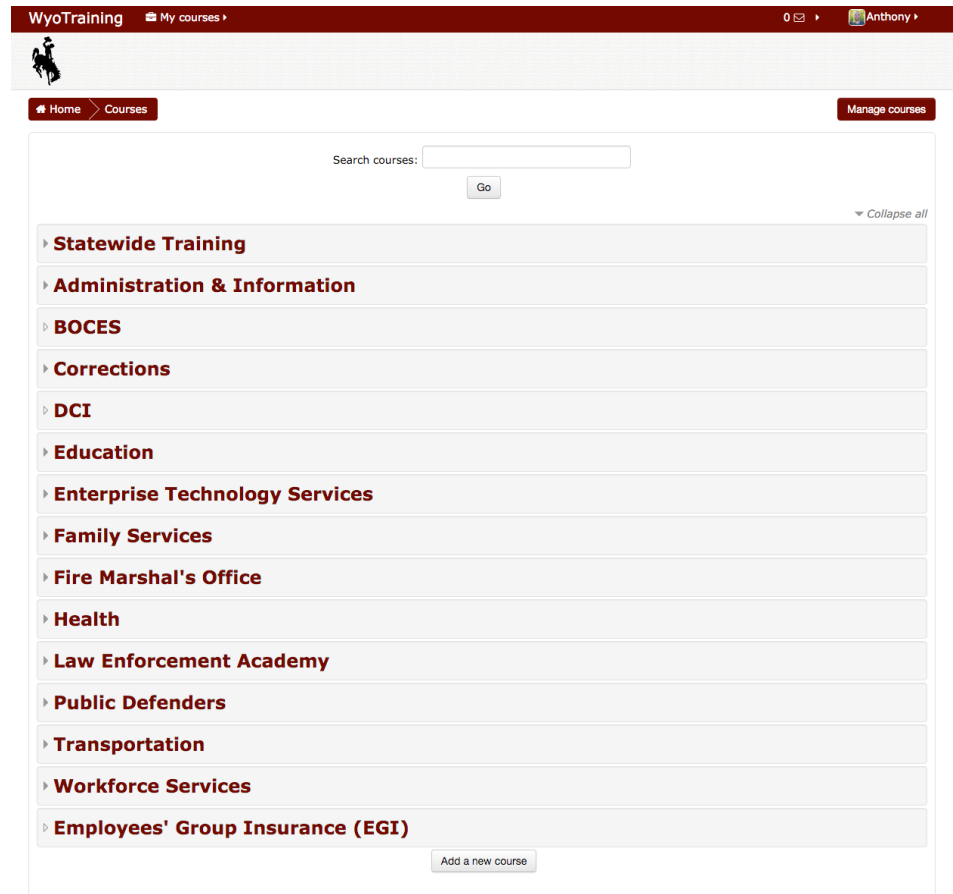
With Moodle running on a virtual server and implemented before the rates for the next biennium were established, ETS offered this service to all agencies across the state at no charge. As time went on, ETS set a fee of \$127 a month to each agency who wished to use the system starting July 1, 2016. This approach would ensure there was some funding set aside to pay for upgrades and troubleshooting

throughout its tenure. ETS also expanded the virtual servers it occupied; a production and test instance for Moodle. BigBlueButton is also available and offers a virtual/live classroom experience to students across the state. Another production and test instance are needed for BigBlueButton.

Four virtual servers, a small team of employees familiar with open source software and Moodle itself are able to keep WyoTraining running for over 11,800 students receiving training from fourteen agencies. The cost to effort ratio is exponentially less than the previously contracted solution.

Significance

A small group was tasked to find an LMS. As a result, Moodle was quickly stood up on a virtual server and evaluated in its capabilities to see if it would be able to run as an enterprise solution. It looked more than promising. The first three agencies on WyoTraining were A&I, who needed to deliver a mandated supervisor training to state employees, and WLEA with their Wyoming Criminal Law and Procedures course. ETS took the lead in standing up and maintaining the environment .



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ETS provides training to end users on its functionality and capabilities. After collaborating with those agencies, the system was quickly ready for production and other agencies began to join the effort. DFS, Department of Transportation (WYDOT) and others realized it was a perfect tool to train internal staff on process and procedures, and to communicate information with citizens statewide for training specific to their agency.

Impact

With Governor Mead's buildout of the Wyoming Unified Network, agencies with offices in rural Wyoming towns and students taking courses were able to do so at significantly higher connectivity speeds than in years past. The timing was ripe to continue with distance education now that those highways of Wyoming were growing shorter and shorter with new lengths of fiber and a stronger network to those rural communities.

To be a supervisor with the State of Wyoming, employees were previously required to travel and attend a week long supervisor training course in the southeast corner of Wyoming. After the successful delivery of the supervisor training on WyoTraining, they phased out any physical delivery of the class and have continued to save countless training dollars with online delivery.

WLEA was in a similar situation with a critical course for existing law enforcement officers who were newly hired and moving into the state. Instead of sitting through the standard 13-week peace officer basic, they were previously able to attend portions of the training physically at the academy, then travel back and forth to their agency multiple times. It involved a significant amount of travel, time away from their new departments and included a considerable amount of downtime as they waited for their specific training in the basic. With the growth of online learning, it has now become a hybrid course, offering half of its hours online and half of its hours in a separate tightly scheduled course at the academy.

Two agencies running their own Moodle instances also moved into the new enterprise LMS. They are able to deliver the same training, but using an infrastructure that is maintained by the consolidated efforts of ETS. Supporting a single system allows Wyoming to be better patched and maintained with security upgrades and enhancements than their previous instances. An additional benefit of using the enterprise LMS was access to the 24x7 helpdesk of ETS, giving their students account creation, suspension and troubleshooting around the clock (something they weren't able to offer with their standalone instances).

There is always the unknown cost of using open source software, as its use in production can never be said to equal \$0. The costs and efforts Wyoming has put in towards making it a functional and capable LMS for the enterprise has been well worth it and still pennies on the dollar of where we would be if we had continued to invest in another paid LMS solution year after year.

Using Google Hangouts, ETS continues to stay lean in the approach to sharing information with monthly meetings to shorten the length of the long Wyoming highways and the 97,818 square miles across the state. ETS shares the experience and knowledge from the original agencies to new agencies joining the group. A Google Community is also used to share historical features and challenges so they can create new courses better and faster than before.



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It has become a grassroots enterprise project bringing a wealth of experience and heart to distance learning in the state. As an enterprise system, it's a cost savings to maintain a single system. The real savings for Wyoming are intangible in the knowledge transfer and sharing that occurs when agencies freely share their knowledge and experiences in hopes that everyone's classes continue to improve.

Benefits

As of April of 2016, the system is:

- Serving 14 agencies, providing content to over 11,800 enrolled students with over 100 courses.
- The audience for training ranges from state employees to external users like teachers, lawyers, fire, health, law enforcement officers, other first responders and more.
- Any agency can use it. Currently, it is free of charge to create an unlimited number of courses serving an unlimited number of students.
- Online training is able to keep a consistent message to all employees, and provide refresher training or help on-board new staff.
- External users can easily be added to the system using ETS' 24x7 helpdesk.
- Agencies are responsible for adding and editing their own content and do so with great passion and excitement. They learn and collaborate with each other to provide the best user experience.
- The plugins that are freely available have allowed us to enhance learning, such as: certificates, BigBlueButton and Google authentication for single-sign-on for state employees.
- To enhance the online training experience, ETS uses 3rd party SCORM authoring tools to increase the engagement of online courses allowing learning checks, interactions, audio narration and video all tightly wrapped up into one activity.

Wyoming Department of Health says, "The Wyoming Office of Emergency Medical Services (EMS) has used the enterprise Moodle system as a force multiplier to spread consistent education and messaging in a uniform way, while offering the convenience of 24/7 access to courses and education for our EMS provider's around the state. In these difficult economic times, Moodle provides our office the ability to reach our customers without the expense of travel and manpower, in a way that still feels connected."

DFS said, "Moodle has made a significant difference in how Family Services approaches training. We currently offer an online portion to our New Employee Orientation, which has cut down travel time for our New Employee Orientation. We've also used Moodle to present other personalized course curriculum such as Customer Service and Communications Challenges."

Moodle has proven to be an easy and exciting LMS to support, as well as engaging and powerful to deliver content. It provides an enterprise solution to help agencies not solve their LMS needs in a silo where they may struggle in providing the correct security upgrades. It is providing redundant systems to recover when necessary. It has been a win for Wyoming to stand up an open source enterprise solution, and will continue to be as it matures with more agencies adopting it to deliver content to employees and constituents.

