

Upgrade Kaltura LMS Video integration for Sakai from LTI 1.1 to LTI 1.3

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 This article is designated for administrators.

About

This article explains how to upgrade the **Kaltura LMS Video integration in Sakai from LTI 1.1 to LTI 1.3**.

The upgrade is performed by updating each existing Sakai external tool from LTI 1.1 to LTI 1.3, then configuring the matching LTI 1.3 settings in Kaltura.

Existing media and embedded content created using LTI 1.1 will continue to work after the upgrade.

Watch the video below for a quick walkthrough of upgrading the Kaltura LMS Video integration in Sakai from LTI 1.1 to LTI 1.3. Comprehensive step-by-step instructions are provided below.

Prerequisites

- Kaltura administrator access
- Sakai administrator access
- A Kaltura Application Framework (KAF) instance URL of type "Sakailti".



Throughout these instructions you will be asked to enter your specific KAF domain whenever you see **{your_KAF_domain}**. If you have implemented an alias or Vanity Domain for your KAF domain, that is the domain that you should enter.

Step 1 – Back up your configuration

1. Log into your Configuration Management console (https://{your_KAF_domain}/admin).
2. Under **Server Tools**, click **Backup Configuration**.

MANAGE CONFIGURATION | MANAGE USERS | MANAGE GROUPS | KNOWLEDGE BASE | CLEAR THE CACHE | GO TO SITE

Configuration Management

Server Tools

- Backup Configuration
- Player replacement tool

Global

- Application
- AddNew
- Auth
- Categories
- Channels
- Client
- Debug
- EmailService

Application

instanceld	KnowledgeCenter	Unique string to identify that installation of mediaspace. This value can be set during installation only.
privacyContext	MediaSpace	String used to be set as privacy context on root category. This value can be set during installation only.
userRoleProfile	19233402	Metadata Profile ID for user's role per KMS installation instance
virtualEventId	1078052	The event ID for this site, used for analytics and prerequisite for Application Registry feature set.

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

MANAGE CONFIGURATION | MANAGE USERS | MANAGE GROUPS | KNOWLEDGE BASE | CLEAR THE CACHE | GO TO SITE

Backup Configuration

Server Tools

- Backup Configuration
- Player replacement tool

Global

- Application
- AddNew
- Auth
- Categories

Create a snapshot of the current site configuration (all modules) as a 'Last Good Configuration'. This snapshot can be later used in case a configuration restore is needed. We recommend setting the backup snapshot once the initial setup is completed.

Save Backup | Restore Last Saved Configuration

Last configuration save date: 2023-04-10 16:50:40 GMT

A confirmation message displays.

4. Click **Yes, Save** then click **OK**.

Configuration Backup [X]

Are you sure you want to save current configuration? Remember that previous backup will be deleted.

Cancel | Yes, Save

Once the backup is complete, you'll see a confirmation message.

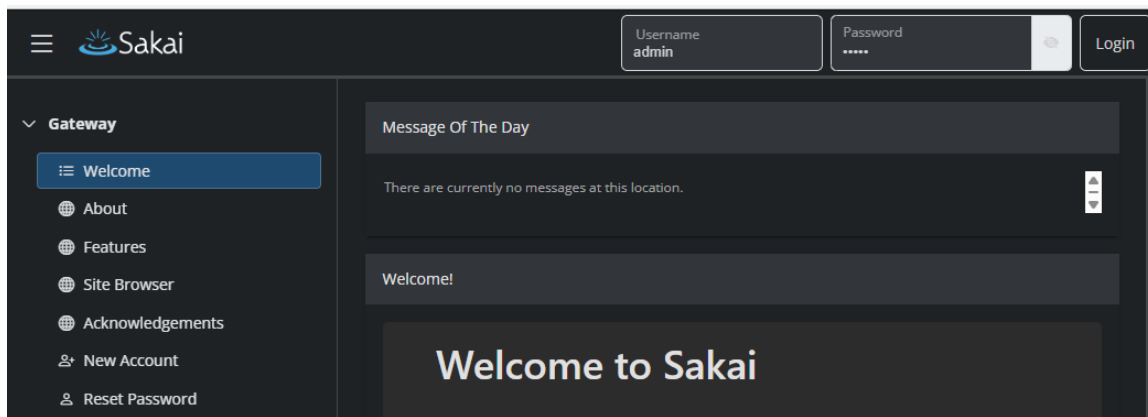


The backup page will display the 'last configuration save date', which reflects the date when the configuration settings were last modified, not the date the backup was performed.

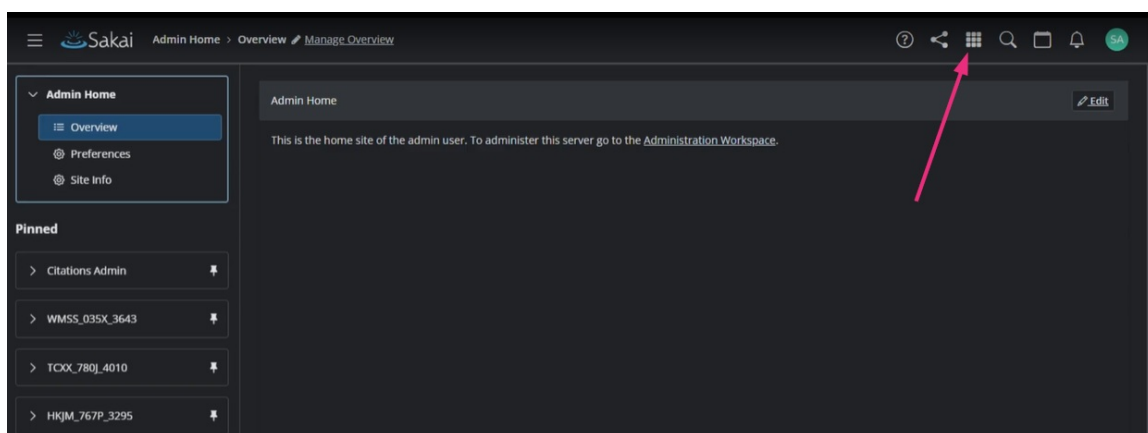
Leave your browser tab open, then open a new browser tab for Sakai and complete the steps below.

Step 2 – Upgrade the Sakai external tools to LTI 1.3

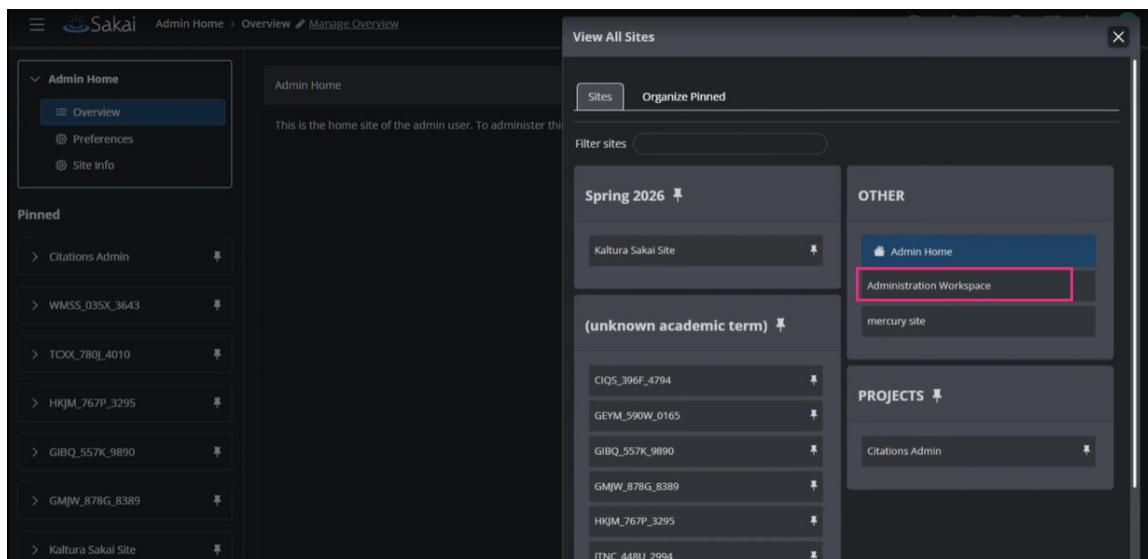
1. Log in to Sakai as an administrator.



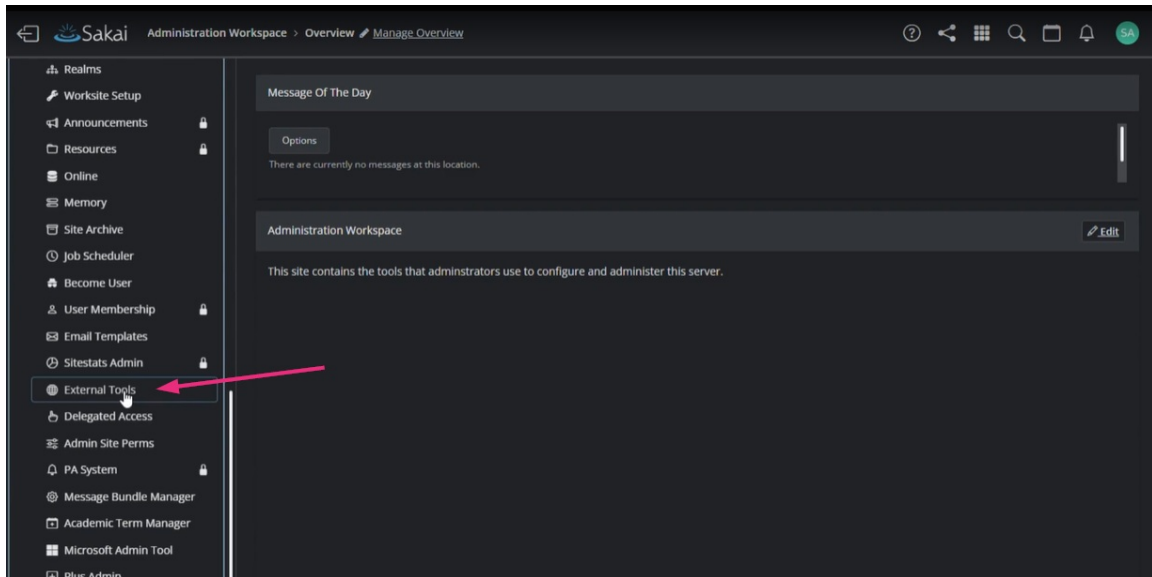
2. Click **Sites** in the upper-right corner of the page.



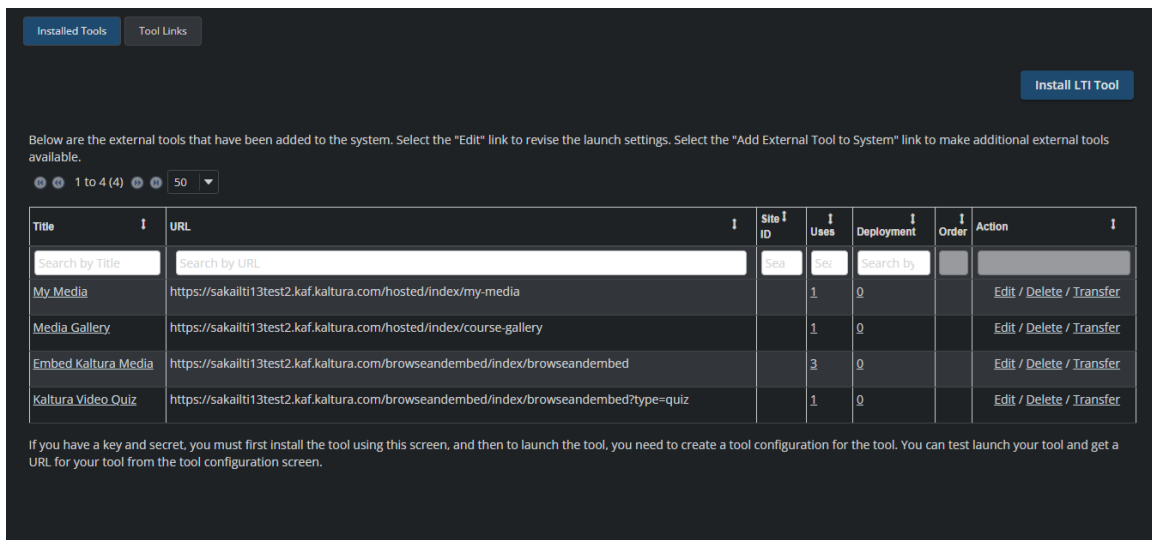
3. On the 'Sites' page, click **Administration Workspace**.



4. In the left navigation menu, scroll down and click **External Tools**.



5. The 'Installed Tools' page displays.



On the Installed Tools page, you will see many tools. We are going to focus on the four Kaltura tools that should be currently installed for LTI 1.1:

- My Media
- Media Gallery
- Embed Kaltura Media
- Kaltura Video Quiz

[Install LTI Tool](#)

Below are the external tools that have been added to the system. Select the "Edit" link to revise the launch settings. Select the "Add External Tool to System" link to make additional external tools available.

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Title	URL	Site ID	Uses	Deployment	Order	Action
Search by Title	<input type="text" value="Search by URL"/>	<input type="text" value="Se"/>	<input type="text" value="Se"/>	<input type="text" value="Search by"/>		
My Media	https://sakailti13test2.kaf.kaltura.com/hosted/index/my-media		1	0		Edit / Delete / Transfer
Media Gallery	https://sakailti13test2.kaf.kaltura.com/hosted/index/course-gallery		1	0		Edit / Delete / Transfer
Embed Kaltura Media	https://sakailti13test2.kaf.kaltura.com/browseandembed/index/browseandembed		3	0		Edit / Delete / Transfer
Kaltura Video Quiz	https://sakailti13test2.kaf.kaltura.com/browseandembed/index/browseandembed?type=quiz		1	0		Edit / Delete / Transfer

If you have a key and secret, you must first install the tool using this screen, and then to launch the tool, you need to create a tool configuration for the tool. You can test

- 6. Locate the tool you want to upgrade (for example, My Media) and click **Edit** in the **Actions** column for this tool.

Title	URL	Site ID	Uses	Deployment	Order	Action
<input type="text" value="Search by Title"/>	<input type="text" value="Search by URL"/>	<input type="text" value="Se"/>	<input type="text" value="Se"/>	<input type="text" value="Search by"/>		
My Media	https://sakailti13test2.kaf.kaltura.com/hosted/index/my-media		1	0		Edit / Delete / Transfer
Media Gallery	https://sakailti13test2.kaf.kaltura.com/hosted/index/course-gallery		1	0		Edit / Delete / Transfer
Embed Kaltura Media	https://sakailti13test2.kaf.kaltura.com/browseandembed/index/browseandembed		3	0		Edit / Delete / Transfer
Kaltura Video Quiz	https://sakailti13test2.kaf.kaltura.com/browseandembed/index/browseandembed?type=quiz		1	0		Edit / Delete / Transfer

The **External Tool** page for that tool displays.

Sakai Administration Workspace > External Tools

ITNC_448U_2994

Recent

- Administration Workspace
 - Overview
 - Users
 - Aliases
 - Sites
 - Realms
 - Worksite Setup
 - Announcements
 - Resources
 - Online
 - Memory
 - Site Archive
 - Job Scheduler
 - Become User
 - User Membership
 - Email Templates

External Tool

[Use LTI Dynamic Registration](#)

Tool Title:

Description:

Tool Status

Enabled
 Disabled

Tool Visibility

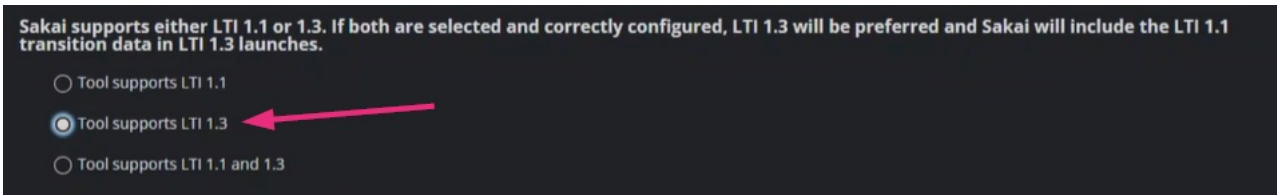
Visible
 Stealthed (Manual Deployment)

Launch URL (1.1) / Target Link URI (1.3)

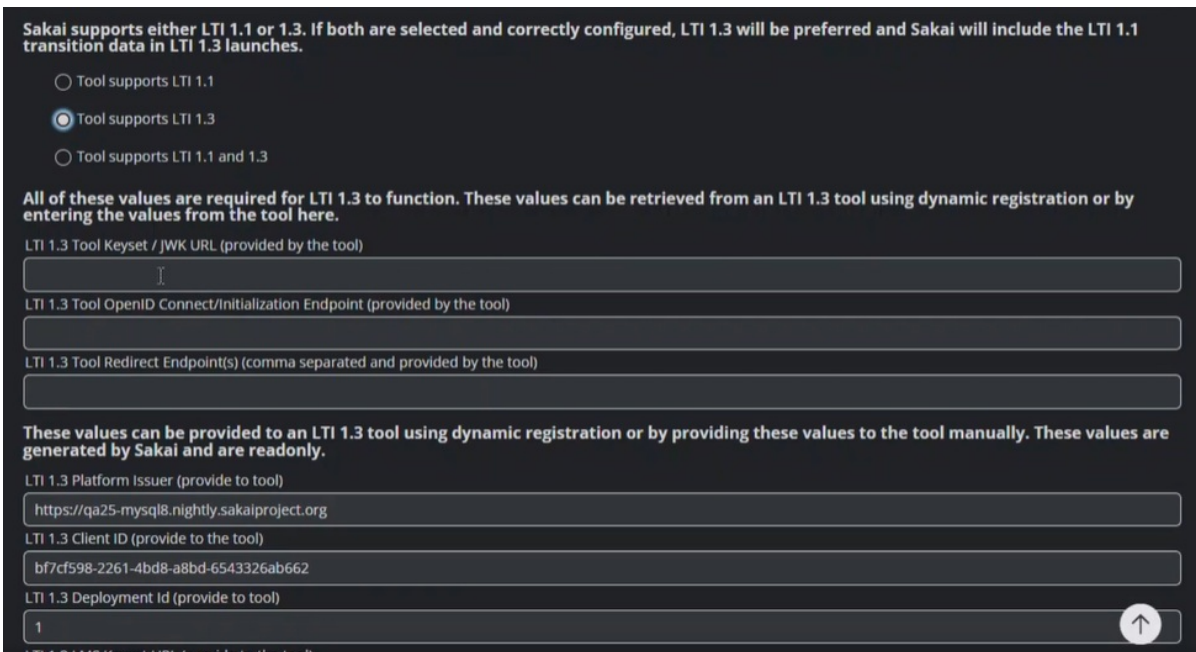
Launch in Popup

Never launch in Popup

- 7. Scroll down to the setting that says: *Sakai supports either LTI 1.1 or LTI 1.3 ...* and select **Tool supports LTI 1.3**.

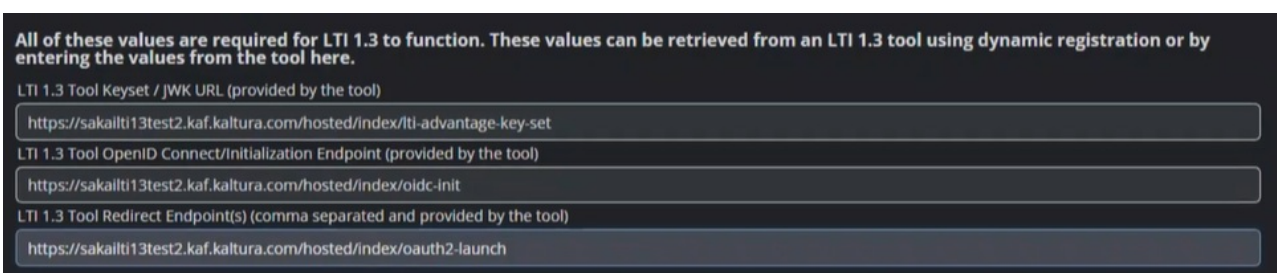


Additional LTI 1.3 settings display.



- 8. Complete the fields as follows:
 - **LTI 1.3 Tool Keyset / JWS URL -**
enter `https://{your_KAF_domain}/hosted/index/lti-advantage-key-set`
 - **LTI 1.3 Tool OpenID Connect / Initialization Endpoint -**
enter `https://{your_KAF_domain}/hosted/index/oidc-init`
 - **LTI 1.3 Tool Redirect Endpoint(s) -** enter
`https://{your_KAF_domain}/hosted/index/oauth2-launch`

The fields should look like this:



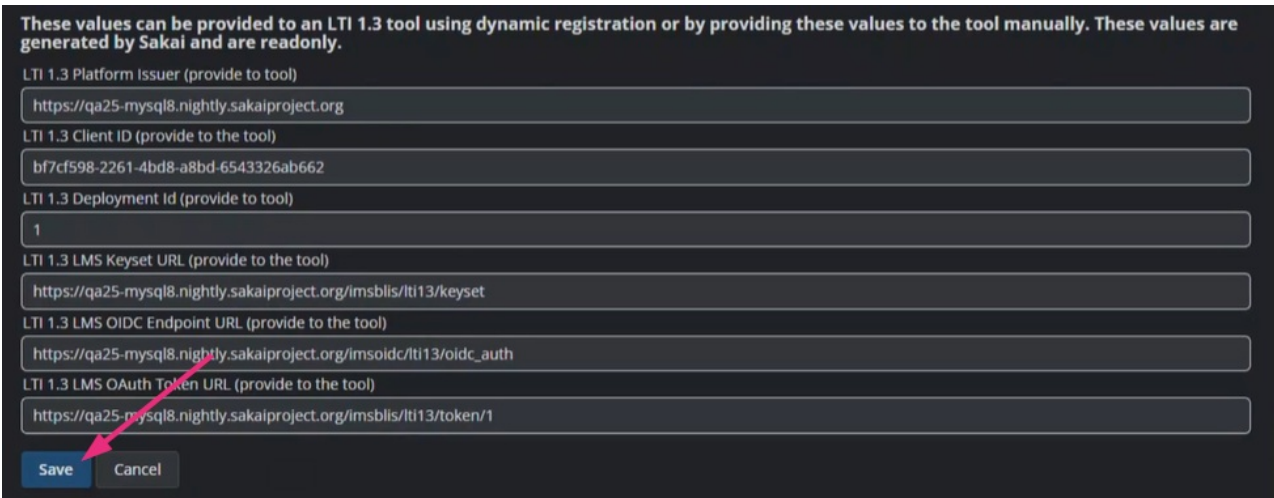
After the fields are configured, the section *These values can be provided to an LTI tool...* displays.

You will use these values later when configuring the My Media tool in KAF.



There's no need to make a note of these values now. You can view these settings again by clicking the tool name on the Installed Tools page when you need them.

- 9. Click **Save**.



The screenshot shows a configuration form for LTI 1.3. The title is "These values can be provided to an LTI 1.3 tool using dynamic registration or by providing these values to the tool manually. These values are generated by Sakai and are readonly." The form contains several input fields with the following values:

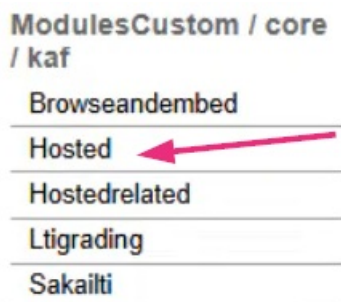
- LTI 1.3 Platform Issuer (provide to tool): `https://qa25-mysql8.nightly.sakaiproject.org`
- LTI 1.3 Client ID (provide to the tool): `bf7cf598-2261-4bd8-a8bd-6543326ab662`
- LTI 1.3 Deployment Id (provide to tool): `1`
- LTI 1.3 LMS Keyset URL (provide to the tool): `https://qa25-mysql8.nightly.sakaiproject.org/imsblis/lti13/keyset`
- LTI 1.3 LMS OIDC Endpoint URL (provide to the tool): `https://qa25-mysql8.nightly.sakaiproject.org/imsoidc/lti13/oidc_auth`
- LTI 1.3 LMS OAuth Token URL (provide to the tool): `https://qa25-mysql8.nightly.sakaiproject.org/imsblis/lti13/token/1`

At the bottom of the form, there are two buttons: "Save" and "Cancel". A red arrow points to the "Save" button.

- Repeat these steps for each remaining Kaltura tool:
 - Media Gallery
 - Embed Kaltura Media
 - Kaltura Video Quiz

Step 3 – Enable LTI 1.3 in KAF

1. Click to open your browser tab that has the Configuration Management console.
2. Navigate to the **Hosted module**: `https://{your_KAF_domain}/admin/config/tab/hosted`



The 'Hosted' page opens.

Configuration Management

Server Tools	Hosted		
Backup Configuration			
Player replacement tool	enabled	<input type="button" value="Yes"/> ▾	Enable the Hosted module.
Global			
Application	enableLike	<input type="button" value="No"/> ▾	Enable the 'Like' feature for entries.
AddNew			
Auth			
Categories	allowEditPublished	<input type="button" value="Yes"/> ▾	Enable editing of published entries.
Channels			
Client	allowDeletePublished	<input type="button" value="Yes"/> ▾	Enable deletion of published entries.
Debug			
EmailService			
EmailTemplates	AllowUnpublishPublished	<input type="button" value="Yes"/> ▾	Enable unpublishing of published entries.
Gallery			
Header	enableEntryDelete	<input type="button" value="Yes"/> ▾	Enable deleting media.
Icalendar			
Languages	enableViews	<input type="button" value="No"/> ▾	Enable showing number of views per entry.
Login			
MediaCollaboration	showPageTitles	<input type="button" value="Yes"/> ▾	Show page titles.
Metadata			
Moderation			
My-media	expandButton	<input type="button" value="Auto"/> ▾	Player expand button. Auto is on only if there are modules providing an entry sidebar.
Navigation			
Player	manPublish	<input type="button" value="No"/> ▾	Enable publish to a list of categories - from the menu, media, and upload. Disable this if you do not have access to the list of categories.
PlaylistPage			
Recaptcha			
Search	authMethod	<input type="button" value="lti"/> ▾	
Security			
SharedRepositories	sharedRepositoryCategoryId	<input type="text" value="408492452"/>	Shared repository category ID. Click here to disable Shared Repositories

3. Scroll down to the **authMethod** field and select **lti1.3** from the dropdown.

manPublish	<input type="button" value="No"/> ▾	Enable publish to a list of categories - from the menu, media, and upload. Disable this if you do not have access to the list of categories.
authMethod	<input type="button" value="lti"/> ▾ <input type="button" value="lti1.3"/>	
sharedRepositoryCategoryId	<input type="text" value="408492452"/>	Shared repository category ID. Click here to disable Shared Repositories

Additional LTI 1.3 configuration fields display. You will fill those in in the next step.

4. Scroll to the bottom of the page and click **Save**.

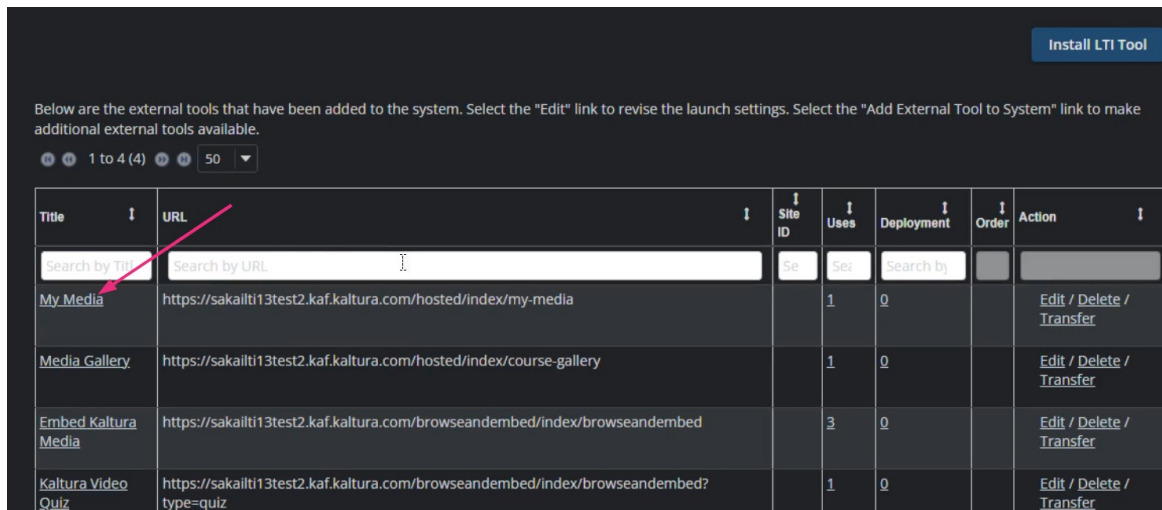
Step 4 – Configure the My Media tool in KAF

The **My Media** external tool is configured first and creates the shared LTI 1.3 key pair used by the integration.

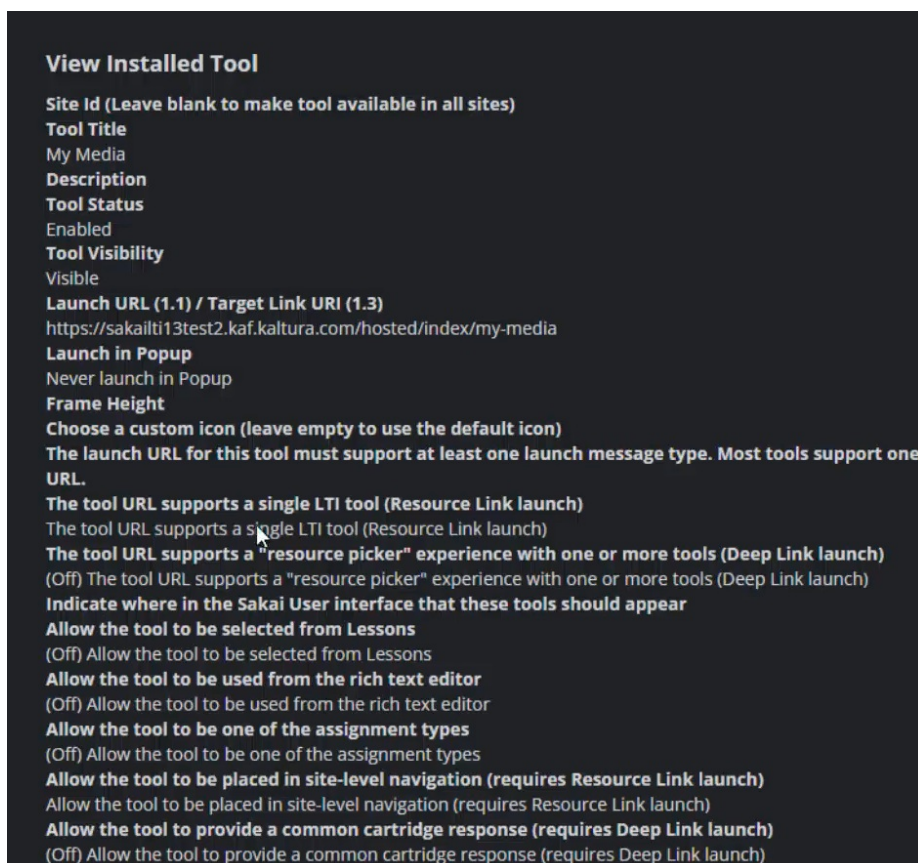


Keep your Sakai and your Configuration Management console tabs open side-by-side in your browser to make copying and pasting between systems easier.

1. In Sakai, navigate to the **Installed Tools** page and click the title of the **My Media** external tool.



The **View Installed Tool** page opens.



2. Scroll down to view the values you will copy into the Hosted module.

Sakai supports either LTI 1.1 or 1.3. If both are selected and correctly configured, LTI 1.3 will be preferred and Sakai launches.

Tool supports LTI 1.3


All of these values are required for LTI 1.3 to function. These values can be retrieved from an LTI 1.3 tool using the tool here.



LTI 1.3 Tool Keyset / JWK URL (provided by the tool)
<https://sakailti13test2.kaf.kaltura.com/hosted/index/lti-advantage-key-set>


LTI 1.3 Tool OpenID Connect/Initialization Endpoint (provided by the tool)
<https://sakailti13test2.kaf.kaltura.com/hosted/index/oidc-init>


LTI 1.3 Tool Redirect Endpoint(s) (comma separated and provided by the tool)
<https://sakailti13test2.kaf.kaltura.com/hosted/index/oauth2-launch>


These values can be provided to an LTI 1.3 tool using dynamic registration or by providing these values to the tool and are readonly.


LTI 1.3 Platform Issuer (provide to tool)
<https://qa25-mysql8.nightly.sakaiproject.org> 

LTI 1.3 Client ID (provide to the tool)
 bf7cf598-2261-4bd8-a8bd-6543326ab662  

LTI 1.3 Deployment Id (provide to tool)
 1 

LTI 1.3 LMS Keyset URL (provide to the tool)
<https://qa25-mysql8.nightly.sakaiproject.org/imsblis/lti13/keyset> 

LTI 1.3 LMS OIDC Endpoint URL (provide to the tool)
https://qa25-mysql8.nightly.sakaiproject.org/imsoidc/lti13/oidc_auth 

LTI 1.3 LMS OAuth Token URL (provide to the tool)
<https://qa25-mysql8.nightly.sakaiproject.org/imsblis/lti13/token/1> 

Done

- In another browser tab, navigate to the [Hosted module](https://your_KAF_domain/admin/config/tab/hosted) in your Configuration Management console ([https://{your_KAF_domain}/admin/config/tab/hosted](https://your_KAF_domain/admin/config/tab/hosted)).
- Scroll to the LTI 1.3 configuration fields and paste in the values from Sakai as follows:

- Iti13PlatformOidcAuthUrl** - paste in value from **LTI 1.3 LMS OIDC Endpoint URL**
- Iti13AuthTokenUrl** - paste in value from **LTI 1.3 LMS OAuth Token URL**
- Iti13KeysUrl** - paste in value from **LTI 1.3 LMS Keyset URL**
- Iti13ClientId** - paste in value from **LTI 1.3 Client ID**

Iti13PlatformOidcAuthUrl	https://qa25-mysql8.nightly.sakaip	Single endpoint at the platform domain (i.e. LMS) the tool will redirect the browser to, to initiate the OIDC authentication flow.
Iti13AuthTokenUrl	https://qa25-mysql8.nightly.sakaip	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.)
Iti13KeysUrl	https://qa25-mysql8.nightly.sakaip	JWKS URL that contains the platform's key for JWT verification
Iti13ClientId	6a157500-f4dc-4736-81b7-732d51	client ID for the tool as provided by the platform

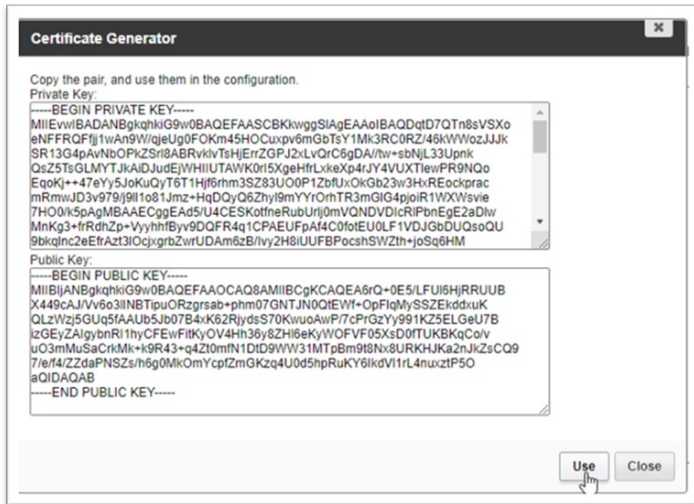
- 5. In the **Iti13ServicePrivateKey** section, click **generate key pair here**.

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](#)

This generates the keys.

- 6. In the 'Certificate Generator' window, click **Use** to have the key pairs saved to the **Iti13ServicePrivateKey** and **Iti13ServicePublicKey** fields.



- 7. Scroll to the bottom of the 'Hosted' page and click **Save**.

Step 5 - Configure the remaining tools

1. In Sakai, go to the **Installed Tools** page and click the title of the next tool you want to configure (e.g. Media Gallery) to view its details.

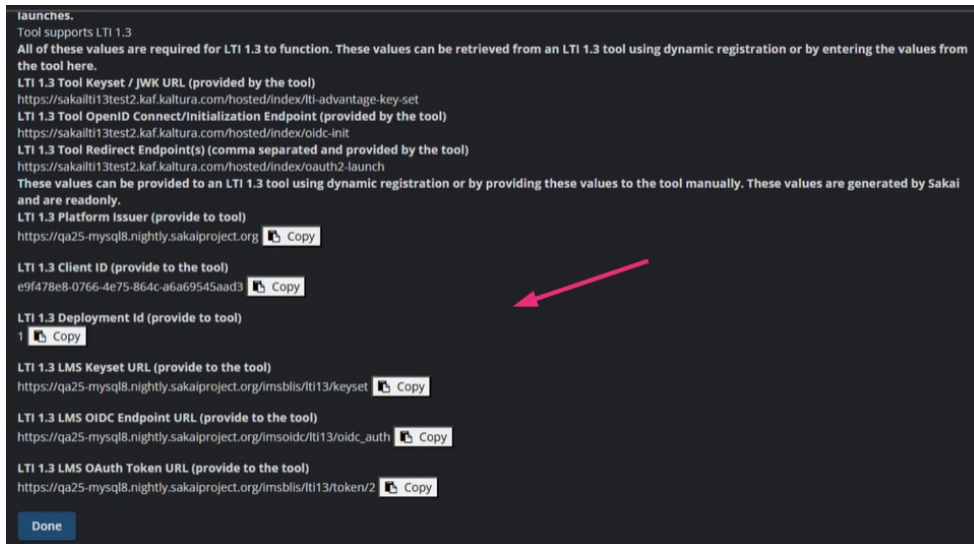
Below are the external tools that have been added to the system. Select the "Edit" link to revise the launch settings. Select the "Add External Tool to System" link to make additional external tools available.

1 to 4 (4) 50

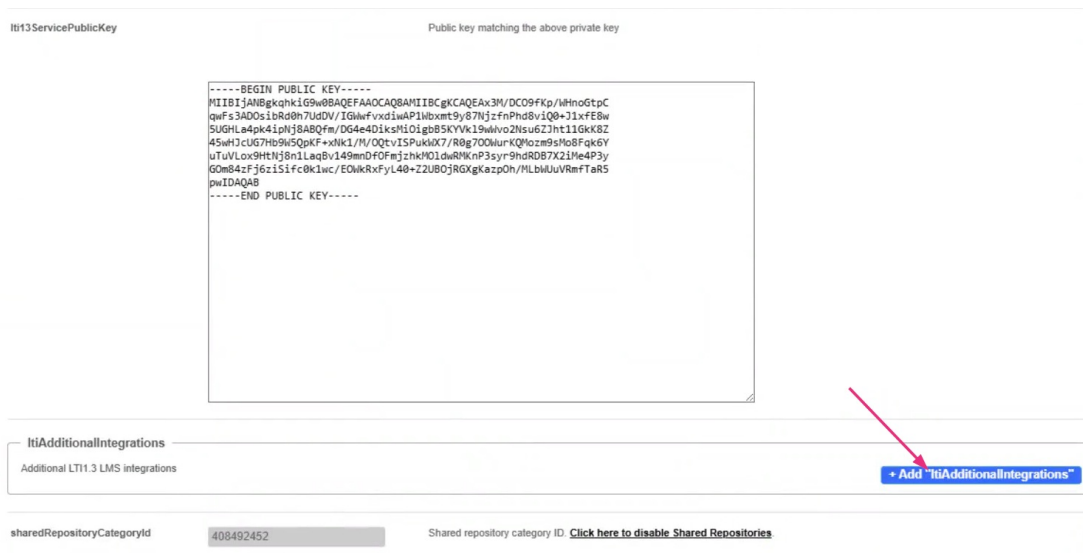
Title	URL	Site ID	Uses	Deployment	Order	Action
Search by Title	Search by URL	se	se	search by		
My Media	https://sakait113test2.kaf.kaltura.com/hosted/index/my-media		1	0		Edit / Delete / Transfer
Media Gallery	https://sakait113test2.kaf.kaltura.com/hosted/index/course-gallery		1	0		Edit / Delete / Transfer
Embed Kaltura Media	https://sakait113test2.kaf.kaltura.com/browseandembed/index/browseandembed		3	0		Edit / Delete / Transfer
Kaltura Video Quiz	https://sakait113test2.kaf.kaltura.com/browseandembed/index/browseandembed?type=quiz		1	0		Edit / Delete / Transfer

The 'View Installed Tool' page opens for that tool.

2. Scroll down to the values that you will copy in the next steps.



- In the **Hosted** module, scroll down to the **ItiAdditionalIntegrations** section and click the **+Add "ItiAdditionalIntegrations"** button.

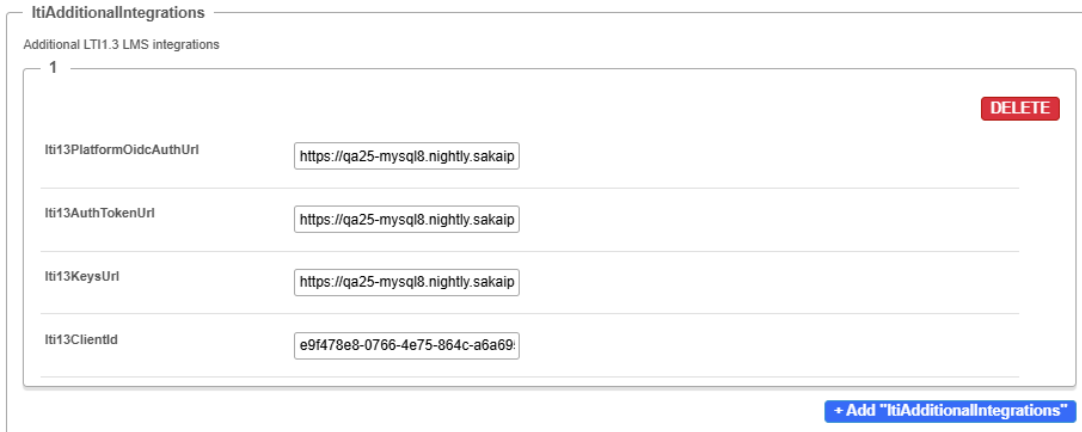


A new LTI 1.3 configuration section displays.



- Copy the values from the Sakai 'View Installed Tool' page and paste them into the new configuration section:

- **Iti13PlatformOidcAuthUrl** - paste in value from **LTI 1.3 LMS OIDC Endpoint URL**
- **Iti13AuthTokenUrl** - paste in value from **LTI 1.3 LMS OAuth Token URL**
- **Iti13KeysUrl** - paste in value from **LTI 1.3 LMS Keyset URL**
- **Iti13ClientId** - paste in value from **LTI 1.3 Client ID**



The screenshot shows a form titled "ItiAdditionalIntegrations" with the subtitle "Additional LTI1.3 LMS integrations". It contains a table with one row of data. The table has four columns: the field name, the value, a "DELETE" button, and an empty space. The values are: "https://qa25-mysql8.nightly.sakaip" for the first three fields and "e9f478e8-0766-4e75-864c-a6a69" for the last field. At the bottom right of the form is a blue button labeled "+ Add 'ItiAdditionalIntegrations'".

Field Name	Value	Action	
Iti13PlatformOidcAuthUrl	https://qa25-mysql8.nightly.sakaip	DELETE	
Iti13AuthTokenUrl	https://qa25-mysql8.nightly.sakaip		
Iti13KeysUrl	https://qa25-mysql8.nightly.sakaip		
Iti13ClientId	e9f478e8-0766-4e75-864c-a6a69		

- 5. Scroll to the bottom of the page and click **Save**.

The page refreshes after saving.

- 6. Repeat these steps for the remaining tools:
 - Embed Kaltura Media
 - Kaltura Video Quiz

This completes the upgrade of the Kaltura LMS Video integration from LTI 1.1 to LTI 1.3.