

Kaltura's Entitlement Infrastructure Information Guide

Version: **Falcon**

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Preface

About this Guide

This guide provides an in-depth description of the Kaltura's Entitlement Infrastructure for the Kaltura falcon release and the Kaltura MediaSpace version 4 releases.



NOTE: Please refer to the official and latest product release notes for last-minute updates. Technical support may be obtained directly from: [Kaltura Support](#).

Contact Us:

Please send your documentation-related comments and feedback or report mistakes to [the Kaltura Knowledge Center](#).

We are committed to improving our documentation and your feedback is important to us.

Audience

This guide is primarily intended for those who want to understand Kaltura's backend options and services developed for controlling end-user entitlements to content in the Kaltura MediaSpace™ application.

Specifically the information in this guide may be useful to:

- **MediaSpace Administrators** responsible for supporting their organizational media portal.
- **IT and Identity Management Experts** responsible for integrating organizational group membership information into entitlements to media channels in their media portal.
- **Developers and Partners** who want to add content entitlement controls to their proprietary Kaltura based applications/web-sites.

Document Conventions

Kaltura uses the following admonitions:

- Note
- Workflow



NOTE: Identifies important information that contains helpful suggestions.



Workflow: Provides workflow information.

Prerequisites

Some background information about the Kaltura Platform and about the Kaltura MediaSpace application is required. You will also need to familiarize yourself with the Content Entitlements and Channels' functionalities added in MediaSpace 4.0

Related Documentation

In addition to this guide, the following product documentation is available:

- [Kaltura MediaSpace Setup Guide 4](#)
- [Kaltura MediaSpace User Manual](#)
- [Kaltura Management Console User Manual](#)
- [Kaltura's Entitlement Infrastructure Bulk Services](#)

Introduction to the Kaltura Entitlement Infrastructure

Kaltura provides a built-in infrastructure for controlling and managing end-user entitlements to content. This infrastructure includes the required attributes and permission controls as well as the server utilities for enforcing those controls.

Using Kaltura's entitlement services, end-user facing applications such as Kaltura MediaSpace can be extended to add the following capabilities:

- **Groups' media channels** - Provides the ability to set media channels that limit access and contribution of content to members of a specific group of users.
- **Granular control over user permissions to content** - Provides the ability to define different privacy and permission levels for accessing and managing content in media channels.
- **Personalized global search engine** - Provides the ability for users to easily search and find relevant content from the entire set of media they are entitled to access.

Kaltura MediaSpace Related Terminology

The following MediaSpace terms are used within this document to demonstrate the utilization of Kaltura's entitlement services in MediaSpace 4.0:

- **MediaSpace Galleries** – Represent the structured, centrally curated media galleries that are available from the MediaSpace top menu and side navigation. The MediaSpace Galleries may be organized around specific topics in either hierarchal or flat navigation layout. When MediaSpace is used as a company/institution-wide media portal - the MediaSpace Galleries are usually shared with the entire organization and may even become available to the public on the web.
- **MediaSpace Channels** – Represent the media collections that may be created and/or managed by authorized users within the organization for any purpose. The MediaSpace Channels may be created for specific groups within the organization or created by users focusing on specific topics or interest related to the organization activities and projects.

MediaSpace Channels are available to people in the organization and not open to the public on the web. 3 types of channels are supported in MediaSpace:

- **Open** - All users are entitled to access the channel and contribute content.
- **Restricted** – All users are entitled to access the channel, but only specific users are entitled to contribute content.
- **Private** – Only specific users are entitled to access the channel and contribute content.

A company/Institution-wide shared channel listing is available in MediaSpace for channel searching and content discovery – channels can be searched by tags, topics and social activity criteria. In addition, each user has direct access to the list of all channels they are granted specific permission to.

In the Kaltura backend - both **MediaSpace Galleries** and **MediaSpace Channels** are based on Kaltura's **Category** object and its API services.

Kaltura's Entitlement Model

Kaltura's entitlement model relies on the extension of Kaltura's categories. Categories may hold entitlement settings as well as specific end-user permissions. These entitlement settings and end-user permissions are inherited by media entries associated with these types of categories.

The entitlement model provides a direct association between end-users and the collection of media items they are entitled to access, and enables a simple and efficient way to add entitlement controls to both flat and hierarchal application/website navigation layout.

Adding Entitlements to Categories

Entitlement settings may be added to categories integrated in MediaSpace to support content entitlement. The way to add entitlement to categories is by adding a "Privacy Context

Privacy Context is a free text label that indicates to which application the entitlement settings apply, for example, "MediaSpace". The Privacy Context label is used for specific indexing of categories and content associated with it, and should also be configured in the application session (KS) itself. The Privacy Context configuration for an application guarantees the following:

- User's entitlements to content in the application are determined based on the specific categories the application is integrated with.
- Categories that are not directly integrated with the application can be used for any content organization and applicative classification purposes. A content item can be shared with such categories with no impact on their visibility to end-users through the application.

In the common case, a single Privacy Context should be set to an entire 'branch' within the category-tree, and indicate the application integrated with it.

In more complex scenarios, multiple privacy contexts can be set to categories to enable access to content shared between multiple applications within the account, and under the same organizational context.

To add entitlements to categories

1. Select the Settings tab and then select Integration Settings.
2. In the Entitlement Settings sections click Add Entitlements to Categories.

Entitlement Settings

The Entitlement Settings are set as part of the MediaSpace installation. For other purposes: To add entitlement settings for categories select the root category integrated with your application and label it below.

Note: The Privacy Context Label of each category defined here, will be automatically applied to its sub categories. The same label should be set as part of the application's session (KS) privileges. [Read More](#)

Application's Root Category	Privacy Context Labels	Actions
MediaSpaceRootCategory	MediaSpace1	Change ✕ Remove

[+ Add Entitlements to Categories](#)

3. Enter the name of the root category integrated with your application/s.
4. Enter the privacy context label. Multiple labels can be separated by commas. In MediaSpace, the privacy context label is visible through the MediaSpace configuration panel.

Add Entitlements To Categories

Category Name
MediaSpaceRootCategory ✕

Privacy Context Labels
MediaSpace1

Save Cancel

5. Click Save.
Following this action the categories tree is updated in the Kaltura backend, and the privacy context is gradually propagated into all sub categories. This operation may take a few minutes.



NOTE: The Privacy Context is set to categories as part of the MediaSpace installation process. Following this configuration, the MediaSpace categories can be edited to include entitlements settings.

For any other purposes, entitlements and privacy context can be added to categories from the Integration Settings page in the KMC.



NOTE: If entitlement enforcement is enabled by default in your account, after you complete this step, all content under the category that was set with entitlements (including all sub-categories) will only be accessible through an application that was updated to work with Kaltura's entitlement services and that is set with the defined privacy context label as part of its session privileges.

Category's Entitlement Settings

Entitlement settings may be set on categories in different ways, for example, from the application, via the CSV or through a Kaltura API. The Category's Entitlements tab in the KMC is where content entitlement settings are managed by account administrators. The Entitlements tab only appears in KMC accounts that are set with the entitlement feature and in categories that were set to have entitlement settings for an application.

The following sections describe the different setting options available in the Entitlements tab and their impact on end-user entitlements in applications such as MediaSpace.

Edit Category - Sports

Here you can manage entitlement settings and specific end-user permissions to content in your application.

Privacy Context Label: MediaSpaceEntitlements

Content Privacy: **No Restriction** Content in this category is visible to everyone with access to the application page
 Requires Authentication Content in this category is visible only to authenticated end-users
 Private Visible only to users with specific permissions to access this category's content

Category Listing: **No Restriction** Category is visible to everyone with access to the application page
 Private Category is visible only to users with specific permission to access this category's content

Who Can Add Content to this Category?: **No Restriction** Any authorized end-user
 Private Only end-users with specific permission to add content to this category

Inherit Specific End-User Permissions from Parent Category?: **No** Set specific end-user permissions for this sub-category
 Yes Specific end-user permissions of parent category will automatically apply to this sub-category

Specific End-User Permissions:
Owner: Not Specified [Change](#) | **Users:** 0 end-users have permissions to this category [Manage](#)

[Save](#) [Save & Close](#) [Previous Category](#) [Next Category](#)

Content Privacy

The content privacy defines the visibility of content associated with a category, including its related metadata. The Content Privacy setting is applied to:

- Who has access to content published in channel pages
- Which content will be available to the user in the application global search results

Category's Entitlement Settings

- Who can access to a single media item in the application.

The Content Privacy options are:

- **No Restriction** – Content in the category is visible to everyone with access to the application page it is published in. **In MediaSpace** - this option is mostly relevant for setting Media Galleries that are open on the web and can be accessible by everyone, including anonymous viewers.
- **Requires Authentication** – Content in the category is visible only to authenticated end-users – **In MediaSpace** this option is mostly relevant for setting Media Galleries or Open/Restricted Media Channels that are available to all authenticated users (users of the company/Institution, customers with login etc.) User authentication is made by MediaSpace against the customer Identity Management system, or with using Kaltura's authentication services. In both cases, the authenticated user ID is then passed to the Kaltura server through the application session.
- **Private** – Content in this category is visible only to users with specific permission to access this category's content and to the owner of the content. **In MediaSpace** this option is mostly relevant for setting Private Media Channels - available only to a group of users.
- Note: With any content privacy option the owner of the content is entitled to access and manage his content

Visibility of Content Associated with Multiple Categories

For content associated with more than one category, the privacy and visibility of this content via global search or a direct link to the video page, is determined based on the category with the lowest restriction level the content is associated with (within the application category tree).

Examples

In a MediaSpace based media portal:

- A video that is published in a few private channels but also in at least one public gallery (Content Privacy = No Restriction) will be visible to everyone with access to the portal. Access to this video in this case is available to all from the public gallery page itself, via the portal's Global Search or via a direct link to the MediaSpace page of this video.
- A video that is published in a few private channels but also in at least one organizational shared gallery (Content Privacy = Requires Authentication), will be visible to all members of the organization (following login to the portal) from the organizational shared gallery page itself, but also via the portal's Global Search or via a direct link to the MediaSpace page of this video. This content will not be available to anonymous viewers with a direct link to the MediaSpace page of this video - a login page will be prompted in this case.
- A video that is published in a few private channels but is also set in Kaltura categories managed in the KMC account that are not integrated with the media portal (for example, categories integrated with Kaltura extensions to CMS/LMS, categories set by the account KMC administrator for different purposes, etc.). Access to the video via the Media Portal is determined only by the entitlements settings of the categories the Media Portal is integrated with. This is controlled by the application specific "privacy content" label set to these categories.
- A video that uploaded by an end-user but was not published in any gallery or channel in MediaSpace (private media), could only be accessed by the content owner.

Visibility of Content Outside of the Application

When the entitlement feature is enabled for the account, an internal enforcement level is also set and managed by Kaltura.

Category's Entitlement Settings

The options for entitlement enforcement are:

- **Entitlement enforcement is enabled by default.**
When entitlement enforcement is enabled for the account - access to content under categories with entitlement is only possible via applications that implement entitlement and are integrated with these categories. This is the recommended setting in MediaSpace accounts for the highest level of content security.
Note: that embed codes that are grabbed by authorized users from within the MediaSpace application are bypassing the entitlement enforcement for the specific entry. Thus the entry will become publically available within the grabbed player outside of MediaSpace.
- **Entitlement enforcement is disabled by default and enabled by the application.**
When entitlement enforcement is disabled for account - access to content under categories with entitlement is possible via any application, including player embed codes that are grabbed from the KMC. With this option the application itself activate the entitlement enforcement so entitlement rules are kept within the application but all content in categories the application is integrated with can be accessed via other applications as well. This is the default setting for Kaltura trial accounts.

Contact Kaltura to change the entitlement enforcement level for your account.

Category Listing

The Category Listing option defines who can see the category's name and metadata in MediaSpace. The Category Listing options are:

- **No Restriction** - With this option, the category name and metadata is visible to everyone with access to the application page it is listed in. **In MediaSpace** - this option is used for having MediaSpace Galleries always listed in the top menus and side navigation layout and for having MediaSpace open or restricted channels included in the Channels listing page.
- **Private** – With this option, the category name and metadata are visible only to users with permission to access the category and its content. In MediaSpace this option is used for having private channels visible only to group members.

Contribution Policy

The contribution policy option defines which end-users can add content to this category through applications. The applicative permission to publish in MediaSpace's shared Galleries is set from the MediaSpace Application Role of the user. See the [Kaltura MediaSpace Setup Guide](#) for more information. The category contribution policy adds the ability to have this type of authorization for publishing content in specific galleries/channels.

The Category Contribution Policy options are:

- **No Restriction** – With this option, any end-user authorized to publish content in MediaSpace can publish content in the gallery/channel associated with this category. In MediaSpace this option is used in shared galleries to which every user with a MediaSpace Admin Application Role can add content to, and in Open Channels to which all MediaSpace users with content can add their content to.
- **Private** - With this option, only end-users with specific permission to add content to this category are able to add content to it. In MediaSpace this option is used in Restricted/Private Channels.

Specific End-User Permissions

When any one of the Category Entitlement Options is set to Private, the respective access level is based on specific end-user permissions. User permissions to a category and content associated it are set through 4 permission levels: Member, Contributor, Moderator, and Manager. The basic access permissions listed below are enforced by the Kaltura server. In MediaSpace the permission levels are used to control the availability of the relevant UI controls and user flows. (for example, Channel Settings, Channel's moderation panel, Publish Module etc.)

Permissions Permission Levels	View Content and Category	Add Remove Content to Category	Approve Content added to the category	Edit Category's settings, privacy options and user permissions	Remove Category
Member	X				
Contributor	X	X			
Moderator	X	X	X		
Manager	X	X	X	X	X

The settings of end-user permissions can be made from the KMC, in Bulk Process via a CSV formatted schema, or via Kaltura APIs. **In MediaSpace:** Channel Managers are able to set their channel's groups members and may assign different permission levels to members of their group.

Sports - Specific End-User Permissions

Search End-Users

Additional Filters

- All Permission Levels
 - Member
 - Contributor
 - Moderator
 - Manager
- All Statuses
 - Active
 - Deactivated
- All Update Methods
 - Manual
 - Automatic

<input type="checkbox"/>	User ID	Permission L	Status	Update M	Updated	Actions
<input type="checkbox"/>	jonhs123	Contributor	Active	Manual	07/10/2012	Select Action
<input type="checkbox"/>	miked456	Contributor	Active	Manual	07/10/2012	Select Action
<input type="checkbox"/>	danau172	Contributor	Active	Manual	07/10/2012	Select Action

Deactivate
Activate
Set Permissions Level
Set To Manual Update Method
Set To Automatic Update Method
Delete

Bulk Actions 1 1-3 of 3 Show rows: 50

Close

Add Users
Add Users From Parent Category



NOTE: The content owner has always full access and editing permissions to his own content. He is also able to remove his content from any category, regardless of the category's settings.

Note: The content owner has always full access and editing permissions to his own content. He is also able to remove his content from any category, regardless of the category's settings.

Tip: the category end-user permissions may also be used by applications when the category is not set as private – for granting category specific applicative permissions to specific users. **In MediaSpace:** users that is not set to with an Admin Application Role can still be granted with permission to publish content in specific galleries. In this case the category's contribution policy is set to **No Restriction** while ability to publish content in the respective gallery is granted by the application to all MediaSpace **Admin** users, and in addition, also to a few specific users that are set as contributors in the category.

End-User Permission Attributes

- **Status** – indication to the state of the user permission set to the category. This attribute may be used for supporting different applicative flows.
 - **Active** – Access permission is active and enforced
 - **Deactivated** – Access permission is not active anymore. (can be activated again)
- **Update Method** - indication on how a specific end-user permission is updated, this may be used for supporting automatic processes for setting permissions to channels from groups managed in on organizational information systems, while being able to set manual overrides to specific end-user permissions.
 - **Automatic** - user permission is updated via an automatic process (either via a CSV formatted schema or an API based integration). User permission level may be updated by the automatic process.
 - **Manual** – user permission is updated manually only and will not be updated by an automatic process.

Additional Category Entitlement Settings

The following additional settings are available at the lower part of the entitlements tab:

- **Category Owner** – a category attribute, for setting one of the channel managers as the channel owner for any applicative need. The category owner is automatically set with a manager permission level for the category. See [Change Owner](#).
- **Default Permission Level** – a category attribute for setting a specific default permission level to the category, for supporting different applicative flows.
- **Moderate Content** - a category attribute, for supporting the moderation of content prior it's publishing in the channel. (Moderation is configured through MediaSpace.)

Frequently Asked Questions

Why entitlements are restricted to individuals and are not set to organizational units/groups?

The MediaSpace user-flows for determining user's entitlements to content and categories are best supported when permissions are set to individuals and indexed in Kaltura. The internal indexing of content by its individual end-user permissions enables the best real-time performance for content retrievals regardless of the organization size, the content volume, and the number of groups within the organization each user may be a member of.

Kaltura provides the tools, APIs and guidelines for setting automatic and on-going synchronization between group membership information managed in the organizational systems and the individual permissions set to categories in Kaltura.

Are there any content entitlement controls that apply on KMC users?

Content entitlement controls are set from the KMC but apply initially MediaSpace (or any other developed integrations). Each KMC user with permission to manage content will have access to the entire set of content managed in the account from the KMC.

Why don't I see the Category's Entitlements Tab in the KMC?

The Entitlements tab in the Category Editing window is only available when the KMC account is set with the end-user entitlement feature and in categories that were pre-configured with a [Privacy Context](#). The entitlement settings will be automatically enabled to MediaSpace categories as part of the installation/upgrade of MediaSpace 4. Contact [Kaltura Support](#), to enable the end-user entitlement feature.

Do I need to change anything in my Kaltura CMS/LMS Module Settings?

The Kaltura CMS and LMS modules are already integrated with the host CMS/LMS entitlement infrastructure. Access to content managed in Kaltura via the CMS/LMS is, and was always, managed through the CMS/LMS permission/enrolment settings. It is possible to share content between categories integrated by a CMS/LMS module and those integrated by MediaSpace with **no need to add entitlement settings to the categories integrated with the CMS/LMS module**. Utilization of Kaltura's entitlement

Frequently Asked Questions

infrastructure by any CMS/LMS extension is possible but requires application adjustments for using the entitlement infrastructure and services.