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McLean, VA, US

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Laureate

CATEGORY:
Training/Education

ORGANIZATION:
Defense Acquisition University

ORGANIZATION URL:
http://www.dau.mil/

PROJECT NAME:
Defense Acquisition University delivers training to the defense acquisition workforce through the AtlasPro Learning Suite

PROJECT OVERVIEW

Defense Acquisition University (DAU) designed and built the AtlasPro Learning Management System (LMS) in the mid-1990s. This was a time when the worldwide web was still in its infancy and the value of online learning systems was first being explored. The goal was to build a scalable online learning management system, highly adaptive and flexible, to enable DAU to efficiently train government employees wherever they were stationed. In the past, DAU instructors taught the course material in person and this required government employees to travel to training locations. By implementing AtlasPro, DAU has saved taxpayers millions of dollars in travel costs. The first version of the training system was released in 1997 to train the Acquisition, Technology and Logistics (AT&L) workforce via the online delivery of course content. Over the past 14 years, DAU has evolved AtlasPro into a best-in-class online-training and learning system that incorporates cutting-edge open software architecture and technologies. All the core technologies of AtlasPro's open architecture are based on open-source standards. This permits easier integration of new technologies and cost-effective operational systems. The software architecture conforms with established industry learning standards, including Sharable Content Object Reference Model (SCORM) and section 508 of the Americans with Disabilities Act. It is a Government-Off-the-Shelf (GOTS) system. The e-learning suite design incorporates J2EE architectural principles and innovative web. 2.0 applications. Atlas Pro comprises other technologies and frameworks including JBoss Seam, Java, Enterprise Java Beans 3 (EJB3), Java Server Faces (JSF), RichFaces JSF component libraries, asynchronous JavaScript and XML (AJAX), Extensible Markup Language (XML), Simple Object Access Protocol (SOAP), Web Services Description Language (WSDL) defined SOAP-based web services, REST and ATOM-based web services, and Hibernate. From the start, DAU designed AtlasPro to take advantage of the Department of Defense's SCORM philosophy, which enables powerful capabilities: • Portable: runs on any operating system • Extensible: COTS modular components can be added or deleted easily •

Open architecture: communicates with any system technology based on J2EE standards • Vendor independent: runs on standard relational database-management systems (DBMS) and industry standard application servers (with no additional license needed) • Scalable: can easily add any number of users (DAU has over 1 million users now) • Open source: makes maximum use of open-source software to reduce cost. Systems, especially government systems with large user bases, often mean exorbitant costs. The absence of any license fee for AtlasPro helps the government control these costs. AtlasPro has been exported (free of license fees) to 10 other government institutions for use in their learning programs. The benefits of using open-source architecture are many. There are no dependencies and no lock-in to specific proprietary technologies, and therefore, no hidden costs or unpredictable pricing changes. All of these aspects at the heart of AtlasPro have helped transform the way the DoD and the private sector learn, boost performance and improve the readiness of their workforces.

SOCIETAL BENEFITS

DAU has delivered web-based training to more than a million government users while maintaining lower cost per user and saving taxpayers $17 million annually in travel costs. The DAU's learning-management system was built under a federal shared-concept model called government off the shelf (GOTS) with an innovative open architecture that delivers cost-effective performance.

Previous project updated/expanded? AtlasPro was first implemented in 1997 in concert with the Operational Support System (OSS) by DAU to train the growing AT&L workforce via the web-based delivery of course content. Today, AtlasPro is in its third release, with expanded performance and functionality. Prior to 1997 and web-based courses employing OSS, DAU instructors led training meetings that required students to travel to locations for training sessions. Four years later, the Department of Defense (DoD) mandated the use of Sharable Content Object Reference Model (SCORM) and required all LMSs and courseware components to conform to SCORM, thus enabling the sharing of learning content across the many agencies of the DoD. The change also lowered the cost of courseware development and the cost of migration to learning management systems. In 2002, DAU deployed the first SCORM-conformant GOTS LMS, called AtlasPro. This new version ensured DAU compliance to DoD specifications and led to reduced courseware production deployments because vendors were now adhering to the same standards. By 2010, the AtlasPro user interface had been improved with a tab and gadget functionality focused on ease-of-use paradigms common in software tools and applications.

Project implementation complete? Yes

PROJECT BENEFIT EXAMPLE

The AtlasPro LMS has provided a wide range of cost savings and efficiency benefits to the many DoD agencies using it for ongoing training programs. It is widely used to develop, deliver and track ethics training in the growing AT&L workforce. To date, the DAU has successfully used AtlasPro to register and track the status of over 1 million learners. It has also been instrumental in providing timely reports on completion rates to the DoD's Under Secretary of Defense. AtlasPro's open-architecture design has enabled widespread sharing of training courseware content across the large DoD organization. In doing so, it has significantly lowered overall development and migration costs. DAU designed the LMS so a government agency can utilize, and build on, the code base without being charged for incremental seat licenses or for functionality that was developed previously. Some of the specific programs that have benefited from AtlasPro include the following: • In 2010, DAU used

AtlasPro to train 25 soldiers and report course-completion stats to Army Training Requirements and Resources Systems (ATRRS), which was supporting the war effort in Afghanistan. The training system's ability to work in an offline mode was key in offering soldiers without network connectivity improved continuity in their training sessions. • The Army has leveraged AtlasOffline to maximize time spent by soldiers in the field by incorporating its features into embedded training vehicles through the Brigade Combat Team Modernization (BCTM) program, formerly the Future Combat System (FCS) program. • The Army has identified more than 400 existing LMSs that can migrate to the AtlasPro open source GOTS platform, saving significant costs in future Army budgets. • The Joint Knowledge Development and Distribution Capability (JKDDC), a part of U.S. Joint Forces Command, has used the AtlasPro LMS to meet its stated responsibility of ensuring that joint training of individuals stays relevant and meets the ongoing challenges of national security. • The Defense Manpower Data Center (DMDC) utilizes the learning management system to deliver and track training to ensure its workforce complete their certification training. Upon completion, the accredited individuals gain access to RAPIDS, a system to issue Common Access Cards (CAC) to military service members, dependents, DoD civilians and contractors. • The United States Navy (USN) has selected AtlasPro to deliver training to all Navy active personnel, reservists, DoD civilians and contractors. • The Government Accountability Office (GAO) has estimated that DAU achieved a cost saving of $17 million per year by using e-learning rather than classroom training where appropriate.

IS THIS PROJECT AN INNOVATION, BEST PRACTICE? Yes

ADDITIONAL PROJECT INFORMATION

DAU was one of the first DoD organizations to extensively use e-learning to deliver training and reduce costs. The organization also helped create the AtlasPro Users Group (AUG), a quarterly forum in which users collaborate, share tools and best practices to improve efficiency and reduce costs. The user group keeps clients informed about new AtlasPro features and capabilities. The user group goals are: • Information sharing • Examination of new requirements for each client • Demonstration of new products and services to all clients • Briefing the group on investment work (adding functionality) to support proposals.