



Poll Everywhere & Canvas LMS LTI 1.3/LTI Advantage integration guide for Canvas system administrators

Version 1.1.0

Introduction

This guide is for Canvas System Administrators and describes how to integrate Poll Everywhere with a Canvas LMS system using LTI 1.3 and LTI Advantage.

Users who want to manage Developer Keys must have the “Developer Keys - manage permission.” This is only necessary for the Canvas System Administrator who will be performing the initial setup of Poll Everywhere on the LMS. The individual performing this setup will also need to be an Account Owner or Account Admin on your University’s Poll Everywhere account.

Users who want to add an LTI Advantage tool to a course must have the “LTI - add / edit / delete permission.” This will be necessary for all teachers who wish to use the LTI Advantage tools with Poll Everywhere.

Create a developer key

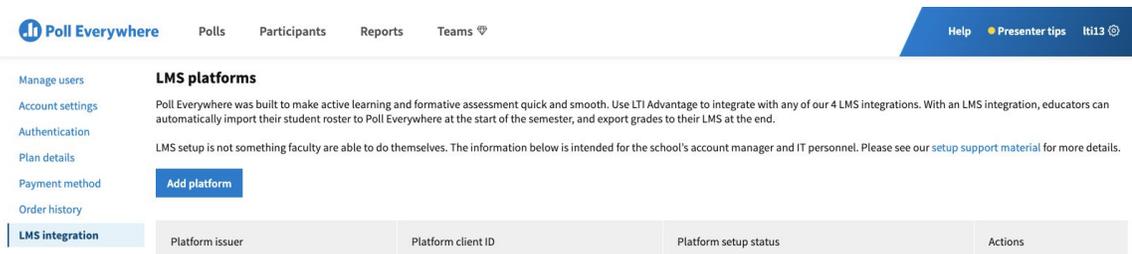
1. Start by logging into Canvas as the Canvas administrator.
2. Navigate to the Admin page of Canvas, and click over to the Developer Keys section.

A screenshot of the Canvas LMS Admin interface. On the left is a dark sidebar with navigation icons for Account, Admin, Dashboard, Courses, Calendar, and Inbox. The main content area shows the breadcrumb "PE > Developer Keys" and a list of admin sections: Courses, People, Statistics, Permissions, Outcomes, Rubrics, Grading, Question Banks, Sub-Accounts, Terms, Authentication, SIS Import, Themes, Developer Keys (highlighted in blue), PE, Admin Tools, and Settings. The "Developer Keys" section is active, showing tabs for "Account" and "Inherited". A blue button with a plus sign and the text "Developer Key" is visible in the top right corner of the section.

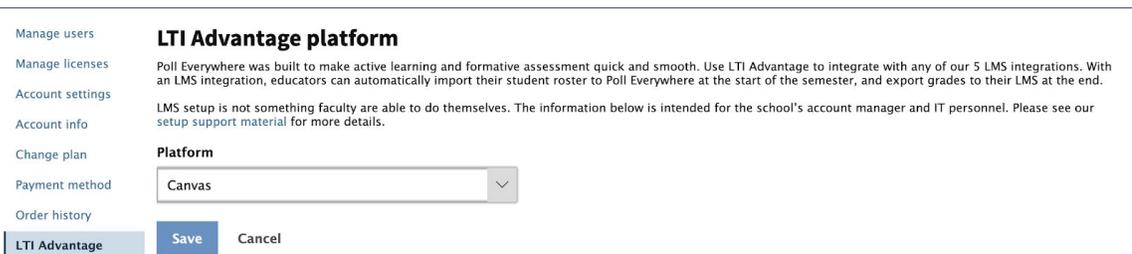
- Click the button in the top right to create a new Developer Key, and select 'LTI key' in the drop down to bring up the Key Settings page.



- Open a new tab, navigate to PollEverywhere.com, and login with an Account Owner or Admin profile.
- Within your Poll Everywhere profile, click your username in the top right > Account Admin > LMS Integration. This is the page where you will manage your LTI 1.3 Platform. Select Add platform.



- On the next page, select Canvas from the dropdown list of platform options, and Save to proceed to the Platform details page.



- The Platform details page will provide you with the information you need to create the Developer Key setup on Canvas. Copy the information from the Poll Everywhere Platform details page into your Canvas Developer Key set up. You can use the copy link icon next to each field for easy transposing.

The screenshot shows two side-by-side panels. The left panel, titled 'LMS platforms', lists 'Canvas' as the selected platform. It provides several fields for configuration:

- Tool OpenID Connect/initialization endpoint:** `https://www.polleverywhere.com/lms/lti_advantage/launch`
- Tool redirect endpoint:** `https://www.polleverywhere.com/lms/lti_advantage/user_conr`
- Public RSA key:** A long alphanumeric string starting with '-----BEGIN PUBLIC KEY-----'.
- Public JWK:** A JSON Web Key (JWK) object containing 'kty', 'e', 'n', and 'd' fields.

The right panel, titled 'Key Settings', shows the configuration for a new LTI Key:

- Key Name:** 'PollEv'
- Owner Email:** 'support@polleverywhere.cc'
- Method:** 'Manual Entry'
- Redirect URIs:** `https://www.polleverywhere.com/lms/lti_advantage/user_connections`
- Notes:** (Empty field)
- Test Cluster Only:** (Unchecked)
- Required Values:**
 - Title:** 'Poll Everywhere'
 - Description:** 'Poll Everywhere - web based ARS'
 - Target Link URI:** `https://www.polleverywhere.com`
 - OpenID Connect Initiation Url:** `https://www.polleverywhere.com/lms/l`
- JWK Method:** 'Public JWK'
- Public JWK:** A long alphanumeric string starting with 'x1eIGQs5XhAMD2dSmE2V_FjpG4-

Green arrows indicate the following mappings:

- Arrow 1: From 'Tool OpenID Connect/initialization endpoint' to 'OpenID Connect Initiation Url'.
- Arrow 2: From 'Tool redirect endpoint' to 'Redirect URIs'.
- Arrow 3: From 'Public JWK' to 'Public JWK'.

Additional required fields:

- **Title** - Title for the LTI Key, up to your discretion
- **Description** - Description of the LTI Key, up to your discretion
- **Target Link URL** - This will be the Poll Everywhere homepage: <https://www.polleverywhere.com>

Optional fields

- **Key Name** - You may give the key a name to help you find it more easily in the future
- **Owner Email** - Contact email for key creator or maintainer

8. In Canvas below where you completed the key field, click 'LTI Advantage Services' to expand the Developer Key permission options. Enable the following options:
- 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.

Key Settings x

▼ 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 create subscription to data service data.
- Can show subscription to data service data.
- Can update subscription to data service data.
- Can list subscriptions to data service data.
- Can destroy subscription to data service data.
- Can list categorized event types.
- Can view feature flags

Cancel Save

9. Below the LTI Advantage Services section, expand the option for 'Additional Settings.' Expand open this section and select 'PUBLIC' for the Privacy Level

The screenshot shows a configuration interface with several sections. At the top, there are three toggle switches, each with an 'X' icon, labeled 'Can list categorized event types' and 'Can view feature flags'. Below these is the 'Additional Settings' section, which is expanded. It contains several input fields: 'Domain', 'Tool Id', 'Icon Url', 'Text', 'Selection Height', and 'Selection Width'. Below these is a 'Custom Fields' section with a large text area. A note below the text area reads 'One per line. Format: name=value'. The 'Privacy Level' dropdown is highlighted with a green box, showing 'PUBLIC' and 'PRIVATE' options. At the bottom right, there are 'Cancel' and 'Save' buttons.

10. Below the 'Additional Settings' section, you will see a field for Placements. 'Account Navigation' add 'Link Selection' will be pre-populated. Add 'Assignment Selection' to this field. As you type, you should see the option to autocomplete.

The screenshot shows a configuration interface with a 'Placements' section. It features a horizontal list of tags: 'Account Navigation', 'Link Selection', and 'Assignment Selection'. The 'Assignment Selection' tag is highlighted with a green box. Below the list, there are three expandable sections: '> Account Navigation', '> Link Selection', and '> Assignment Selection'. At the bottom right, there are 'Cancel' and 'Save' buttons.

11. Save the Key Settings, and you will return to the Developer Keys page. Click 'On' underneath the State column to enable the Developer Key

Account Inherited

Name	Owner Email	Details	Stats	Type	State	Actions
Unnamed Tool	No Email	100000000000004 Show Key	Access Token Count: 0 Created: Aug 8 at 1:49pm Last Used: Never		<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	

12. Copy the number underneath the Details column from the Developer Key page, and save it to a convenient place. You will need this number two more times during the setup.

Account Inherited

Name	Owner Email	Details	Stats	Type	State	Actions
Unnamed Tool	No Email	100000000000004 Show Key	Access Token Count: 0 Created: Aug 8 at 1:49pm Last Used: Never		<input checked="" type="checkbox"/> ON <input type="checkbox"/> OFF	

13. Back over on the Poll Everywhere, you will need to complete the remaining fields on the Platform edit page. Complete the fields using the following information.

- **Issuer:** The issuer will be 'https://canvas.instructure.com'. If you are using a test instance of Canvas, use 'https://canvas.test.instructure.com'
- **Client:** The number that you copied from the Canvas Developer Key page
- **Public key endpoint:** <root>/api/lti/security/jwks
- **OIDC authentication endpoint:** <root>/api/lti/authorize_redirect
- **Access token endpoint:** <root>/login/oauth2/token

Note: For the fields containing a <root>, <root> will be the homepage of your Canvas instance. For example, if you access your canvas via https://polleverywhere-university.instructure.com then that is your <root>, and your Public Key endpoint would be:
https://polleverywhere-university.instructure.com/api/lti/security/jwks

The screenshot shows a configuration form for a Canvas Developer Key. It includes several text input fields and a public key field. At the bottom, there are 'Save' and 'Cancel' buttons.

W1/F0WnjPfAEEh
VmRTru5Q+IU3b9p1WnWRllIF0vN5ZOwohEGKV+bmffsgX/CU

Public JWK [🔗](#)

```
{ "kty": "RSA", "e": "AQAB", "n": "tnQJSkrw4Y3iq4lMq5fTufUwu  
Ot9xHn4mSSAEVifWh8v_z71PJZUauGFY6lifDw9YIt6VW1_F0  
WnjPfAEEhVmRTru5Q-IU3b9p1WnWRllIF0vN5ZOwohEGKV-  
bmffsgX_CUqaK7k_QZxpglJV2kQuwuD6UA17cgU-  
Bsi6Yy_rQRqVk6_29vV3Nf6Kg4mKGHMVUvMdYX4Gxju5pcA2  
uFjnUnJXE60M1rDlnVS74UaqKwjMO5pc869fLStA_a_dm-
```

Issuer

https://canvas.instructure.com

Client

151620000000000002

Public key endpoint

https://pe-university.instructure.com/api/lti/security/jwks

Oidc authentication endpoint

https://pe-university.instructure.com/api/lti/authorize_redirect

Access token endpoint

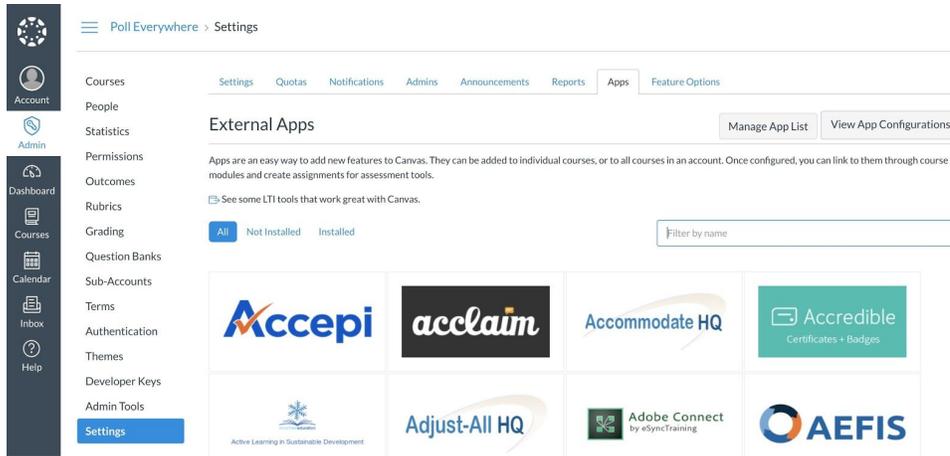
https://pe-university.instructure.com/login/oauth2/token

Save Cancel

Click Save once you have completed all the fields. The set-up on Poll Everywhere is now complete.

Adding Poll Everywhere as an App in Canvas

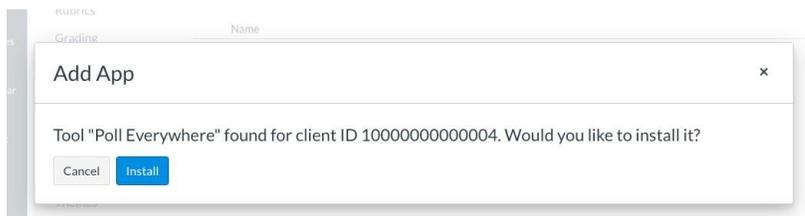
1. In Canvas, Go to Settings > Apps > View App Configurations to add an External App.



2. Click the '+ App' button at the top right to bring up the Add App popup. Select 'By Client ID' in the Configuration Type dropdown, and then add your Client ID into the next field. The Client ID is the number you copied from the Details column of the Developer key.



3. You should now see a subsequent message indicating that a tool was found and needs installing. Click the Install button to continue.



Now that the LTI 1.3 setup is complete on both the Poll Everywhere and Canvas side, it is ready to be used by your professors.