

The Blackboard Academic Suite

Overview of Product Capabilities



OVERVIEW

The **Blackboard Academic Suite™** provides learning institutions with powerful capabilities to achieve their e-Learning goals. Blackboard's Academic Suite is renowned for its ease of use and enterprise scalability, proven through deployments around the world. Blackboard's open development environment and its compliance and interoperability with industry standards are hallmarks of the product suite, enabling institutions to extend and customize Blackboard's capabilities to meet their unique needs.

This paper highlights the key capabilities Blackboard offers to enable institutions to accomplish mission-critical e-Learning objectives. Blackboard groups these capabilities into three categories:

- **Instruction, Communication and Assessment.**
- **Connections, Personalization and e-Commerce.**
- **Collection, Sharing and Discovery.**

Detailed descriptions of these key capabilities are provided on the following pages.

THE FULL POWER OF THE BLACKBOARD ACADEMIC SUITE



Enterprise Scalability:

Based on robust, industry standard web servers, application servers and databases, the Blackboard system has a proven ability to scale to hundreds of thousands of active users. Out-of-the-box load balancing supports easy configuration of additional application servers to allow the implementation to grow with adoption. Likewise, multiple database fail-over support assures a reliable, high-availability enterprise environment.



Multi-Language Support:

Enables institutions to run multiple languages on the same system. Instructors can even set the language of the course independently from the language setting of the overall system. In addition to supporting most European languages, Blackboard supports multi-byte character sets such as Japanese and Chinese.



Standards:

Compliance and interoperability with industry standards is a fundamental capability of Blackboard's software products. Blackboard is a strong advocate for open industry standards in the areas of system interoperability (IMS, SIF, OKI, etc.); content specifications (IMS, SCORM, NLN, etc.), privacy (FERPA), accessibility (Section 508) and metadata (IMS, Dublin Core, etc.).



Blackboard Building Blocks (Open APIs):

Our open architecture initiative, Blackboard Building Blocks®, provides a public, free software development kit (SDK) that documents application programming interfaces (APIs). Clients and independent software vendors use the Blackboard Building Blocks technology to create new functionality on top of the Blackboard platform or integrate external systems with Blackboard products.



System Integration:

Blackboard's data and system integration capabilities, enabled through the Blackboard Building Blocks architecture, allow institutions to integrate student information systems, campus authentications systems (LDAP, Kerberos, Active Directory, etc.) and other campus back-office systems with the Blackboard Academic Suite.

INSTRUCTION, COMMUNICATION AND ASSESSMENT

Whether looking to power a virtual learning environment, supplement classroom education or develop a distance learning program, institutions need a core set of capabilities related to instruction, communication and assessment. Capabilities in this area enable instructors to efficiently manage courses, author content, create assignments and foster collaboration.



Course Management:

Addresses activities involving managing the course site or major components of the course site. Course Management capabilities focus on effective creation and set-up of courses (Course Creation Wizard, Course Templates) as well as tools for semester-to-semester migration (Course Copy, Course Recycle) and archiving (Course Import/Export, Course Archive, Course Backup).



Content Authoring:

The Visual Text Box Editor provides a rich text editing interface, including WYSIWYG (What You See Is What You Get) and Spell Check, to create effective learning content. QuickEdit allows an instructor to quickly switch between the student view of a course content area and the instructor view. Instructors can also import e-Learning content created in external authoring tools such as Macromedia® Dreamweaver®, Microsoft® Frontpage®, or any SCORM-compliant authoring tool.



Adaptive Content Release:

Provides the ability for an instructor to create custom learning paths through course content and activities. Content items, discussions, assessments, assignments, or other activities can be released to students based on a set of criteria including: date/time, username, group membership, institution role, grade on a particular test or assignment, or whether the user has previously reviewed another piece of content.



Syllabus Builder:

Provides the ability for instructors to easily create a course syllabus by uploading an existing syllabus or by using the built-in syllabus creation functionality to design and develop their own course syllabus and lesson plans.



Learning Units:

Allows instructors to create sequenced lessons and control whether students must progress through the Learning Unit according to the sequence or have the ability to select individual lessons from the table of contents. Students can save their place in a Learning Unit and return later.



Online Textbook Content (Course Cartridges):

All major education publishers create pre-packaged content and course materials in the Blackboard Course Cartridge format to supplement their course textbooks. The course content may contain multimedia, assessments, Question Pools and links to additional resources, such as interactive learning applications, that supplement the textbook reading. Cartridge materials can be customized once downloaded into a course site.



Teaching and Learning Tools:

A variety of tools designed for support of specific teaching or learning activities. Examples include the Glossary, a tool to create sharable, customizable term-definition lists; the Electric Blackboard, an online note-taking tool students can use to take and save notes online as they work through their course materials; and Staff Information, the detailed contact information and office hours for the course instructors and teaching assistants.



Personal Information Management:

The Calendar allows a user to manage and view course-specific events, populated by a course's instructor, as well as personal and institutional events. The Tasks tool allows instructors to assign tasks with Priority and Due Dates to students (individuals or groups) and track their progress. Blackboard Messages facilitates email-like communication within a course without relying on external email systems or addresses.



Discussion Board:

The Discussion Board enables threaded, asynchronous discussions. Instructors can set up multiple forums around different topics and embed those forums in appropriate content areas or lessons. Instructors can determine whether students can modify, delete, post anonymously, include attachments and other options. Forums can be sorted/viewed by thread, author, date, or subject and are completely searchable.



Virtual Classroom / Collaboration Tool:

The Collaboration Tool, designed for live, synchronous interaction, supports a text-based Chat environment, as well as a full Virtual Classroom. Instructors can schedule collaboration sessions using either environment. In addition to text-based chat, the Virtual Classroom provides a collaborative whiteboard, group web browsing (web touring), private question-and-answer and breakout room capability. It can be run in a Lecture Mode or an Open Participation Mode. Users can "raise their hand" to be called on or given full participation control. All chat sessions can be logged and archived.



Group Projects:

To support peer collaboration, instructors can use the Groups tool to form multiple groups of students. Each group can be given its own file exchange area, Discussion Board, Virtual Classroom and a Group Email tool to send messages to all group members. Students can belong to multiple groups simultaneously, so an instructor might assign different groups for different assignments or projects.



Assessments and Surveys:

Instructors can deliver online, automatically-scored assessments and surveys. They can create such assessments from scratch or draw upon personal, institutional, or commercially-available "test banks" of questions. Question types include Calculated Formula, Calculated Numeric, Hotspot, Jumbled Sentence, Likert Scale, True/False, Multiple Choice, Multiple Answer, Ordering, Matching, Fill-in-the-Blank, Short Answer, Essay, File Upload and Binary Choice. Assessment questions can be given all at once or one at a time, can be timed or un-timed and assessments can be taken multiple times or only once.



Assignments:

Allows instructors to create assignment items through which students can submit their response to the assignment. Instructors can track the students' assignments and download the submissions from an entire class simultaneously through the Gradebook. They can grade the assignments and provide feedback for each student which may be viewed online when checking their grades.



Gradebook:

Instructors can store student performance results in the course Gradebook. Scores from assessments delivered through Blackboard are automatically recorded in the Gradebook. The Gradebook supports custom grading scales, grade weighting, item analysis and multiple gradebook views. With the instructor's permission, students can view their own grades (but no one else's) in the course Gradebook.



Reporting and Performance Dashboard:

The Performance Dashboard provides a view of student progress and indicates whether students have reviewed specific content items. Content Tracking provides usage statistics (filterable by user or date range) for individual content items. Similarly, Course Statistics provides usage data for an entire course. Advanced System Reporting maintains a parallel database to allow System Administrators to run comprehensive reports without impacting system performance.

CONNECTIONS, PERSONALIZATION AND E-COMMERCE

Institutions today need a common online environment to organize and unify their users in learning communities. Key capabilities in this area include community building tools, modules / channels, role-based information delivery and e-Commerce.



Community Building Tools:

Community Building Tools enable users and groups on campus to collaborate and communicate more effectively. These tools enable campus organizations (for example, clubs or interest groups, student or faculty government associations, fraternities/sororities, etc.) to distribute content, communicate and collaborate and deliver surveys to their membership through an online environment similar to the course sites with which they are already familiar.



Portal Web Services:

A rich set of standards-based web-services that brings the power of the Blackboard Academic Suite to multiple institutional portals on and off campus. Through these services every portal on campus can have immediate and secure access to online classes, exam results, student e-Portfolios, virtual hard drives and more.



Modules / Channels:

A Module is a container for content or interactive tools. Channels use the RSS content syndication format to deliver regularly-updated headlines and content to users. Modules and Channels are similar to the content boxes (e.g., Finance, Shop, Jobs) seen in portals such as Yahoo!®. Individual users can customize their personal community pages by selecting those modules and channels most relevant to them. Availability of modules is role-based, allowing the institution to target content or application delivery to specific constituencies. The Blackboard software ships with over 100 modules and channels, which can be customized by institutions.



Role-based Information Delivery:

Availability of tabs, modules, channels, tools, courses and organizations can be based on institution roles allowing for targeted delivery of content and information. For example, the institution can create a tab that is visible only to users with the Faculty role and within that tab, a "School of Business Faculty News" module which is only available to users who are Faculty members in the School of Business.



Multi-Institution Branding and Management:

Facilitates separation of multiple institutions, departments, or groups on one Blackboard server. For example, separate schools can be given their own domain and the ability to manage and brand their domain with the appropriate look-and-feel, including different colors, logos, tabs, modules and channels. System Administrators can assign management of portions of the system to individuals and groups, enabling different constituencies to independently manage their own content and configuration.



Wireless / PDA:

Blackboard Unplugged, an optional component available through Blackboard Global Services, provides the ability for Blackboard users to access course and community information through a wireless-enabled PDA or other device, such as a mobile phone. Users can access announcements, calendar items, tasks, grades, content and other information or synchronize that information for offline viewing.



e-Commerce:

Allows an institution to charge for items via a student's campus one-card or credit card. Items can include books, merchandise, a course, organization membership, or other items.



e-Marketplace:

Provides an online storefront capability and allows administrators to create multiple online stores. For example, the campus Chemistry Department can have one online store that sells equipment and supplies needed for labs and Campus Parking can have another store that sells parking passes. This capability enables the creation of a unified online campus shopping environment—a virtual mall.

COLLECTION, SHARING AND DISCOVERY

To enable a true Networked Learning Environment, institutions must be able to share learning resources beyond the course environment. Capabilities in this area enable students, faculty and staff to manage, reuse and share individual work, as well as learning objects, digital library content and e-Portfolios.



Content and File Management:

Allows content and files to be managed, re-used and shared effectively. Individual files and content objects can be used across multiple courses, organizations and modules without the need for duplication. Users can share their files, giving both read and write access to specific individuals, groups and institution roles (i.e. all biology teachers). For users outside of the institution, content owners can create "passes" that provide access and enable collaboration for specific time periods.



Versioning:

Allows users to automatically archive, track and access previous versions of their files. The system creates separate copies after each contributor changes the document, providing an automatic backup for overwritten files. Users can access older versions of a file to review changes or revert to an earlier version thus erasing the changes.



Disk Space and Bandwidth Management:

Enables System Administrators to establish limits by institution role, on the amount of disk space for individuals, courses and organizations, as well as control bandwidth settings for users based on institution role (e.g., student, faculty). Through these controls, Administrators can better manage computing resources and network utilization, as well as guard against system abuse.



Collaborative Web-enabled File Storage:

Dedicated file and content storage areas for individual users, courses, organizations, or different constituent groups within the institution (i.e. the Business School, the College of Arts and Sciences, Foreign Language Faculty, etc.) as well as the Library. The Web Folders capability leverages the WebDAV standard which allows users to drag and drop content from a local workstation into the Blackboard platform, and open, edit and save files on the Blackboard server directly from their computer's desktop.



e-Portfolios:

Electronic portfolios enable students and faculty members to assemble, present and share information online for documenting academic growth, career evaluation and course preparation. Portfolios can be generated via the Portfolio Creation Wizard or customized based on pre-established portfolio templates. Institutions can also develop their own portfolio templates to guide their students in developing their portfolios.



Workflow:

Provides the ability to define a workflow activity (such as Review, Approve, or Grade) and designate settings such as priority, deadline and permissions. Workflows route content to other users and allow the sender to track the progress on completion of workflow activities.



Learning Object Catalog:

Enables the institution to set up a searchable, hierarchical taxonomy to catalog learning objects and resources that can be accessed by individual users both within and outside the institution. Resources in the Learning Object Catalog can be easily included in courses by instructors.



e-Reserves:

Digital versions of copyright-cleared reserve readings that libraries create for faculty and students. Separate e-Reserve folders can be enabled for each course and administration of these folders can be delegated to librarians. This capability assures that the library has the necessary level of administrative control to ensure that copyrighted digital content is used properly.



Blackboard

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