

# Kaltura Video Tool for Blackboard Deployment Guide - LTI 1.3

Last Modified on 06/16/2024 5:10 pm IDT

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](#)

## Before You Begin

- ⚠ IMPORTANT - Kaltura has developed two types of KAFs to support the integration with Blackboard.**
- KAF type = Blackboard (KAFbb) - supports the integration with the Kaltura Video Building Block for Blackboard.**
  - KAF type = Bbultra (KAFbu) - supports the integration using LTI 1.1 and LTI 1.3.**

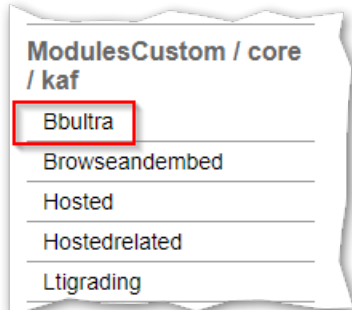
**This deployment requires a KAF of type 'Bbultra'. The steps below will walk you through how to confirm your KAF is the correct type before proceeding. If after you go through these steps you confirm that your KAF is type 'Blackboard', stop here and contact your Kaltura Customer Success Manager to request a KAF type 'Bbultra', and to discuss your deployment plan.**

## How to Confirm the KAF type

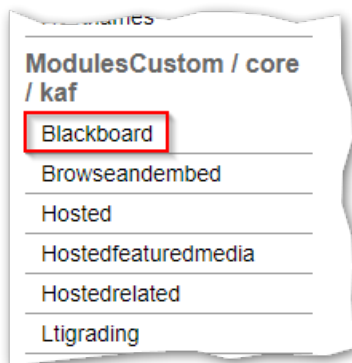
Use the following steps to determine the KAF type.

1. Log into the KAF Configuration Management page for the instance that will be used for your deployment.

2. Scroll down the list of modules on the left side of the Configuration Management page to the **ModulesCustom / core / kaf** section
3. The first module of that section determines the KAF type that is supported.
  - a. If the first module in the section is Bbultra then you can proceed.



- b. If the first module in the section is Blackboard then **STOP**, and contact your CSM to request a KAF type 'Bbultra'.




## 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:

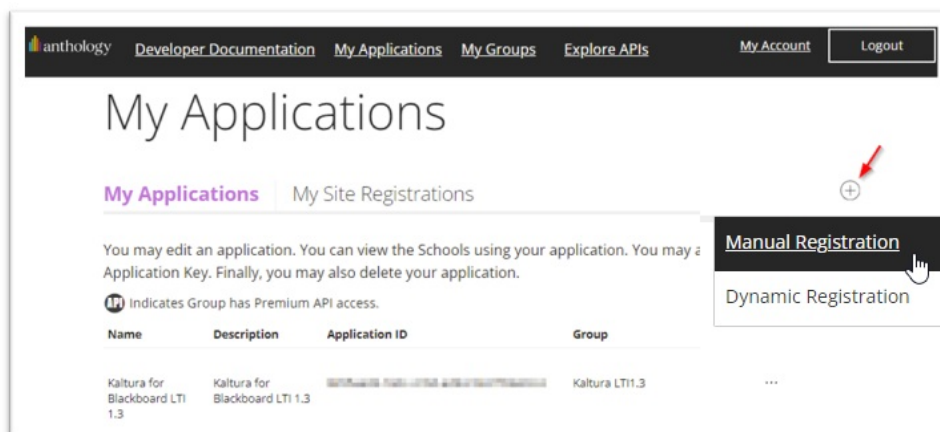
1. Register the Kaltura Application in the Blackboard Developer Portal
2. Enable and configure LTI 1.3 support within your Kaltura Application Framework (KAF) instance
3. Deploy the Kaltura tools in Blackboard
4. Create the REST API Integration for Kaltura

### 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](https://developer.blackboard.com).

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.

|                                   |  |      |
|-----------------------------------|--|------|
| <b>Application key</b>            | 6a0d7a13-3460-4f54-a4e3-d8319c9b24f5   | Copy |
| <b>Secret</b>                     | b8b1UzR4K9Zn8tKya4cvMhti2aBkzJ58   | Copy |
| <b>Application ID</b>             | 8455aad3-7a0c-41b6-ad94-5431fb9e0cc4   | Copy |
| <b>Issuer</b>                     | https://blackboard.com   | Copy |
| <b>Public keyset URL</b>          | https://developer.blackboard.com/api/v1/management/applications/8455aad3-7a0c-41b6-ad94-5431fb9e0cc4/jwks.json | Copy |
| <b>Auth token endpoint</b>        | https://developer.blackboard.com/api/v1/gateway/oauth2/jwttoken  | Copy |
| <b>OIDC auth request endpoint</b> | https://developer.blackboard.com/api/v1/gateway/oidcauth   |      |

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.

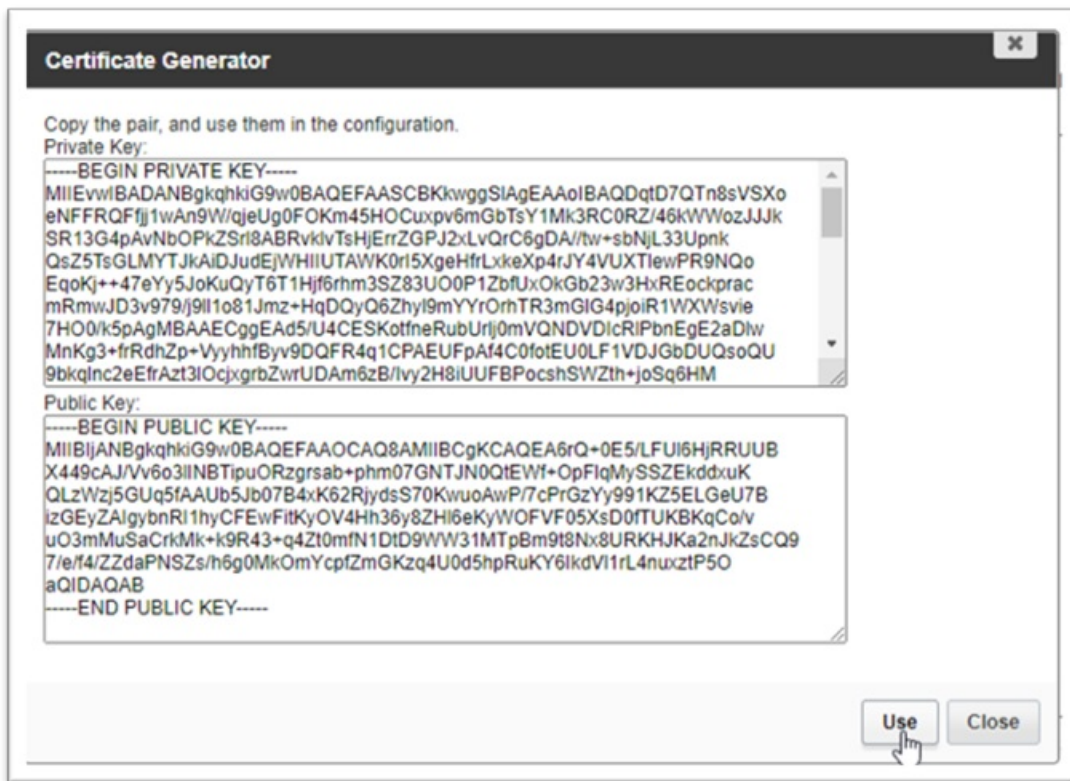
1. Login to your BlackboardUltra KAF Configuration Management page. ([https://{your\\_KAF\\_URL}/admin](https://{your_KAF_URL}/admin)).
2. Navigate to the Hosted Module.
3. In the Hosted Module set authMethod to "lti1.3".  
This will expose the fields listed in steps 4.
4. Fill in the following fields using the values from Section 1, step 4
  - a. **Iti13PlatformOidcAuthUrl** = OIDC auth request endpoint
  - b. **Iti13AuthTokenUrl** = Auth token endpoint
  - c. **Iti13KeysUrl** = Public keyset URL
  - d. **Iti13ClientId** = Application ID
5. For the "**Iti13ServicePrivateKey**", click the '**generate key pair here**' link. This will generate the keys.

**Iti13ServicePrivateKey**

Service Private Key - this is used to sign the JWT or other calls done from KAF to the platform like in Deep Linking Response. You can [generate key pair here](#)

6. In the Certificate Generator frame click Use to have the key pairs saved to the

Iti13ServicePrivateKey and Iti13ServicePublicKey fields.

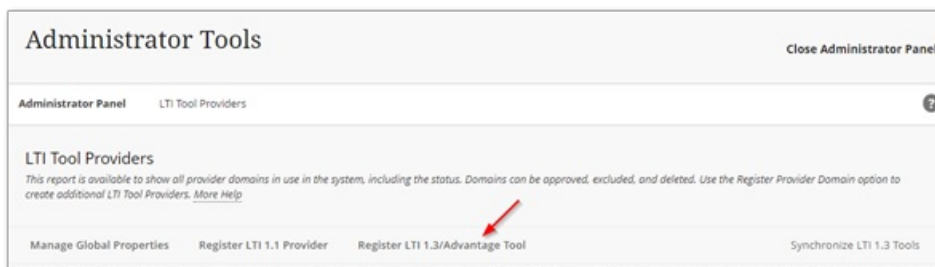


7. Scroll to the bottom of the Hosted module settings and click **Save**.

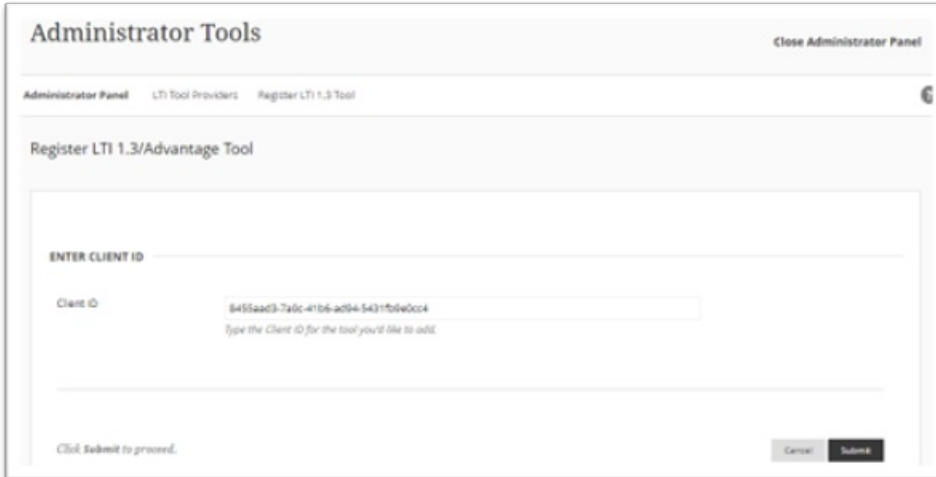
### Section 3. Adding the LTI 1.3 Tool Provider in Blackboard

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.



The screenshot shows the 'Administrator Tools' interface. At the top, there is a 'Close Administrator Panel' link. Below it, a breadcrumb trail reads 'Administrator Panel > LTI Tool Providers > Register LTI 1.3 Tool'. The main heading is 'Register LTI 1.3/Advantage Tool'. Underneath, there is a section titled 'ENTER CLIENT ID'. A 'Client ID' label is followed by a text input field containing the value '8455aed3-7a9c-41b6-ad94-5431f56e0cc4'. Below the input field, a small instruction reads 'Type the Client ID for the tool you'd like to add.' At the bottom left, there is a note: 'Click Submit to proceed.' At the bottom right, there are two buttons: 'Cancel' and 'Submit'.

5. Click **Submit**.

The following pages open.

### Accept LTI 1.3 Tool

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**TOOL STATUS**

*The following fields are read-only, but you can toggle the status of this tool*

Client ID

Name

Description

Deployment ID

Initiate Login URL

Tool Redirect URLs

JWKS URL

Domains

Tool Status  
 Approved  
 Excluded

Tool Provider Custom Parameters

Enter any custom parameters required by the tool provider. Parameters must each be on their own line and be entered in "name=value" format.

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**INSTITUTION POLICIES**

*You can change the following settings for this tool. The fields use global values by default.*

User Fields to Send  
 Role in Course  
 Name  
 Email Address

Allow grade service access  
 Yes  No

Allow Membership Service Access  
 Yes  No

Show User Acknowledgment Message  
You can edit the user acknowledgment message when Membership Service is disabled  
 Yes  No

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Click **Submit** to proceed.

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

### Create System Role

\* Indicates a required field.

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**ROLE PROPERTIES**

\* Role Name

\* Role ID

Description  
 For the toolbar, press ALT+F10 (PC) or ALT+FN+F10 (Mac).

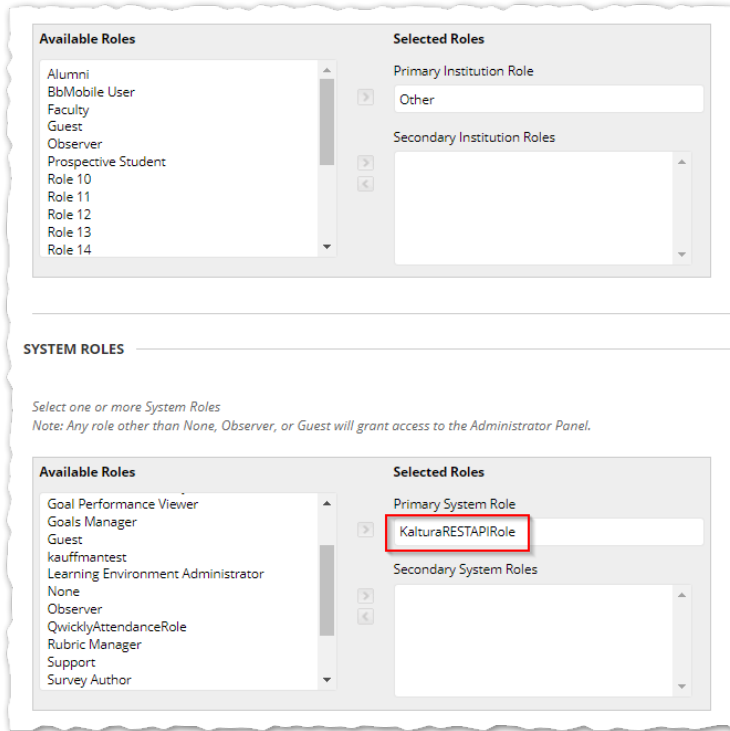
ABC ▾

Role for REST API Integration for Kaltura LTI integration  
 Supports LTI 1.1 and LTI 1.3

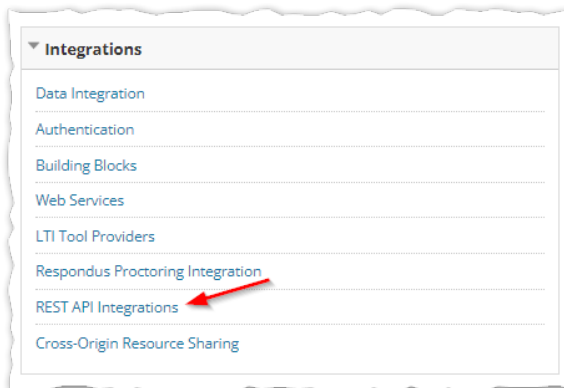
15 WORDS POWERED BY TINY

Click **Submit** to proceed.

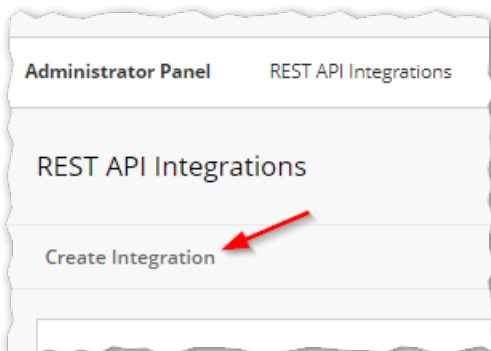
5. Click **Submit**
  - A success message will display and state that the System Role has been created.
  - The Manage Privileges page will display
6. Perform the following steps to add the additional privileges for this role
  - a. Click on **PERMITTED** to see the list of the Permitted Privileges that 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 role 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.



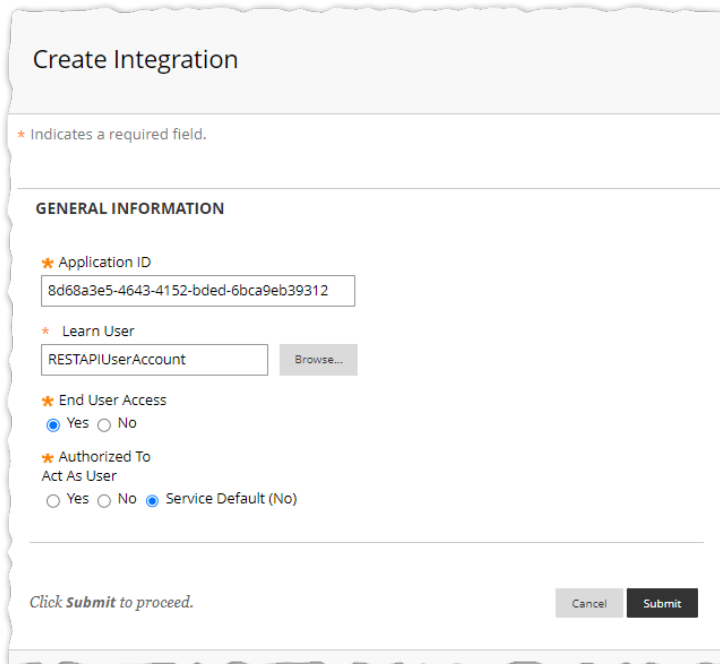
13. Click the **Create Integration** button.



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)**.

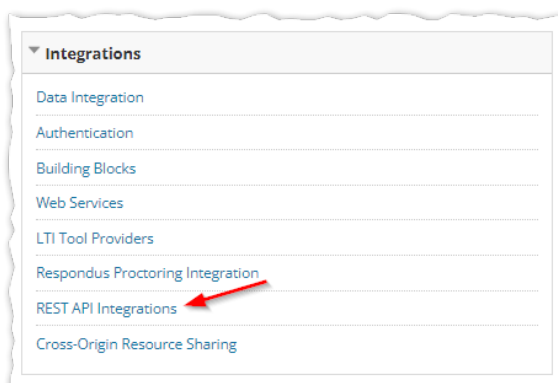


15. Click **Submit**.

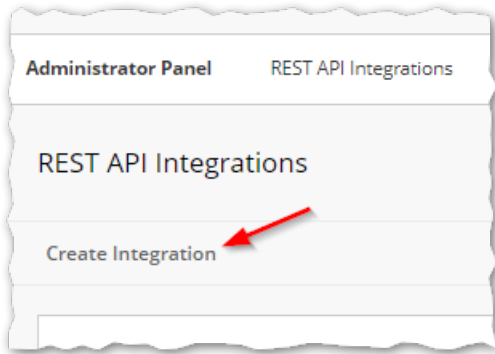
### Option 2 - Create the REST API Integration using System Administrator Account

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.

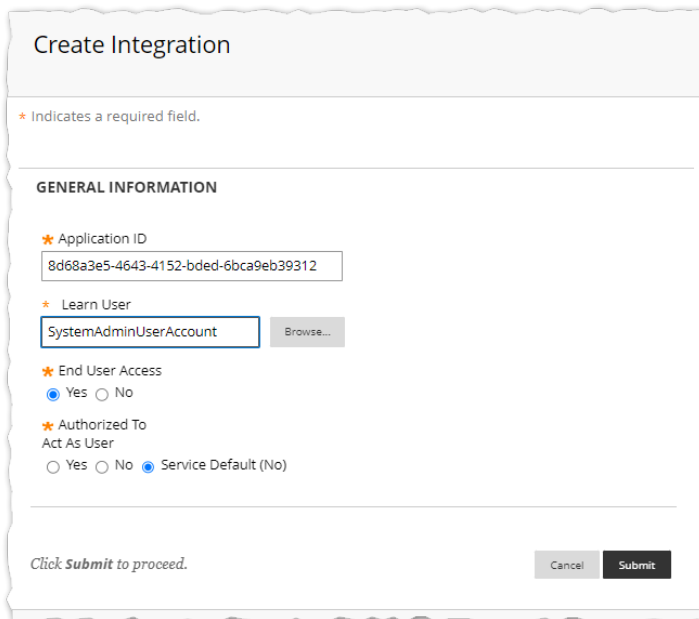


3. Click the **Create Integration** button.



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)**.

A screenshot of the 'Create Integration' form. The form is titled 'Create Integration' and includes a note: '\* Indicates a required field.' The form is divided into a 'GENERAL INFORMATION' section with the following fields:

- Application ID**: 8d68a3e5-4643-4152-bded-6bca9eb39312
- Learn User**: SystemAdminUserAccount (with a 'Browse...' button)
- End User Access**: Yes (selected)
- Authorized To Act As User**: Service Default (No) (selected)

At the bottom, there is a note: 'Click **Submit** to proceed.' and two buttons: 'Cancel' and 'Submit'.

5. Click **Submit**.