

# Video Delivery Analytics API Developers Reference

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## **Analytics API Developers Reference**

#### **Audience and Overview**

This documentation is intended for programmers who are writing client or server applications that retrieve viewership data from a Limelight Video Delivery account.

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**Analytics API Overview** 

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#### **Analytics API Overview**

The Limelight Video Delivery Analytics API gives developers programmatic access to various viewership metrics within an account. Developers can retrieve data normally viewed within the Reports tab of the Media Library console, enabling the ability to externally analyze, build custom applications, or integrate with existing systems. Common uses for the Analytics API include aggregating analytics information into custom tables or graphs or displaying analytics information on a web page without granting access to a Video Delivery account. Specifically, the Analytics API permits the following:

· Query - Request information about viewership metrics in an account

Analytics may not be accurate if accessed within 48 hours of the current time because of processing steps needed to collect, aggregate, and make data available.

#### REST

All API requests in the Content API are REST-based, and some are versioned. APIs are available through the following base endpoints:

Endpoint	Description
http://api.video.limelight.com/rest/	Use this for non-versioned APIs.
http://api.video.limelight.com/rest/v1/	Use these for versioned APIs.
http://api.video.limelight.com/rest/v2/	
http://api.video.limelight.com/rest/v3/	

Endpoint	Description
http://api.video.limelight.com/rest/v4/	
http://api.video.limelight.com/rest/v5/	

Each end-point in this document includes its URL, which indicates if it is versioned or not.

#### Allowed values for the Content-Type header

When making API requests, you may omit the Content-Type header; however, if you choose to include it, the value MUST be either:

- multipart/form-data
- application/x-www-form-urlencoded

#### Specifying values for PUT or POST Requests

You must specify values as key:value pairs.

#### **Pagination**

For performance reasons, responses are paginated. The default and maximum page size for a response is 100. A value of true for has\_next indicates that more results are available with subsequent page calls. The following optional parameters can be used to control the page of results:

Paging Parameter	Description
page_id	The zero-based identifier of the page to return. <b>Example:</b> page_id=3
page_size	The number of results to return per page. The default and maximum page size are 100. <b>Example:</b> page_size=25
sort_by	The field by which the results should be sorted. By default, results are sorted by popularity (in other words, Plays). However, certain calls may offer alternative sorting methods. See the details of each call below for specifics. <b>Example:</b> sort_by=plays
sort_ order	The order in which the results should display. Specify asc for ascending or desc for descending. Results will display in descending order by default. <b>Example:</b> sort_order=desc

#### Filtering Results

By default, API calls will return the analytics for all media. However, for certain calls, you can limit the response to media that only meet specified criteria. One example is if you only wanted to see the analytics for all published media with a football tag. To accomplish this, pass an extra parameter to the API call, specifically, and=state:published;tag:football.

To apply any filter to an API call, specify either of the following parameters:

- and = <criteria represented as <key>:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned>
- or = <criteria represented as <key>:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned>

Filter criteria for the above parameters can be built using any of the following media properties. All criteria are case insensitive:

Key	Value
title	Any word or phrase in the title.
description	Any word or phrase in the description.
original_filename	Any word or phrase in the original filename.
tag	Any word or phrase in the tag.
state	An exact match of one of the following: new, uploading, processing, publishable, published, error
media_type	An exact match of one of the following: video, audio, livestream
channel_id	The ID of a channel where the search should be limited.
created_after	Date, represented in <u>Unix Time</u> . Limits search to media created after a particular date.
updated_after	Date, represented in <u>Unix Time</u> . Limits search to media updated after a particular date.
published_after	Date, represented in <u>Unix Time</u> . Limits search to media published after a particular date.
custom_property[ <custom_property_id>] The ID of a custom property can be found by accessing <b>Settings</b> then <b>Custom Properties</b> in the MediaLibrary console. Right-click on the property name to reveal. Click to copy.</custom_property_id>	Any word or phrase in the value of the custom property

#### Authentication

To ensure the security of your information, we require some requests to be signed. Those methods indicated below as requiring authentication must have a signature. See <u>Authentication - Signing Requests</u> below for how to sign requests.

#### **Errors**

Standard errors are returned with 4xx codes and a descriptive message. Internal server errors are returned with a status code of 500.

#### **Deprecation Policy**

Technology moves fast, and we want to keep our developer API at the innovative forefront of new technologies and techniques. At times, Limelight will deprecate certain API calls. Limelight will announce if it intends to discontinue or make backward-incompatible changes to the API. Following a deprecation notice,

we will use commercially reasonable efforts to continue to operate the deprecated API for one year after the announcement.

#### Server-Side Caching

To ensure a fast, reliable, and responsive site, we recommend that all interaction with the Analytics API be done on the server. For example, don't try to call the API on every page load of your hugely popular website. Instead, call the API to periodically update a local cache and save the response, displaying your cached version on your site. Caching is essential to ensuring the reliability of your web application, ensuring robustness, and preventing overall network load. For information on a suggested technique to implement caching, see File Swap Caching.

#### Results by Date

To search results by date, you must provide a start date and an end date. Please note that the provided end date will not be included in your search results calculation.

For example, the end date of 2020-01-24 means 2020-01-24 00:00:00 or midnight before 2020-01-24. The analytics for 2020-01-24 will not be included in your results. To get the analytics for 2020-01-24, the end date of the query will need to be 2020-01-25.

The provided dates are interpreted using the timezone of the publisher specified during account creation. The default timezone is America/Los\_Angeles.

For example, if you make a query for 2020-01-24 > 2020-02-24 with an account set to America/Los\_Angeles, the data returned will be from 2020-01-24 00:00:00 PST to 2020-02-24 00:00:00 PST - midnight to midnight, in the account's timezone. The account timezone is used regardless of where the query originates to ensure the data returned is consistent across users in different timezones.

#### **Results Format**

All results are returned in JSON format by default. You can specify an alternative response format (such as XML or CSV) by applying a **dot extension** on the end of the resource path. For example, to request the media performance metrics in XML, add .xml:

http://api.video.limelight.com/rest/v2/organizations/<org
id>/analytics/performance/media.xml

#### API Requests - Performance Metrics

The performance metrics provide metrics for media, channels, or traffic sources for a given time.

The following methods are available for requesting performance metrics:

**Performance Overview Metrics** 

Media Performance Metrics

**Channel Performance Metrics** 

Traffic Sources (Domains) Performance Metrics

Performance Overview Metrics Aggregated by Sub-organizations

#### **Performance Overview Metrics**

Data for media performance metrics can be retrieved programmatically via the following method:

Get an overview of your analytics data

Get a snapshot of your analytics data (media, channels, domain).				
URL	<pre>http://api.video.limelight.com/rest/v1/organizations/<org id="">/analytics/performance/overview</org></pre>			
Formats	XML, JSON, CSV			
HTTP Method	GET	GET		
Requires Authentication	Yes (See Auth tions.)	nentication - Signing Requests for Authentication Instruc-		
Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.			
		ing, represented as yyyy-MM-dd. For example, 2018-03-31.  by Date for more details.		
Optional Para- meters	None			
Paging Para-	page_id: The zero-based identifier of the page to return.			
meters	page_size: The number of results to return per page. (default/max: 100)			
	<pre>sort_by: The field by which the results should be sorted {title, plays, mediaId}. (default: plays)</pre>			
	<pre>sort_order: The order in which the results should display {asc, desc}. (default: desc)</pre>			
Filter Para- meters	None			
Response	A list containing the overview of media analytics over the given time.  Data returned by a call to this method:			
	Property Name	Description		
	media_ overviews	A list of media overview objects. Each object has the following properties:		
		media_id: A unique identifier for the media.		
		media_type: Either audio or video.		
		media_title: The title of the media.		
		num_views: The number of times the media was played in a time frame.		
		total_time_viewed_in_milliseconds: Total amount of time the media has been viewed (in milliseconds).		

	Property Name	Description
	channel_ overviews	A list of channel overview objects. Each object has the following properties:
		channel_id: A unique identifier for the channel.
		channel_title: The title of the channel.
		<pre>num_views: The number of times the media was played in a time frame.</pre>
	referrer_ overviews	A list of referrer overview objects. Each object has the following properties:
		referrer_url_host: The domain name of the referring website where embedded content has been played.
		num_views: The number of times the media has been played on the referring domain.
Errors	Both start and end dates are required, and the start date must come before the end date.	
Example Usage	Example code for this method can be found in Example Code.	

#### **Media Performance Metrics**

**Note:** The Media Performance Metrics endpoint provides a broad set of media metrics for a given time. Please see <a href="Media Engagement Metrics">Media Engagement Metrics</a> if you are interested in more specific metrics that reflect how viewers have interacted with media.

Data for media performance metrics can be retrieved programmatically via the following method:

Get a listing of the most	Get a list of the most popular (most played) media for a timeframe.	
popular media	URL	<pre>http://api.video.limelight.com/rest/v4/ organizations/ <org id="">/analytics/performance/media</org></pre>
	Formats	XML, JSON, CSV
	HTTP Method	GET
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)
	Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.

• end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details. Paging Parapage id: The zero-based identifier of the page to return meters page size: The number of results to return per page (Optional) (default/max: 100) sort by: The field by which the results should be sorted {title, plays, distinctViewers, distinctReferrers, replays, averageDailyDistinctPlays, averageDailyDistinctReferrers, originalFilename, totalTimeViewed, loads, averageTimeViewed, percentPlayStarts, averageTimeFirstFrame, percentBuffering, percentSessionsBuffering, playStarts, percentViewsCompleted} (default: plays) sort order: The order in which the results should display {asc, desc} (default: desc) Filter Para-Note: By default, this API will return the analytics for all meters media objects played during the specified time. Media (Optional) objects which were not viewed during the specified time will NOT be included in the analytics results. If desired, you can limit the response to media that only meets specified criteria. See Filtering Results for more information. and = <filter criteria represented as <key>:<value> pairs, separated by semi-colons.> All criteria must be true for a video to be returned **Example**: limit response to only published media with a tag of football: and=tag:football;state:published or = <filter criteria represented as <key>:<value> pairs, separated by semi-colons> At least one of the criteria must be true for a video to be returned> **Example**: limit response to only media with a tag of football or a tag of hockey: or=tag:football;tag:hockey Response A list containing the detailed media analytics over the given period Data returned by a call to this method:

Property Name	Description
media_id	A unique identifier for the media.
media_title	The title of the media.
media_ original_ filename	The original name of the file that was uploaded.
media_type	Either audio or video.
num_media_ distinct_ viewers_v2	The number of unique viewers of the media (Unique Plays).  deprecated
num_media_ distinct_ referrers_ v2	The number of unique domains on which the video has been embedded and played ( <b>Traffic Sources</b> ). deprecated
average_ daily_ distinct_ plays	The average number of unique viewers of the media for 24 hours ( <b>Unique Plays</b> ).
average_ daily_ distinct_ referrers	The average number of unique domains on which the video has been embedded and played for 24 hours ( <b>Traffic Sources</b> ).
num_media_ plays	The number of times the media has been played.
num_media_ replays	The number of times the media has been replayed.
total_ media_time_ viewed	The total amount of time the media has been viewed (in milliseconds).
ave_media_ time_viewed	The average amount of time the media has been viewed (in milliseconds).
num_media_ loads	The number of times a media was loaded.
num_media_	The number of times playback was begun.

	Property Name	Description
	play_starts	
	<pre>percent_ media_play_ starts</pre>	Percent of sessions in which playback was begun.
	<pre>ave_media_ time_first_ frame</pre>	The average amount of time between play being clicked and the first frame is presented (in milliseconds).
	<pre>percent_ media_time_ buffering</pre>	Percent of time watching a media that was spent buffering.
	<pre>percent_ media_ sessions_ buffering</pre>	The percentage of sessions that experienced at least one rebuffer event.
	<pre>percent_ media_ views_ completed</pre>	The percentage of views that watched the media to completion.
Errors	You supplied	an invalid value: page_id must be >= 0
		an invalid value: page_size must be in the range
		specified was invalid. Please check your sort field
		r specified was invalid. Please check your sort
	•	I end dates are required, and the start date must
		an invalid search field
Example Usage	Example code for	or this method can be found in Example Code

#### **Channel Performance Metrics**

Data for channel performance metrics can be retrieved programmatically via the following method:

Get full performance	Get comprehensive channel performance metrics.
analytics for channels	

URL	<pre>http://api.video.limelight.com/rest/v4 /organizations/ <org id="">/analytics/performance/channels</org></pre>	
Formats	XML, JSON, CSV	
HTTP Method	GET	
Requires Authentication	Yes (See <u>Authen</u> Instructions.)	tication - Signing Requests for Authentication
Required Parameters	start: Date string, represented as yyyy-MM-dd. For example, 2015-03-01. See Results by Date for more details.	
		represented as yyyy-MM-dd. For example, Results by Date for more details.
Paging Para-		
meters	page_size: The (default/max: 100	number of results to return per page 0)
	sort_by: The field by which the results should be {title, plays, distinctViewers, distinctReferreplays, averageDailyDistinctPlays, averageDailyDistinctReferrers, percentViewsCompleted, averageTimeViewed, ptotalTimeViewed, playStarts, percentBufferipercentSessionsBuffering, averageTimeFirst percentPlayStarts, loads} (default: plays)	
	<pre>sort_order:The {asc, desc} (defa</pre>	e order in which the results should display nult: desc)
Response	The list containing the detailed channel analytics over the given time.  Data returned by a call to this method:	
	Property Name	Description
	chan_id	A unique identifier for the channel.
	chan_title	The title of the channel.
	num_chan_ distinct_ viewers_v2	The average number of unique viewers of the channel for 24 hours.  deprecated
	<pre>num_chan_ distinct_</pre>	The average number of unique domains on which the video has been embedded

	Name	Description
	referrers_v2	and played for 24 hours. deprecated
	num_chan_ plays	The number of times the channel has been played.
	<pre>total_chan_ time_viewed</pre>	The total amount of time the channel has been viewed (in milliseconds).
	<pre>ave_chan_ time_viewed</pre>	The average amount of time the channel has been viewed (in milliseconds).
	num_chan_ loads	The number of times a channel was loaded.
	num_chan_ play_starts	The number of times playback was begun.
	<pre>percent_ chan_play_ starts</pre>	Percent of sessions in which playback was begun.
	<pre>ave_chan_ time_first_ frame</pre>	The average amount of time between play being clicked and the first frame is presented (in milliseconds).
	<pre>percent_ chan_time_ buffering</pre>	Percent of time watching a channel that was spent buffering.
	percent_ chan_ sessions_ buffering	The percentage of sessions that experienced at least one rebuffer event.
	<pre>percent_ chan_views_ completed</pre>	The percentage of views that watched the channel to completion.
Errors	<ul> <li>You supplied an invalid value: page_id must be &gt;= 0</li> <li>You supplied an invalid value: page_size must be in the range [1100]</li> <li>The sort field specified was invalid. Please check your sort field and try again.</li> <li>The sort order specified was invalid. Please check your sort order and try again.</li> <li>Both start and end dates are required, and the start date must</li> </ul>	

some before the and date
come before the end date.

## **Traffic Sources (Domains) Performance Metrics**

Data for the Top Traffic Sources (Domains) performance metrics can be retrieved programmatically via the following method:

Get a list of traffic sources (domains)	Get a list of all tra	iffic sources (do	omains) where any media has been played.
	URL		video.limelight.com/rest/v3/ ns/ <org id="">/analytics/performance/</org>
	Formats	XML, JSON, (	CSV
	HTTP Method	GET	
	Requires Authentication	Yes (See Authation Instruction	entication - Signing Requests for Authenticons.)
	Required Para- meters		string, represented as yyyy-MM-dd. For 8-03-01. See Results by Date for more details.
			ng, represented as yyyy-MM-dd. For example, ee Results by Date for more details.
	Paging Para- meters (Optional)	page_id: The (default: 0)	zero-based identifier of the page to return.
		page_size: T (default/max:	he number of results to return per page. 100)
		{plays, domai distinctView averageTime averageTime	eld by which the results should be sorted> n, totalTimeViewed, loads, replays, wers, averageDailyDistinctPlays, /iewed, percentPlayStarts, FirstFrame, percentBuffering, ionsBuffering, playStarts,
		•	sCompleted} (default: plays) The order in which the results should display lefault: desc)
	Response	A list of domai timeframe.	ns representing the traffic sources for the giver
		Data returned	by a call to this method:
		Property	Name
		domain	The domain name of the referring

Property	Name			
	website where embedded content has been played.			
total_ domain_time_ viewed	The total time viewed (in milliseconds) on the referring domain.			
<pre>ave_domain_ time_viewed</pre>	The average time viewed (in milliseconds) on the referring domain.			
num_domain_ plays	The number of times the media has been played on the referring domain.			
<pre>num_domain_ distinct_ viewers_v2</pre>	The number of distinct viewers on the referring domain.			
num_domain_ loads	The number of times a media from that domain was loaded.			
num_domain_ replays	The number of times the media has been replayed on the referring domain.			
<pre>num_domain_ play_starts</pre>	The number of times playback was begun.			
<pre>percent_ domain_play_ starts</pre>	Percent of sessions in which playback was begun.			
<pre>ave_domain_ time_first_ frame</pre>	The average amount of time between play being clicked and the first frame is presented (in milliseconds).			
<pre>percent_ domain_time_ buffering</pre>	Percent of time watching a media that was spent buffering.			
<pre>percent_ domain_ sessions_ buffering</pre>	The percentage of sessions that experienced at least one rebuffer event.			
percent_ domain_ views_ completed	The percentage of views that watched the media to completion.			

Errors	<ul> <li>You supplied an invalid value: page_id must be &gt;= 0</li> <li>You supplied an invalid value: page_size must be in the range [1100]</li> <li>The sort field specified was invalid. Please check your sort field and try again.</li> <li>The sort order specified was invalid. Please check your sort order and try again.</li> <li>Both start and end dates are required, and the start date must come before the end date.</li> </ul>
Example Usage	Example code for this method can be found in <a>Example Code</a> .

## Performance Overview Metrics Aggregated by Sub-organizations

An overview of your analytics data for your organization and your child organizations can be retrieved programmatically via the following method:

Get an overview of your
analytics data for your
organization and your
child organization

Get a snapshot of your and your child organization's analytics data (media, channels, domain).

•	•		
URL	<pre>http://api.video.limelight.com/rest/v1/ organizations/<org id="">/analytics/performance/ overview/suborgs</org></pre>		
Formats	None		
HTTP Method	GET		
Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)		
Required Parameters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details. end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.		
Response	A list of video play metrics aggregated by sub-organization.  Each organization's list contains the following sub-lists:  • media_overviews  • media_overviews_by_num_shares  • channel_overviews  • referrer_overviews		
Errors	<ul> <li>Media not owned by the organization.</li> <li>Invalid value.</li> <li>Channel does not exist.</li> <li>Missing signature.</li> </ul>		

## **API Requests - Engagement Metrics**

**Note:** The Media Engagement Metrics report is only calculated once each day based on the publisher's timezone (typically PST). You must wait until the day has been completed in your timezone for the data to appear in the daily reports.

The following method is available for requesting media **Engagement** information for an account:

Media Engagement Metrics

#### **Media Engagement Metrics**

The media engagement metrics reflect viewer engagement with media, such as the number of plays and total time viewed.

Data for these metrics can be retrieved programmatically via the following method:

Get engagement metrics for media	Get a comprehensive listing of media engagement metrics.		
	URL	<pre>http://api.video.limelight.com/rest/v4/ organizations/ <org id="">/analytics/engagement/media</org></pre>	
	Formats	XML, JSON, CSV	
	HTTP Method	GET	
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)	
	Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details. end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.	
	Paging Parameters (Optional)	page_id: The zero-based identifier of the page to return.  page_size: The number of results to return per page.  (default/max: 100)  sort_by: The field by which the results should be sorted  {title, plays, averageTimePlayed,  totalTimePlayed, milestone25, milestone50,  milestone75, milestone100}. (default: plays)  sort_order: The order in which the results should display  {asc, desc}. (default: desc)	
	Filter Para- meters (Optional)	Note: By default, this API will return the analytics for all media objects played during the specified time. Media	

objects which were not viewed during the specified time will NOT be included in the analytics results. If desired, you can limit the response to media that only meets specified criteria. See <u>Filtering Results</u> for more information.

and: <filter criteria represented as
<key>:<value> pairs, separated by semi-colons.>
All criteria must be true for a video to be returned.

**Example**: limit response to only published media with a tag of football:

and=tag:football;state:published

or = <filter criteria represented as
<key>:<value> pairs, separated by semi-colons.>
At least one of the criteria must be true for a video to be
returned.

**Example**: limit response to only media with a tag of football or a tag of hockey:

or=tag:football;tag:hockey

#### Response

The list containing the detailed engagement analytics over the given time.

Data returned by a call to this method:

Property Name	Description
media_id	A unique identifier for the media.
media_title	The title of the media.
media_ duration	The duration of the media.
num_media_ plays	The number of times the media has been played.
total_ media_time_ viewed	The total number of played milliseconds.
ave_media_ time_viewed	The average time the media was played.
media_ milestones	The number of plays as a relative amount

	Property Name	Description
		of the total video duration. The percentage of the video watched by a viewer (ignoring portions of the video that are 're-watched' or scrubbed back to). The following are returned: 25%, 50%, 75%, 100%
	media_ segments	The number of viewers that watched a particular segment within a video. A video is broken into 40 segments, where each segment represents 2.5% of the total video duration. The 40 segments are used to plot the dropoff graph.
Errors	<ul> <li>You supplied an invalid value: page_id must be &gt;= 0</li> <li>You supplied an invalid value: page_size must be in the range [1100]</li> <li>The sort field specified was invalid. Please check your sort field and try again.</li> </ul>	
	The sort orde and try again.	r specified was invalid. Please check your sort order dend dates are required, and the start date must

#### **API Requests - Geographic Metrics**

**Note:** The Geographic Metrics reports are only calculated once each day based on the publisher's timezone (typically PST). You must wait until the day has been completed in your timezone for the data to appear in the daily reports.

The following methods are available for requesting Geographic information for an account:

**Country Metrics** 

**Metrics by Country** 

Metrics by Country Sorted by Media ID

**Region Metrics** 

Metrics by Region

Metrics by Region Sorted by Media ID

**City Metrics** 

Metrics by City

Metrics by Region Sorted by Media ID

DMA (Designated Marketing Area) Metrics

## **Country Metrics**

#### Metrics by Country

Data for metrics by country can be retrieved programmatically via the following method:

Get metrics by geography (country)	Get a comprehensive listing of geographic metrics by country.		
	URL	<pre>http://api.video.limelight.com/rest/v3/ organizations/<org id="">/analytics/performance/ country</org></pre>	
	Formats	XML, JSON, CSV	
	HTTP Method	GET	
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)	
	Required Parameters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details. end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.	
	Paging Para- meters	<pre>page_id: The zero-based identifier of the page to return. page_size: The number of results to return per page. (default/max: 100) sort_by: The field by which the results should be sorted. {plays, country} (default: plays) sort_order: The order in which the results should display. {asc, desc} (default: desc)</pre>	
	Filter Para- meters	Note: By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See Filtering Results for more information.  and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned&gt;  Example: limit response to only published media with a tag of football:</value></filter>	
		and=tag:football;state:published	

	<key>:<value> pa</value></key>	iteria represented as airs, separated by semi-colons. the criteria must be true for a urned>
	<b>Example</b> : limit resp a tag of hockey:	onse to only media with a tag of football or
	or=tag:football	;tag:hockey
Response	List of countries and Data returned by a	d performance metrics.
	-	
	Property Name	Description
	country_id	The two-digit ISO 3166-1 country code
	country	The ISO 3166-1 country name
	<pre>num_media_ country_plays</pre>	The number of times the media has been played in the country
Errors		nvalid value: page_id must be >= 0 nvalid value: page_size must be in the range
	<ul> <li>The sort field spectand try again.</li> </ul>	cified was invalid. Please check your sort field
	The sort order specified was invalid. Please check your sort order and try again.	
	Both start and end come before the e	dates are required, and the start date must and date.
	You supplied an ir	nvalid search field.
Example Usage	Example code for th	is method can be found in Example Code.

## Metrics by Country Sorted by Media ID

You can also retrieve metrics by country sorted by media ID.

1	Get metrics sorted by media, where each media is followed by a list of countries where the media was played and the number of plays in each country.		
	URL	http://api.video.limelight.com/rest/v1/organizations/ {organizationId}/analytics/performance/country/media	
	Formats	XML, JSON, CSV	
	HTTP Method	GET	

Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)
Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.
	end: Date string, represented as yyyy-MM-dd. For example, 2018-03 31. See Results by Date for more details.
Paging Para-	page_id: The zero-based identifier of the page to return.
meters	page_size: The number of results to return per page. (default/max: 100)
	<pre>sort_by: The field by which the results should be sorted {title, plays, mediaId}. (default: plays)</pre>
	sort_order: The order in which the results should display {asc, desc} (default: desc).
Filter Para- meters	<b>Note:</b> By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See <a href="Filtering Results">Filtering Results</a> for more information.
	<pre>and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned&gt;</value></filter></pre>
	Example: limit response to only published media with a tag of footbal
	<pre>and=tag:football;state:published</pre>
	or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter>
	<b>Example</b> : limit response to only media with a tag of football or a tag of hockey:
	or=tag:football;tag:hockey
Response	List of countries and performance metrics for each media.
	Data returned by a call to this method:
Errors	<ul> <li>You supplied an invalid value: page_id must be &gt;= 0</li> </ul>
	You supplied an invalid value: page_size must be in the range [1100]
	<ul> <li>The sort field specified was invalid. Please check your sort field and try again.</li> </ul>
	<ul> <li>The sort order specified was invalid. Please check your sort order and try again.</li> </ul>
	<ul> <li>Both start and end dates are required, and the start date must come before the end date.</li> </ul>

	You supplied an invalid search field.
Example Usage	Example code for this method can be found in <a>Example Code</a> .

## **Region Metrics**

## Metrics by Region

Get metrics by geography (region)	Get a comprehen US state)	sive listing of geographic metrics by region (for example, by
	URL	<pre>http://api.video.limelight.com/rest/v3/ organizations/<org id="">/analytics/performance/ region</org></pre>
	Formats	XML, JSON, CSV
	HTTP Method	GET
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)
	Required Parameters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.
		end: Date string, represented as yyyy-MM-dd. For example, 2018-08-31. See Results by Date for more details.
	Posing Poro	country_id: The two-digit ISO 3166-1 country code.
	Paging Para- meters (Optional)	page_id: The zero-based identifier of the page to return.  page_size: The number of results to return per page.  (default/max: 100)
		<pre>sort_by: The field by which the results should be sorted {plays, region}. (default: plays)</pre>
		sort_order: The order in which the results should display {asc, desc}. (default: desc) ARC Light Custom rules executed by the Limelight Content Delivery Network (CDN) server handle user requests, make real-time modifications to speed connections to content, and offload complex data manipulations from application infrastructure.
	Filter Para- meters (Optional)	Note: By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See Filtering Results for

more information. and = <filter criteria represented as <key>:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned> Example: limit response to only published media with a tag of football: and=tag:football;state:published or = <filter criteria represented as <key>:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned> **Example**: limit response to only media with a tag of football or a tag of hockey: or=tag:football;tag:hockey Response A list of regions and performance metrics for the given country Data returned by a call to this method: **Property Name** Description region id The unique ID for the region. region The name of the region. The number of times the media has num\_media\_ region\_plays been played in the region. **Errors**  You supplied an invalid value: page id must be >= 0. You supplied an invalid value: page size must be in the range [1..100]. • The sort field specified was invalid. Please check your sort field and try again. • The sort order specified was invalid. Please check your sort order and try again. • Both start and end dates are required, and the start date must come before the end date. You supplied an invalid search field. You supplied an invalid value: country id is required and must be a two-character value. Example Example code for this method can be found in Example Code.

Usage

## Metrics by Region Sorted by Media ID

You can also retrieve metrics by region sorted by media ID.

Get metrics by geography region sorted by media id

Get metrics by Get metrics sorted by media, where each media is followed by a list of regions (for example, US state) where the media is played and the number of plays in each region.

URL	<pre>http://api.video.limelight.com/rest/v1/organizations/<org id&gt;/analytics/performance/region/media</org </pre>		
Formats	XML, JSON, CSV		
HTTP Method	GET		
Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)		
Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.		
	end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.		
Paging Para-	page_id: The zero-based identifier of the page to return.		
meters	page_size: The number of results to return per page. (default/max: 100)		
	<pre>sort_by: The field by which the results should be sorted {title, plays, mediaId}. (default: plays)</pre>		
	<pre>sort_order: The order in which the results should display {asc, desc} (default: desc).</pre>		
Filter Para- meters	<b>Note:</b> By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See Filtering Results for more information.		
	<pre>and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned&gt;</value></filter></pre>		
	<b>Example</b> : limit response to only published media with a tag of football:		
	and=tag:football;state:published		
	<pre>or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter></pre>		
	<b>Example</b> : limit response to only media with a tag of football or a tag of hockey:		
	or=tag:football;tag:hockey		
Response	A list of media ids and titles, then a list of regions and performance metric		

	for the giver	ed by a call to this method:
	Property Name	Description
	media_id	A unique identifier for the media.
	media_ title	The title of the media.
	regions	A list of regions in which the media was played. Each region object in the list has these properties:
		region: The name of the region.
		region_id: A unique identifier for the region.
		plays: The number of times the media has been played in the region.
Errors	You supp	lied an invalid value: page_id must be >= 0
		lied an invalid value: page_size must be in the range [1100]
		ield specified was invalid. Please check your sort field and try agair
	<ul> <li>The sort order specified was invalid. Please check your sort order and try again.</li> </ul>	
	_	t and end dates are required, and the start date must come before the
	You supp	lied an invalid search field.
Example Usage	Example code for this method can be found in Example Code.	

## **City Metrics**

#### Metrics by City

Data for metrics by city can be retrieved programmatically via the following method:

Get metrics by geography (city)	Get a comprehensive listing of geographic metrics by city.		
	URL	<pre>http://api.video.limelight.com/rest/v3/ organizations/<org id="">/analytics/performance/ city</org></pre>	
	Formats	XML, JSON, CSV	
	HTTP Method	GET	
	Requires	Yes (See <u>Authentication - Signing Requests</u> for Authentic-	

Authentication	ation Instructions.)
Required Parameters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.
	end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.
	country_id: The two-digit <u>ISO 3166-1</u> country code.
	region_id: The two-digit region code (for example, CA for the state of California).
Paging Para-	page_id: The zero-based identifier of the page to return.
meters (Optional)	page_size: The number of results to return per page. (default/max: 100)
	<pre>sort_by: The field by which the results should be sorted {plays, city}. (default: plays)</pre>
	sort_order: The order in which the results should display {asc, desc}. (default: desc)
Filter Para- meters (Optional)	Note: By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See <a href="Filtering Results">Filtering Results</a> for more information.
	<pre>and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned&gt;</value></filter></pre>
	<b>Example</b> : limit response to only published media with a tag of football:
	and=tag:football;state:published
	<pre>or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter></pre>
	<b>Example</b> : limit response to only media with a tag of football of a tag of hockey:
	or=tag:football;tag:hockey
Response	A list of cities/regions and performance metrics
	Data returned by a call to this method:

	Property Name	Description
	city	The name of the city.
	region	The name of the region.
	region_id	The unique ID for the region.
	<pre>num_media_ city_plays</pre>	The number of times the media has been played in the city.
Errors	<ul> <li>You supplied an [1100]</li> <li>The sort field speand try again.</li> <li>The sort order sporder and try aga</li> <li>Both start and er come before the</li> <li>You supplied an be a two-charact</li> </ul>	nd dates are required, and the start date must end date. invalid search field. invalid value: country_id is required and mu ter value. invalid value: region_id is required, must be
Example Usage	Example code for t	this method can be found in Example Cod

## Metrics by City Sorted by Media ID

You can also retrieve metrics by region sorted by media ID.

Tou can also	remeve memos by	region sorted by media ib.
Get metrics by		ed by media, where each media is followed by a list of cities where the and the number of plays in each city.
geography (city) sorted by media id	URL	http://api.video.limelight.com/rest/v1/organizations/ <org id="">/analytics/performance/city/media</org>
	Formats	XML, JSON, CSV
	HTTP Method	GET
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)
	Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.
		end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31.

	See Results	s by Date for more details.		
Paging Para-	<pre>page_id: T</pre>	he zero-based identifier of the page to return.		
meters	page_size: The number of results to return per page. (default/max: 100)			
		<pre>sort_by: The field by which the results should be sorted {title, plays, mediaId}. (default: plays)</pre>		
	sort_order: The order in which the results should display {asc, desc} (default: desc).			
Filter Para- meters	Note: By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See Filtering Results for more information.			
	<pre>and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned&gt;</value></filter></pre>			
	Example: limit response to only published media with a tag of football:			
	<pre>and=tag:football;state:published</pre>			
	<pre>or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter></pre>			
	<b>Example</b> : limit response to only media with a tag of football or a tag of hockey:			
	or=tag:fo	ootball;tag:hockey		
Response	A list of citie	es/regions and performance metrics.		
	Data returne	ed by a call to this method:		
	Property Name	Description		
	media_id	A unique identifier for the media		
	media_ title	The title of the media		
	cities	A list of cities in which the media was played. Each city object in the list has these properties:		
		city: The name of the city.		
		region: The name of the region.		
		region_id: The unique ID for the region.		
		num_media_city_plays: The number of times the media		

	Property Name	Description	
		has been played in the city.	
Errors	<ul> <li>You supplied an invalid value: page_id must be &gt;= 0</li> </ul>		
	<ul> <li>You supplied an invalid value: page_size must be in the range [1100]</li> </ul>		
	The sort field specified was invalid. Please check your sort field and try again.		
	The sort order specified was invalid. Please check your sort order and try again.		
	<ul> <li>Both start and end dates are required, and the start date must come before the end date.</li> </ul>		
	You supp	olied an invalid search field.	
Example Usage	Example code for this method can be found in <a>Example Code</a> .		

## **DMA (Designated Marketing Area) Metrics**

## Metrics by DMA

Data for metrics by DMA can be retrieved programmatically via the following method:

Get metrics by geography (DMA)	Get a comprehensive listing of geographic metrics by DMA.		
	URL	<pre>http://api.video.limelight.com/rest/v3/ organizations/<org id="">/analytics/performance/ dma</org></pre>	
	Formats	XML, JSON, CSV	
	HTTP Method	GET	
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)	
	Required Parameters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details. end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.	
	Paging Para- meters (Optional)	page_id: The zero-based identifier of the page to return page_size: The number of results to return per page (default/max: 100)	
		<pre>sort_by: The field by which the results should be sorted {plays, DMA} (default: plays)</pre>	
		sort_order: The order in which the results should display	

		{asc, desc} (default	t: desc)	
	Filter Para-			
	meters (Optional)	media. If desired	t, this API will return the analytics for all l, you can limit the response to media that ified criteria. See Filtering Results for n.	
		<key>:<value> pa</value></key>	riteria represented as airs, separated by semi-colons. st be true for a video to be	
		Example: limit resp football:	onse to only published media with a tag of	
		and=tag:football;state:published		
		<pre>or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter></pre>		
		<b>Example</b> : limit response to only media with a tag of football or a tag of hockey:		
		or=tag:football;tag:hockey		
	Response		performance metrics	
		Data returned by a	call to this method:	
		Property Name	Description	
		dma_id	A unique identifier for the DMA.	
		dma	The title of the DMA.	
		<pre>num_media_dma_ plays</pre>	The number of times the media has been in the DMA.	
	Errors	<ul><li>You supplied an ir [1100]</li><li>The sort field spece</li></ul>	nvalid value: page_id must be >= 0 nvalid value: page_size must be in the range cified was invalid. Please check your sort field	
		<ul> <li>and try again.</li> <li>The sort order specified was invalid. Please check your sort order and try again.</li> </ul>		
		come before the e		
		You supplied an ir	nvalid search field.	

## Metrics by DMA Sorted by Media ID

You can also retrieve metrics by DMA sorted by media id:

Get metrics sorted by media, where each media is followed by a list of DMAs where the media is played and the number of plays in each DMA.

URL	http://api.video.limelight.com/rest/v1/organizations/ <org id="">/analytics/performance/dma/media</org>			
Formats	XML, JSON, CSV			
HTTP Method	GET			
Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)			
Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.			
	end: Date string, represented as yyyy-MM-dd. For example, 2018-03-37 See Results by Date for more details.			
Paging Para-	page_id: The zero-based identifier of the page to return.			
meters	page_size: The number of results to return per page. (default/max: 100			
	<pre>sort_by: The field by which the results should be sorted {title, plays, mediaId}. (default: plays)</pre>			
	<pre>sort_order: The order in which the results should display {asc, desc}. (default: desc)</pre>			
Filter Para- meters	<b>Note:</b> By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See <a href="Filtering Results">Filtering Results</a> for more information.			
	<pre>and = <filter <key="" as="" criteria="" represented="">:<value> pairs separated by semi-colons. All criteria must be true for a video to be returned&gt;</value></filter></pre>			
	<b>Example</b> : limit response to only published media with a tag of football:			
	and=tag:football;state:published			
	<pre>or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter></pre>			

	hockey:			
	or=tag:+o	otball;tag:hockey		
Response	A list of DM	As and performance metrics		
	Data returno	Data returned by a call to this method:		
	Property Name	Description		
	media_id	A unique identifier for the media.		
	media_ title	The title of the media.		
	dmas	A list of DMAs in which the media was played. Each DMA object in the list has these properties:		
		dma_id: A unique identifier for the DMA.		
		dma: The title of the DMA.		
		num_media_dma_plays: The number of times the media has been played in the DMA.		
Errors	You supp	lied an invalid value: page_id must be >= 0		
		You supplied an invalid value: page_size must be in the range [1100]		
		The sort field specified was invalid. Please check your sort field and try again.  The sort order or self-induced invalid. Please sheet your sort and an and try.  The sort order or self-induced invalid. Please sheet your sort and an and try.  The sort order or self-induced invalid. Please sheet your sort and an and try.  The sort order or self-induced invalid. Please sheet your sort and an and try.  The sort order or self-induced invalid. Please sheet your sort and an and try.  The sort order or self-induced invalid. Please sheet your sort field and try again.		
	<ul> <li>The sort order specified was invalid. Please check your sort order and try again.</li> </ul>			
	<ul> <li>Both start and end dates are required, and the start date must come before the end date.</li> </ul>			
	You supp	You supplied an invalid search field.		
Example Usage	Example co	Example code for this method can be found in <a>Example Code</a> .		

#### **API Requests - Platform Metrics**

**Note:** The Platform Metrics reports are only calculated once each day based on the publisher's timezone (typically PST). You must wait until the day has been completed in your timezone for the data to appear in the daily reports.

The following methods are available for requesting **Platform** information for an account:

**Operating System Metrics** 

Metrics by Platform (OS)

Metrics by Platform (OS) Sorted by Media ID

**Browser Metrics** 

Metrics by Platform (Browser)

Metrics by Platform (Browser) Sorted by Media ID

**Platform Metrics** 

**Metrics by Platform** 

Metrics by Platform Sorted by Media ID

#### **Operating System Metrics**

#### Metrics by Platform (OS)

Data for metrics by platform (OS) can be retrieved programmatically via the following method:

Get metrics by platform (OS)	'	eved programmatically via the following method: perating systems that have been used to play the media.
	URL	<pre>http://api.video.limelight.com/rest/v3/ organizations/<org id="">/analytics/performance/ os</org></pre>
	Formats	XML, JSON, CSV
	HTTP Method	GET
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)
	Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.
		end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.
	Paging Para- meters (Optional)	page_id: The zero-based identifier of the page to return.
		page_size: The number of results to return per page. (default/max: 100)
		<pre>sort_by: The field by which the results should be sorted {plays, operatingSystem}. (default: plays)</pre>
		sort_order: The order in which the results should display {asc, desc} (default: desc).
	Filter Para- meters (Optional)	<b>Note:</b> By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See Filtering Results for more information.
		<pre>and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons.</value></filter></pre>

	All criteria must be true for a video to be returned>
	<b>Example</b> : limit response to only published media with a tag of football:
	and=tag:football;state:published
	<pre>or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter></pre>
	<b>Example</b> : limit response to only media with a tag of football of a tag of hockey:
	or=tag:football;tag:hockey
Response	A list of operating systems and performance metrics.  Data returned by a call to this method:
	Property Name Description
	media_os The name of the OS.
	num_media_os_ The number of times the media has been plays played via the OS.
Errors	<ul> <li>You supplied an invalid value: page_id must be &gt;= 0</li> <li>You supplied an invalid value: page_size must be in the range [1100]</li> <li>The sort field specified was invalid. Please check your sort field and try again.</li> <li>The sort order specified was invalid. Please check your sort orde and try again.</li> <li>Both start and end dates are required, and the start date must come before the end date.</li> <li>You supplied an invalid search field.</li> </ul>

## Metrics by Platform (OS) Sorted by Media ID

You can also retrieve metrics by platform (OS) sorted by media ID.

Get metrics by	Get a listing of operating systems that have been used to play the media and the media to which they are associated.		
platform (OS) sorted by	URL	http://api.video.limelight.com/rest/v1/organizations/ <org id="">/analytics/performance/os/media</org>	
media id	Formats	XML, JSON, CSV	

HTTP Method	GET			
Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)			
Required Para- meters	start: Date string, represented as yyyy-M 01. See Results by Date for more details.	M-dd. For example, 2018-03-		
	end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.			
Paging Para-	page_id: The zero-based identifier of the p	page to return.		
meters	page_size: The number of results to return per page. (default/max: 100)			
	<pre>sort_by: The field by which the results sho mediaId}. (default: plays)</pre>	ould be sorted {plays, title,		
	<pre>sort_order: The order in which the results (default: desc)</pre>	s should display {asc, desc}.		
Filter Para- meters	<b>Note:</b> By default, this API will return the an you can limit the response to media that on Filtering Results for more information.			
	<pre>and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned&gt;</value></filter></pre>			
	Example: limit response to only published media with a tag of football:			
	and=tag:football;state:published			
	or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter>			
Example: limit response to only media with a tag of football on hockey:  or=tag:football;tag:hockey		a tag of football or a tag of		
Response	A list of operating systems and performance	e metrics for each media.		
	Data returned by a call to this method:			
	Property Name Description			
	media_id A unique identifier for the n	nedia.		
	media_title The title of the media.			

	Property Name	Description	
	operating_ systems	A list of operating systems on which the media was played. Each operating system object in the list has these properties:	
		media_os: The name of the OS.	
		num_media_os_plays: The number of times the media has been played via the browser.	
Errors	<ul><li>You supplie</li><li>The sort fiel</li><li>The sort ord</li><li>Both start arend date.</li></ul>	<ul> <li>You supplied an invalid value: page_id must be &gt;= 0</li> <li>You supplied an invalid value: page_size must be in the range [1100]</li> <li>The sort field specified was invalid. Please check your sort field and try agair</li> <li>The sort order specified was invalid. Please check your sort order and try aga</li> <li>Both start and end dates are required, and the start date must come before the end date.</li> <li>You supplied an invalid search field.</li> </ul>	
Example Usage	Example code for this method can be found in Example Code.		

#### **Browser Metrics**

## Metrics by Platform (Browser)

Data for metrics by platform (browser) can be retrieved programmatically via the following method:

Data for metrics by platfor	iii (biowsei) can be	retrieved programmatically via the following method:	
Get metrics by platform (Browser)	Get a listing of bro	et a listing of browsers that have been used to play the media.	
	URL	<pre>http://api.video.limelight.com/rest/v3/ organizations/<org id="">/analytics/performance/ browser</org></pre>	
	Formats	XML, JSON, CSV	
	HTTP Method	GET	
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)	
	Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details. end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.	
	Paging Para- meters (Optional)	page_id: The zero-based identifier of the page to return.  page_size: The number of results to return per page.  (default/max: 100)	

		{plays, browser}.	order in which the results should display
	Filter Para- meters (Optional)	media. If desired	It, this API will return the analytics for all d, you can limit the response to media that cified criteria. See Filtering Results for n.
		<key>:<value> pa</value></key>	riteria represented as airs, separated by semi-colons. st be true for a video to be
		<b>Example</b> : limit response to only published media with a tag of football:	
		and=tag:footbal	l;state:published
		<key>:<value> pa</value></key>	iteria represented as airs, separated by semi-colons. the criteria must be true for a urned>
		a tag of hockey:	oonse to only media with a tag of football or
		or=tag:football	;tag:hockey
	Response	A list of browsers a	nd performance metrics.
		Data returned by a	call to this method:
		Property Name	Description
		media_browser	The name of the browser.
		num_media_ browser_plays	The number of times the media has been played via the browser.
	Errors	<ul> <li>You supplied an in [1100]</li> <li>The sort field spectand try again.</li> </ul>	nvalid value: page_id must be >= 0 nvalid value: page_size must be in the range cified was invalid. Please check your sort field ecified was invalid. Please check your sort
		<ul> <li>order and try agai</li> <li>Both start and end come before the end</li> </ul>	d dates are required, and the start date must

	You supplied an invalid search field.
Example Usage	Example code for this method can be found in Example Code.

## Metrics by Platform (Browser) Sorted by Media ID

You can also retrieve metrics by platform (browser) sorted by media ID.

Get a listing of browsers that have been used to play the media for the media they're associated with

ciated with.			
URL	<pre>http://api.video.limelight.com/rest/v1/organizations/<org id&gt;/analytics/performance/browser/media</org </pre>		
Formats	XML, JSON, CSV		
HTTP Method	GET		
Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)		
Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.		
	end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.		
Paging Para- meters	<pre>page_id: The zero-based identifier of the page to return. page_size: The number of results to return per page. (default/max: 100) sort_by: The field by which the results should be sorted {plays, title, mediaId}. (default: plays) sort_order: The order in which the results should display {asc, desc}. (default: desc)</pre>		
Filter Para- meters	Note: By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See <a href="Filtering Results">Filtering Results</a> for more information.  and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned&gt;  Example: limit response to only published media with a tag of football: and=tag:football;state:published  or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must</value></filter></value></filter>		

	be true fo	r a video to be returned>	
	<b>Example</b> : limit response to only media with a tag of football or a tag of hockey:		
	or=tag:foc	otball;tag:hockey	
Response	A list of the browsers and performance metrics		
	Data returned by a call to this method:		
	Property Name	Description	
	media_id	A unique identifier for the media.	
	media_ title	The title of the media.	
	browsers	A list of browsers the media was played with. Each browser object in the list has these properties:	
		media_browser: The name of the browser.	
		num_media_browser_plays: The number of times the media has been played via the browser.	
Errors	<ul><li>You suppli</li><li>The sort fie</li><li>The sort or</li></ul>	ied an invalid value: page_id must be >= 0 ied an invalid value: page_size must be in the range [1100] ield specified was invalid. Please check your sort field and try again. rder specified was invalid. Please check your sort order and try again.	
end date.		and end dates are required, and the start date must come before the led an invalid search field.	
Example Usage	Example cod	e for this method can be found in Example Code.	

#### **Platform Metrics**

#### Metrics by Platform

Data for metrics by platform can be retrieved programmatically via the following method:

Get metrics by platform	Get a listing of pl HTML5, and so f	atforms that have been used to play the media (for example, orth).
	URL	<pre>http://api.video.limelight.com/rest/ v3/organizations/<org id="">/analytics/performance/platform</org></pre>
	Formats	XML, JSON, CSV

HTTP Method	GET		
Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)		
Required Para- meters	start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.		
	end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.		
Paging Para-	page_id: The zero-based identifier of the page to return.		
meters (Optional)	page_size: The number of results to return per page. (default/max: 100)		
	<pre>sort_by: The field by which the results should be sorted {plays, platform}. (default: plays)</pre>		
	<pre>sort_order: The order in which the results should display {asc, desc}. (default: desc)</pre>		
Filter Para- meters (Optional)	Note: By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See <a href="Filtering Results">Filtering Results</a> for more information.		
	<pre>and = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. All criteria must be true for a video to be returned&gt;</value></filter></pre>		
	<b>Example</b> : limit response to only published media with a tag of football:		
	<pre>and=tag:football;state:published</pre>		
	<pre>or = <filter <key="" as="" criteria="" represented="">:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned&gt;</value></filter></pre>		
	<b>Example</b> : limit response to only media with a tag of football or a tag of hockey:		
	or=tag:football;tag:hockey		
Response	A list of the platforms (for example, HTML) and performance metrics		
	Data returned by a call to this method:		

	Property Name	Description
	media_ platform	Note: HTML and Video represent media played via HTML5, while Link represents media played via 3GP.
	<pre>num_media_ platform_ plays</pre>	The number of times the media has been played via the platform.
Errors	<ul> <li>You supplie [1100]</li> <li>The sort fiel and try agai</li> <li>The sort ord order and tr</li> <li>Both start and</li> </ul>	ler specified was invalid. Please check your sort
Example Usage		d an invalid search field.  for this method can be found in Example Code.

## Metrics by Platform Sorted by Media ID

You can also retrieve metrics by platform sorted by media ID.

Tou can also	Dienieve menics b	y piatform sorted by media iD.
Get metrics by		atforms that have been used to play the media (for example, HTML5, and nedia to which they are associated.
platform sorted by media id	<pre>http://api.video.limelight.com/rest/v1/organizations/<org id&gt;/analytics/performance/platform/media</org </pre>	
Formats		XML, JSON, CSV
	HTTP Method	GET
Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)	
Required Para- meters		start: Date string, represented as yyyy-MM-dd. For example, 2018-03-01. See Results by Date for more details.
		end: Date string, represented as yyyy-MM-dd. For example, 2018-03-31. See Results by Date for more details.

#### Paging Parameters

page id: The zero-based identifier of the page to return.

page\_size: The number of results to return per page. (default/max: 100)

sort\_by: The field by which the results should be sorted {plays, title,

mediaId}. (default: plays)

sort\_order: The order in which the results should display {asc, desc}.
(default: desc)

#### Filter Parameters

**Note:** By default, this API will return the analytics for all media. If desired, you can limit the response to media that only meets specified criteria. See Filtering Results for more information.

and = <filter criteria represented as <key>:<value> pairs,
separated by semi-colons. All criteria must be true for a
video to be returned>

**Example**: limit response to only published media with a tag of football:

and=tag:football;state:published

or = <filter criteria represented as <key>:<value> pairs, separated by semi-colons. At least one of the criteria must be true for a video to be returned>

**Example**: limit response to only media with a tag of football or a tag of hockey:

or=tag:football;tag:hockey

#### Response

A list of the platforms (for example, HTML) and performance metrics.

Data returned by a call to this method:

Property Name	Description
media_id	A unique identifier for the media.
media_ title	The title of the media.
platforms	A list of platforms on which the media was played. Each platform object in the list has these properties:
	media_platform: The name of the platform: HTML and Video represent media played via HTML5; Link represents media played via 3GP.
	num_media_platform_plays: The number of times the media has been played via the platform.

**Errors** 

Example Usage	You supplied an invalid search field.  Example code for this method can be found in <a href="Example Code">Example Code</a> .
	<ul> <li>You supplied an invalid value: page_size must be in the range [1100]</li> <li>The sort field specified was invalid. Please check your sort field and try again.</li> <li>The sort order specified was invalid. Please check your sort order and try agai</li> <li>Both start and end dates are required, and the start date must come before the end date.</li> </ul>

## **API Requests - Usage Metrics**

The following method is available for requesting **Usage** information (bandwidth and storage) for an account: **Usage Metrics (Bandwidth and Storage)** 

#### **Usage Metrics (Bandwidth and Storage)**

Data for usage metrics (b	andwidth and storag	ge) can be retrieved programmatically via the following method:	
Get usage information	Get bandwidth ar	Get bandwidth and storage usage data.	
for an account	URL	<pre>http://api.video.limelight.com/rest/v2/ organizations/<org id="">/analytics/usage</org></pre>	
	Formats	XML, JSON, CSV	
	HTTP Method	GET	
	Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)	
	Required Parameters	start: Start date represented as epoch time. Example: 1521741120.	
		end: End date represented epoch time. Example: 1527011520.	
	Optional Parameters	Paging Parameters  page_id: The zero-based identifier of the page to return.  page_size: The number of results to return per page.  (default/max: 100)  Return Data Granularity Parameters  interval: The granularity of the data to be returned.	
		<pre>interval: The granularity of the data to be returned. {Daily, Monthly, Yearly} default: Yearly</pre>	
	Response	Storage and bandwidth statistics for the specified time,	

	Data returned by a call to this method:	
	Property Name	Description
	start	Unix time, represented as the number of seconds since the <u>Unix epoch</u> at which the time starts.
	end	Unix time, represented as the number of seconds since the <u>Unix epoch</u> at which the time ends.
		Note: The time zone for both start and end is UTC.
	storage_in_ megabytes	Storage used (in megabytes).
	<pre>bandwidth_ in_ megabytes</pre>	Bandwidth used (in megabytes).
Errors	<ul> <li>You supplied an invalid value: page_id must be &gt;= 0</li> <li>You supplied an invalid value: page_size must be in the range [1100]</li> <li>The sort field specified was invalid. Please check your sort field and try again.</li> <li>The sort order specified was invalid. Please check your sort order and try again.</li> <li>Both start and end dates are required, and the start date must come before the end date.</li> <li>Invalid interval.</li> </ul>	
Example Usage	Example code for this method can be found in Example Code.	

# **Publisher Endpoints**

#### **Publisher Timezone**

Data for retrieving a publisher's timezone can be retrieved programmatically via the following method:

Fetch publisher's timezone	Fetch the time zone of a publisher represented by the organization ID that is passed.
	The publisher

URL	<pre>http://api.video.limelight.com/ rest/organizations/<org id="">/ publisher/timezone</org></pre>
Formats	None
HTTP Method	GET
Requires Authentication	Yes (See <u>Authentication - Signing Requests</u> for Authentication Instructions.)
Required Parameters	None
Response	A string representation of the organization's timezone. Example: America/Los_Angeles
Errors	Missing signature.

#### **Authentication - Signing Requests**

To ensure the security of your information, we require some requests to be authenticated. All methods indicated above as requiring authentication must have a signature. A signature is generated by doing an HMAC 264 hash on the request URL and its parameters. To do this, you must obtain your unique **access\_key** and **secret**. The access\_key is passed as a normal parameter to the URL. The secret is used to generate a signature by performing a hash. Both the access\_key and secret can be found in your Limelight Video Delivery account under the **Developer Tools** tab in **Settings**. Lastly, you need to determine a value for the **expires** parameter. This value, represented in <u>Unix Time</u>, indicates when the URL should no longer return results. A handy Unix Time converter can be found here: <a href="http://www.epochconverter.com">http://www.epochconverter.com</a> To illustrate the steps involved in generating a signature, we provide an example below. In this example, we authenticate the URL used to **Get performance metrics for media**.

We will use the following variables for this example:

Org ID:	bfb3caa8e6204fea9a23ce855768fc93
Access Key:	esU4jGTelX8UAsfaiWUcjWsn1mY=
Secret:	+IEbSWOctQhnMi7DGop9KdPysqw=
Expires:	1352355380
Start:	1348102704
End:	1348189104

1. Start with the base URL for your request. The base URL for **Get performance metrics for media** looks like this:

```
http://api.video.limelight.com/rest/v2/organizations/bfb3caa8e6204fea9a23ce855768fc93/analytics/performance/media.json
```

2. Drop the http:// prefix and append the http method (get, post, put, delete) to the front of the base URL and surround the host of the URL and the path of the URL with the | symbol. Make sure everything is lower case. Our URL string now looks like this (notice there are three places where the | symbol has been inserted):

```
get|api.video.limelight.com|/rest/v2/organizations/bfb3caa8e6204fea9a23ce855768fc93/
analytics/performance/media.json|
```

3. Next, sort the list of parameters alphabetically and append them as <key>=<value> pairs to the end of the URL string. Separate all parameters with the & symbol. Our URL string now looks like this:

```
get|api.video.limelight.com|/rest/v2/organizations/bfb3caa8e6204fea9a23ce855768fc93/
analytics/performance/media.json|access_key=esU4jGTelX8UAsfaiWUcjWsn1mY=&end=
1348189104&expires=1352355380&start=1348102704
```

4. Now, using your secret, generate a sha256 HMAC hash in base64 format on the URL string. The result of this hash will be your signature. In this example, our signature looks like this:

```
2jH0F/o94qiqtb6Cg0k9s9eJxcrvOCcQNYtI8zqeK3I=
```

5. Lastly, create the final executable URL by beginning with the base URL. Append all the parameters in alphabetic order, starting with? and separated by & URL encode all key and values on your parameters. Finally, URL encode the signature you generated above and append it at the end as signature = < signature >. The final executable URL looks like this (reformatted for readability):

```
http://api.video.limelight.com/rest/organizations/bfb3caa8e6204fea9a23ce855768fc93/
analytics/performance/media.json?
access_key=esU4jGTelX8UAsfaiWUcjWsn1mY%3D&end=1348189104&
expires=1352355380&start=1348102704&
signature=2jH0F%2Fo94qiqtb6Cg0k9s9eJxcrvOCcQNYtI8zqeK3I%3D
```

#### Code to Perform Authentication

Limelight offers the following code to aid in authenticating requests. Simply drop this into your project and call the authentication function with the right parameters. The result will be an authenticated request:

PHP	LvpAuthUtil.php
Ruby	LvpAuthUtil.rb
Java	LvpAuthUtil.java
C#	LvpAuthUtil.cs
VB	LvpAuthUtil.vb
Python	LvpAuthUtil.py

## **Example Code**

The examples below illustrate the common uses of the Analytics API. All examples make use of the following code to authenticate requests: **LvpAuthUtil.php** 

#### (Example 1) Get the Top Ten Most Played Media

Description	A list of the top ten most-played media can simply be obtained by getting the analytics for all media, limiting the page size to 10, and sorting by popularity (in other words, Plays).
Code Sample	PHP api_get_top_ten.txt

#### (Example 2) Get the Analytics for all Media

Description	Similar to the example above, simply get the analytics for all media without specifying any optional paging parameters.
Code Sample	PHP api_get_analytics_all.txt

#### (Example 3) Evaluate the Performance of a Particular Sub-set of Media

Description	We want to see only the analytics for published media that has a tag of football or hockey. To do this, we limit the result set by applying the optional filtering parameters and & or, and building criteria using the elements outlined in <a href="Filter Parameters">Filter Parameters</a> . For this specific example, we pass the following when making the API call (see params below). and=state:published or=tag:football;tag:hockey
Code Sample	PHP api_get_analytics_w_filter.txt

## (Example 4) Find Out Which Media in a Particular Channel is the Most Popular

Description	We want to find out which media is the most popular in a particular channel. Similar to the example above, we simply use the filtering parameters to limit the result set. Specifically, we get a list of media by popularity (in other words, order by Plays in descending order) and
-------------	--

	limit the result set to a channel by passing in the channel ID as an and parameter. Like this: and=channel_id:f608e642dc824303b023e6519c15afc6
Code Sample	PHP api_get_analytics_limit_channel.txt

#### (Example 5) Find out the Top Destinations (Domains) Where Media is Played

Description	We want to find out the sites where media is being played. To do this, we simply list the domains by making a call to the domain API.
Code Sample	PHP api_get_analytics_domain.txt

#### (Example 6) List Usage Information (Bandwidth/Storage)

Description	Bandwidth and Storage information for an account can be obtained by making a call to the Usage API.
Code Sample	PHP api_get_analytics_usage.txt

#### **Example GET Request Response**

API request for Get full performance analytics for media (prior to authentication):

```
http://api.video.limelight.com/rest/organizations/{org_id}/analytics/performance/
media.xml
```

#### Returned Results:

```
<media-list has_next="true" data_as_of="1352268880" page_id="0" type="array">
  <media>
  <id>8aa8cb15c3ba459fb0900088a457d5c0</id>
 <media_type>Video</media_type>
   <title>Demo of the Video Platform</title>
   <copy_embeds>113</copy_embeds>
   <emails>6</emails>
   <distinct_viewers>7527</distinct_viewers>
   <distinct_referrers>208</distinct_referrers>
   <plays>8466</plays>
   <replays>231</replays>
   <total time viewed in milliseconds>873805010</total time viewed in milliseconds>
 </media>
    <media>
   <id>bdcc8e9987cf4167bdc3aec20a1bbdac</id>
   <media_type>Video</media_type>
   <title>How to Upload Media</title>
   <copy_embeds>14</copy_embeds>
    <emails>0</emails>
```

#### File Swap Caching

Information courtesy of Yahoo, http://developer.yahoo.com/php/howto-cacheRestPhp.html

File swap caching is a simple flat-file caching technique. In essence, it does nothing more than store your Web service requests in local files. When a file becomes too old (when the cache becomes "stale"), the file is deleted and replaced by a new Web service request. To make a Web services request using the cache, you call the caching function instead of making a direct request.

```
$response = request_cache($request, $cache_fullpath,$cache_timeout);
```

The three parameters are the actual request URL, the path to the cached version of the request, and the number of seconds before the cache becomes stale:

```
$request =
'http://api.video.limelight.com/rest/organizations/7fd6def47cde
4d5694f9b16bfa04c521/media.xml';
$cache_fullpath = '/mydir/ImageMad1';
$cache_timeout = 7200;
```

Here, we arbitrarily chose the name ImageMad1 as the cache file name corresponding to this particular Web services request. Typically, you would have a unique file name corresponding to each variation of Web services request. You would need to develop a mapping function to map requests into file names if you want to use the caching with different Web services requests. The function request\_cache does all the real work. First, it checks whether the request has already been cached or if it has become stale.

```
function request_cache($url, $dest_file, $timeout)
{
   if (!file_exists($dest_file) || filemtime($dest_file) < (time()-$timeout))
   {</pre>
```

If the request has not been cached or it is stale, then we make the request and cache it:

```
$data = file_get_contents($url);
$tmpf = tempnam('/tmp','YWS');
$fp = fopen($tmpf,"w");
fwrite($fp, $data); fclose($fp);
rename($tmpf, $dest_file);
```

Otherwise, we return the contents of the cached request:

```
} else {
  return file_get_contents($dest_file);
}
```

A potential problem arises if more than one user of your Web application accesses a cached file just as it is being deleted and refreshed. The statement rename(\$tmpf, \$dest\_file) appears to destroy the currently cached version of the file (if any). However, the Unix filesystem implementation guarantees that any process currently reading the previous cache file will continue to read it until it closes the file. So, no process will be cut off or otherwise damaged by the rename. See the following code sample: http://developer.yahoo.com/php/samples/cache/cache/suklp.txt