

Kaltura Video Tool for Blackboard Deployment Guide - LTI 1.3

This guide is intended for Kaltura and Blackboard administrators. These instructions are for new implementations of all Blackboard SaaS instances.

Prerequisites

- Partner Id (“pid”), e.g., 12345678
- Admin secret, e.g., f79359d3227f45be73c181489888afc5
- A Kaltura Application Framework (KAF) instance for KAF type ‘BlackboardUltra’
 - minimal KAF version is v5.99.46
 - URL example, 12345678.kaf.kaltura.com

The KAF instance should contain the following modules:


- [Bbultra module](#)
- [Browseandembed module](#)
- [Hosted module](#)
- [Hostedrelated module](#)
- [LTIgrading module](#)

Deployment Instructions

This section describes how to deploy the Kaltura Video Extension for Blackboard using Application Registration and Deployment settings provided by Blackboard which will allow you to create and deploy the Kaltura external tools in Blackboard using LTI 1.3. The following sections provide the steps to:

1. Register the Kaltura Application in the Blackboard Developer Portal
2. Enable and configure LTI 1.3 support within your Kaltura Application Framework (KAF) instance
3. Deploy the Kaltura tools in Blackboard
4. Create the REST API Integration for Kaltura

Section 1: Registering the Kaltura Application

 You will need a separate registration for each KAF integration using LTI 1.3.

To execute the steps in this section you will need to have a Blackboard account at [Blackboard Developer Portal](#).

1. Login to your Blackboard Developer Portal account at

<https://developer.blackboard.com>.

2. On the My Applications page, click on the "+" button to create a new application.
3. Click on Manual Registration
4. On the **Register a New Application** page enter the following:
 - a. **Application Name** – Kaltura recommends you use an application name that is unique for the KAF you are using for the integration
 - b. **Description** – add descriptive information for the new application
 - c. **Domain(s)** – set to your KAF URL. e.g., bb-lti13-2964661-test1.kaf.kaltura.com.
Do NOT include https://
 - d. **Group** – select the production group to assign the application to.
 - e. Click on the switch to the right of “My Integration supports LTI 1.3” to expose the LTI 1.3 settings.
Fill in the fields as follows:
Login Initiation URL = `https://{your_KAF_URL}/hosted/index/oidc-init`
Tool Redirect URL = `https://{your_KAF_URL}/hosted/index/oauth2-launch`
Tool JWKS URL = `https://{your_KAF_URL}/hosted/index/lti-advantage-key-set`
Signing Algorithm = RS256
 - f. Click **Register Application**
5. **Important!** The settings for your registered application will be displayed. Copy the settings and store in a safe and secure location.
6. Keep this page open to use the settings for the next section of the implementation.

Section 2: Setting the LTI 1.3 Configuration in Your KAF Instance

In this section you will configure your KAF to support LTI 1.3 and connect with your Blackboard instance.

1. Login to your BlackboardUltra KAF Configuration Management page.
(`https://{your_KAF_URL}/admin`).
2. Navigate to the Hosted Module.
3. In the Hosted Module set authMethod to “lti1.3”.
This will expose the fields listed in steps 4.
4. Fill in the following fields using the values from Section 1, step 4
 - a. **lti13PlatformOidcAuthUrl** = OIDC auth request endpoint
 - b. **lti13AuthTokenUrl** = Auth token endpoint
 - c. **lti13KeysUrl** = Public keyset URL
 - d. **lti13ClientId** = Application ID
5. For the "**lti13ServicePrivateKey**", click the '**generate key pair here**' link. This

will generate the keys.

6. In the Certificate Generator frame click Use to have the key pairs saved to the Iti13ServicePrivateKey and Iti13ServicePublicKey fields.
7. Scroll to the bottom of the Hosted module settings and click **Save**.

Section 3. Adding the LTI 1.3 Tool Provider in Blackboard

In this section you will create the LTI Tool Provider in Blackboard so that you can deploy the Kaltura Video Extension for Blackboard. Using a Tool Provider allows you to maintain the LTI 1.3 authentication information in a central place for all Kaltura tools.

1. Login to your Blackboard instance with an Account Admin user account.
2. Navigate to Administrator Tools > Integrations > LTI Tool Providers
3. In the LTI Tool Providers Page click on **Register LTI1.3/Advantage Tool**
4. In the Client ID field insert the same Application ID used for the Iti13ClientId in step 4 in the previous section.
5. Click **Submit**.

The following pages open.

6. Confirm the settings, and update as needed:
 - a. **Client ID** – application id value for your registered application
 - b. **Name** – name for your registered application
 - c. **Description** – description for your registered application
 - d. **Deployment ID** – deployment id for your LTI 1.3 tool
 - e. **Initiate Login URL** – login initiation URL for your registered application
 - f. **Tool Redirect** – tool redirect URL for your registered application
 - g. **Domains** – your KAF domain (do not include “https://” or the trailing “/”)
 - h. **Tool Status** – set to Approved
 - i. **Tool Provider Custom Parameters**
 - a. **Add the following two parameters:**
 - a. **lis_user_username=@X@user.id@X@**
 - b. **lis_course_id=@X@course.id@X@**
 - j. **User Fields to Send**
 - a. **Role in Course** – checked
 - b. **Name** – checked
 - c. **Email Address** – checked
 - k. **Allow grade service access** – set to **Yes**
 - l. **Allow Membership Service Access** – set to **Yes**

7. Click **Submit**.

You receive a Success message - *Success: LTI 1.3 Tool Edited: Kaltura for Blackboard LTI 1.3.*

Section 4: Configuring the Kaltura Tool Placements

In this section you will add the Tool Placements for the following Kaltura tools:

My Media

Media Gallery

Browse Search and Embed

Interactive Video Quiz

Each tool is independent of the others, and you may select to use any one of them or all of them.

Start by performing the following steps:

1. Login to your Blackboard instance with an Account Admin user account.
2. Navigate to Administrator Tools > Integrations > LTI Tool Providers.
3. On the LTI Tool Providers page locate the Tool Provider you created.
4. Hover over the name for the Tool Provider to expose the icon for the options menu and click on the icon to display the list of options.
5. Click on **Manage Placements**
6. Click on **Create Placement**
7. Follow the steps in each subsection to add a placement for the Kaltura tool you would like to add.

Section 4a: Kaltura **My Media** Placement

1. **Label** – the name of the tool. This will be the name displayed to users and can be any value. (ex. **My Media**)
2. **Description** – enter a description for the tool
3. **Handle** – the internal ID for the tool. (ex. **KalturaMyMedia**)
4. **Availability** – to make the tool available to users set to **Yes**
5. **Type** – select **System Tool**
6. **Icon**
 - Save the Kaltura icon to a location on your computer.
 - Click the browse button to browse to the location you saved the icon to.
 - Select the icon file and add to the placement
7. Target Link URI - Fill in your KAF URL concatenated with the following URL:

/bbultra/index/launch/target/my-media

Ex. <https://123456.kaf.kaltura.com/bbultra/index/launch/target/my-media>

8. Click **Submit**

Section 4b: Kaltura **Media Gallery** Placement

1. **Label** – the name of the tool. This will be the name displayed to users and can be any value. (ex. **Media Gallery**)
2. **Description** – enter a description for the tool
3. **Handle** – the internal ID for the tool. (ex. **KalturaMediaGallery**)
4. **Availability** – to make the tool available to users set to **Yes**
5. **Type** – select **Course Tool**
 - check **Allow student access**
6. **Icon**
 - Save the Kaltura icon to a location on your computer
 - Click the browse button to browse to the location you saved the icon to.
 - Select the icon file and add to the placement
7. Target Link URI - Fill in your KAF URL concatenated with the following URL:
/hosted/index/course-gallery
Ex. <https://123456.kaf.kaltura.com/hosted/index/course-gallery>
8. Click **Submit**

Section 4c: Kaltura **Browse Search and Embed** Placement


1. **Label** – the name of the tool. This will be the name displayed to users and can be any value. (ex. **Kaltura Embed Media**)
2. **Description** – enter a description for the tool
3. **Handle** – the internal ID for the tool. (ex. **KalturaBSE**)
4. **Availability** - to make the tool available to users, set to **Yes**.
5. **Type** - select Deep Linking content tool
 - **check Allow student access**
6. **Icon**
 - Save the Kaltura icon to a location on your computer
 - Click the browse button to browse to the location you save the icon to.
 - Select the icon file and add to the placement
7. Target Link URI - Fill in your KAF URL concatenated with the following URL:
/browseandembed/index/browseandembed
Ex. <https://123456.kaf.kaltura.com/browseandembed/index/browseandembed>
8. Click **Submit**

Section 4d. Kaltura **Interactive Video Quiz** Placement

1. **Label** – the name of the tool. This will be the name displayed to users and can be any value. (ex. **Kaltura Video Quiz**)
2. **Description** – enter a description for the tool
3. **Handle** – the internal ID for the tool. (ex. **KalturaVideoQuiz**)
4. **Availability** – to make the tool available to users set to **Yes**
5. **Type** – select **Deep Linking content tool**
 - check **Allow student access**
6. **Icon**
 - Save the Kaltura icon to a location on your computer.
 - Click the browse button to browse to the location you save the icon to.
 - Select the icon file and add to the placement
7. **Target Link URI** - Fill in your KAF URL concatenated with the following URL:
/browseandembed/index/browseandembed?type=quiz
Ex. https://123456.kaf.kaltuar.com/browseandembed/index/browseandembed?type=quiz
8. Click **Submit**

Section 5: Creating the REST API Integration

The REST API Integration allows you to use the Blackboard REST API to publish content from My-Media to Media Galleries and to import content from one Media Gallery to another.

 To ensure security of your Blackboard instance, Kaltura has registered an application to be used in the implementation of the REST API integration.

To achieve maximum security of the Kaltura integration with Blackboard, Kaltura recommends using Option 1 when implementing the Blackboard REST API Integration.

Option 1 - Create the REST API Integration using a User Account and Custom System Role

This is more secure method. The REST API Integration for Kaltura will have User level privileges with the addition of privileges to list the courses they are enrolled in.

1. Login to your Blackboard instance with an Account Admin user account.
2. Navigate to Administrator Tools > Users > System Roles
3. Click Create Role
4. In the Create System Role page, fill in the following values:

- a. **Role Name** - Enter a unique name for the system role (ex. KalturaRESTAPIRole)
- b. **Role ID** - Enter a unique ID for the system role (ex. KALTURAREST1)
- c. **Description** - Enter a description for this system role
5. Click **Submit**
 - A success message will display and state that the System Role has been created.
 - The Manage Privileges page will display
6. Perform the following steps to add the additional privileges for this role
 - a. Click on **PERMITTED** to see the list of the Permitted Privileges that are enabled for this role
 - b. Scroll to the bottom of the page and click the **Show All** button, to also display all available privileges
 - c. Open the browser page search for the browser you are using (ctrl-f).
 - d. Enter the following in the browser page search **Administrator Panel (Users) > Users > Edit > View Course Enrollments**
 - e. Click the down arrow on the search to jump to search item.
 - f. Click the left hand check box
 - g. Scroll to the top of the list of Privileges and click on the Privileges box and click **Permit Privileges**
 - h. Repeat steps c - g using a search value of **Administrator Panel (Users) > Users > Edit > View Organization Enrollments**

The two additional privileges have now been added to the role
7. Navigate to Administrator Tools > Users
8. Click on **Create User**
9. Create a new user using the standard settings used by your organization
 - a. Kaltura recommends setting the Primary Institution Role to Other
 - b. Set the Primary System Role to the system role you have created.
10. Click **Submit**
11. Login to your Blackboard instance with an Account Admin user account.
12. Navigate to Administrator Tools > Integrations > REST API Integrations.
13. Click the **Create Integration** button.
14. Set the following:
 - a. **Application ID** - Use the Kaltura Application ID: **8d68a3e5-4643-4152-bded-6bca9eb39312**
 - b. **Learn User** - set to the REST API Integration user account you created in steps 7-10 above
 - c. **End User Access** - set to **YES**.

d. **Authorized To Act As User** - set to **Service Default (No)**.

15. Click **Submit**.

Option 2 - Create the REST API Integration using System Administrator Account

This is the basic method. The REST API Integration for Kaltura will have Blackboard System Administrator role privileges.

1. Login to your Blackboard instance with an Account Admin user account.
2. Navigate to Administrator Tools > Integrations > REST API Integrations.

3. Click the **Create Integration** button.

4. Set the following:

- **Application ID** - Use the Kaltura Application ID: **8d68a3e5-4643-4152-bded-6bca9eb39312**
- **Learn User** - set to a Blackboard Admin user that will be used
- **End User Access** - set to **YES**.
- **Authorize To Act As User** - set to **Service Default (No)**.

5. Click **Submit**.

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