

Learning Management System (LMS) Strategic Review

A Next Generation Learning Management System for CSU, Chico

**Prepared by the CSU, Chico
LMS Strategic Review Committee**

California State University, Chico

April 28, 2005

LMS Strategic Review

Executive Summary

With all campus courses now loaded in the WebCT Campus Edition (CE) Learning Management System (LMS), a significant and growing proportion of faculty (60%) and students (90%) use it regularly. WebCT has become a critical academic enterprise system. CSU, Chico has been supporting the same WebCT CE LMS for six years, but the useful life of this system is coming to an end.

An LMS II Strategic Review Committee was formed in January 2005 to examine options for a new enterprise Learning Management System (LMS) to carry CSU, Chico into the future. The solutions considered were Blackboard, Desire2Learn, WebCT Campus Edition, and WebCT Vista, as well as leading open source options Moodle and Sakai. All but Blackboard and WebCT Vista were demonstrated to be deficient during the preliminary investigation and were disqualified from further consideration.

As a result of further investigation that included on-campus presentations by both Blackboard and WebCT, solicitation of comments from the campus community, course migration testing, and a survey of past vendor performance at sister CSU campuses, the committee determined that WebCT Vista was the best fit next generation LMS solution for CSU, Chico.

Introduction

With all campus courses now loaded in the WebCT Learning Management System (LMS), a significant and growing proportion of faculty (currently 60%) and students (currently 90%) use it regularly. WebCT has become the critical academic enterprise system.

CSU, Chico has been supporting the same WebCT Campus Edition (CE) LMS for 6 years. In that time the system has been upgraded many times, but its underlying structure has remained the same. In addition, the limited set of WebCT features prevents faculty from utilizing more efficient and effective functions now available with the latest set of LMSs. As a result, the useful life of this system is coming to an end.

New LMS products have emerged with campus-wide deployment in mind. They are more intuitive, powerful, and dependable than their predecessors. These include commercial products like Blackboard's Academic Suite, Desire2Learn, and WebCT Vista, as well as Open Source options like Sakai and Moodle.

As an integral part of the learning environment at CSU, Chico, we must provide an LMS which maximizes the use of faculty and student time through improved ease of use, support of national standards, increased assessment capabilities, increased reliability, and support for more effective learning strategies.

Selecting an LMS to meet teaching and learning needs for several years to come is not a simple task. Such a system must meet requirements for accessibility, assessment, support, and integration with other campus computing systems. Any new LMS will require significant resources and effort to deploy. Online courses will need to be moved to the new system, and faculty, staff and students will require training to use it.

Recognizing the importance of selecting an LMS that is a best fit for CSU, Chico, an LMS II Strategic Review Committee was formed in January 2005 to examine options for a new enterprise Learning Management System (LMS) to carry CSU, Chico into the future.

The committee formed working groups to focus on the key areas of teaching and learning, academic program assessment, support and sustainability, and enterprise integration. Corporate performance and institutional partnership were also examined. The committee collaborated in weekly meetings and online. See the LMS II project Web site at www.csuchico.edu/tlp/LMS2/ for more information.

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The following solutions were considered during the preliminary investigation, but were disqualified for the reasons provided.

Table 1 – Disqualified LMS II Solutions

Solution	Reasons for Disqualification
Desire2Learn	<ul style="list-style-type: none"> ➤ Feature set did not meet current levels ➤ Incompatible with campus data center standards ➤ Reliability of software platform ➤ Limited track record with comparable universities
Moodle (Open Source)	<ul style="list-style-type: none"> ➤ Incompatible with campus data center standards ➤ Limited track record with comparable universities ➤ Absence of PeopleSoft partnership, existing deployments ➤ Would require significant additional staffing and support to deploy ➤ The open source LMS movement is in its infancy Supporting enterprise LMS efforts at this stage of development is risky at best ➤ Product support options limited and unproven
Sakai (Open Source)	<ul style="list-style-type: none"> ➤ Not compliant with accessibility requirements ➤ Limited feature list for faculty and students ➤ Limited ease of use ➤ Limited track record with comparable universities ➤ Not yet running reliably at member institutions ➤ The open source LMS movement is in its infancy Supporting enterprise LMS efforts at this stage of development is risky at best ➤ Product support options limited and unproven
WebCT CE 6.0	<ul style="list-style-type: none"> ➤ Product not yet available ➤ Low degree of hardware and software platform reliability

Two LMS solutions advanced to the second level of investigation. These were 1) the Blackboard 6.0 Academic Suite and 2) WebCT Vista 3.0 Enterprise Edition. Each vendor was invited to campus for two days to present and discuss their solutions with members of the campus community, including faculty, students, staff and administration). The LMS II committee solicited responses to an extensive list of questions and collected and reviewed comment forms from presentation participants.

Migration testing was performed by Chico faculty and staff, and a number of references checked, including a phone meeting with a Gartner Group higher education consultant and surveys of a number of CSU campuses. The committee discussed its findings and formulated its recommendation at its final meeting April 8, 2005.

Committee Findings

We found that both Blackboard and WebCT offer mature, robust solutions that include the infrastructure, tools, and functionality to support online teaching and learning activities. They are backed by well-established organizations and a multi-year track record at colleges and universities across the United States and throughout the world.

Table 2 – LMS II Best Fit Candidate Solutions

Blackboard Academic Suite 6.0

- Blackboard Learning System
- Blackboard Portal System
- Blackboard Content System

Note: Blackboard portal required to realize all the benefits of the Blackboard system.

Standard Price: \$123,000* Annual License

Offered By: Blackboard Inc.
1899 L Street NW, 5th Floor
Washington, DC 20036

WebCT Vista Enterprise 3.0

- Vista Virtual Course Environment
- Vista Community Manager
- Vista Learning Object Manager

Standard Price: \$110,000* Annual License
\$29,040 Premium Support

Offered By: WebCT, Inc.
6 Kimball Lane, Suite 310
Lynnfield, MA 01940

* Significant multi-year discounts are available

Based on our examination, these products offer advances well beyond our current WebCT Campus Edition 4.0 capabilities and are generally comparable. Based on features and functionality alone, Chico could very likely be successful supporting online teaching and learning activities with either solution.

Areas of Distinction

During the investigation process, clear distinctions emerged between the two solutions with regard to teaching and learning, academic program assessment, support and sustainability, enterprise integration, and institutional partnership.

These areas of distinction were crucial to the committee's final recommendation and are summarized below.

Teaching and Learning

Tools and Features

We found that WebCT Vista offers more features in support of course content management, student assessment, and grading activities. It is important to note that both solutions offer support for content re-use and importing, sharing, and managing learning objects.

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Ease of Use

Blackboard appears to be more intuitive for first time users. It is likely first-time faculty LMS users could get up and running more quickly with Blackboard. However, faculty who already have experience with WebCT are likely to be confused with the interface Blackboard offers and are, in fact, more likely to be successful with WebCT Vista. In addition, WebCT Vista offers better ease-of-use in terms of content creation and management as well as the number of clicks required to perform the wide variety of tasks required of faculty and students.

E-portfolios

We found both solutions to be lacking in their support for e-portfolios, though both offer functionality that will allow creation of limited individual portfolios, and each has plans to introduce comprehensive e-portfolio components as part of their systems.

Pedagogical Flexibility

WebCT Vista provides an inclusive feature set in support of varying teaching approaches and student learning styles. WebCT assessment tools also offer greater flexibility than Blackboard. WebCT Vista stands a better chance of meeting faculty and student teaching and learning needs over time.

Academic Program Assessment

We found that WebCT Vista's data aggregation and exporting capabilities and its potential to support online student evaluations of teaching (SETs) exceeded those of Blackboard.

While both Blackboard and WebCT Vista offer solid course-level assessment and both solutions can track and maintain course and student activity-related data, it is not clear that current LMSs have significant potential to support program level assessment (e.g. WASC) or departmental periodic reviews.

Support and Sustainability

Accessibility

It is important to note that both Blackboard and WebCT claim compliance with section 508 of the federal Rehabilitation Act, but campus and faculty adoption of accessibility best practices are required to ensure course content is fully accessible.

Migration of Course Content

After migrating selected CSU, Chico courses from WebCT CE into both Blackboard and WebCT Vista, we found that WebCT Vista's migration tools and processes exceed the quality of those of Blackboard. Vista offers better ease-of-use for faculty and staff during the migration process than does Blackboard. Significantly more course content and features successfully migrated to WebCT Vista, and prominent icons indicated what content or features needed further adjustment prior to use. Clearly Vista would offer better ease-of-use for faculty and staff during migration, demand significantly less faculty and staff time, and would likely result in more successful outcomes.

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Training and Support

Training and technical support will continue to be key to faculty and student success with a new LMS. It is clear that a new LMS training curriculum must be developed and offered to faculty, new best practices identified and shared, and significant staff training completed to ensure a successful move to a new LMS. The faculty/staff helpdesk, student helpdesk, and Technology and Learning Program staff will need to participate in training and retooling activities when migrating to a new LMS. While staff would likely be more comfortable and better prepared to move to WebCT Vista given extensive past WebCT experience, we found there to be no fundamental distinction between Blackboard and WebCT Vista in terms of the effort required to prepare and deliver campus training and support.

Enterprise Integration

Both Blackboard and WebCT support platforms compatible with campus enterprise standards that include LDAP/CAS single sign-on authentication, Intel-based processors, Red Hat Linux Enterprise, Oracle 9i Enterprise Edition, server clustering, server load-balancing, and integration with uPortal and PeopleSoft. It is important to note that neither LMS supports exporting of grades to PeopleSoft (as many faculty have requested) due to limitations of the current PeopleSoft system. Both vendors plan to pursue this capability when PeopleSoft supports it.

Information Security

While both solutions offer protections for FERPA data and can be implemented with Secure Socket Layer (SSL) protections, WebCT Vista offers the additional ability to select the types of data to be encrypted within the application itself.

Disaster Recovery

WebCT Vista's software and hardware architecture provides a high degree of fail-over capability in the live run-time environment. In addition, since all user and course data resides in an Oracle database, system back-ups and recovery from catastrophic failure rely on proven Oracle technology that allows for redundant servers and dependable recovery to a single point in time.

Reporting

WebCT Vista provides 50 standard reporting views that can be used to aggregate student tracking and course activity data for export to other tools like Crystal Reports or data stores for further analysis.

Institutional Partnership

Track Record

In order to gauge vendor past performance in areas that are key to a successful institutional partnership, staff at a number of CSU campuses were asked to respond to an e-mail survey regarding vendor performance over the past three years. WebCT was rated as superior to Blackboard in every category (Table 3).

Table 3 – Survey Results: CSU LMS Vendor Performance

Blackboard

East Bay, Long Beach, Pomona, San Diego, San Francisco, San Luis Obispo

	Unacceptable	Acceptable	Excellent
➤ Availability: planned downtime	x	x x x (x→)	x
➤ Availability: unplanned downtime	x x	x x	x x
➤ Ability to perform, execute	x x (x→)	x x x	
➤ Satisfaction: technical support	x x (x→)	x x x	
➤ Responsive to customer needs	x	x x x x (x→)	

(x→) Indicates that the vendor is now progressing to the next level

WebCT

Chico, Northridge, Pomona, Sacramento, San Jose, San Marcos

	Unacceptable	Acceptable	Excellent
➤ Availability: planned downtime		x	x x x x x
➤ Availability: unplanned downtime		x x x	x x x
➤ Ability to perform, execute		x x x	x x x
➤ Satisfaction: technical support		x x x	x x x
➤ Responsive to customer needs		x x x x	x x

These results raise serious concerns about Blackboard’s ability to establish and sustain the level of partnership required for CSU, Chico to consistently deliver and support an enterprise-class LMS dependent on a Blackboard solution. Based on its demonstrated track record at CSU campuses, WebCT has been, and likely will continue to be, the stronger institutional partner, and the partner most likely to ensure CSU, Chico achieves or exceeds expectations for its next generation LMS.

Recommendation

A Next Generation LMS for CSU, Chico

Based on a careful evaluation in the areas of teaching and learning, academic program assessment, support and sustainability, enterprise integration, and institutional partnership the committee finds that WebCT's Vista Enterprise Edition LMS software is the best fit solution for CSU, Chico. Subject to formulation of an acceptable vendor licensing agreement, development of an appropriate implementation plan, and availability of the necessary campus resources and support, we recommend that the campus proceed with the procurement and deployment of WebCT Vista Enterprise Edition.

The LMS Strategic Review Committee

Steven Adams	College of Business
Brooke Banks	Information Resources
Bill Evans	Academic Technologies
Lorraine Gardiner	Accounting and MIS
Cris Guenter	Education Department
Jean Irving	Student Records & Registration
Cindy Jorth	Foreign Languages and Literatures
Brian Oppy	Psychology Department
Margaret Owens	College of Natural Sciences
Laura Sederberg	Technology & Learning Program
Michael Spiess	College of Agriculture
Alisha Thayer	Associated Students
Bev Thornton	Computing and Communications Services
James Tyler	Meriam Library
Phyllis Weddington	Common Management Systems;
Marilyn Winzenz	Provost/Vice President for Academic Affairs