



Elluminate Bridge for Blackboard



April 2010

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Adding Synchronous Interaction with Elluminate's Building Block

Building Blocks® is Blackboard's open architecture initiative. Elluminate has produced a Building Block to launch a synchronous session using Elluminate *Live!* directly from the Blackboard Learning System. The Elluminate Building Block allows users of the Blackboard Learning System – Enterprise, to create and launch Elluminate *Live!* sessions or recordings.

In order to create the Building Block, an SDK (Software Development Kit) containing Java APIs and documentation was provided by Blackboard. This allowed Elluminate to interface with the Blackboard platform. In addition to the APIs, Elluminate also took advantage of the Blackboard tag libraries to create a Building Block with the same look and feel as Blackboard to appear seamlessly integrated with Blackboard.

Elluminate's integration to Blackboard showcases Elluminate's strengths to build products that are leading the way and continuing to meet customer needs. Significant time was spent on research and meeting with customers to determine which features would allow them to create an ideal learning environment for their students and further leverage their investment in Elluminate. This version of Elluminate's Building Block allows users to easily set up virtual office hours that span multiple courses, create meeting rooms that are only available to certain groups of students, create Elluminate content objects, invite guest speakers from outside Blackboard and much more. All of these features ensure that Elluminate can be deployed as an enterprise wide solution.

"The University of Calgary adopted a fully integrated use of Elluminate *Live!* with our Blackboard Learning Management System campus-wide in Fall 2005. With the ease of single-point sign on, the integration of both a live and asynchronous platform allows our campus to increase the quality and quantity of interaction between students and instructors, promotes active learning, and respects different learning styles. From small group student project discussions online to live presentations by researchers globally and virtual office hours, creating Elluminate sessions within Blackboard allows for many opportunities to improve the teaching and learning process."

Joanne Carruthers
University of Calgary

Elluminate's Building Block features include:

- Access to Elluminate that can be enabled in all courses or selected courses.
- Access for all users to Elluminate *Live!* without requiring additional authentication or duplication of user databases.
- Elluminate *Live!* sessions that can be created by instructors, teaching assistants, course builders, and graders.
- Sessions that can be made available to all users in the course or to selected users. Moreover, sessions can be made available across multiple courses or available to all Blackboard users.
- Instructors can display a list and modify scheduled sessions.
- The ability for all users to access live sessions and recordings.
- The ability to create content objects, assignments with Elluminate meetings, and recordings.

The system interfaces include the following:

- Blackboard Learn – Release 9: this is the application purchased and managed by an academic institution
- Blackboard Enterprise – version 7 and higher
- Elluminate *Live!*: this is the application service that allows collaboration in a classroom type environment. This may or may not be on the same server as Blackboard. Also, the Elluminate *Live!* Server can be installed on your server or hosted by Elluminate.

The software interfaces support the following:

- An API to the Elluminate *Live!* Manager Services for the management of the Elluminate *Live!* server.
- An API to the Elluminate Session Administration System (SAS), for the management of the hosted account.
- The Blackboard System will provide authentication of users for the various roles and will be the front end for all user interaction.
- The Blackboard System database will be configured with all necessary data for supporting the functions of the Building Block.
- Sessions launched and played back will all be hosted from the Elluminate *Live!* server.

Elluminate Bridge for Blackboard Integration Details

Integration from the System Administrator Level

Elluminate Bridge for Blackboard can easily be installed into the Learning Management System using the link **Building Blocks** from Blackboard's System Admin panel and then clicking on **Installed Tools**.

Name	Vendor	Version	Availability	Course/Org Default	View Components	Settings	Delete
Acxiom Identify-X	Acxiom	1.1.2	Unavailable	Unavailable	View Components	Settings	Delete
Astrology	Astrology.com	1.1.0	Available	Unavailable	View Components		Delete
Blackboard Scholar	Blackboard Inc.	2.0.13	Available	Available	View Components	Settings	Delete
Blackboard Sync	Blackboard Inc.	2.0.9	Available	Available	View Components	Settings	Delete
CE4 Learning Environment Connector	Blackboard Inc.	1.0.0	Available	Unavailable	View Components		Delete
Course Package Import Extensions	Blackboard Inc.	1.0.0	Available	Unavailable	View Components		Delete
Elluminate Live! Adapter	Elluminate Inc.	2.6.210	Available	Available	View Components	Settings	Delete
GoogleModule	Google	1.1.0	Available	Unavailable	View Components		Delete
HETemplateModules	Blackboard Inc.	1.0.0	Available	Unavailable	View Components		Delete
Integrated Learning System Gateway	Blackboard Inc.	1.1.0	Available	Unavailable	View Components	Settings	Delete
Maps	Mapquest	1.1.0	Available	Unavailable	View Components		Delete
NBC Content Integration	Blackboard Inc.	1.1.0	Unavailable	Unavailable	View Components	Settings	Delete
New York Times	New York Times	1.1.0	Available	Unavailable	View Components		Delete
Open Standards Content Player	Blackboard Inc.	2004.3.3	Available	Unavailable	View Components	Settings	Delete

The Elluminate Building Block is provided as a standard Blackboard extension file, which loads all of the necessary files and utilities. Additionally:

- The Elluminate *Live!* and Blackboard servers must be either in the same domain or within trusted domains.
- Firewalls specific to the Elluminate *Live!* server must allow traffic to and/from the Blackboard system.
- The Elluminate *Live!* server must have sufficient storage capacity for the anticipated volume of recordings.

Elluminate has included several features that allow each organization to determine how they want to rollout Elluminate *Live!* to their users. The System Administrator is able to specify various options including:

- The server address.
- The format of the name to be displayed when scheduling Elluminate *Live!* sessions and when logged into the Elluminate *Live!* session.
- Privileges for various user roles in Blackboard to attend and create sessions.
- Choosing whether the Building Block will be available in all courses or only selected courses.
- A customized message to be displayed for courses that do not have access to Elluminate *Live!*.

Administrator Panel > Building Blocks > Installed Tools > Elluminate *Live!* Scheduling Server Configuration

Configure Elluminate *Live!* Scheduling Server

1 Scheduling Server Address, User Name and Password

* Server Address e.g., <http://elm.myschool.com:8080/instanceName>

* User Name e.g., [serversupport](#)

* Password e.g., [elluminate](#)

2 Display Name Format

Display Name Format

3 Attending Sessions and Creating Public Session Availability

Course Roles	Instructor	Teaching Assistant	Course Builder	Grader	Student	Guest
Attend Session	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Create Course Session	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Create Public Session	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4 Elluminate *Live!* Availability

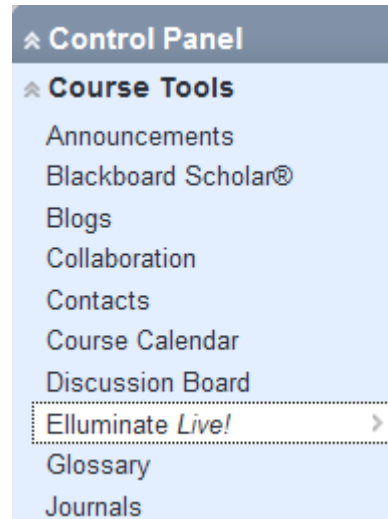
Available for All Courses

Selected Courses

Integration from Instructor Level

For each course, a teacher, teaching assistant, course builder, and/or grader are able to create, join and record Elluminate *Live!* sessions. Furthermore, sessions can be made available to all students registered in that course or shared among all or selected courses. There are several entry points with the Elluminate Building Block.

From Blackboard's **Control Panel** the user will see the *Elluminate Live!* option which allows them to view and create sessions. Elluminate *Live!* sessions are created linking on **Create Elluminate Live! Session**. The scheduling interface has been designed to allow instructors to easily create sessions and to access a full set of optional advanced settings.



To create a session, the instructor must complete a form to define the session name and the start / end time. Sessions can be for a short duration (for specific course content) or over an extended period of time (for virtual offices and open meeting rooms). By default, the user scheduling the session is automatically assigned the moderator role and can edit the session information at any time.

Create Elluminate *Live!* Session

- Name Your Session**

* Session Name Maximum 64 characters
- Schedule**

Session Schedule

Start Date	End Date
Apr 05 2010	Apr 05 2010
03 45 PM	04 45 PM

Advanced Session Settings
- Session Moderators & Participants (Optional)**

Session Moderator

Elluminate Instructor

Select Moderators and Participants
- Submit**

* Indicates a required field.

Once sessions are created, they appear on the main Elluminate *Live!* page. The instructor is able to view the current and future sessions that are scheduled and are able to customize their current view using a calendar that is provided. It should be noted that only currently running sessions will be active and displayed in this calendar. All students in that course and the instructors can join a session easily by clicking on that session's name. Users need not enter a username or a password for the session as they have been authenticated from the Blackboard database. The schedule of live sessions can be edited and deleted as necessary. The instructor is also able to view all recorded sessions and delete those as required.

Intro to Chemistry (CHEM) Elluminate Live!

Elluminate Live! Sessions

[Create Elluminate Live! Session](#)

Live Sessions

April 2010

S	M	T	W	T	F	S
...	28	29	30	31	1	2 3
...	4	5	6	7	8	9 10
...	11	12	13	14	15	16 17
...	18	19	20	21	22	23 24
...	25	26	27	28	29	30 1

Today | This Week | This Month

Page 1 of 1

Session Name	Moderator	Start Date	End Date	Type		
GROUP 1 - MEETING ROOM	ALL	April 05, 2010 16:00 MDT	July 05, 2010 17:00 MDT	Course	Modify	Delete
GROUP 2 - MEETING ROOM	ALL	April 05, 2010 16:00 MDT	July 05, 2010 17:00 MDT	Course	Modify	Delete
INTRO TO CHEMISTRY	Elluminate Instructor;	April 05, 2010 15:45 MDT	April 05, 2010 16:45 MDT	Course	Modify	Delete

Total items: 3

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The scheduling tool also provides numerous additional features. These features showcase the strengths of Elluminate's building block in its design and flexibility.

1. When scheduling sessions, the instructor is able to repeat the session and reserve seats. The seat reservation feature allows instructors to check whether the required number of seats are available for their session time. The Reserve Seats feature may be unavailable in certain versions of the Building Block.

Advanced Session Settings

Repeat Session Weekly times.

Reserve Seats [Check Availability](#)

Set Boundary Time (minutes)

2. Elluminate sessions can be created so that they are only available to the users in that course, which is the default setting. However Elluminate *Live!* sessions can be shared across multiple courses or made available to all courses.

For example, if an instructor is teaching three Math courses, they can schedule a single Elluminate *Live!* session for office hours in one course and make that session available to students in all of the courses that they are teaching. Alternatively, consider an example where you wish to host an information session for all users in Blackboard. In this case, using the option of 'Public', every user will see from the **Course** page that the session is available.

Furthermore, guest speakers can easily be invited to the session without having to create a Blackboard ID for them, as sessions can be posted on the Elluminate *Live!* Manager, password protected if desired, and invitations can be sent directly to the speaker.

3 Session Access (Optional)

Session Type Course Shared Public

Session Password

4 Session Sharing

Select Courses That Can Share This Session

Intro to Chemistry
is always included as a selected course

Available Courses		Selected Courses
English 101 History	<input type="button" value="▶"/> <input type="button" value="◀"/>	

- When scheduling an Elluminate *Live!* the instructor has even greater flexibility in that they can select sessions to be available to all students or they can restrict which students have access to that session. Moreover, students can be selected to be moderators or sessions can be set up so that all users enter as moderators.

For example, consider the scenario where students are working in teams on a group project. The instructor is able to set up team meetings rooms and restrict the attendees so that only the students in each team are able to access their corresponding room. By setting the room so that everyone joins as a moderator, users can join with Moderator status and fully interact in Elluminate *Live!* accordingly.


5 Session Moderators & Participants (Optional)

Session Moderator

The screenshot displays the 'Session Moderator' configuration interface. At the top, there is a 'Selected Courses' section with a dropdown menu currently set to 'Intro to Chemistry'. Below this are two checkboxes: 'Restrict Participants' and 'All Moderators', both of which are currently unchecked. The main area is divided into two columns. The left column, titled 'Available Participants', is further divided into three sections: 'Instructors' (listing Ayana Murphy and Zemina Hasham), 'Teaching Assistants' (listing Marc Stringer and Shannon Urban), and 'Students' (listing elluminate student, Ian Fleming, and Nick Goffredo). The right column, titled 'Selected Roles', contains two sections: 'Moderator Role' (with 'Elluminate Instructor' selected) and 'Participant Role' (which is currently empty). Navigation arrows are visible between the 'Moderator Role' and 'Participant Role' sections.

Additionally, various session settings can be defined that include the recording mode and the number of simultaneous talkers in the session.

6 Session Attributes (Optional)

 **Session Attributes**

Recording Mode	Manual <input type="button" value="v"/>
Simultaneous Talkers	1 <input type="button" value="v"/>
Supervised	<input checked="" type="checkbox"/>
All Permissions	<input checked="" type="checkbox"/>
Raise Hand on Entry	<input type="checkbox"/>


Lastly, if a teleconference will be used during the session, teleconference instructions may be entered in the appropriate fields.

7 Teleconferencing Instructions (Optional)

 **Teleconferencing Instructions**

To Moderator	<input type="text"/>
To Participant	<input type="text"/>
Same as Moderator <input type="checkbox"/>	

One of the key strengths of Elluminate Bridge for Blackboard is that live sessions and recorded sessions can be included as Content Objects. This allows instructors to selectively release Elluminate sessions. Instructors can also create recorded sessions and make these available to users as needed. This allows content to be managed, re-used and shared effectively. Individual content objects can be used across multiple courses, organizations, and modules without the need for duplication

 **Add Link: Elluminate *Live!* Recorded Session**

1 Session Details

To list Elluminate *Live!* sessions, the session title is required. All other fields are optional.

* Title	<input type="text" value="Chemistry Lecture 101 2010/03/29 07:38:04"/>
Description	<input type="text" value="Professor Hasham's recorded lecture"/>
Comment	<input type="text"/>

Course Requirement Required Suggested

2 Options

Available Yes No

Date Restrictions Display After
Enter dates as mm/dd/yyyy. Time may be entered in any increment.


Display Until
Enter dates as mm/dd/yyyy. Time may be entered in any increment.

3. Submit


*** Indicates a required field.**

Integration at the Student Level

Students can access Elluminate *Live!* sessions and recordings from the **Elluminate Live!** link from the course menu. Students can also download the required software and access several help files from the link “Elluminate *Live!* Software Support”.




Elluminate *Live!* Sessions



- Live Sessions
- Recorded Sessions

Elluminate *Live!* Sessions for Today

All times displayed in Mountain Daylight Time.



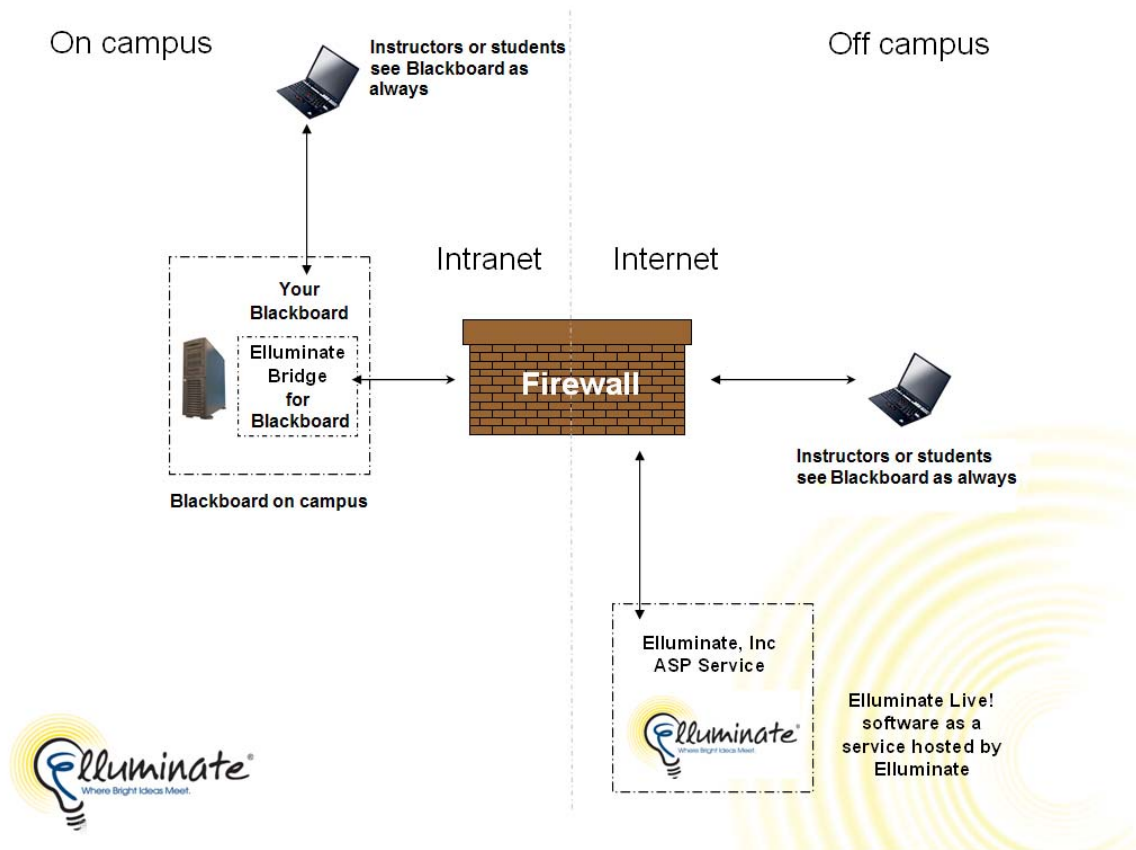
Calendar for April 2010 showing dates from 28 to 1. The 5th is highlighted. Navigation links: Today | This Week | This Month.

To join a live session or view a recording, the student simply clicks on the session name and the Elluminate *Live!* virtual classroom will be launched. The student's Blackboard ID is authenticated and passed to the Elluminate *Live!* server prior to letting the user join the session.

Deploying the Elluminate Bridge for Blackboard: ASP or Self Hosted

Elluminate recognizes that some organizations want to host Elluminate *Live!* themselves while others want an ASP software as a service (SaaS) model. In either case, the Elluminate Bridge for Blackboard connects the Blackboard application you are already supporting on your campus to the Elluminate *Live!* system. (Elluminate does not host the actual Blackboard instance.)

Elluminate ASP-hosted Elluminate Live! Services: When you are using Elluminate *Live!* services hosted by Elluminate, the Elluminate Bridge for Blackboard connects your Blackboard application to the Elluminate *Live!* ASP managed servers.

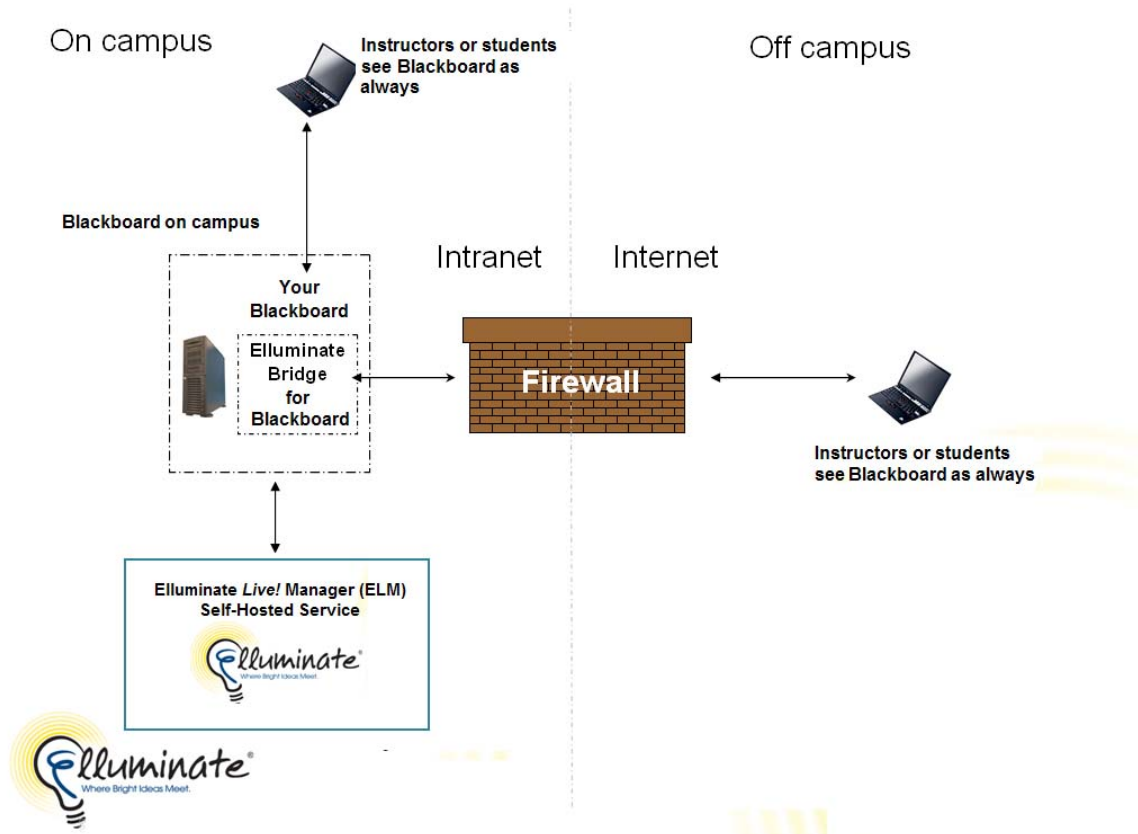


Elluminate ASP-hosted service bridged to Blackboard

In the scenario above, you install the ASP-hosted Elluminate Bridge for Blackboard (the SAS version). Here are a few important things about this scenario.

- There are additional ASP hosting costs involved in connecting the bridge to the *Elluminate Live!* ASP. Please contact your Elluminate salesperson for more details on this hosting service fee.
- In this scenario, Elluminate *Live!* services are hosted by Elluminate. If you host Elluminate on your own campus with Elluminate ELM, see the following scenario.

Self-hosted Elluminate Live! server: When you are hosting the Elluminate *Live!* server from your campus, the Elluminate Bridge for Blackboard connects your Blackboard application to your Elluminate *Live!* ELM server.



Campus hosted Elluminate (ELM) bridged to Blackboard

In the scenario above, you install the self-hosted Elluminate Bridge for Blackboard (the ELM version). In this scenario, Elluminate *Live!* services are hosted at your campus. To bridge with Elluminate ASP services, please see the other scenario.

About Elluminate

Elluminate, Inc. provides proven, best-in-class web, audio, video, and social networking solutions that support 21st century teaching, learning, and collaboration. The company serves more than 1 billion annual web-collaboration minutes to over 7 million teachers and students located in 170 different countries.

Headquartered in Calgary, Alberta, Canada and Pleasanton, California, Elluminate is the trusted choice of prominent academic institutions and corporations, including ADP, Apple Computer, California State University, Florida Virtual School, Georgetown University, K12 Inc., London Knowledge Lab, Los Angeles Unified School District, Miami-Dade County Public Schools, Novell, Queen's University, Royal Veterinary College, Red Hat, Sun Microsystems, and many more. For more information, visit <http://www.illuminate.com>.

More information about Elluminate Bridge for Blackboard is available on the Elluminate website: <http://www.illuminate.com>