

Real-time Analytics dashboard

A This article is designated for administrators.

Access the dashboard

1. Log into the KMC and select the **Analytics** tab from the **Content** menu.

			· Create	cs –	ANALYT	STUDIO	CONTENT	*
ENTRIES MODERATION ROOMS PLAYLISTS SYNDICATION CATEGORIES	CATEGORIES	SYNDICATION	PLAYLISTS	ROOMS	ERATION	IES MODI	ENTR	

The **Analytics** page displays.

2. In the Analytics menu, select the **Real-Time** tab.

*	<	Analytics	AUDIENCE	CONTRIBUTORS	USAGE	REAL-TIME	+ Create
		ENGAGEMENT	CONTENT	INTERACTIONS	TECHNOLOGY	GEO LOCATIO	ло

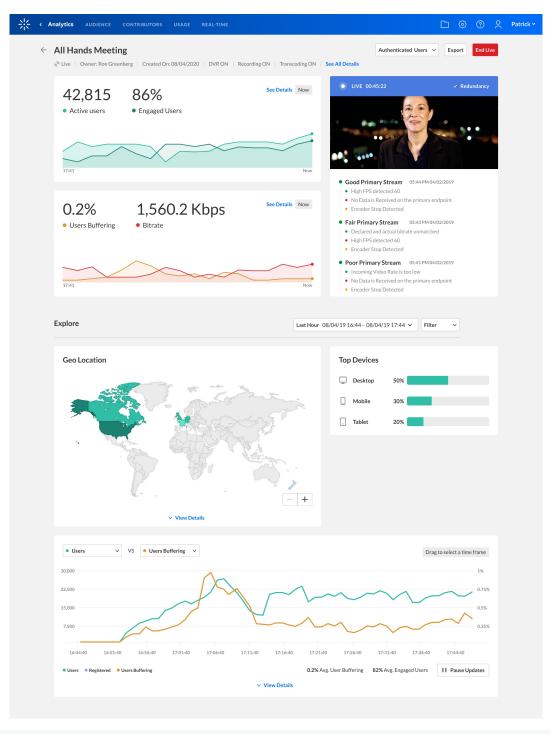
The real-time analytics page displays.

3. Under the **Broadcasting Now** tab, locate the desired entry and click **Full Dashboard**.

		BROADCASTING NOW PREVIOUS BROADCASTS	
LIVE	Name: Owner: Alon DV 837 Active Users 10.8% Engaged Users	R: Recording: OFF Transcoding: ON 0% Users Buffering 42,836.9 Kbps Avg. Downstream BW	Full Dashboard

The real-time analytics dashboard displays.





As a reference for analytics terms and definitions, please visit our articleKaltura analytics terminology.

Actions bar

At the top of the dashboard, there is an actions bar with four functions: users menu (1), filter function (2), export function (3), and Live button (4).



<	Analytics					+ Create				C)		2	?
~							1 All Users	~	2 Filter ∨	3 Export v	End I	4 Live	
	<i>∞®</i> Live	Owner: Ci	reated On: 10/20/2023	B DVR:0	ON Record	ing: Active Transcoding: ON	See All Details						
	sers												

All Users Authenticated Users Show data for login users only All Users Show data for anonymous users and login users

From the users menu, you can select the desired option to monitor the event:

- Authenticated Users for events that all users are required to authenticate
- All Users for events that don't require authentication

Filter

The **Filter** function allows you to filter the data on the dashboard.

*	< Analytics AUDIENCE	CONTRIBUTORS USAG	E REAL-TIME	+ Create	C @ 2	? EB ~
	📽 Live Owner:	Created On: 02/02/202	1 DVR: OFF	All Users		rt 🗸
	Device	Operati	ng System	Users		
	Select Device	✓ Select C	perating System	✓ Select U	lsers	
	Browser	Country	1			
	Select Browser	✓ Select C	Country	\checkmark		
		Region				
		Select R	egion	\sim		
		City				
		Select C	lity	\checkmark		
	Apply					

- 1. Click on the **Filter** function to open the filters pane.
- 2. Select the relevant filters you'd like to use. The options are:
 - Device computer, tablet, mobile
 - Browser Chrome, Firefox, Safari, Internet Explorer, MS Edge, Opera, WebKit, Vivaldi

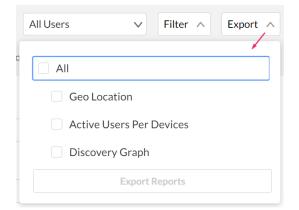
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- **Operating system** Windows, Mac OSX, Android, Linux, iOS, Chrome OS
- Country (then Region and City of that country)
- Users
- 3. Click **Apply** to show the filtered data in the dashboard.

Export

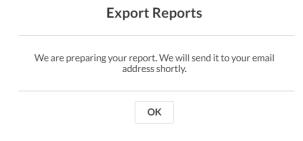
The export function gives you the option to export data to a CSV file.



 Click Export to open the drop-down list and select the data you'd like to export. One or more options may be selected.

2. Click Export Reports.

A confirmation displays: *We are preparing your report. We will send it to your email address shortly.*



3. Click **OK**.

A notification is sent to your email. If the data in the report was filtered, the report is based on the filter applied. Note that export is limited by 60,000 records and time to execute. If you receive an error, break down your report to smaller time frames or use filters to reduce the size of the report.

▲ The files expire in 7 days.

Live button

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The **Live** button allows you to change the state of the broadcast. There are 3 states and the button will change automatically depending on the state of the entry:

End Live

End Live (red) - the broadcast is live



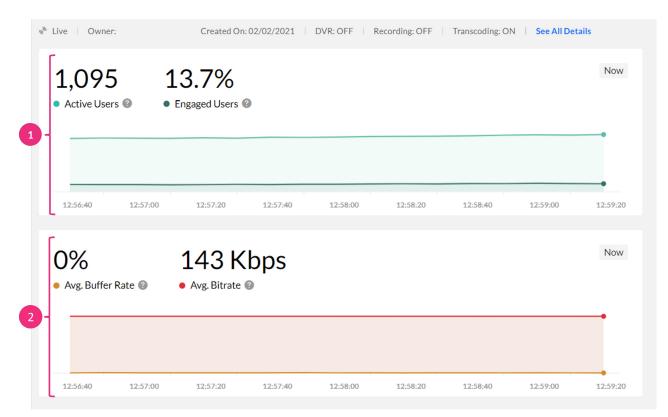
Go Live (green) - broadcasting is in preview state



Go Live (white) - the broadcast is offline

Overview of the current broadcast

The upper panel of the real-time dashboard provides a snapshot of both the video downstream and the upstream, showing the last 3 minutes. The values shown for each metric are only the values for the last point of time on the graph, not the entire 3 minutes which you can see from the graph. There are two sections: engagement (1) and quality of service (2).



The Engagement section shows:

• Active users - The users that are now viewing the broadcast whether they are live

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or DVR.

• **Engaged users** - The percent of users from the active users that have both the tab in focus and the sound on for the entry.

You can hover over the graph to see the statistics.

1,043 • Active Users (2.4%					Now
12:55:10	12:55:30	12:55:50	12:56:10	12:56:30	12:56:50	12:57:10	12:57:30

The Quality of Service section shows:

- Avg. Buffer Rate The total time of viewers' player buffered during total view time.
- **Avg. Bitrate** Kaltura sends info every 10 seconds about the stream. We take the all the reported bitrate events from the player and average them out to give you an average of the consumed bitrate.

You can hover over the graph to see the statistics.

0.2% • Avg. Buffer		143 Kk Avg. Bitrate @	ps				Now
							•
12:57:20	12:57:40	12:58:00	12:58:20	12:58:40	12:59:00	12:59:20	12:59:40

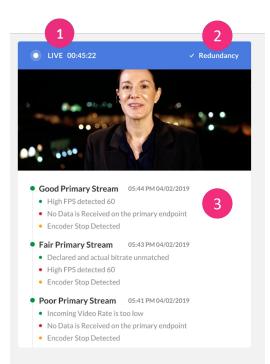
: The dashboard updates every **30** seconds without the need to refresh. During the live broadcast, the graph dynamically updates. The most recent data is shown on the right, pushing older data slightly to the left with each new addition. The information is captured and analyzed every **10** seconds throughout the duration of a Kaltura Live Streaming event.

Upstream section

This section shows how the stream is ingested along with the player including the lapsed time. You can see stream health (1), redundancy (2) and stream health details



(3).



Stream health - There are three states of stream health for the current broadcast:

- Offline
- Preview
- Live

Redundancy (2) - This Indicates whether you are broadcasting to the secondary RTMP endpoint. There is a check symbol if the encoder is now broadcasting to the fallback RTMP (with a tooltip showing seamless failover if enabled). The broadcast updates as closest to real-time as possible.

Stream health details (**3**) - Newest messages are added to the top of the list. The messages are in chronological order describing changes to the stream health during the live broadcast. These are the same messages that are shown in the Live Dashboard today. The messages received from the Live Service are grouped together. For each time the dashboard fetches the latest messages, the Live service retrieves a group of messages of all the events that happened in the last minute. Messages are updated every 5 minutes in accordance to the Live API Service.

Player Preview - The standard V7 player playing the Live entry along with a LIVE label to indicate the status is displayed. If the entry is **Offline**, the offline thumbnail is displayed and the status is indicated as Offline. If the player is in **Preview** mode, the stream in the player is displayed and the status is updated to Preview. The entry is auto-played with the sound off when the page loads.



Explore during and after the event

The Explore section shows time period (1), geo-location (2), active users per device (3), and a metrics graph (4). Use this section to better understand the <u>QoS</u> and engagement metrics.

Explore	1 12/6/2023 13:11 - 12/6/2023 13:12 V
Geo Location 2	Active Users Per Device 3 Desktop 80.9% Tablet 0.4% Mobile 18.8%
• Users vs • DVR Users • 136 • • • • 136 • • • • • 136 • <th>1,186 Peak Users 0 Peak DVR Users II Pause Updates</th>	1,186 Peak Users 0 Peak DVR Users II Pause Updates
✓ Vi	ew Presence

Time period

You can filter time period data by a preset time or a specific date range.



Active Use	rs Per Devices	
Desktor	80.9 %	
_ Tablet	0.4 %	
_ Mobile	18.7 %	

For more information about changing the time period or filtering the data, see Analytics date picker and Time Period Comparisons.

Geo Location

The **Geo Location** section of the real-time dashboard presents the ranking of the geographical distribution of your users, whether by plays, views or drop-off rate. You can identify where your most active users come from.

Geo Location			🗅 Export Filter 🗸 Last 30 Days Nov	8, 2023 - Dec 7, 2023 🗸
Top Countries				
Plays	Unique	Viewers 🔞	Avg. Drop Off Rate (VOD)	
11,422	6		41%	
Top Countries V 137 Countries				- +
# Name	Plays	Plays Distribution	Trend	
1 👙 United States	7,308	64%	↓18%	
2 (•) Canada	988	8.6%	↑ 88%	
3 🕀 United Kingdom	507	4.4%	↑ 12%	
4 💿 Israel	357	3.1%	↑ 48%	
5 👤 India	262	2.3%	↑ 17%	

Clicking on a country on the map will drill down to region and clicking on the region will drill down to the city level.



Geo Location



• Users	V VS	DVR Users	\sim
1049			
1049			
839.2			
629.4			
1407			

Click **View Details** to view the geo location table. The table ranks all geographies by plays in the selected timeframe. The following metrics are available for each geography:

- Users Distribution
- Avg. Buffer Rate
- Avg. User Engagement

#	Name	Users Distribution	Avg. Buffer Rate	Avg. User Engagement
1	• Israel	92.9%	0.1%	10.1%
2	United States	2.1%	0%	30.5%
3 🗳	United Kingdom	1.1%	0%	15.3%
4	Germany	0.73%	0.1%	13.8%
5	• Canada	0.65%	0%	19.4%
		ation map and table is for t		

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To learn more, see Working with the Geo Location Dashboard.

Active users per device

The **Active Users Per Device** section lists the devices that are being used to access the live event.

Active Users Per Devices							
Ţ	Desktop	80.9 %					
_	Tablet	0.4 %					
_	Mobile	18.8 %					

Graph

You can select two metrics to be shown on the graph at the same time in order to better understand the correlation between them.



The metrics are divided into 2 sections - Engagement and Quality of Service.



• Users 🔨 vs	• DVR Users V
ENGAGEMENT	QUALITY OF SERVICE
 Users 	 ✓ ● Bitrate
 Engaged Users 	 Avg. Buffer Rate
 Minutes Viewed 	 Dropped Frame Rate
	 Avg. Segment Download Time
	 Avg. Manifest Download Time
	 Avg. Latency Rate
	 Downstream Bandwidth
	Errors

Engagement

- Users
- Engaged Users
- Minutes Viewed
- DVR users users that are viewing a recorded section and not live

Quality of Service

- Bitrate the quality of the video being consumed by the users
- Avg. Buffer Rate buffered time/view time
- Avg. Segment Download Time
- Avg. Manifest Download Time
- Dropped Frame Rate number of frames that weren't rendered
- Average Latency Rate The Average latency indicates the latency in the time that the stream is broadcasting as opposed to the latency in the view.
- Downstream Bandwidth the ratio between downloading the video and the size in Kbps
- Errors

Select the metrics you want to analyze. Once selected, you can hover over any point in the graph to see the detailed data for that point in time.



• Users V vs • DVR Users V		Drag to select a time frame
1186		1186
948.8	+	948.8
711.6	11:33:10 • Active Users: 854	711.6
474,4	DVR Users: 0	474.4
237.2		237.2
0 10.42.50 10.51.10 10.59.30 11.07.50 11.16.10 11.24.30 11.32	50 11.41:10 11.49:30 11.57:50 12.06:10 12:14:30 12:22:50 12:31:10 12:39:30 12:47:50 12:56:10 13:04:30 13:12:50 13:21:10	0 13:29:30 13:37:50
Users DVR Users	1,186 Peak Users 0 Peak DVR Users	II Pause Updates

Each metric that you select will display a custom calculation at the top of the graph. Some of the basic calculations like average and summary will be shown as a footnote.

1 Total Active Users 0 Avg. DVR Rate II Pause Updates

You can also zoom into the data simply by dragging the mouse over the desired point in time and the graph will update accordingly. Once the graph updates, the dashboard will attempt to bring the data at the most granular intervals it can, this will change depending on the selected time frame. In order to reset the zoom, just click on the **Resume Updates** and the zoom will return to it's original zoom.

		Drag to select a time frame
534		5340 Second
	\wedge	5296 Second
20.4	\sim	5252 Second
13.6	$\sim 1 \land \land$	5208 Second
0		5164 Second 5120 Second
	16:50 18:17:10 18:17:30 18:17:50 18:18:10 18:18:30 18:18:50 18:19:10 18:	19:30 18:19:50
Users OMinutes Viewed	534 Peak Users 151,080 Seconds Total Viewed Minutes	II Pause Updates

Presence

Selecting **Presence** will show a detailed metrics of devices usage.



Hide Presence						
3 Devices		*	Last 3 hours 12/6/2023 10:45 - 12/6/2023 13:45 Change Date			
Devices	Avg. Buffer Rate	Minutes Viewed	Avg. Engagement			
Summary	0.1%	173,108.8 Min	11%			
Desktop	0.1%	139,526.8 Min	10%			
_ Tablet	0%	597.3 Min	41%			
_ Mobile	0.2%	32,984.7 Min	14%			
$ \langle \cdot \cdot \cdot \rangle$						

The metrics are as follows:

- Devices the devices viewers used to watch the live stream
- Avg Buffer Rate the percent of time (out of the total amount of time viewed) the viewer encountered a buffer issue that was more than 1 sec
- Minutes Viewed
- Avg. Engagement the percentage of time the user for the correlating device viewed the live stream with their tab in focus and sound on

You can change the date by clicking **Change Date**, which will navigate you to the date picker at the top of the section.

Last 5 minutes 12/6/2023 18:19 - 12/6/2023 18:24 Change Date

[template("cat-subscribe")]