

Kaltura LMS integration for Canvas - Deployment guide LTI 1.3

Last Modified on 10/30/2024 11:45 am IST

 This article is designated for administrators.

About

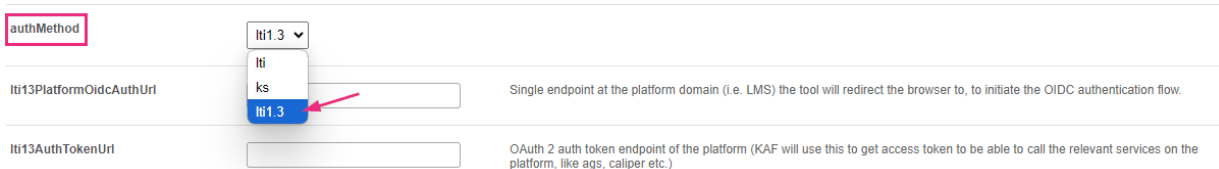
This guide explains how to add the Kaltura LMS Integration for Canvas with LTI version 1.3. The integration is implemented using a set of LTI external tools, manually added through an LTI Developer Key in Canvas. The key is populated using a JSON block to enable the LTI Tool Provider and configure tool placements within Canvas.

Prerequisites

- A Kaltura administrator account
- A KAF instance for Canvas, minimum version 5.99.46
- A Canvas administrator account

Step 1 - Enable LTI 1.3

1. In your Configuration Management console, navigate to the [Hosted module](#).
2. On the Hosted module page, locate the **authMethod** field and select **lti1.3** from the dropdown.



The screenshot shows a configuration form with the following fields:

- authMethod**: A dropdown menu with options 'lti1.3', 'lti', and 'ks'. 'lti1.3' is selected and highlighted in blue. A red arrow points to this option.
- lti13PlatformOidcAuthUrl**: An input field with a placeholder text: "Single endpoint at the platform domain (i.e. LMS) the tool will redirect the browser to, to initiate the OIDC authentication flow."
- lti13AuthTokenUrl**: An input field with a placeholder text: "OAuth 2 auth token endpoint of the platform (KAF will use this to get access token to be able to call the relevant services on the platform, like ags, caliper etc.)"

An additional section displays.

3. Confirm that the three fields listed below are auto-populated.
 - **lti13PlatformOidcAuthUrl** = `https://sso.canvaslms.com/api/lti/authorize_redirect`
 - **lti13AuthTokenUrl** = `https://sso.canvaslms.com/login/oauth2/token`
 - **lti13KeysUrl** = `https://sso.canvaslms.com/api/lti/security/jwk`

If the fields are **NOT auto-populated** then you need to set them as follows:

- **lti13PlatformOidcAuthUrl** = `https://{your_Canvas_Domain}/api/lti/authorize_redirect`
- **lti13AuthTokenUrl** = `https://{your_Canvas_Domain}/login/oauth2/token`

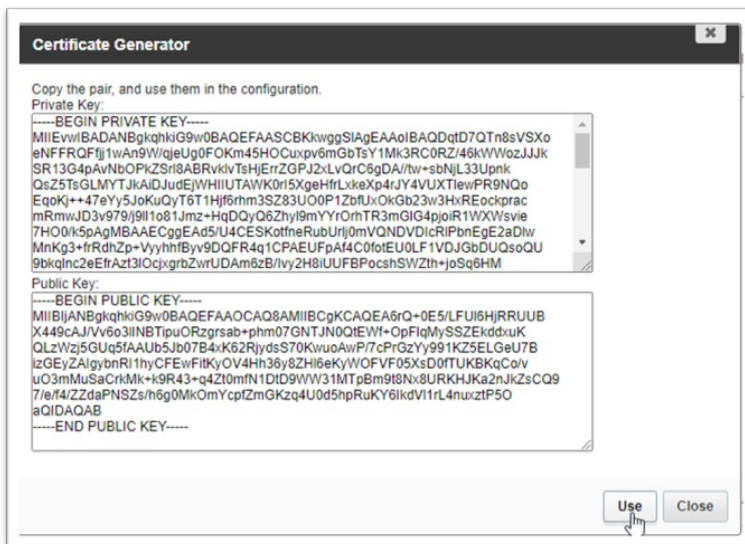
- **Iti13KeysUrl** = `https://{your_Canvas_Domain}/api/Iti/security/jwks`

⚠ Make sure the URL you enter has no spaces before, after, or within it.

4. Scroll down to the **LTi13ServicePrivateKey** section and click the **Generate key pair here**. This will generate the keys.



5. In the **Certificate Generator** frame, click **Use** to have the key pairs saved to the **Iti13ServicePrivateKey** and **Iti13ServicePublicKey** fields.



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

Step 2 - Generate LTI developer key JSON

Enter the following URL in your browser: `https://{your_KAF_URL}/canvas/config/create-json-for-instance` Example: `https://12345.kaf.kaltura.com/canvas/config/create-json-for-instance`

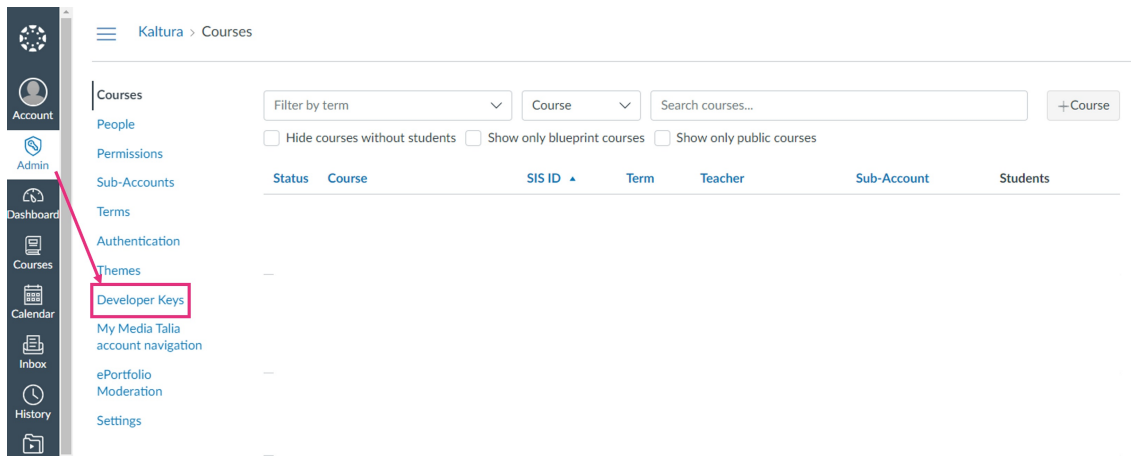
⚠ If you're using a KAF domain other than `.kaltura.com`, make sure to use it as the input for `your_KAF_URL`.

The JSON will be used in the next step to create the LTI developer key.

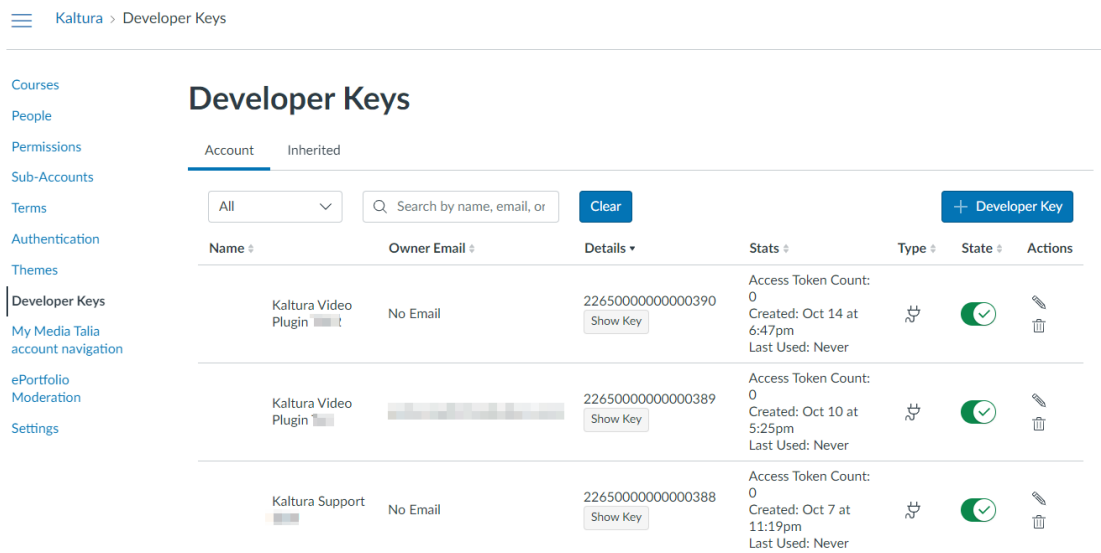
Step 3 - Create LTI developer key

1. Log into your Canvas instance as an administrator.
2. Click the **Admin** tab.

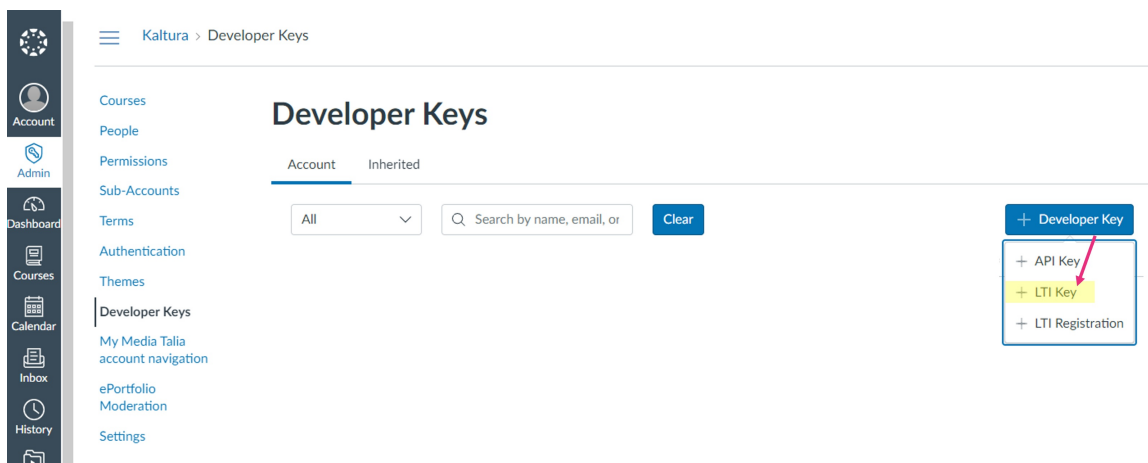
3. Click the **Developer Keys** tab.



The **Developer Keys** page displays.



4. Click **+Developer Key** and select **+ LTI Key** from the drop-down list.



The **Key Settings** page displays.

Key Settings
✕

Key Name:

Owner Email:

* Redirect URIs:

Notes:

Configure

Method

Required Values

* Title <input type="text"/>	* Description <input type="text"/>
* Target Link URI <input type="text"/>	* OpenID Connect Initiation Url <input type="text"/>

* JWK Method

Public JWK

> LTI Advantage Services

Start
Cancel **Save**

5. Configure the following:

- **Key Name** - Enter 'Kaltura Video Plugin'.
- **Owner email** - optional
- **Redirect URIs** - Enter `https://{your_KAF_URL}/hosted/index/oauth2-launch`
Example: `https://12345.kaf.kaltura.com/hosted/index/oauth2-launch`

⚠ If you're using a KAF domain other than `.kaltura.com`, make sure to use it as the input for your_KAF_URL.

- **Notes** - optional
- **Method** - Select **Paste JSON** from the drop-down list.

Key Settings

Key Name:

Owner Email:

* Redirect URIs:

Sync URIs

Notes:

Configure

Method

^

Prettify JSON

6. In the **LTI 1.3 Configuration** field, copy the JSON code (not including the brackets) from the previous section ([Generate LTI developer key JSON](#)) and paste it between the brackets.

Key Settings

Key Name:

Owner Email:

* Redirect URIs:

[Sync URIs](#)

Notes:

Configure

Method

LTI 1.3 Configuration

[Paste JSON code between brackets](#)

7. Scroll down and click **Save**.

The new LTI developer key will now be listed on the Developer Keys page. If the **State** is set to off (red), it means the key is disabled. To enable the key, click the toggle (green).

☰ Kaltura > Developer Keys

Courses

People

Permissions

Sub-Accounts

Terms

Authentication

Themes

Developer Keys

My Media Talia
account navigation

ePortfolio

Moderation

Settings

Developer Keys

Account Inherited

All ▾

🔍 Search by name, email, or

Clear

+ Developer Key

Name	Owner Email	Details	Stats	Type	State	Actions
Kaltura Video Plugin	No Email	22650000000000390 Show Key	Access Token Count: 0 Created: Oct 14 at 6:47pm Last Used: Never			

Step 4 - Configure the LTI developer key LTI advantage services

In order for the LTI developer key to work properly, certain LTI advantage services must be enabled.

1. Edit the LTI developer key you created by clicking on the **pencil icon** to the far right of the key.

Courses
 People
 Permissions
 Sub-Accounts
 Terms
 Authentication
 Themes
Developer Keys
 My Media Talia account navigation
 ePortfolio
 Moderation
 Settings

Developer Keys

Account Inherited

All

Name	Owner Email	Details	Stats	Type	State	Actions
Kaltura Video Plugin	No Email	22650000000000390 <input type="button" value="Show Key"/>	Access Token Count: 0 Created: Oct 14 at 6:47pm Last Used: Never	JWT	<input checked="" type="checkbox"/>	<input type="button" value="Edit"/> <input type="button" value="Delete"/>

The **Key Settings** page displays.

2. In the **Method** field, change to **Manual entry**.

Key Settings

Key Name:

Owner Email:

* Redirect URIs:

Notes:

Configure

Method:

Required Values

* Title:

* Description:

* Target Link URI:

* OpenID Connect Initiation Url:

* JWK Method:

3. Scroll down to the **LTI Advantage Services** section and click to expand the section.

LTI Advantage Services

Services must be supported by the tool in order to work. Check with your Tool Vendor to ensure service capabilities.

- Can create and view assignment data in the gradebook associated with the tool.
- Can view assignment data in the gradebook associated with the tool.
- Can view submission data for assignments associated with the tool.
- Can create and update submission results for assignments associated with the tool.
- Can retrieve user data associated with the context the tool is installed in.
- Can update public jwk for LTI services.
- Can lookup Account information.
- Can view Progress records associated with the context the tool is installed in.
- Can view the content of a page the tool is launched from.

4. Make sure the following **LTI Advantage Services** are turned on in addition to others that are enabled:

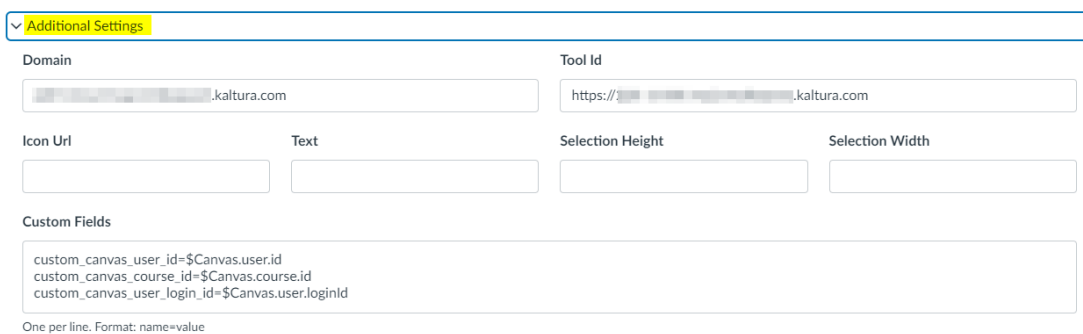
- Can create and view assignment data in the gradebook associated with the tool.

- Can view assignment data in the gradebook associated with the tool.
- Can view submission data for assignments associated with the tool.
- Can create and update submissions for assignments associated with the tool.
- Can retrieve user data associated with the context the tool is installed in.
- Can update publish jwk for LTI services.

5. Click **Save** if you have made any changes.

Step 5 - Confirm the values in the LTI developer key additional settings



1. Click **Additional Settings** to expand the section.



2. Review the following fields:

- **Domain** - your KAF domain without the `https://`
- **Tool Id** - your KAF URL including `https://`
- **Icon Url, Text, Selection Height, Selection Width** - leave blank
- **Custom Fields** - include the following three custom parameters:
 - `custom_canvas_user_id=$Canvas.user.id`
 - `custom_canvas_course_id=$Canvas.course.id`
 - `custom_canvas_user_login_id=$Canvas.user.loginId`

Step 6 - Confirm or edit LTI developer key placement settings

 Clicking on the bubble in the placements box will delete the placement. To edit a placement, click on the  icon to the left of each placement listed.

> LTI Advantage Services

> Additional Settings

Placements

Link Selection x Course Navigation x Global Navigation x Editor Button x Assignment Selection x

> Link Selection

> Course Navigation

> Global Navigation

> Editor Button

> Assignment Selection

Canvas only allows each placement to be used once per developer key. The JSON file generated by Kaltura includes five placements.

Review and edit the **Text** field for each tool placement as needed:

- **Link Selection:** For the Kaltura Browse Search and Embed tool, used to create video pages.
- **Course Navigation:** For the Kaltura Course Media Gallery.
- **Global Navigation:** For the Kaltura My Media tool in the global left-hand navigation.
- **Editor Button:** For the Kaltura Browse Search and Embed tool in the Canvas Rich Content Editor.
- **Assignment Selection:** For the Kaltura Interactive Video Quiz in the Canvas Assignment tool.

Step 7 - Set the 'lti13ClientID' value for the LTI developer key

1. In Canvas, navigate to the [Developer Keys page](#) (https://{your_Canvas_base_URL}/accounts/1/developer_keys).
2. On the **Developer Keys** page, locate the listing for the developer key you created in [Step 3 - Create LTI Developer Key](#) and copy the **Client ID** from the **Details** column.

Developer Keys

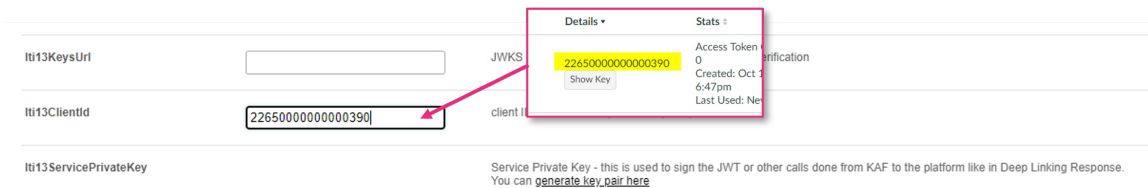
Account Inherited

All

Name	Owner Email	Details	Stats	Type	State	Actions
Kaltura Video Plugin	No Email	22650000000000390 <input type="button" value="Show Key"/>	Access Token Count: 0 Created: Oct 14 at 6:47pm Last Used: Never		<input checked="" type="checkbox"/>	<input type="button" value="Refresh"/> <input type="button" value="Delete"/>

[Developer Keys](#)
[My Media Talia account navigation](#)
[ePortfolio Moderation](#)
[Settings](#)

- Log into your Configuration Management page (https://{your_KAF_base_URL}/admin).
- Navigate to the **Hosted module** (https://{your_KAF_base_URL}/admin/config/tab/hosted).
- Scroll down to the **Iti13ClientID** field and paste in the **Client ID**.



The screenshot shows the configuration page for the Hosted module. The **Iti13ClientID** field is populated with the Client ID `22650000000000390`, which is highlighted in yellow in the Developer Keys table above. A red arrow points from the Client ID in the table to the Iti13ClientID field in the configuration page.

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

Step 8 - Configure the Kaltura user ID value

⚠ The default Kaltura User ID is your Canvas User ID, which is often the same as the user's email address. If your organization uses a different value for User IDs, please refer to [Configuring the Kaltura User ID Value to Use with Your LMS Integration](#) before proceeding.

With the Kaltura LMS integration, user ID records are passed from the LMS to Kaltura during the LTI Launch. When using LTI 1.3 authentication, admins can configure which LTI attribute to use for the user ID in the KAF Hosted module.


Kaltura uses a custom parameter in Canvas to store the User ID value. To set this up:

- Log into your Configuration Management page (https://{your_KAF_base_URL}/admin).
- Navigate to the **Hosted module** (https://{your_KAF_base_URL}/admin/config/tab/hosted).
- Scroll down to the **ItiUserIdAttribute** setting.

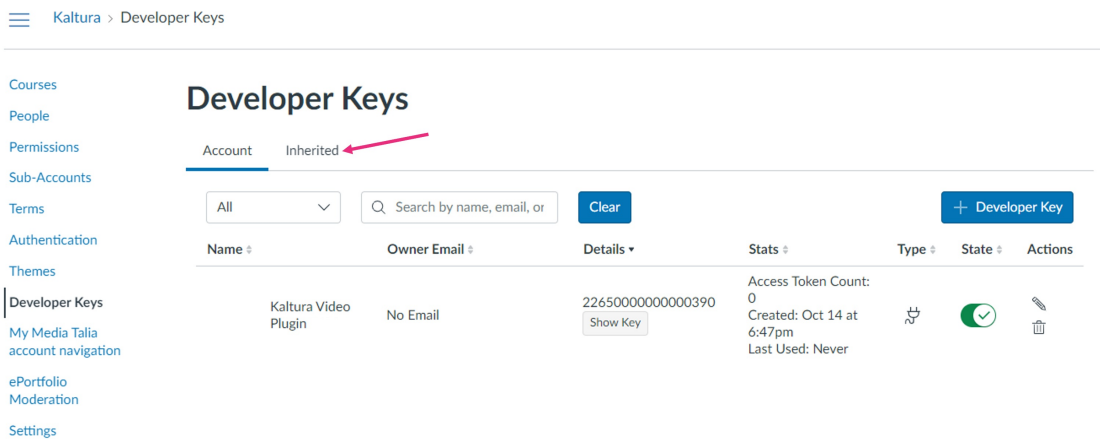
4. Set **ItiUserIdAttribute** to **custom_canvas_user_login_id**.
5. Scroll to the bottom of the Hosted module and click **Save**.

Step 9 - Set the API developer key

Option 1 - Inherited API Key

 If your KAF domain is on *.kaltura.com, you can use the existing inherited Kaltura key without creating a new API key. You may, however, prefer to use a Scoped API Developer Key. In that case, jump to **Option 2** below.

1. Log into Canvas as an administrator.
2. Navigate to the [Developer Keys page](#).
3. On the **Developer Keys** page, click the **Inherited** tab.



The screenshot shows the Kaltura Developer Keys interface. On the left is a navigation menu with items like Courses, People, Permissions, Sub-Accounts, Terms, Authentication, Themes, Developer Keys, My Media Talia account navigation, ePortfolio, Moderation, and Settings. The main content area is titled "Developer Keys" and has two tabs: "Account" and "Inherited", with a red arrow pointing to the "Inherited" tab. Below the tabs is a search bar with a dropdown set to "All", a search input field, and a "Clear" button. To the right is a "+ Developer Key" button. Below these is a table with columns: Name, Owner Email, Details, Stats, Type, State, and Actions. One key is listed: "Kaltura Video Plugin" with "No Email" as the owner, a "Show Key" button in the details column, and "Access Token Count: 0", "Created: Oct 14 at 6:47pm", and "Last Used: Never" in the stats column. The state column shows a green checkmark icon.

4. Scroll down and click **Show All Keys**.

Developer Keys

Account		Inherited				
All	Search by name, email, or	Clear	+ Developer Key			
Name	Owner Email	Details	Stats	Type	State	Actions
Kaltura Video Plugin Trif 2	No Email	22650000000000390 Show Key	Access Token Count: 0 Created: Oct 14 at 6:47pm Last Used: Never	2T		
Kaltura Video Plugin Trif	andrei.vladtrifan@kaltura.com	22650000000000389 Show Key	Access Token Count: 0 Created: Oct 10 at 5:25pm Last Used: Never	2T		
Kaltura Support EDU	No Email	22650000000000388 Show Key	Access Token Count: 0 Created: Oct 7 at 11:19pm Last Used: Never	2T		
Kaltura Scoped Key KN	khalil.natour@kaltura.com	22650000000000387 Show Key URI: https://4288433-27.kaf.kaltura.com	Access Token Count: 9 Created: Sep 11 at 11:59am Last Used: 2024-09-23T13:28:21Z			
Kaltura Video Plugin KN	khalil.natour@kaltura.com	22650000000000386 Show Key	Access Token Count: 0 Created: Sep 11 at 11:46am	2T		

5. Scroll to the listing for the Kaltura key and click the toggle to enable it.



6. A confirmation message displays: *Are you sure you want to change the state of the developer key [name]?*

Turn On Developer Key ✕

Are you sure you want to change the state of the developer key XXXXXXXXXXXXXXXXXXXX ?


Cancel Switch to On

7. Click **Switch to On**. When the key is enabled, it turns green.



Go to [Step 11 - Add Kaltura tools](#).

Option 2 – Scoped API developer key

 If your KAF domain is not on *.kaltura.com, or you prefer added security, you'll need to create a Scoped API Developer Key.

1. Log into Canvas as an administrator.
2. Navigate to the [Developer Keys page](#).
3. On the **Developer Keys** page, click on **+ Developer Key** and select **+ API Key** from the drop-down list.

☰ Kaltura > Developer Keys

Courses
People
Permissions
Sub-Accounts
Terms
Authentication
Themes
Developer Keys
My Media Talia account navigation
ePortfolio
Moderation
Settings

Developer Keys

Account Inherited

All

Name	Owner Email	Details	Stats	Type
Kaltura Video Plugin	No Email	226500000000 <input type="button" value="Show Key"/>	Access Token Count: 0 Created: Oct 14 at 6:47pm Last Used: Never	<input type="button" value="+ Developer Key"/> <ul style="list-style-type: none"> <input type="button" value="+ API Key"/> <input type="button" value="+ LTI Key"/> <input type="button" value="+ LTI Registration"/>
Kaltura Video Plugin		226500000000 <input type="button" value="Show Key"/>	Access Token Count: 0 Created: Oct 10 at 5:25pm Last Used: Never	<input type="button" value="🔑"/> <input checked="" type="button" value="🟢"/> <input type="button" value="🗑️"/>

The **Key Settings** page displays.

Key Settings

Key Name:

Owner Email:

Redirect URIs:


Redirect URI (Legacy):

Vendor Code (LTI 2):

Icon URL:

Notes:

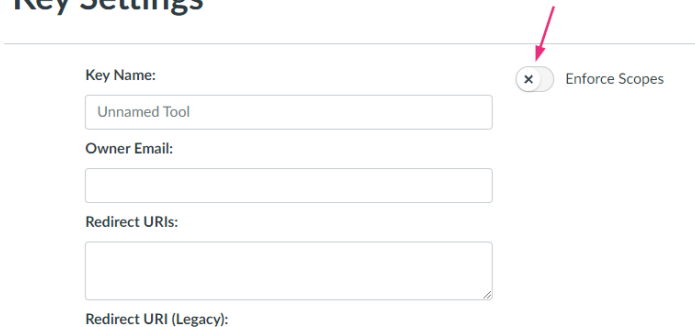
Test Cluster Only

Client Credentials Audience 

4. Enter the following:
 - **Key Name** - 'Kaltura Scoped Key'

- **Owner Email** - Optional
 - **Redirect URLs** - Enter your KAF URL starting with `https://`. Use your vanity domain if you have implemented one.
 - **Redirect URL (Legacy)** - Enter your KAF URL starting with `https://`. Use your vanity domain if you have implemented one (the value should be the same as used in the **Redirect URLs** field).
 - **Vendor Code (LTI 2)** - Leave blank.
 - **Icon URL** - Optional
 - **Notes** - Optional
 - **Test Cluster Only** - Leave unchecked.
 - **Client Credentials Audience** - Canvas should be selected.
5. Scroll to the top and click on **Enforce Scopes** to display all the available scopes.

Key Settings



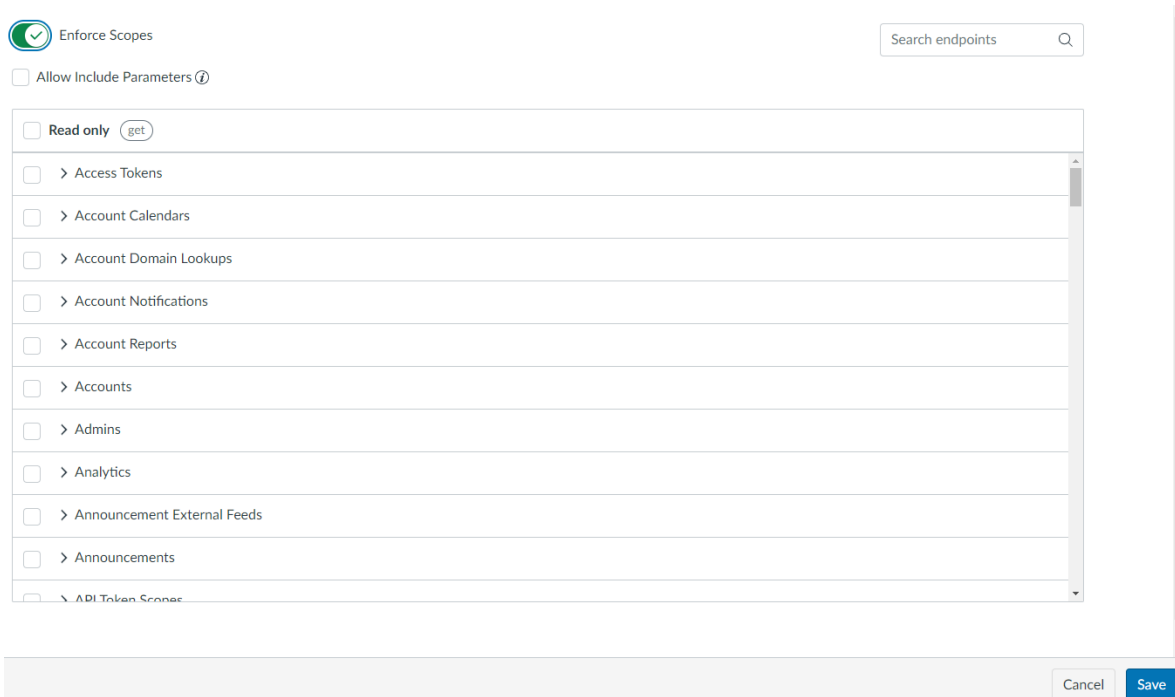
Key Name: x Enforce Scopes

Owner Email:

Redirect URLs:

Redirect URI (Legacy):

The Enforce Scopes section expands.



Enforce Scopes Search endpoints

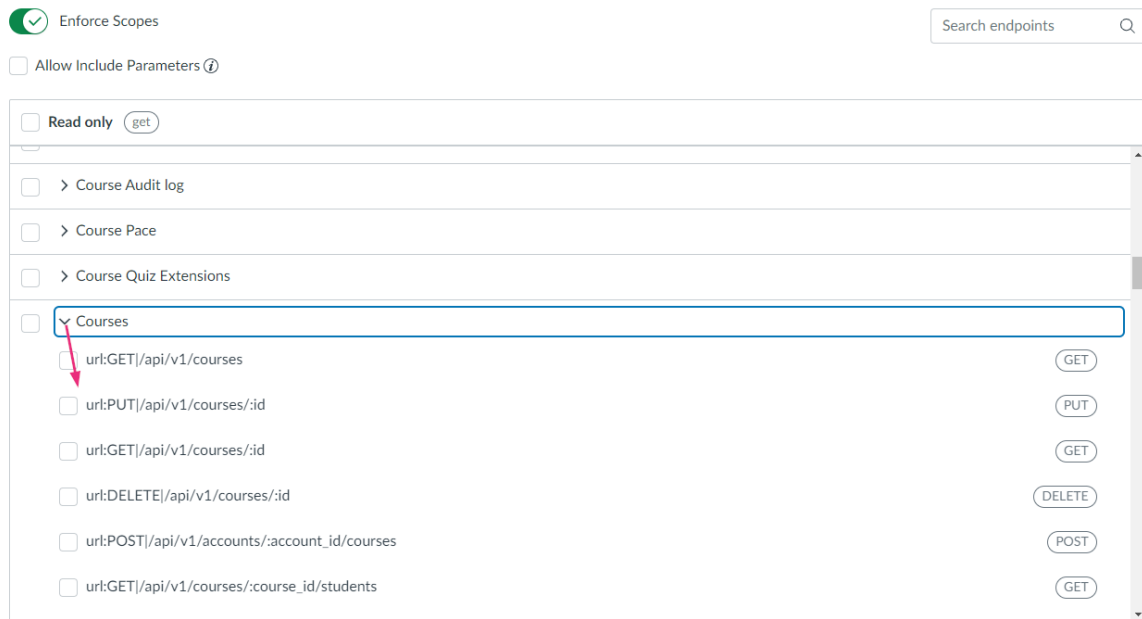
Allow Include Parameters ?

- Read only get
- > Access Tokens
- > Account Calendars
- > Account Domain Lookups
- > Account Notifications
- > Account Reports
- > Accounts
- > Admins
- > Analytics
- > Announcement External Feeds
- > Announcements
- > API Token Scopes

Cancel Save

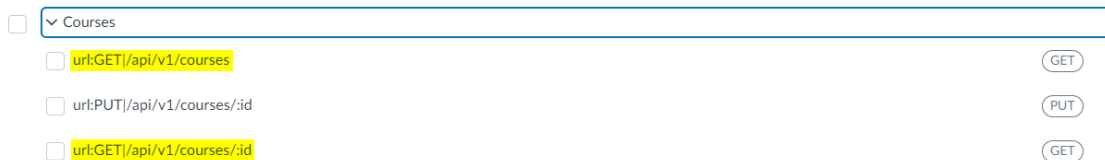
Leave **Allow Include Parameters** unchecked

6. Scroll down to **Courses** and click to expand.



7. Check the following scopes:

- `url:GET|/api/v1/courses`
- `url:GET|/api/v1/courses/:id`



8. Click **Save**.

9. Click the toggle to enable the key.



A confirmation message displays: *Are you sure you want to change the state of the developer key [name]?*

Turn On Developer Key ✕

Are you sure you want to change the state of the developer key ████████████████████?

Cancel

Switch to On

10. Click **Switch to On**. When the key is enabled, it's green.



Continue to Step 10.

Step 10 - Set the API developer key in the Canvas module

The **Iti13ClientID** value in the Hosted module tells KAF which Canvas LTI developer key to connect to.

 Only complete this step if you used [Option 2 - Scoped API Developer Key](#) above.

1. Log into your Configuration Management page (https://{your_KAF_base_URL}/admin).
2. Navigate to the [Canvas module](#) (https://{your_KAF_base_URL}/admin/config/tab/canvas).
3. In the **useScopedKey** field, set to 'Yes'.

useScopedKey	<input type="text" value="Yes"/>	Your key should cover the scopes below: url:GET//api/v1/courses url:GET//api/v1/courses/id
customAppId	<input type="text"/>	
customAppKey	<input type="text"/>	

This will expose the **customAppId** and **customAppKey** settings.

4. Fill in the **customAppId** and the **customAppKey** fields using the **Key ID** and the **Key for the API Developer Key** you created in [Option 2](#) above. You can locate the keys as follows:
 - Navigate to the [Developer Keys page](#) and locate the Canvas API developer key you created.

Developer Keys

Account Inherited

All Clear + Developer Key

Name	Owner Email	Details	Stats	Type	State	Actions
Kaltura Video Plugin	No Email	<p>Client ID 22650000000000390</p> <p>Show Key</p>	<p>Access Token Count: 0</p> <p>Created: Oct 14 at 6:47pm</p> <p>Last Used: Never</p>	🔒	🟢	🗑️

Key e3MY3THc4rZ9QuvuPhH9NHyaKulH4AV2ZXENVy3RuYvFXFTHVwReULPBfhv9FDQ

Hide Key

- Copy the Client ID and paste into the **customAppId** field in the Canvas module.
- Click **Show Key**, copy the key and paste it into the **customAppKey** field.

useScopedKey Your key should cover the scopes below:
 uri:GET/api/v1/courses
 uri:GET/api/v1/courses/id

customAppId

customAppKey

- Scroll to the bottom of the Canvas module and click **Save**.

Step 11 - Add Kaltura tools

Once you've completed the previous steps, you can add the Kaltura external tools.

- Log into Canvas as an administrator and navigate to the [Developer Keys page](#).

≡ Kaltura > Developer Keys

Courses
People
Permissions
Sub-Accounts
Terms
Authentication
Themes
Developer Keys
My Media Talia account navigation
ePortfolio
Moderation
Settings

Developer Keys

Account Inherited

All Clear + Developer Key

Name	Owner Email	Details	Stats	Type	State	Actions
Kaltura Video Plugin	No Email	<p>22650000000000390</p> <p>Show Key</p>	<p>Access Token Count: 0</p> <p>Created: Oct 14 at 6:47pm</p> <p>Last Used: Never</p>	🔒	🟢	🗑️
Kaltura Video Plugin	andrei.vladtrifan@kaltura.com	<p>22650000000000389</p> <p>Show Key</p>	<p>Access Token Count: 0</p> <p>Created: Oct 10 at 5:25pm</p> <p>Last Used: Never</p>	🔒	🟢	🗑️
Kaltura Support	No Email	<p>22650000000000388</p> <p>Show Key</p>	<p>Access Token Count: 0</p> <p>Created: Oct 7 at 11:19pm</p> <p>Last Used: Never</p>	🔒	🟢	🗑️

- On the **Developer Keys** page, locate the LTI developer key you created and copy the **Client ID** from the **Details** column.

Developer Keys

Account		Inherited				
Name	Owner Email	Details	Stats	Type	State	Actions
Kaltura Video Plugin	No Email	2265000000000390 Show Key	Access Token Count: 0 Created: Oct 14 at 6:47pm Last Used: Never			

- In the left-hand navigation, click the **Settings tab** (https://{your_Canvas_base_URL}/accounts/1/settings#tab-settings).

☰ Kaltura > Settings

- Courses
- People
- Permissions
- Sub-Accounts
- Terms
- Authentication
- Themes
- Developer Keys
- My Media Talia account navigation
- ePortfolio Moderation
- Settings

Settings
Integrations
Notifications
Admins
Announcements
Apps

Account Settings

Account Name:

Default Language:

This will override any browser/OS language settings. Preferred languages can still be set at the course/user level.

Default Due Time:

This influences the user interface for setting due dates. It does not change the time due for any existing assignments.

Default Time Zone:

Maintenance windows: 1st and 3rd Thursday of the month from 3:05am to 5:05am (Thursday from 8:05am to 10:05am UTC)
Next window: Thu Nov 7, 2024 from 3:05am to 5:05am
For maintenance window details please see the [release notes](#).

Allow Self-Enrollment:

Trusted HTTP Referers:

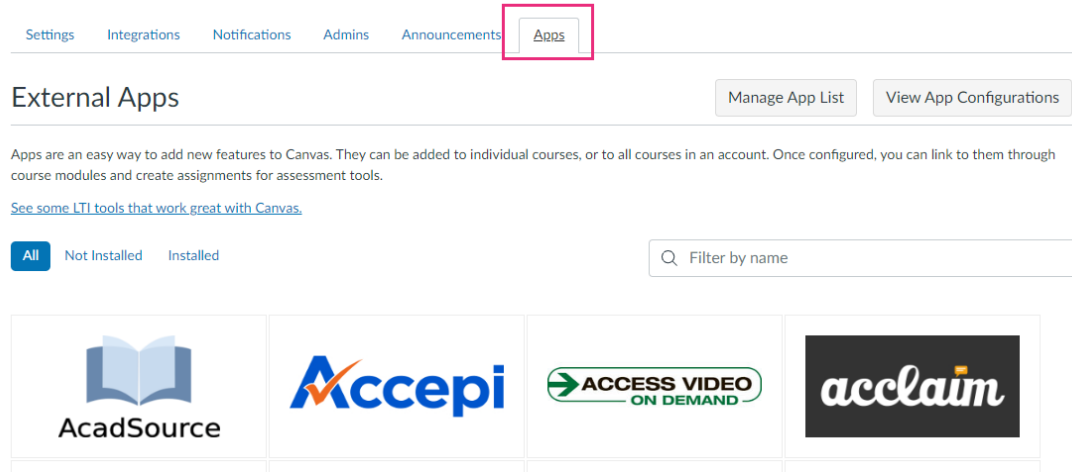
This is a comma separated list of URLs to trust. Trusting any URLs in this list will bypass the CSRF token when logging in to Canvas.

Default View for Dashboard:

Overwrite all users' existing default dashboard preferences

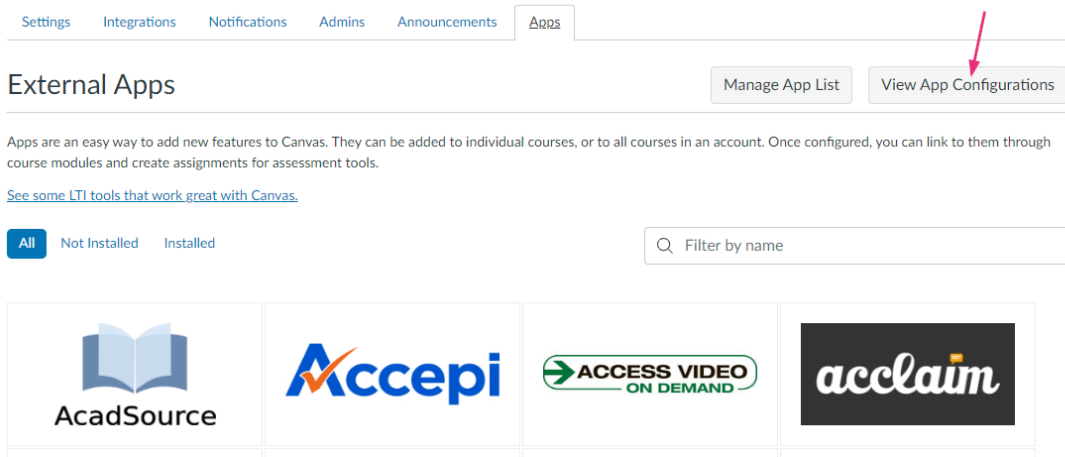
The Settings page displays.

- On the Settings page, click the **Apps** tab.



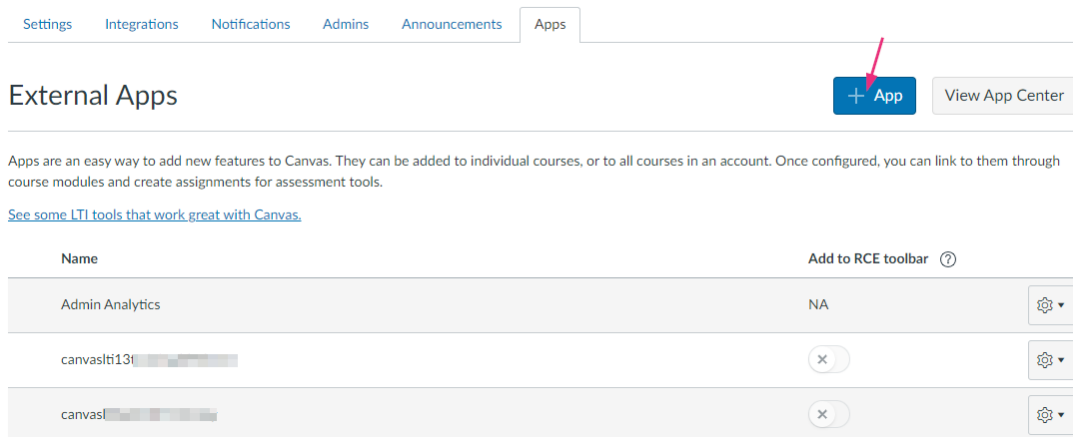
The External Apps page displays.

5. Click **View App Configurations**.

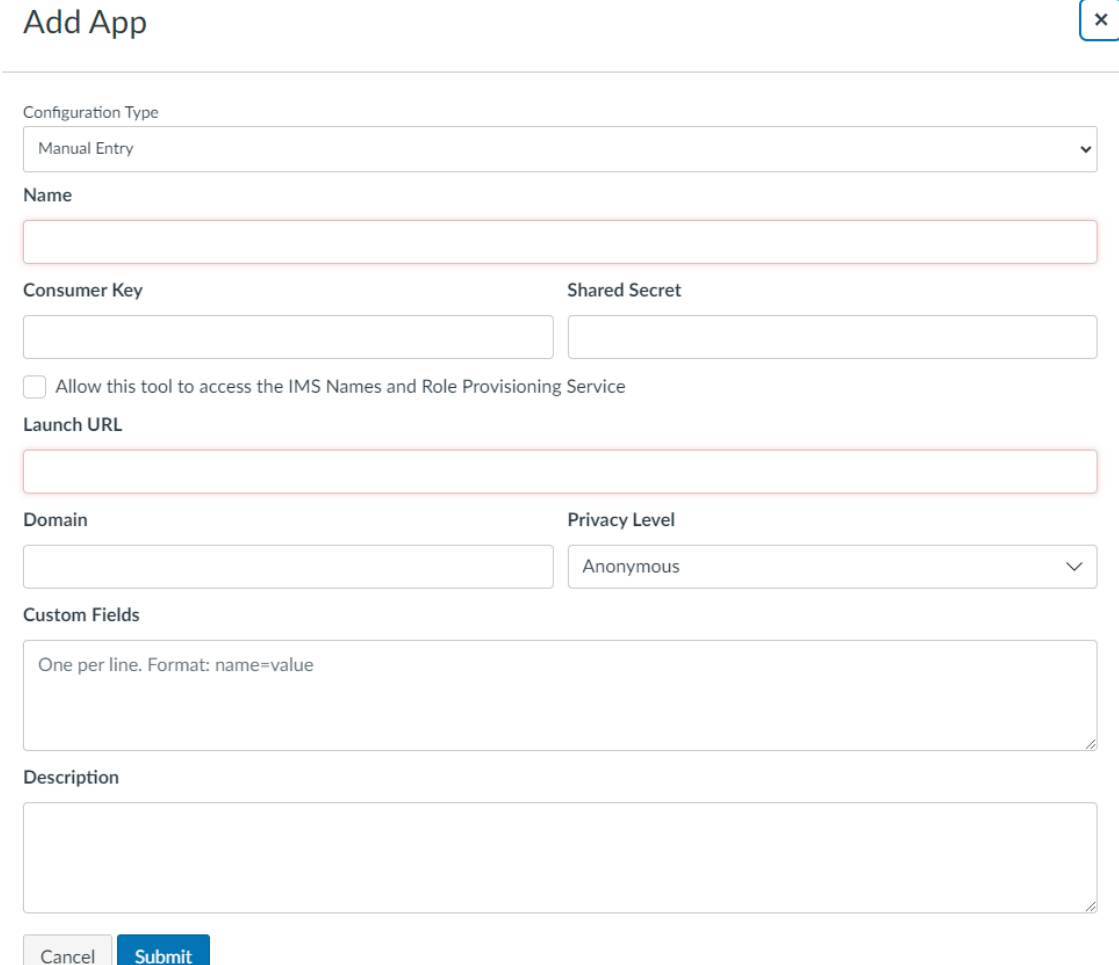


A list of apps displays.

6. Click **+App**.



The **Add App** page displays.



Add App ✕

Configuration Type
Manual Entry

Name

Consumer Key Shared Secret

Allow this tool to access the IMS Names and Role Provisioning Service

Launch URL

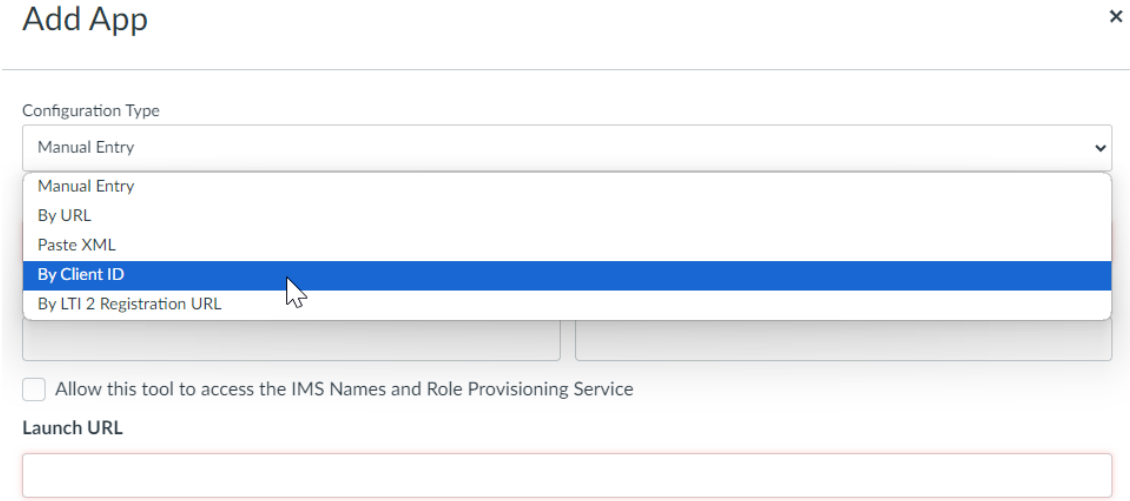
Domain Privacy Level
Anonymous

Custom Fields
One per line. Format: name=value

Description

Cancel **Submit**

7. Click on the **Configuration Type** drop-down menu and select **By Client ID**.



Add App ✕

Configuration Type
Manual Entry

Manual Entry
By URL
Paste XML
By Client ID
By LTI 2 Registration URL

Allow this tool to access the IMS Names and Role Provisioning Service

Launch URL

8. Paste the Client ID copied in [Step 3 - Create LTI developer key](#) into the **Client ID** field.

Add App



Configuration Type

By Client ID

Client ID

2265000000000390

To obtain a client ID, an account admin will need to generate an LTI developer key.

Cancel

Submit

9. Click **Submit**.

Canvas LTI tool placements

Instructure provides multiple placements for external tools in Canvas. The recommended Kaltura placements align with those used in earlier LTI versions. Note that placement limitations may apply depending on where the Kaltura tools are added within the Canvas account structure (account, sub-account, course). See [Step 11 - Add Kaltura tools](#).