Kaltura LMS integration for Blackboard - Deployment guide LTI 1.3

> 🔏 **This article is designated for administrators.**

About

This guide is for Kaltura and Blackboard administrators setting up a new LTI 1.3 integration for Blackboard SaaS (Ultra) using a KAF type 'Bbultra' instance.

Before you start

- Partner Id (PID) (for example, 12345678)
- Admin secret, for example, f79359d3227f45be73c181489888afc5
- A Kaltura Application Framework (KAF) instance for 'BlackboardUltra' (URL example, 12345678.kaf.kaltura.com)
- KAF version **v5.99.46** or later
- The following modules enabled:
  - Blackboardultra module
  - Browseandembed module
 - Hosted module
  - Hostedrelated module
  - LTIgrading module

Step 1: Register the Kaltura application in the Blackboard developer portal

> ℹ️
> 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 the "**+**" button to create a new application.
3. Select **Manual Registration**.
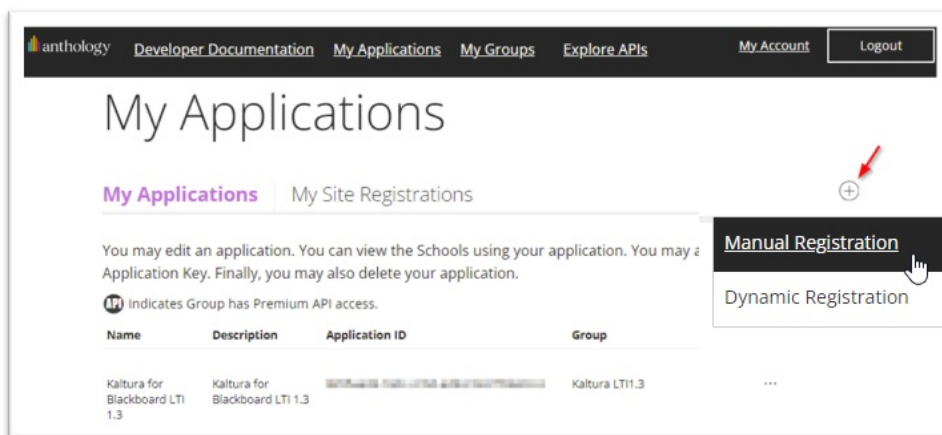
4. On the **Register a New Application** page enter the following:
   - **Application Name** – We recommend using a name that is unique for the KAF you're using for the integration
   - **Description** – Add descriptive information for the new application
   - **Domain(s)** – Set to your KAF URL. e.g., bb-lti13-2964661-test1.kaf.kaltura.com (do NOT include https://)
   - **Group** – Select the production group to assign the application to
   - Toggle 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
   - 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.

Application key

6a0d7a13-3460-4f54-a4e3-d8319c9b24f5   Copy

Secret

b8blUzR4K9ZN8tKya4cvMhti2aBkzJ58   Copy

Application ID

8455aad3-7a0c-41b6-ad94-5431fb9e0cc4   Copy

Issuer

https://blackboard.com   Copy

Public keyset URL

https://developer.blackboard.com/api/v1/management/applications/8455aad3-7a0c-41b6-ad94-5431fb9e0cc4/jwks.json   Copy

Auth token endpoint

https://developer.blackboard.com/api/v1/gateway/oauth2/jwttoken   Copy

OIDC auth request endpoint

https://developer.blackboard.com/api/v1/gateway/oidcauth

✓ Keep this page open to use the settings for the next section of the implementation.

Step 2: Set 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 KAF Configuration Management console (https://{your_KAF_URL}/admin).
2. Navigate to the Hosted module.

Configuration Management

3. Set **authMethod** to **lti1.3**.

4. Fill in the following fields using the values from the Developer portal.

- **lti13PlatformOidcAuthUrl** = OIDC auth request endpoint
- **lti13AuthTokenUrl** = Auth token endpoint
- **lti13KeysUrl** = Public keyset URL
- **lti13ClientId** = Application ID

- For the **"lti13ServicePrivateKey"**, click the **'generate key pair here'** link. This will generate the keys.

- In the **Certificate Generator** window, click **Use** to have the key pairs saved to the lti13ServicePrivateKey and lti13ServicePublicKey fields.

(Optional but recommended) After completing **Step 3** below ('Register the tool provider in Blackboard') and adding the custom parameters:
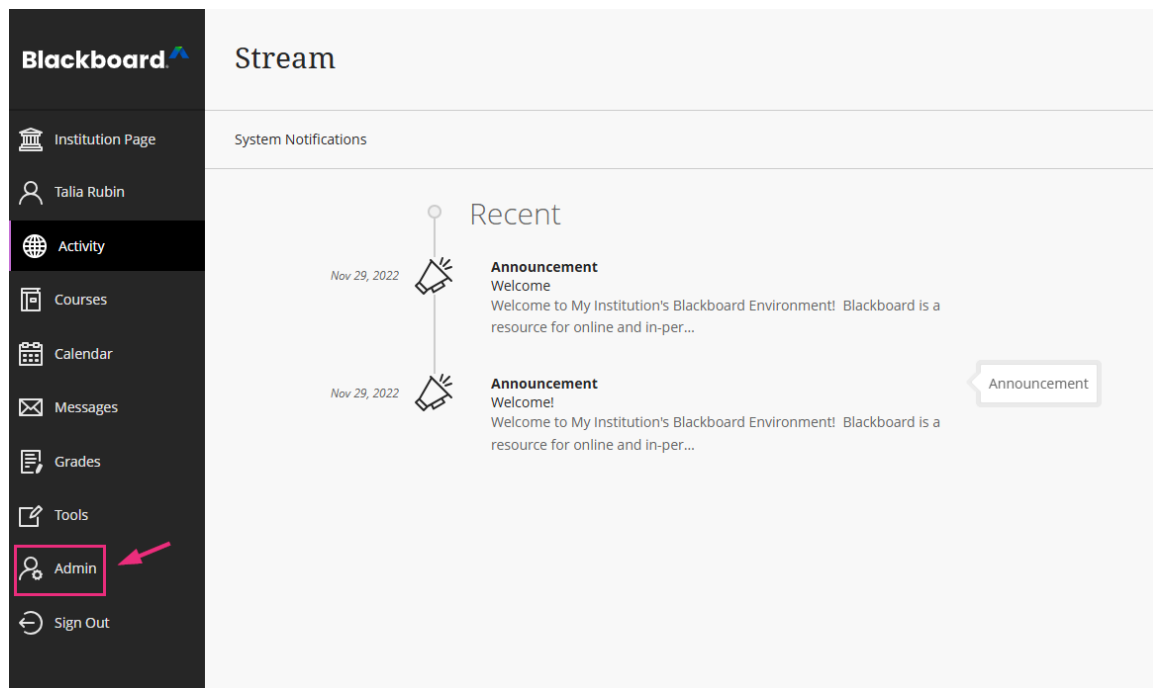
- **ltiUserIdAttribute** = custom_lis_user_username
- **ltiContextIdAttribute** = custom_lis_course_id

These settings ensure that user and course identifiers from Blackboard are consistently passed into Kaltura, especially if standard claims aren't available in LTI launches.
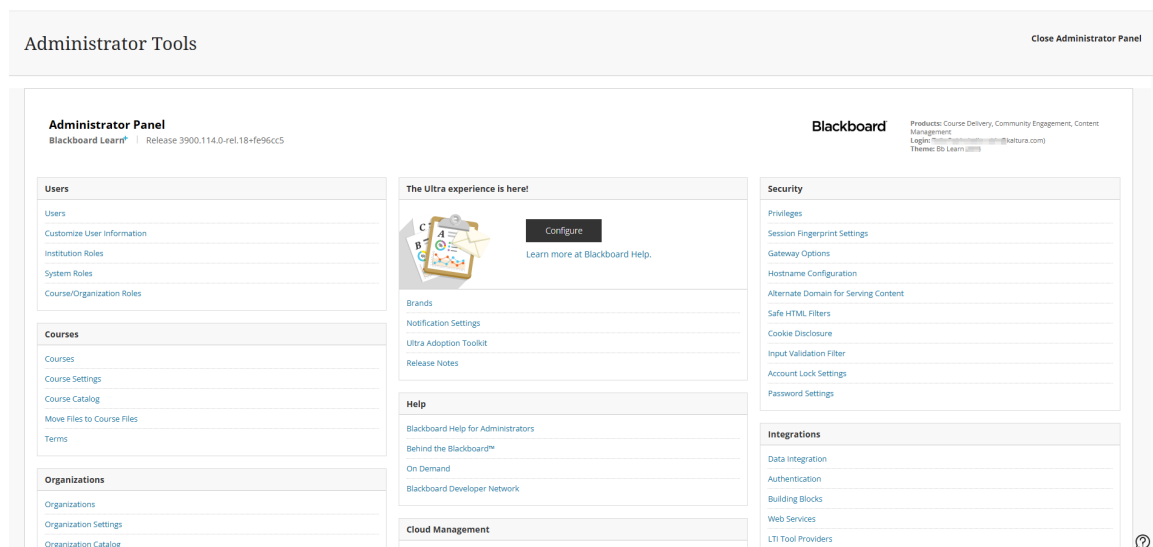
- Scroll to the bottom of the Hosted module and click **Save**.

Step 3: Register the tool provider in Blackboard

1. Login to your Blackboard instance with an Account Admin user account.
2. Click **Admin** in the left navigation bar.

The Administrator Tools page displays.

3. Locate the **Integrations** section and select **LTI Tool Providers**.

4. In the **LTI Tool Providers** page displays.

5. click on **Register LTI1.3/Advantage Tool**

6. In the **Client ID** field, paste the same **Application ID** used for the **lti13ClientId** in the previous section.

Register LTI 1.3/Advantage Tool

ENTER CLIENT ID

Client ID

[   ]

Type the Client ID for the tool you'd like to add.

*Click **Submit** to proceed.*

7. Click **Submit**.

ENTER CLIENT ID

Client ID

[8455aad3-7a0c-41b6-ad94-5431fb9e0cc4]

Type the Client ID for the tool you'd like to add.

*Click **Submit** to proceed.*   Cancel Submit

The **Accept LTI 1.3 Tool** page displays.

Administrator Tools   Close Administrator Par

Administrator Panel   LTI Tool Providers   Accept LTI 1.3 Tool

Accept LTI 1.3 Tool

TOOL STATUS

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

Client ID   [8455aad3-7a0c-41b6-ad94-5431fb9e0cc4]

Name   [Kaltura for Blackboard LTI 1.3]

Description   [Kaltura for Blackboard LTI 1.3]

Default Deployment ID   [4a874968-42a0-411b-bb9c-8839d8e7537d]

Initiate Login URL   [https://bb-lti13-2964661-test1.kaf.kaltura.com/ho]

Tool Redirect URLs   [https://bb-lti13-2964661-test1.kaf.kaltura.com/ho]

JWKS URL   [https://bb-lti13-2964661-test1.kaf.kaltura.com/ho]

Domains   [bb-lti13-2964661-test1.kaf.kaltura.com]

*Click **Submit** to proceed.*   Cancel Submit

8. Confirm the following settings, and update as needed:

TOOL STATUS

- **Client ID** – application id value for your registered application
- **Name** – name for your registered application
- **Description** – description for your registered application
- **Default Deployment ID** – deployment id for your LTI 1.3 tool
- **Initiate Login URL** – login initiation URL for your registered application
- **Tool Redirect URLs**– tool redirect URL for your registered application
- **JWKS URL**
- **Domains** – your KAF domain (do not include "https://" or the trailing "/")
- **Tool Status** – set to Approved
- **Tool Provider Custom Parameters**
  - **Add the following two parameters:**
  - **lis_user_username=@X@user.id@X@**
  - **lis_course_id=@X@course.id@X@**

INSTITUTION POLICIES

User Fields to Send

- **Role in Course** – checked
- **Name** – checked
- **Email Address** – checked
- **Allow grade service access** – set to 'Yes'
- **Allow Membership Service Access** – set to 'Yes'

9. Click **Submit**.

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

Step 4: Configure tool placements in Blackboard

In this section you will add the tool placements for the following Kaltura tools:

- My Media
- Media Gallery
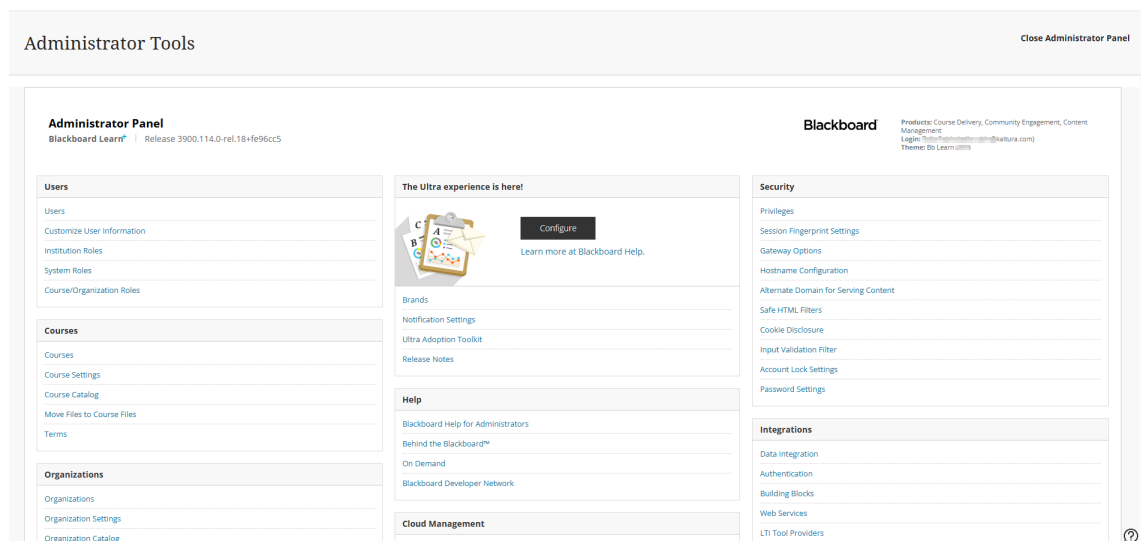- Browse, Search and Embed
- Interactive Video Quiz

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

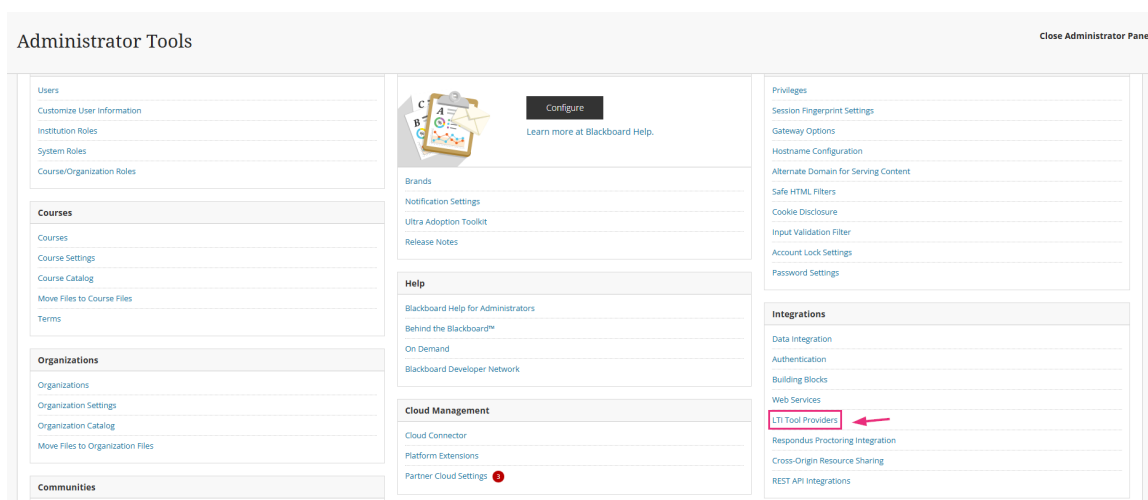Start by performing the following steps:

1. Login to your Blackboard instance with an Account Admin user account.
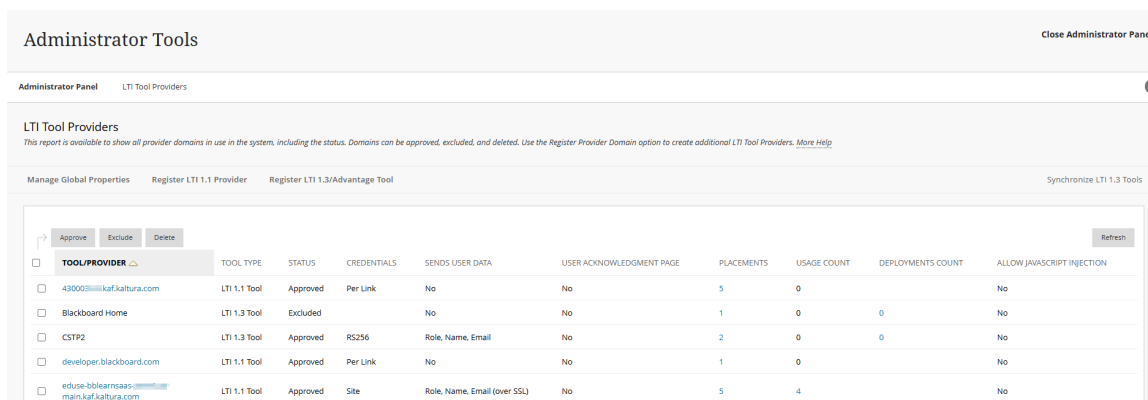2. Click **Admin** in the left navigation bar.
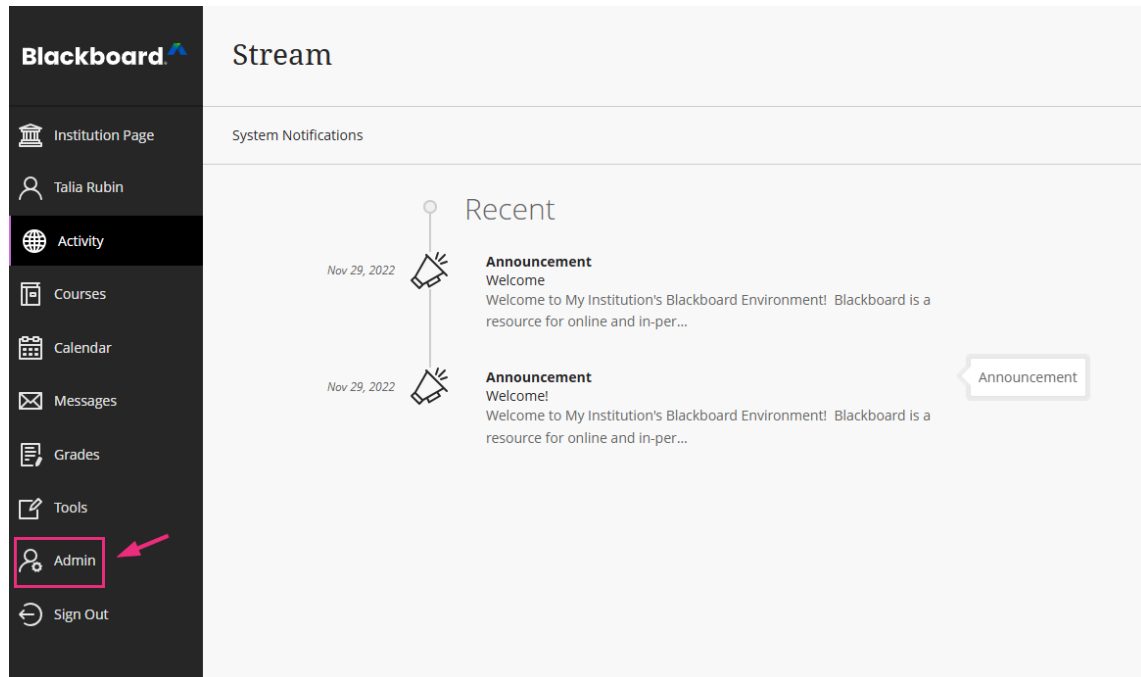
The Administrator Tools page displays.

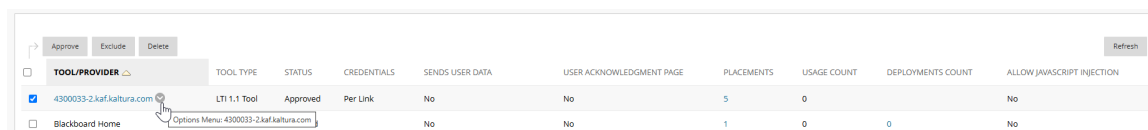3. Locate the **Integrations** section and select **LTI Tool Providers**.

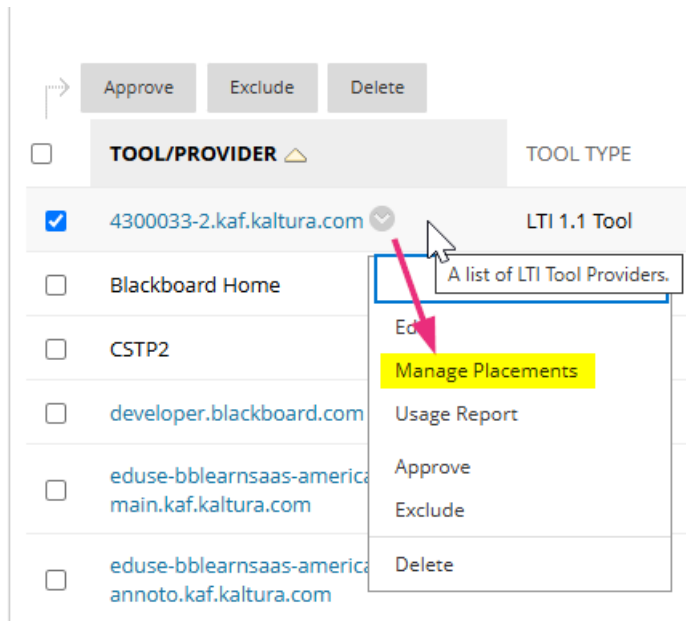4. In the **LTI Tool Providers** page displays.

5. On the LTI Tool Providers page locate the Tool Provider you created.

6. Hover over the name for the Tool Provider to expose the icon for the options menu.
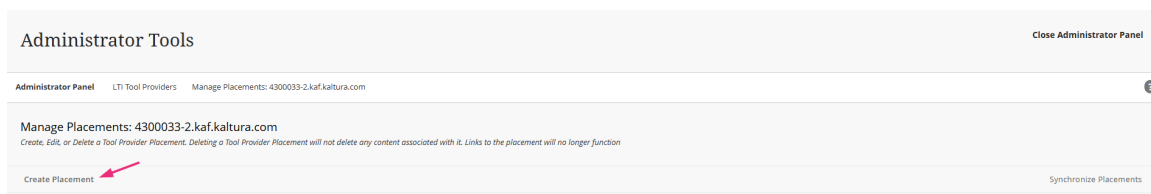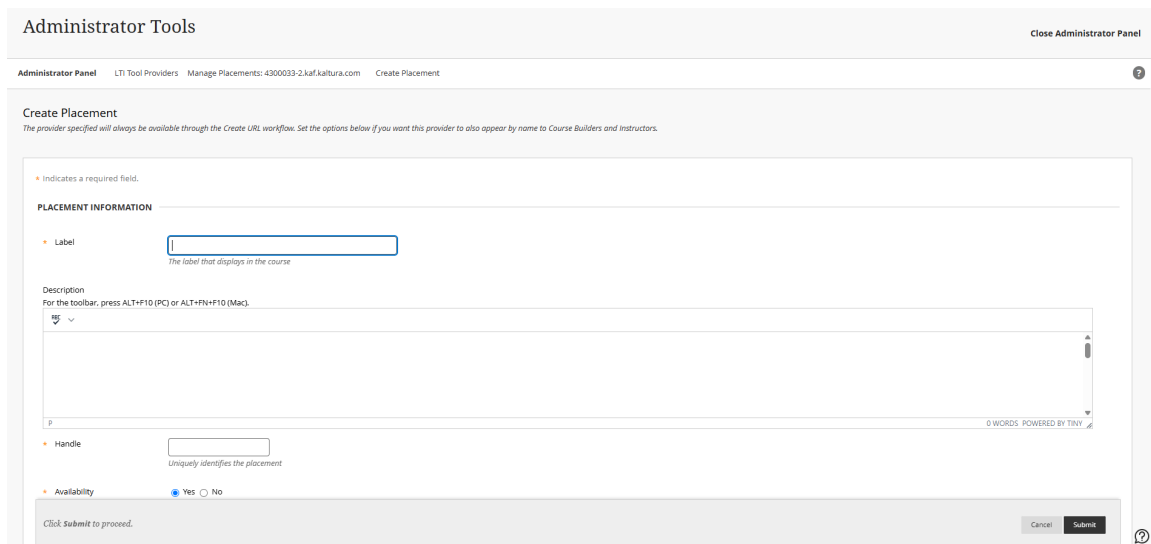

7. Click on the icon to display the list of options.

8. Click on **Manage Placements**

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9. Click on **Create Placement**

The **Create Placement** page displays.

10. Complete the steps in each of the following subsections to add a placement for the Kaltura tool you would like to add:
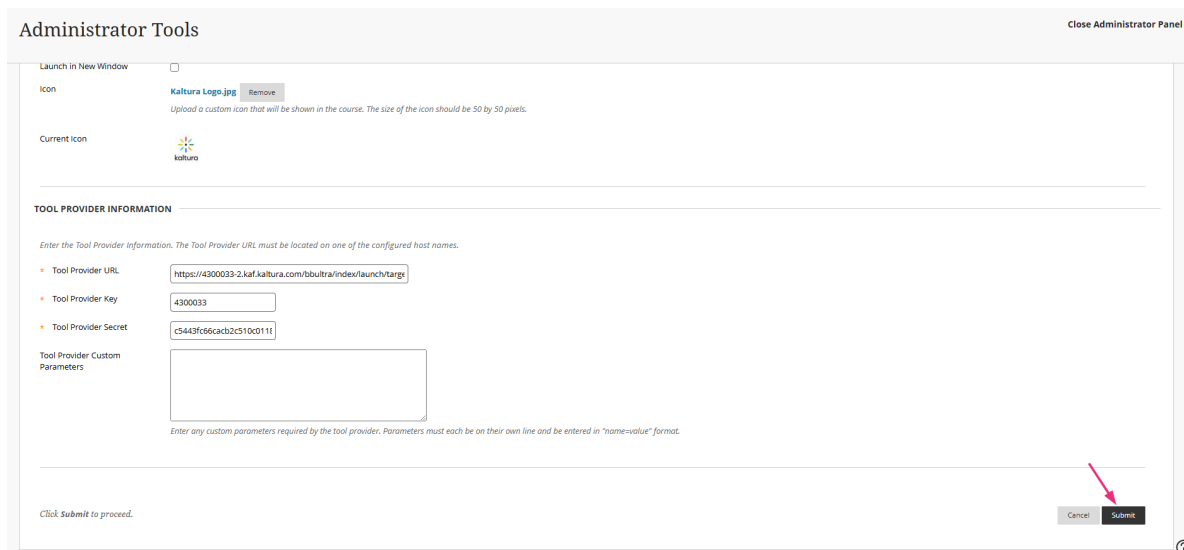
My Media placement

1. Complete the fields as follows:

- **Label** – Enter the name displayed to users, for example, **My Media** (it can be any value)
- **Description** – Enter a description for the tool
- **Handle** – Enter the internal ID for the tool, for example, **KalturaMyMedia**
- **Availability** – Set to 'Yes' to make the tool available to users
- **Type** – Select **System Tool**
- **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
- **Target Link URI** - Enter your KAF URL concatenated with the following URL: **/bbultra/index/launch/target/my-media**

  for example, https://123456.kaf.kaltura.com/bbultra/index/launch/target/my-media

2. Click **Submit.**

Media Gallery placement

1. Complete the fields as follows:

- **Label** – Enter the name displayed to users, for example, **Media Gallery** (it can be any value)
- **Description** – Enter a description for the tool
- **Handle** – Enter the internal ID for the tool, for example, **KalturaMediaGallery**

- **Availability** – Set to 'Yes' to make the tool available to users
- **Type** – Select **Course Tool**
  - check **Allow student access**
- **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
- **Target Link URI** - Enter your KAF URL concatenated with the following URL: **/hosted/index/course-gallery**

  for example, https://123456.kaf.kaltura.com/hosted/index/course-gallery

2. Click **Submit.**

Browse, Search and Embed (BSE) placement

1. Complete the fields as follows:

- **Label** – Enter the name displayed to users, for example, Embed Media   (it can be any value)
- **Description** – Enter a description for the tool
- **Handle** – Enter the internal ID for the tool, for example, **KalturaBSE**
- **Availability** – Set to 'Yes' to make the tool available to users
- **Type** – Select **Deep Linking content tool**
  - check **Allow student access**
- **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
- **Target Link URI** - Enter your KAF URL concatenated with the following URL:

  /browseandembed/index/browseandembed

  for example,

  https://123456.kaf.kaltura.com/browseandembed/index/browseandembed

kaltura

2. Click **Submit**.

Interactive Video Quiz placement

1. Complete the fields as follows:

- **Label** – Enter the name displayed to users, for example, **Kaltura Video Quiz** (it can be any value)
- **Description** – Enter a description for the tool
- **Handle** – Enter the internal ID for the tool, for example, **KalturaVideoQuiz**
- **Availability** – Set to 'Yes' to make the tool available to users
- **Type** – Select **Deep Linking content tool**
  - check **Allow student access**
- **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
- **Target Link URI** - Enter your KAF URL concatenated with the following URL: **/browseandembed/index/browseandembed?type=quiz** for example,

2. Click **Submit**.

Step 5: Create the REST API Integration

This enables features like publishing from My Media to Media Galleries.

Option 1: Secure method (recommended)

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**.

3. Under **Users**, click **System Roles**.

The **System Roles** page displays.

4. Click **Create Role**.

The **Create System Role** page displays.

5. In the Create System Role page, fill in the following values:

   a. **Role Name** - Enter a unique name for the system role, for example,
      KalturaRESTAPIRole

   b. **Role ID** - Enter a unique ID for the system role, for example, **KALTURAREST1**

   c. **Description** - Enter a description for this system role

6. Click **Submit**.

   A success message will display and state that the System Role has been created, and the **Manage Privileges** page displays.

7. To add the additional privileges for this role, click **PERMITTED.**

A list of the Permitted Privileges that are enabled for this role display.

![Kaltura logo]

Manage Privileges: KalturaRESTAPIRole

Click the check boxes to select privileges and then click **Permit Privileges** or **Restrict Privileges** from the **Privileges** menu. All privileges that are checked are permitted for this role. Changes to the privileges on this page apply only to this role. Use the **Search** field to locate specific privileges. **NOTE:** Not every link in the system can be controlled with privileges and some Building Blocks may be available to every user who can access the Administrator panel.
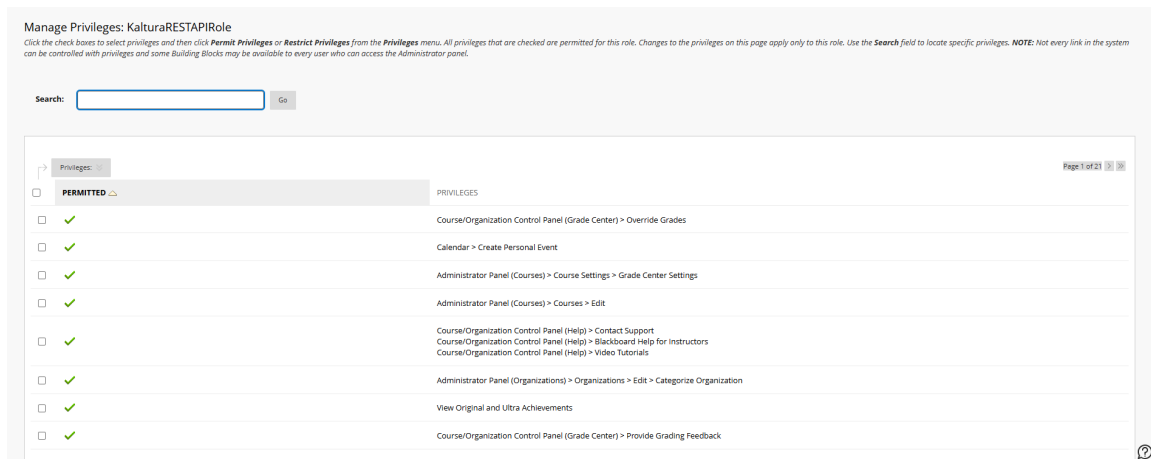
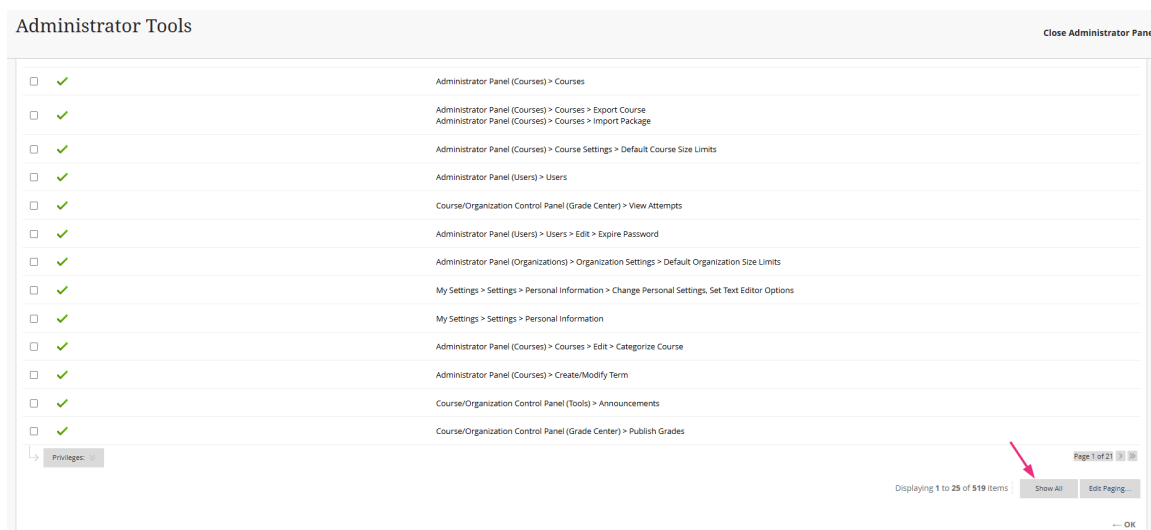Search: [   ] [Go]

| Privileges: ✕		Page 1 of 21 › »
☐	PERMITTED △	PRIVILEGES
☐	✓	Course/Organization Control Panel (Grade Center) > Override Grades
☐	✓	Calendar > Create Personal Event
☐	✓	Administrator Panel (Courses) > Course Settings > Grade Center Settings
☐	✓	Administrator Panel (Courses) > Courses > Edit
☐	✓	Course/Organization Control Panel (Help) > Contact Support Course/Organization Control Panel (Help) > Blackboard Help for Instructors Course/Organization Control Panel (Help) > Video Tutorials
☐	✓	Administrator Panel (Organizations) > Organizations > Edit > Categorize Organization
☐	✓	View Original and Ultra Achievements
☐	✓	Course/Organization Control Panel (Grade Center) > Provide Grading Feedback

8. Scroll to the bottom of the page and click the **Show All** button, to also display all available privileges

Administrator Tools

Close Administrator Panel

☐	✓	Administrator Panel (Courses) > Courses
☐	✓	Administrator Panel (Courses) > Courses > Export Course Administrator Panel (Courses) > Courses > Import Package
☐	✓	Administrator Panel (Courses) > Course Settings > Default Course Size Limits
☐	✓	Administrator Panel (Users) > Users
☐	✓	Course/Organization Control Panel (Grade Center) > View Attempts
☐	✓	Administrator Panel (Users) > Users > Edit > Expire Password
☐	✓	Administrator Panel (Organizations) > Organization Settings > Default Organization Size Limits
☐	✓	My Settings > Settings > Personal Information > Change Personal Settings, Set Text Editor Options
☐	✓	My Settings > Settings > Personal Information
☐	✓	Administrator Panel (Courses) > Courses > Edit > Categorize Course
☐	✓	Administrator Panel (Courses) > Create/Modify Term
☐	✓	Course/Organization Control Panel (Tools) > Announcements
☐	✓	Course/Organization Control Panel (Grade Center) > Publish Grades

Privileges: ✕		Page 1 of 21 › »

Displaying **1** to **25** of **519** items   [Show All] [Edit Paging...]
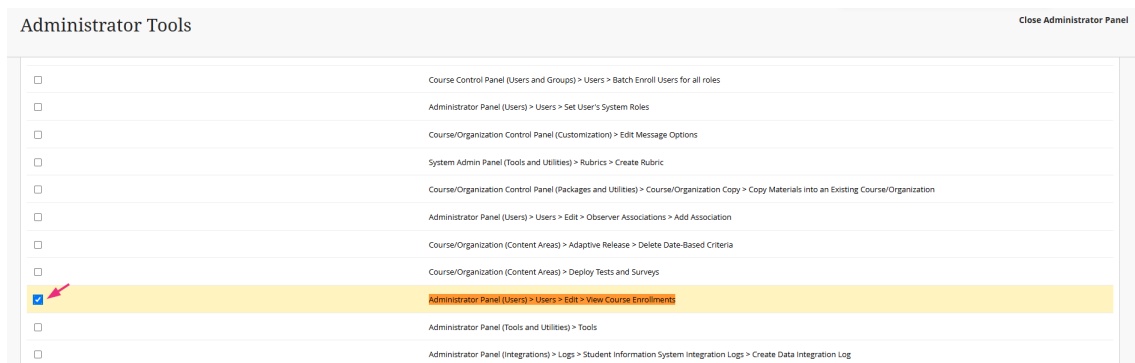
← OK

9. Open the browser page search for the browser you are using (**Ctrl-f**).

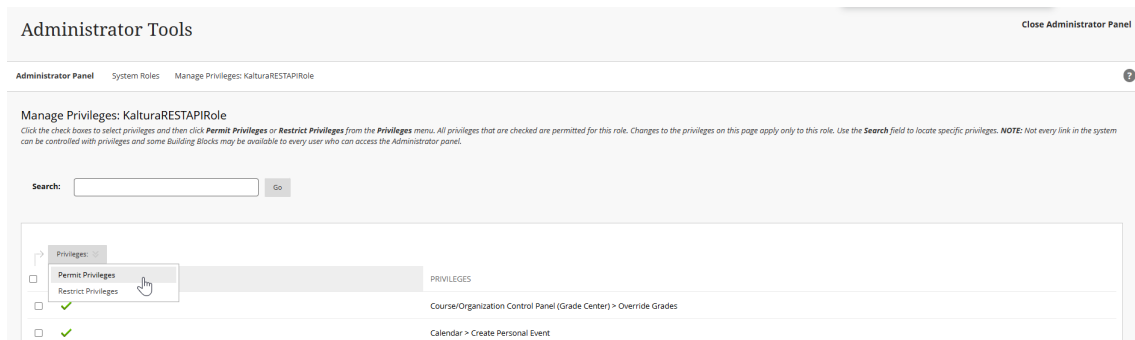10. Enter **Administrator Panel (Users) > Users > Edit > View Course Enrollments**.
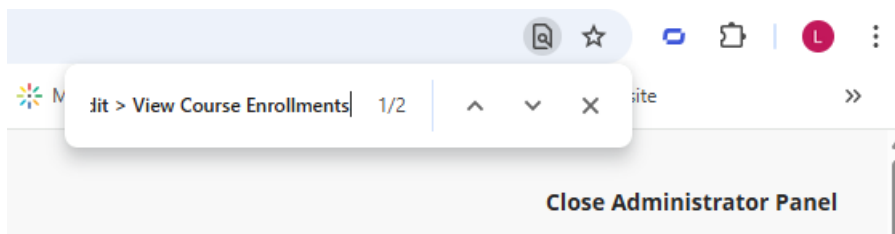
11. Click the down arrow on the search to jump to the next search item.

Close Administrator Panel
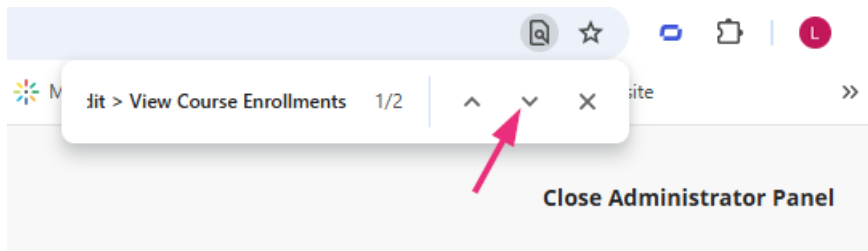
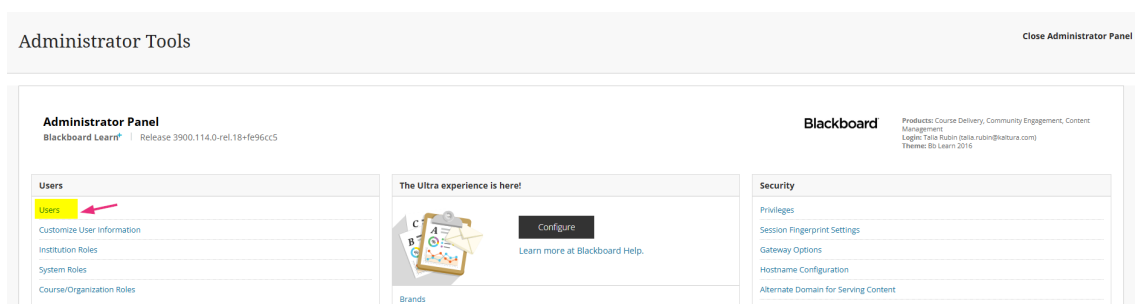12. Click the check box to the left.

13. Scroll to the top of the list and click on the **Privileges** box and select **Permit Privileges.**

Repeat the steps (10 - 13) using a search value of **Administrator Panel (Users) > Users > Edit > View Organization Enrollments**.
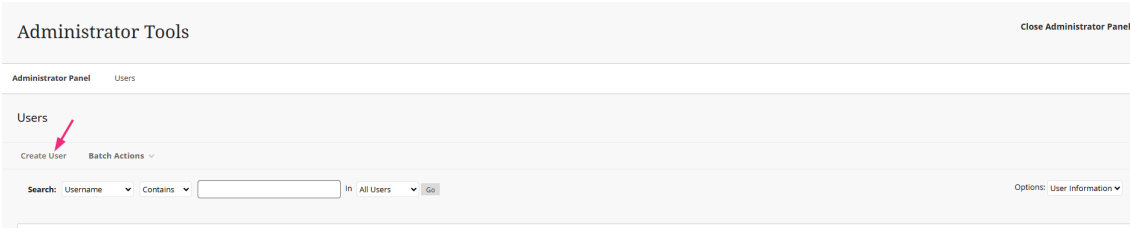
The two additional privileges have now been added to the role.

14. On the **Administrator Tools** page, click **Users**.

The **Users** page displays.

15. Click **Create User**.

Administrator Tools
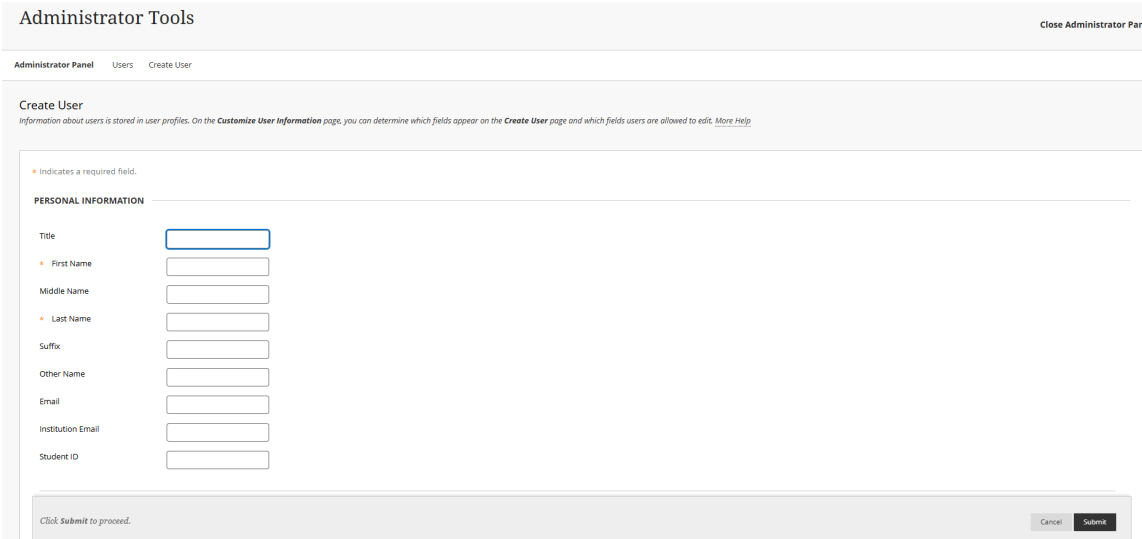
Administrator Panel   Users

Users

Create User   Batch Actions

Search: Username ▾ Contains ▾ [   ] in All Users ▾ Go   Options: User Information ▾

The **Create User** page displays.

Administrator Tools

Administrator Panel   Users   Create User

Create User

*Information about users is stored in user profiles. On the **Customize User Information** page, you can determine which fields appear on the **Create User** page and which fields users are allowed to edit. More Help*

* Indicates a required field.

PERSONAL INFORMATION

Title   [   ]
* First Name   [   ]
Middle Name   [   ]
* Last Name   [   ]
Suffix   [   ]
Other Name   [   ]
Email   [   ]
Institution Email [   ]
Student ID   [   ]

*Click **Submit** to proceed.*   Cancel   Submit

16. Create a new user using the standard settings used by your organization. Kaltura recommends setting the **Primary Institution Role** to 'Other'. Set the **Primary System Role** to the system role you have created.

17. Click **Submit**.

18. On the **Administrator Tools** page, under **Integrations**, click **REST API Integrations**.

19. Click the **Create Integration** button.

The **Create Integration** page displays.

20. Complete the following:

    ○ **Application ID** - Use the Kaltura Application ID: **8d68a3e5-4643-4152-bded-6bca9eb39312**

    ○ **Learn User** - set to the REST API Integration user account you created in steps 7-10 above

    ○ **End User Access** - set to **YES**.

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

![Kaltura logo]

Create Integration

⭐ Indicates a required field.

GENERAL INFORMATION

⭐ Application ID   `8d68a3e5-4643-4152-bded-6bca9eb39312`

⭐ Learn User   `RESTAPIUserAccount`   Browse...

⭐ End User Access   ● Yes ○ No

⭐ Authorized To Act As User   ○ Yes ○ No ● Service Default (No)

*Click **Submit** to proceed.*   Cancel   Submit

21. Click **Submit**.

Option 2: Admin user method (less secure)

⚠️ This method grants full system admin privileges to the integration and is not recommended unless absolutely necessary. Use **Option 1** whenever possible to minimize access.

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

Under **Integrations**, click **REST API Integrations**.

The **REST API Integrations** page displays.

3. Click **Create Integration**.
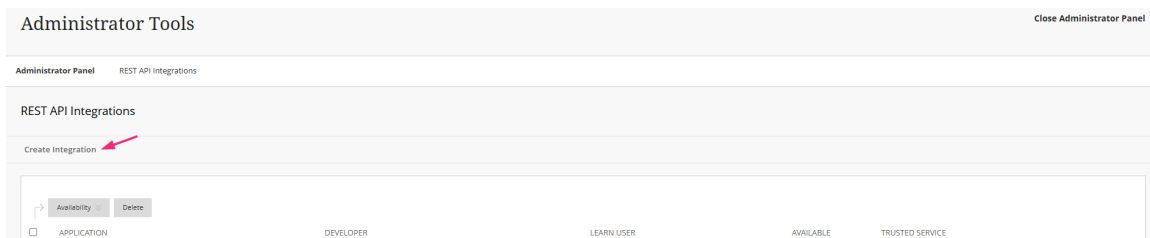
4. Set the following:

- **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)**

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5. Click **Submit**.

You're done! The Kaltura tools are now deployed in Blackboard using the latest LTI 1.3 integration.

✅ Need help or migrating from an older setup? Contact your Kaltura representative.