Upgrade the Kaltura LMS Extensions integration in Blackboard from LTI 1.1 to LTI 1.3

Content updated: 04/26/2023

This article is designated for administrators.

About

This article explains how to upgrade an existing **Kaltura LMS Extensions integration in Blackboard Ultra from LTI 1.1 to LTI 1.3** using Blackboard's migration tool. It is intended for Kaltura and Blackboard administrators.

The upgrade migrates the following Kaltura tools to LTI 1.3:

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

Existing content embedded through the LTI 1.1 Kaltura Browse Search and Embed tool can continue to launch after the upgrade, provided you use the same KAF Configuration Management instance and it is running version 5.108.10x or later.

This procedure migrates only LTI 1.1 tools, placements, and embeds. It does not migrate content embedded using the legacy Kaltura Video Building Block for Blackboard Learn.

- This article applies to institutions currently using a Kaltura LMS Extensions LTI 1.1 integration in Blackboard Ultra. For a new deployment, see Set up the Kaltura LMS Extensions LTI 1.3 integration in Blackboard Ultra.
- Blackboard's migration tool requires the Kaltura domain registered for LTI 1.3 to match the provider domain used by the existing LTI 1.1 tool provider. If you are creating a new KAF Configuration Management instance or changing the domain, for example, by introducing an alias or vanity URL, perform a new LTI 1.3 installation instead.

Prerequisites

Make sure you have administrator access to:

- The Blackboard Developer Portal

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- Blackboard Ultra (SaaS)
- The Kaltura Management Console (KMC)
- A KAF Configuration Management instance of type **Bbultra**, running version 5.108.10x or later

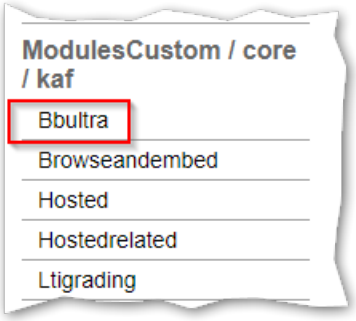
Make sure the following modules are enabled in the KAF Configuration Management console:

- Bbultra
- Browseandembed
- Hosted
- Hostedrelated
- LTIgrading

Step 1 - Confirm the KAF type

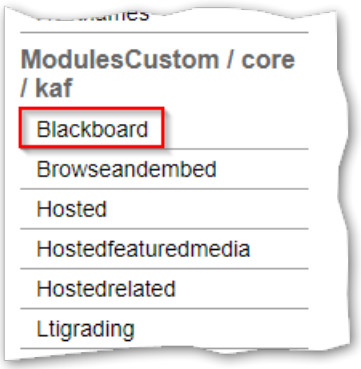
This upgrade procedure requires a KAF Configuration Management instance of type **Bbultra**.

1. Sign in to the Configuration Management console at `https://{your_KAF_URL}/admin`.
2. In the left panel, scroll down to the **ModulesCustom / core / kaf** section.
3. Check the first module in the section:
   - If the first module is **Bbultra**, continue with the upgrade.



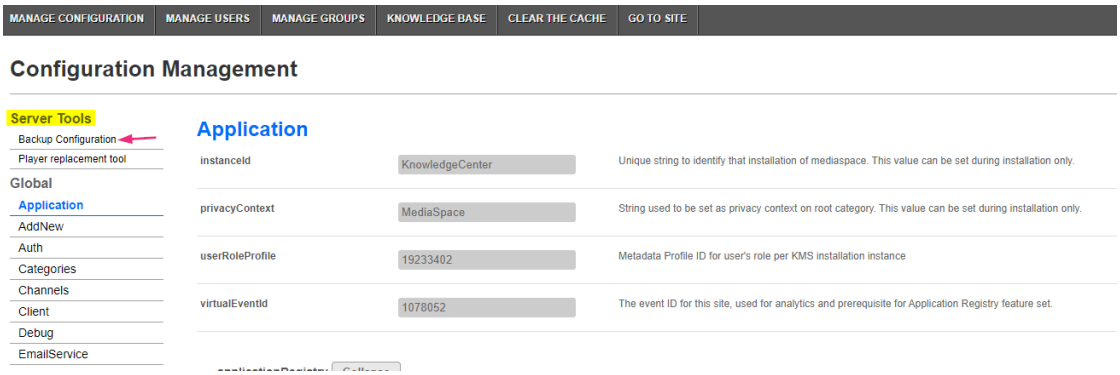
   - If the first module is **Blackboard**, stop and contact your Kaltura representative before proceeding.

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Step 2 - Back up the configuration

1. Sign in to the Configuration Management console at `https://{your_KAF_base_URL}/admin`.
2. Under **Server Tools**, click **Backup Configuration**.



3. On the **Backup Configuration** page, click **Save Backup**.



4. In the confirmation window, click **Yes**, and then click **Save**.

   After the backup is complete, the message *Configuration file was saved successfully* displays.

5. Click **OK**.

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The **Last configuration save date** on the backup page indicates when the configuration settings were last modified, not when the backup was created.

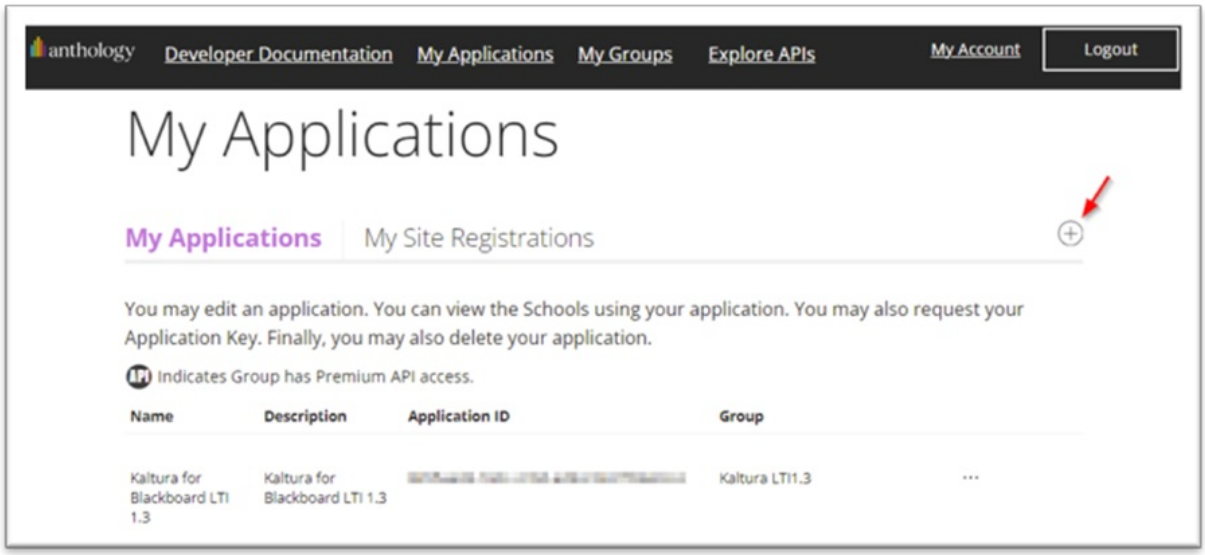
Step 3 - Register the application in the Blackboard Developer Portal

Register the Kaltura application in the Blackboard Developer Portal. The registration provides the application information and URLs required for the LTI 1.3 integration.

You need a separate registration for each KAF integration that uses LTI 1.3.

You must have a Blackboard Developer Portal account and a production group to which you can assign the application. For more information, see Production groups in the Blackboard documentation.

1. Sign in to the Blackboard Developer Portal.
2. On the **My Applications** page, click **+** to create an application.



3. On the **Register a New Application** page, configure the following settings:
   - **Application Name** - Enter a name that uniquely identifies the KAF integration.
   - **Description** - Enter a description of the application.
   - **Domain(s)** - Enter your KAF domain, for example, `bb-lti13-2964661-test1.kaf.kaltura.com`. Do not include `https://` or a trailing slash.
   - **Group** - Select the production group to which you want to assign the application.

To use Blackboard's migration tool, the value entered in **Domain(s)** must match

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the **Provider Domain** used by the existing LTI 1.1 Kaltura tool provider.

4. Enable **My Integration supports LTI 1.3**.
5. Configure the LTI 1.3 settings 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** - Select **RS256**.
6. Click **Register Application**.

   The registered application settings display.

7. Copy the settings and store them securely.



Keep this page open. You will use these settings in the next step.

Step 4 - Enable LTI 1.3 in the Configuration Management console

Configure the KAF Configuration Management instance to support LTI 1.3 and connect to Blackboard.

1. Sign in to the Configuration Management console at `https://{your_KAF_URL}/admin`.
2. Open the **Hosted** module.
3. Set `authMethod` to **lti1.3**.

   The LTI 1.3 configuration fields display.

4. Complete the following fields using the application settings from Step 3:
   - `lti13PlatformOidcAuthUrl` - Enter the **OIDC auth request endpoint**.
   - `lti13AuthTokenUrl` - Enter the **Auth token endpoint**.

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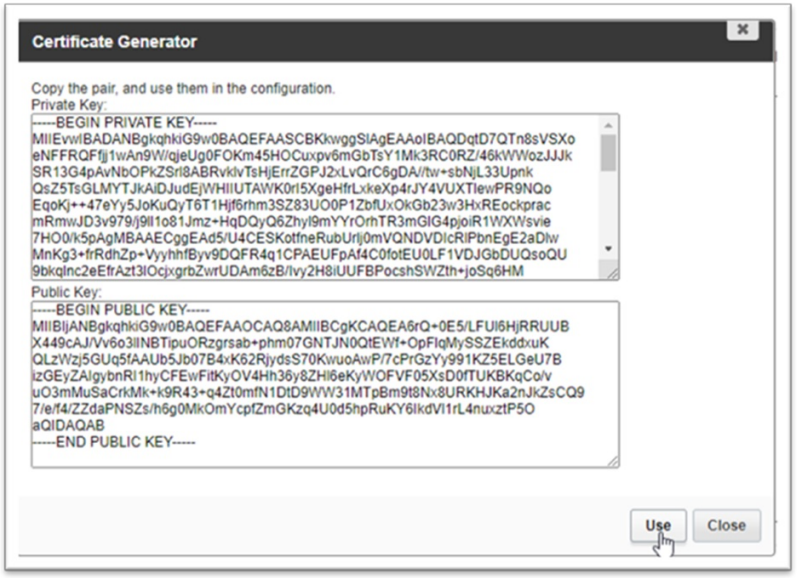
- `lti13KeysUrl` - Enter the **Public keyset URL**.
- `lti13ClientId` - Enter the **Application ID**.

5. For `lti13ServicePrivateKey`, click **generate key pair here**.

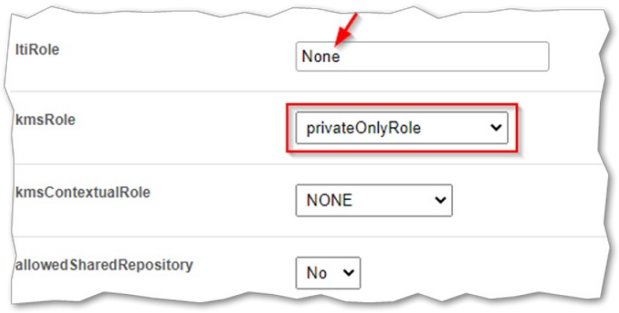


6. In the **Certificate Generator**, click **Use**.

   The keys are saved in the `lti13ServicePrivateKey` and `lti13ServicePublicKey` fields.



7. In the `ltiRolesMapping` section, locate `ltiRole = None`.
8. Set `kmsRole` to **privateOnlyRole**.



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

Step 5 - Add the LTI 1.3 tool provider in Blackboard

Add the LTI 1.3 tool provider and use Blackboard's migration tool to migrate the

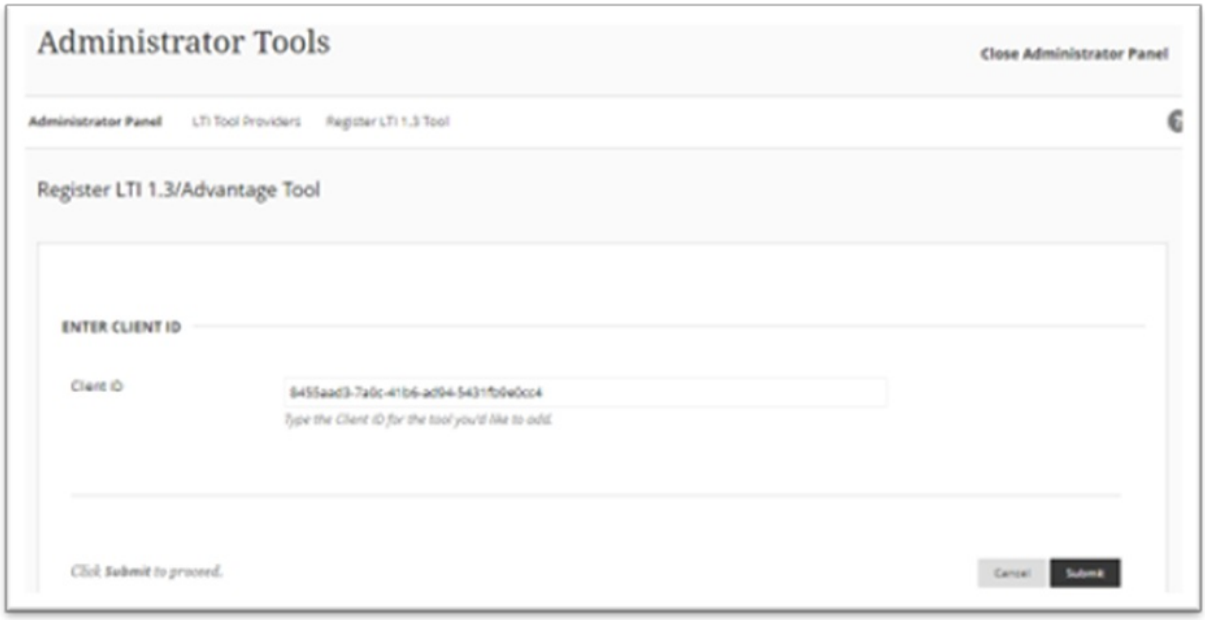
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existing Kaltura LTI 1.1 tools.

1. Sign in to Blackboard as an account administrator.
2. Navigate to **Administrator Tools > Integrations > LTI Tool Providers**.
3. On the **LTI Tool Providers** page, click **Register LTI 1.3/Advantage Tool**.

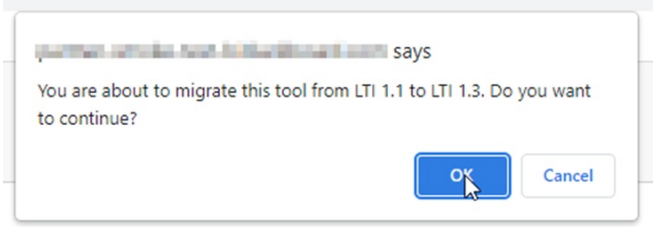


4. In the **Client ID** field, enter the application ID copied in Step 3. This value must match the value entered in `lti13ClientId` in Step 4.



5. Click **Submit**.

   A confirmation window displays.



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6. Click **OK**.

   The **Tool Status** page displays the settings from the existing LTI 1.1 Kaltura tool provider.

7. Review and configure the following settings:
   - **Client ID** - Confirm the application ID for the registered application.
   - **Name** - Enter the application name.
   - **Description** - Enter the application description.
   - **Deployment ID** - Confirm the deployment ID for the LTI 1.3 tool.
   - **Initiate Login URL** - Confirm the login initiation URL.
   - **Tool Redirect** - Confirm the tool redirect URL.
   - **Domains** - Enter your KAF domain without `https://` or a trailing slash.
   - **Tool Status** - Select **Approved**.
   - **Tool Provider Custom Parameters** - Add the following parameters:
     - `lis_user_username=@X@user.id@X@`
     - `lis_course_id=@X@course.id@X@`
   - **User Fields to Send** - Select:
     - **Role in Course**
     - **Name**
     - **Email Address**
   - **Allow grade service access** - Select **Yes**.
   - **Allow Membership Service Access** - Select **Yes**.
8. Click **Submit**.

   A success message displays. The LTI 1.1 tool provider and its Kaltura tool placements are migrated to LTI 1.3.

Step 6 - Confirm the Kaltura tool placements

Confirm the configuration of each Kaltura tool placement you use:

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

Each placement is independent. You can use any combination of the available placements.

1. Sign in to Blackboard as an account administrator.

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2. Navigate to **Administrator Tools > Integrations > LTI Tool Providers**.
3. On the **LTI Tool Providers** page, locate the tool provider migrated to LTI 1.3.
4. Open the tool provider's options menu, and then click **Manage Placements**.
5. Open the options menu for the placement you want to review, and then select the edit option.
6. Review the applicable placement settings described below.

My Media placement

1. **Label** - Enter the name displayed to users, for example, **My Media**.
2. **Description** - Enter a description of the tool.
3. **Handle** - Enter the internal ID, for example, `KalturaMyMedia`.
4. **Availability** - Select **Yes** to make the tool available.
5. **Type** - Select **System Tool**.
6. Save the Kaltura icon to your computer.



7. Click **Browse** and select the saved icon.
8. For **Target Link URI**, add `/bbultra/index/launch/target/my-media` to your KAF URL.

   Example: https://123456.kaf.kaltura.com/bbultra/index/launch/target/my-media

9. Click **Submit** to save your changes, or click **Cancel** if you did not make any changes.

Media Gallery placement

1. **Label** - Enter the name displayed to users, for example, **Media Gallery**.
2. **Description** - Enter a description of the tool.
3. **Handle** - Enter the internal ID, for example, `KalturaMediaGallery`.
4. **Availability** - Select **Yes** to make the tool available.
5. **Type** - Select **Course Tool**, and then select **Allow student access**.
6. Save the Kaltura icon to your computer.



7. Click **Browse** and select the saved icon.
8. For **Target Link URI**, add `/hosted/index/course-gallery` to your KAF URL.

   Example: https://123456.kaf.kaltura.com/hosted/index/course-gallery

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9. Click **Submit** to save your changes, or click **Cancel** if you did not make any changes.

Browse Search and Embed placement

1. **Label** - Enter the name displayed to users, for example, **Kaltura Embed Media**.
2. **Description** - Enter a description of the tool.
3. **Handle** - Enter the internal ID, for example, `KalturaBSE`.
4. **Availability** - Select **Yes** to make the tool available.
5. **Type** - Select **Deep Linking content tool**, and then select **Allow student access**.
6. Save the Kaltura icon to your computer.



7. Click **Browse** and select the saved icon.
8. For **Target Link URI**, add `/browseandembed/index/browseandembed` to your KAF URL.

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

9. Click **Submit** to save your changes, or click **Cancel** if you did not make any changes.

Interactive Video Quiz placement

1. **Label** - Enter the name displayed to users, for example, **Kaltura Video Quiz**.
2. **Description** - Enter a description of the tool.
3. **Handle** - Enter the internal ID, for example, `KalturaVideoQuiz`.
4. **Availability** - Select **Yes** to make the tool available.
5. **Type** - Select **Deep Linking content tool**, and then select **Allow student access**.
6. Save the Kaltura icon to your computer.



7. Click **Browse** and select the saved icon.
8. For **Target Link URI**, add `/browseandembed/index/browseandembed?type=quiz` to your KAF URL.

   Example: https://123456.kaf.kaltura.com/browseandembed/index/browseandembed?type=quiz

9. Click **Submit** to save your changes, or click **Cancel** if you did not make any

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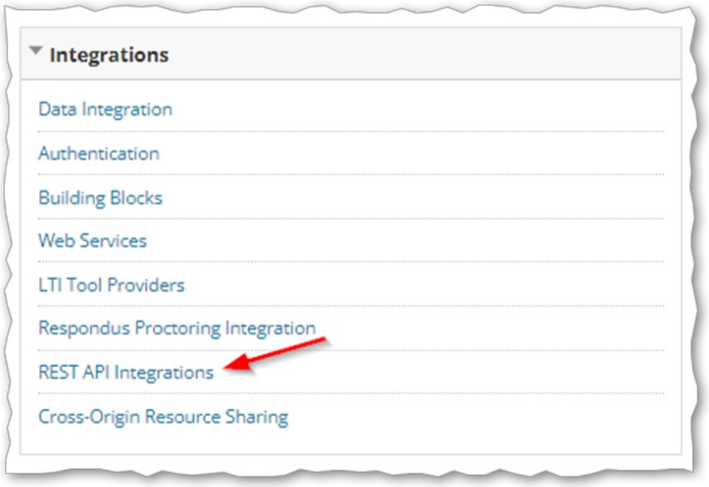
changes.

Step 7 - Confirm the REST API integration

The REST API integration allows users to publish content from My Media to Media Galleries and import content from one Media Gallery to another.

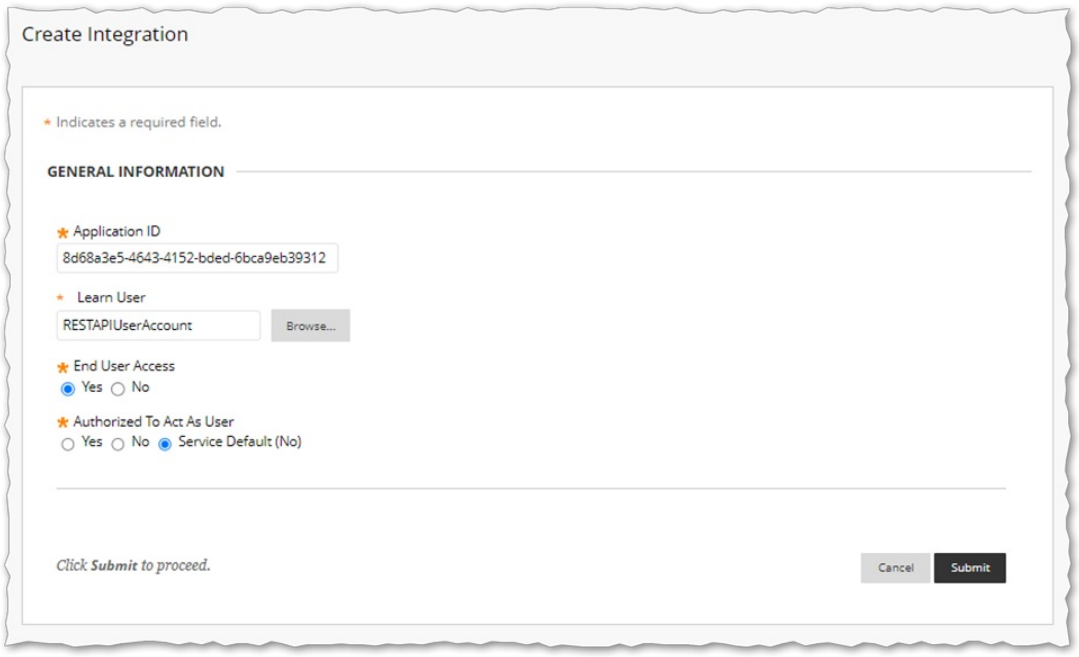
For instructions on implementing the REST API integration with a user account that has a custom system role, see Set up the Kaltura LMS Extensions LTI 1.3 integration in Blackboard Ultra.

1. Sign in to Blackboard as an account administrator.
2. Navigate to **Administrator Tools > Integrations > REST API Integrations**.



3. Locate the **Kaltura for Blackboard** integration.
4. Open the integration's options menu, and then select the edit option.
5. Confirm the following settings:
   - **Application ID** - Enter `8d68a3e5-4643-4152-bded-6bca9eb39312`.
   - **Learn User** - Select the Blackboard user assigned to the integration.
   - **End User Access** - Select **Yes**.
   - **Authorize To Act As User** - Select **Service Default (No)**.

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6. Click **Submit** to save your changes, or click **Cancel** if you did not make any changes.

Step 8 - Configure the Kaltura user ID

By default, the Kaltura user ID is based on the Blackboard user ID.

During an LTI launch, Blackboard passes user information to Kaltura. The `ltiUserIdAttribute` setting in the **Hosted** module determines which LTI attribute Kaltura uses as the user ID.

For an LTI 1.1 integration, where `authMethod` is set to **lti**, the default value of `ltiUserIdAttribute` is `lis_person_sourcedid`.

If `ltiUserIdAttribute` is not currently set to `lis_person_sourcedid`, stop and review Configure the Kaltura user ID used with an LMS integration before continuing.

For an LTI 1.3 integration, the custom parameter added in Step 5 passes the Blackboard user ID to Kaltura. Configure `ltiUserIdAttribute` as follows to preserve the user IDs used by the LTI 1.1 integration:

1. Sign in to the Configuration Management console at `https://{your_KAF_base_URL}/admin`.
2. Open the **Hosted** module at `https://{your_KAF_base_URL}/admin/config/tab/hosted`.
3. Locate `ltiUserIdAttribute`.

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4. Set `ltiUserIdAttribute` to `custom_lis_user_username`.
5. Scroll to the bottom of the module and click **Save**.

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