



AdEffx validated Campaign Essentials™ 3.0

API User Guide

June 2015

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Introduction

The validated Campaign Essentials[™] (vCE) API is the programming interface for vCE Audience report data. The vCE Audience Report Data API now provides read and write access to all reporting data, for 1.0 or 2.0 methodology studies and countries. All API calls require authentication credentials, which can be obtained from your client service representative. This document provides a detailed overview and benefits of the new version 3 API, as well as details around the differences between this most current version and previous versions. For further details and examples, please reference the online help document below or contact your Client Services representative.

Online Documentation:

http://adeffx-api.comscore.com/api/v3/help/

API Version 3 Benefits

The version 3 API provides you with greater flexibility, efficiency, and reliability and builds upon the strengths of our version 2 API capabilities. With the new version of the API that is available now, users will have more control of their data and can manage their requests through a reporting and processing queue.

Please note that this version is not backwards compatible with the 2.0 version of the API, but requesting reports submitted via the 2.0 API can be retrieved using version 3.0. All of the basic elements of the 2.0 API remain the same. For example the version 2.0 is a REST API, uses the same authentication and responses are delivered in JSON.

Flexibility

- Sharing
 - Ability to share a client/campaign and study data through an API endpoint, rather than through the UI.
 - o Grant a user access to a campaign id or delete the user from having access
- Programmatic Study Creation
 - \circ Same functionality as the UI, with the ability to make wizard changes via the API.
 - o Ability to programmatically create studies and projects via the API
- Read/Write- Get, Post, Put, Delete Capabilities
 - A true read/write API with the functionality to GET campaign data, POST new data requests, PUT new changes to data, and DELETE data.
 - 2.0 only worked for the GET and POST verb
- 1.0 and 2.0 connector
 - Allows clients that have studies within the US and outside of the US to pull all study data for both countries using the same endpoints (Get Key Metrics, etc.)
 - Eliminates the need to use two different API calls for similar reports based on which country the study is targeted to

Efficiency

Report process Queueing

- Enables client to submit data processing jobs (AKA. Virtual Study)
- Submit start/end dates past, present or future dates to be processed
- Additional functionality to enable a study submitted for processing to also be generated within the AdEffx interface.

• Reporting Queue

- Allows users to query any previously processed vCE data set
 - Studies available through AdEffx interface
 - Virtual studies
- Ability to retrieve current reporting status
- Report Retrieval
 - When a report completes processing, retrieval has added efficiency as the reports no longer need to both process and post data on a single request. You can simply load up the report in queue and retrieve the loaded data when ready.
- Manage Queues
 - o Retrieve the job id once a new job is submitted to keep track of your submission
 - Update or delete jobs in your processing queue
- Permissioning
 - Ability to permission studies and projects to users via the API, outside of the AdEffx Interface wizard settings

• Mappings

- The ability to PUT, POST, and DELETE placement, creative and strategy mappings via the API
- Batch Requests
 - o Call multiple API endpoints with one object via a Batch API call

Reliability

- Fewer Time-outs and Errors
 - Faster more reliable data calls
 - Clearer errors when data is not available

• No Limitations on the number of Requests Per Minute (RPM)

 No more RPM thresholds being surpassed. Users can now leverage the processing queue to submit new jobs.

Please Note: While there are not threshold set for the number of requests per minute, there are still limits on the number of studies submitted to process as to prevent any system abuse.

• Ensure the Right Data is being returned

 New metadata endpoints to return country codes and demographic id's to be used for inputs to receive the correct targets in reporting

Overview

API Calls

Most of the vCE Audience Report Data API follows a RESTful API design, meaning that you can use standard HTTP methods to retrieve and manipulate resources. For example, to see a list of campaigns permissioned to your account and available for reporting, you might send a secure HTTP request like:

GET https://adeffx-api.comscore.com/api/v3/clients/{clientId}/campaigns/datasets

The comScore user id and password must be sent via an authorization header. Different API methods require parameters to be passed either as part of the URI path or as query parameters.

Content Type Header

You must supply a **Content-Type** header on PUT and POST operations. This can be application/json or text/xml.

Example:

Content-Type: application/json

Accept Header

You must set an **Accept** header on all requests. This can be application/json, text/xml, multipart/mixed, text/csv or text/tsv (text/csv and text/tsv can only be used in Get Result endpoint of Reporting Jobs). You may get a text/plain response in case of error, e.g. in case of a bad request, you should treat this as an error you need to take action on.

Example:

Accept: application/json

Reporting Jobs

For the Get Result endpoint you must set the **Accept** header to the same Media Type defined in the Reporting Job. If the reporting job doesn't have a Media Type defined, then it will default to application/json and **Accept** should be provided with application/json.

Compression

You can specify a Compression algorithm to improve the data transfer. This must be set in the Accept-Encoding header. Supported Compression Algorithms are:

- GZIP
- DEFLATE

An example is located here

Batch Requests are now enabled to allow you to call multiple endpoints with one call, so long as you have the inputs included. Batching is a web API feature that allows a customer to pack several API requests and send them to the web API service in one HTTP request and receive a single HTTP response with the response to all their requests.

The maximum number of requests for a single call is 1000, and the maximum request length is 10 MB. You must use the "POST" method, but the individual API calls within the Batch can range from Get, Post, Put, or Delete methods.

Please note that in addition to the maximum request number and size for batch API calls, there is also a 120 second timeout limit. While batch calls with most endpoints will be able to easily reach the 1000 request limit, batch calls with heavier endpoints (such as POST jobs by study ID) may hit the timeout with a much smaller number of requests. The recommended maximum number of POST job by study ID requests is 50 per batch call, and using the results endpoint in a batch call is never recommended. Most 500 level error codes can be resolved by re-trying the batch request. Best practice is to build a process that retries a request after it fails.

Some examples of when to use Batch API Requests Include:

- 1. As a client, I would like to submit monthly studies with different date ranges and targets to post to one project id.
- 2. As a client, I would like to submit my study, campaign mapping, placement and creative mappings, and add a strategy to a project id.
- 3. As a client, I would like to request reporting for my key metrics report for multiple studies and datasets.
- 4. As a client, I would like to request reporting for my key metrics, demographics, frequency, and geographic market report for multiple studies in one request.

Supported ContentTypes are:

- Multipart/mixed
- Application/json

For further details and examples of Batch API calls, please reference the online help page HERE.

Start/Limit

In order to limit the number of rows and data that are passed back in the API response and to eliminate any errors that might occur, API users can implement a start and limit parameter to get the data passed back to them in chunks. The Start/Limit should be utilized on API calls where you would expect a large amount of data to return, such as calling all creatives or placements for a given campaign.

	rype	Source	
lientId	Int32	FromUri	
ampaignId	String	FromUri	
aginationObject	PageParams	FromUri	
Paramet	er Int32	Туре	
imit	Int32		
<pre>put { "start": 2, "limit": 10 }</pre>			Response

Query string to append to end of API call: **&start=0&limit=500**, &start=500&limit=500, &start=1000&limit=500

Quota

Applications are limited to a courtesy usage quota.

Per Client Account

The usage quota is applied per comScore client account; accounts are identified by the comScore client ID. This identifier is a unique number assigned to each comScore client and is also referred to as the c2 id. This means, every user authorized to your application, pulls from one bucket of API requests for your use.

Processing Queue

The limit per client is applied on the processing queue and limits the amount of new processing jobs that can be submitted and processed at any given time. The Client Job Processing Endpoints section has more details on the different endpoints and jobs that can be submitted for processing. The v3 API now has status messages for each job/job id so that you can keep up to speed on when your job has completed, so that you can submit additional jobs. The default for non-API clients and clients testing the API is set at 1 on the comScore side. For all API clients using v3, the courtesy limit is set to 100.

How do I keep from running into the rate limit?

The tips below are there to help you reduce the possibility of being rate limited.

- Do not make a burst of calls, spread out the calls throughout the day
- Submit calls through the new Batch API requests, outlined below
- Do smart fetching of data (important data, non-duplicated data, etc.)

- Caching. We recommend that you cache API responses in your application if you expect high-volume usage.
- Request only what you need, and only when you need.

Reporting Queue

There is no set limit on the number of jobs you can submit via the reporting queue, which is used for submitting jobs for already processed datasets (including studies). The reporting queue is used for accessing existing projects and studies for their Key Metrics Report, Demographics Report, Frequency Report, Local Market Report, Geo Market Report, and Behavioral Segment Report. Reports can be accessed using the client/campaign id configuration or the actual study id. Please reference the Client Jobs Reporting Endpoints section for more details on the different endpoints and jobs that can be submitted for processing. In order to retrieve your reports, you will need to follow these steps:

- 1. Post a report request by Study id or Client/Campaign id (Click Here)
 - a. Returns a response with Reporting ID
- 2. Get the status of the job by reporting job id in (1a). Wait until it says completed (Click Here)
- 3. Get results by the job id above (Click Here)

For further details on reporting jobs, please reference the online documentation HERE

JOBS

Each time a request has been posted to the processing or reporting Queue, it is referred to as a JOB and gets assigned a job id. The job id can be utilized within the API calls to access status for a specific processing or reporting request with the details of the job/request submitted. The terms below identify the various status messages you will receive when calling the processing and reporting Queue for job status. Please see the client jobs processing and client jobs reporting sections for more details and examples of the various endpoints that can be used for accessing jobs data and status.

Job Status Messages

- <u>Inserted</u>: The Job was successfully inserted into the queue and is awaiting action by the Job Processor.
- <u>Updated:</u> The Job has been updated and has been successfully updated by the Job Processor.
- Holding: The Job has been put on hold and will be ignored by the Processor.
- Prepared: The Job has been identified in the queue and has been prepared by the Processor.
- Processing: The Job has been picked up and is currently being processed.
- <u>Completed:</u> The Job has been processed and awaits no further action.
 - Once the job has reached the completed stage, it will be removed from the queue.
- <u>Erred</u>: There was an error in the handling of this job that our internal team is investigating.
- Deleted: The job has been deleted from the queue and requires no further action.

The order in which you should see your job status messages pass back for a proper request is as follows:



If you need to make adjustments to the job status in the queue, you can utilize the **HOLDING** status to hold the job and allow others to progress in its place, the **UPDATED** status will follow, and finally the **DELETED** job status if you want to completely remove a job from processing. Please alert your client services representative if you receive an erred job status so that they can investigate internally.

DATA BY DEVICE

By default, all campaign results will return PC only data. The API can be leveraged to access Mobile and Total Digital Population (PC+Mobile and de-duped) data within the campaign results. The campaign must be set up and tagged for mobile measurement. Additionally, you will need to flag that the campaign should process mobile data with the "Includemobile=true" input. This will default to false and will only return PC results unless you add the mobile input. For further details on mobile tagging, please reach out to your client services representative.

When the campaign includes mobile, the following API calls will need to be updated:

IncludeMobile=True:

• Processing Request, Post Key Metrics, Post Demographic, Post Study

IncludeMobile=False: (when mobile=true in processing to see PC data for non-mobile reports)

• Post Frequency, Post Local Market, Post GeoMarket, Post Behavioral Segment

The order in which the metrics will be displayed in the response with mobile are:

- 1. Total Digital
- 2. PC
- 3. Mobile

Authentication

All API calls require authentication credentials. AdEffx uses basic authentication over SSL to allow authorized clients to access their data. For access, contact your client service representative. You must use the Authorization header to send the server authentication credentials.

The Authorization header is constructed as follows:

1. Username and password are combined into a string "username:password"

2. The resulting string literal is then encoded using the RFC2045-MIME variant of Base64, except not limited to 76 char/line

3. The authorization method and a space i.e. "Basic " are then put before the encoded string.

For example, if the user agent uses 'Aladdin' as the username and 'open sesame' as the password then the header is formed as follows:

Authorization: Basic QWxhZGRpbjpvcGVuIHNIc2FtZQ==

Adaptor

comScore recognizes the necessity for some users to measure the performance for campaigns globally. This API includes a backwards compatible adaptor that simplifies the integration process for users that measure campaigns distributed in 2.0 and 1.0 methodology countries. In the version 2 API, a snippet of code was required to add to the API string when calling 1.0 studies. However in version 3 API, this snippet of code is no longer needed and both 1.0 and 2.0 studies are available when calling from version 3.

For more details regarding the required inputs and data returned see the individual endpoint sections included in this guide.

Supported Verbs

The version 2 API only supports the verb **POST** to retrieve already processed data. In version 3, you now have the ability to request, create, modify, and delete your data and the API now supports all the verbs listed below:

- GET is the verb used to retrieve a resource from the endpoint. A 200 OK response will return when it's submitted successfully.
- POST is the verb used to create a resource at the current endpoint. A 201 Created and Location header will
 return in the response when submitted successfully.
- PUT is the verb used to modify a resource at a specific endpoint. A 200 OK response will return when it's submitted successfully.
- DELETE is the verb used to delete a resource at a specific endpoint. A 200 OK response will return when it's submitted successfully.

<u>Note</u>: Only Admin users, Self-service clients and users with write access to a study or campaign have the ability to submit processing jobs to create, modify, and delete data.

Supported v3 API Verbs with Available Reporting Actions			
GET	POST	PUT	DELETE
A list of all campaigns I have	Submit Reporting request for	Update a study name, dates,	Remove user access to a
access to	Key Metrics, Demographics	or target on an existing study	campaign
All studies belonging to	Add a placement name and	Update a reporting request in	Delete permission to a user
campaign or project	site name to a placement id	the queue	under a client id
The placement and strategy	Submit a virtual study for	Update a placement or	Remove project and study
mappings for a campaign	processing	creative for a campaign	permissioning
The status of a reporting and	Add a new study to a project	Update a strategy and see	Remove a campaign id from
processing job		the last modified date	a project
See who is permissioned to a	Add a user/group permission	Update study level access for	Remove placements or
given study	to a campaign id	a user, grant read or write	creative from a strategy

Errors

The REST API will return standard HTTP status codes for requests (200 Successful, 404 Not Found, 500 Error). Application errors and warnings will be returned in an "Errors" section of each response. For example, a missing required parameter might look like:



The following is a list of errors that could occur:

400 ERRORS

- 400 Bad Request. bad request, the request was invalid.
- 403 Forbidden: you do not have access to the requested resource.
- 404 Not Found: we could not locate the requested resource.
- 405 Method Not Allowed: the request method is not supported at the requested resource
- 408 Request Time Out: The request has timed out. Please retry your request.
- 409 Conflict: The request conflicts with an existing resource.
- 415 Unsupported Media Type: An incorrect "Content-Type" or no "Content-Type" has been defined for the call. Supported Content Types are:
 - o Application/JSON
 - o Text/xml
 - o Multipart/Mixed

500 ERRORS

- 500 Internal Server Error. Internal server error, we're actively investigating.
- 501 Not Implemented: The server either does not recognize the request method, or it lacks the ability to fulfill the request. Please check that the HTTP Verb used is of the supported types.

503 Service Unavailable: The server is currently unavailable (because it is overloaded or down for maintenance).
 Please retry your request again later.

If you would like to check to see if the API is down or not available, use the GET HEALTH endpoint. This endpoint will return "OK" if the API is available.

Permissioning

As an API client, users now have the ability to share their project, study and campaign data to other clients and third party users via the API. The user has many permissioning options available through the API, the same as if they were to log into the UI and access the sharing section in the wizard. For a full list of all the permissioning options, view the help page to retrieve calls for sharing projects and studies.

User can now do the following actions via the API:

- Retrieve users and groups permissioned to their studies
- Grant users and groups permission to their projects/studies/campaigns
- Grant new users access to studies by email address
- Give users read or write access to the project
- Grant specific group (publisher or strategy) data cuts to a user
- Remove user access

Ualla

• View all other clients that a user is permissioned to and can pull campaign data

In order to permission a user or group to a project, study or campaign you have three different ways in which you can permission:

- User ID: a user id is assigned to you when you first sign up for your account with comScore and is
 used every time you log into the AdEffx interface or access the API. To obtain a full list of users
 that have access to your client id and have API access, you can use the new API call Get User ID
 (clients/ {clientId}/users) which will provide the User ID, if they have access to all studies, if
 they have read or read/write access and the client id.
- User Group: a user group is typically associated to a publisher and can be obtained by using the Get Groups (studies/{studyld}/usergroups) to receive the group name, list of users that belong to the group and group id, which is needed in order to grant permission to the group.
- Email Address: if a user does not currently exist or you do not know the user id, you can submit the user email address. If the email address is associated to an existing comScore account, the user will receive access. If the email address is not associated to an account, you can choose to send an email notification of the shared study; This option is enabled by appending the sendEmailInvite parameter to your query. If sendEmailInvite=False no email invite will be sent, and if sendEmailInvite=True then the user will receive an email with notification of the shared study and will then have to click on the link to sign in and create a comScore account.

ficht,
You are being given shared access to comScore AdEffx reports.
Click the link below to activate access to the following reports:
 New York, NY, NY, NY, NY, NY, NY, NY, NY, NY, NY
To access the project and/or studies contained within the project, please click here or copy and paste the following link into your browser:
http://adeffx.comscore.com/home/EmailInvite.aspx?guid=
If you do not have a comScore user name and password, please contact <u>help@comscore.com</u> .

User Roles

There are various levels of access for a user to obtain and receive data through the API. These restrictions are put in place so that reporting is only available to users that have been granted access or have specific administrative rights to a client. If you have been permissioned to a study or campaign but only have read access, there are certain API calls that will not return data because you don't have write or admin access. The roles and details below outline the API access levels set forth by comScore and managed internally and by administrative users for a client:

- Admin User- An administrative user has full access rights to a client's campaigns and reporting. With this designation, they can run all API calls with success as long as it's their own client. This includes processing and reporting requests for campaigns and studies.
- User with <u>Write</u> Access- An API user with write access has the ability to pull study and campaign details as long as they have been permissioned write access within their own client id. A user with write access has permission to all studies within a project. Check with your Admin User to obtain further access and ensure you have "write" access to the study or campaign that you want to view and modify.
- User with <u>Read</u> Access An API user with read access has the ability to submit reporting and processing jobs on existing studies they have access to.

Minimum Reporting Standards and Not Available Measures

Minimum Reporting Standards (MRS) rules apply to all report data. If a particular measure does not meet MRS or data is not available at that level of granularity (e.g. TRPs for certain target groups), then a value of NULL will be returned for that measure.

Polling for Updated Report Data

Report data is updated once per day. New data can be detected by identifying a change to the DataThrough field in the Get Studies endpoint for each study. Polling the Get Studies endpoint every 15 minutes is recommended to check for campaign data through for triggering the retrieval of new report data.

Unlocking Data

Report data that belongs to a corresponding study "locks" after a study has reached its end date. Locking results in users inability to make changes to the project/study details, like the study start and end dates, adding or removing campaign id's to a project, or making mapping adjustments to placements and creatives. In order to make modifications to a study that has already ended, you will need to have "write" access to the project and "unlock" it to make changes. The steps are:

- 1. Unlock study to process the changes. Follow this link for more details.
- 2. Use the PUT Study endpoint to make changes to any existing study. Follow this link for more details.

Reporting Views

The report data can be viewed in many different ways, depending on the endpoint. Below are some examples of ways that you can view your reporting that will best fit your needs:

• View by Type

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- Total Total study
- Publisher corresponds to ad server mappings that map placement id's to a single publisher for an aggregated view of placement id's.
- CreativeFormat Eg : Non-Standard/Skyscrapers etc.
- CreativeSize Eg : 300x250 /160x600 etc.
- CreativeType Eg : image/flash/rich media
- o PlacementStrategies Custom placement id groupings that need to be mapped via the UI or API
- o CreativeStrategies Custom creative id groupings that need to be mapped via the UI or API
- o AllPlacements corresponds to the All Placement Groups dimension in the UI
 - All placements include publisher groupings as well as placement strategy groupings.
 - An ID is created for each placement grouping
 - AllCreatives corresponds to the All Creative Groups dimension in the UI
 - All creatives include creative types, formats, sizes and creative strategy groupings. An ID is created for each creative grouping
 - AllPlacementDetails corresponds to the All Placements dimension in the UI
- AllPlacementDetails corresponds to the All Placements dimension in the
 AllCreativeDetails corresponds to the All Creatives dimension in the UI
- **Group** A group has its own unique id and corresponds to the following view types: Publishers, Creative Format, Creative Size, Creative Type, and Placement or Creative Strategies
- Only Show Groups Boolean value to show groups without their details (false by default).
- Time Period How the data will be displayed
 - Daily by day
 - <u>None aggregate</u>
- **IncludeMobile-** Boolean value to show mobile and total digital population metrics for a campaign or study. When true, the results will return mobile metrics and when false it will just display pc metrics. The default will be false.

API V3 Workflow



Testing the v3 API

It is highly recommended that you test out some of the new version 3 API calls before any development begins. To do this, comScore encourages users to test with the Advanced Rest Client for Chrome which can be found here.

Advanced Rest	[Unnamed]	🝐 Save Open
	VRL	
Request	© GET ● POST ◎ PUT ◎ PATCH ◎ DELETE ◎ HEAD ◎ OPTIONS ◎ Other	
Socket	Raw Form Headers	
Projects		
Saved		
History		
Settings		
About	Raw Form Files (0) Payload	
	Encode payload Decode payload	
Rate this application •		
Donate		
		//
	application/x-www-form-urlencoded Set "Content-Type" header to overwrite this value.	
		Clear Soud
		Clear

To test out the processing requests, it is recommended that you use your own client id for testing since you will not have permission to test out on other users client id's, including demonstration studies. The processing requests are used for submitting new datasets for campaigns, mapping id's, and creating strategies.

To test out the reporting requests, you can use the demonstration study that should be permissioned to your account/client. This can be used to access reports such as key metrics, frequency, local market, etc. If you receive an error or do not get a response with data, please make sure that your user id has been permissioned the appropriate access to the campaign and has API access enabled by comScore. Reach out to your client services representative for further assistance.

Please contact your Client Service representative for an example of the API process flow for testing.

API CALLS COMPARABLE TO VERSION 1, 2 and 3

Available Studies/List All

To get a list of all available studies available to a user:

Version 1

- <u>Get Studies</u>- This endpoint returns all studies that are available to the current user but provides optional paging support via start and limit parameters.
 - o GET https://user:password@adeffx-api.comscore.com/vCE/v1.0/study/list.json
 - Documentation: https://adeffx-api.comscore.com/vCE/v1.0/help#v1.0_CE_ListAll

Version 2

- <u>Get Studies</u>- This endpoint, like the ListAll endpoint, returns all studies that are available to the current user but provides optional paging support via start and limit parameters.
 - POST https://user:password@ adeffxapi.comscore.com/vCE/v2.0/Report/GetStudies.{Format}?start={start}&limit={limit}&Includ eV1={includeV1}
 - Documentation: https://adeffx-api.comscore.com/vCE/v2.0/help#v2.0_CE_GetStudies

** To include 1.0 studies in data required you must include includeV1=true in the input request, for API V2

Version 3

- 1. <u>Get Projects</u>- This endpoint returns all projects that are available to the current user but provides optional paging support via start and limit parameters.
 - a. GET https://adeffx-api.comscore.com/api/v3/clients/{clientId}/projects/
 - b. Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Projects
- 2. <u>Get Studies-</u> This endpoint returns all studies that belong to a single project that the user can see. In order to pull studies for multiple projects, you will need to use the BATCH API call.
 - a. GET https://adeffx-api.comscore.com/api/v3/clients/{clientId}/projects/{projectId}/studies
 - b. Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Studies

** You do not require the includeV1=true in the input request for API V3. It will include 1.0 studies automatically

Audience Summary

To see the audience summary data for each target defined in a study.

Version 1

- <u>Get Audience Summary</u>- This endpoint returns audience summary data for each target defined for the study: total, primary, secondary.
 - GET https://user:password@adeffxapi.comscore.com/vCE/1.0/Study/{StudyId}/Report/AudienceSummary.{Format}
 - Documentation: https://adeffxapi.comscore.com/vCE/v1.0/help#v1.0_CE_AudienceSummary

Version 2

- 1. <u>Get Client Campaigns</u>- This endpoint returns a full list of all Client/Campaign configurations available for reporting that are associated to a study or dataset.
 - POST https://user:password@adeffx-api.comscore.com/
 - vCE/v2.0/Metadata/GetClientCampaign.{Format}?ClientId={clientId}&StartDate={StartDat e}&EndDate={EndDate}

- Documentation: https://adeffxapi.comscore.com/vCE/v2.0/help#v2.0_CE_GetClientCampaign
- <u>GET Key Metrics-</u>This endpoint allows you to submit a reporting request for an available client/campaign configuration to retrieve the audience summary data from the Key Metrics Report.
 - POST https://user:password@adeffx-api.comscore.com/ vCE/v2.0/Report/GetKeyMetrics.{Format}?PopulationId={PopulationId}&StartDate={Start Date}&EndDate={EndDate}&Targets={Targets}&ClientCampaigns={ClientCampaigns}&Vi ewByType={ViewByType}&TimePeriod={TimePeriod}&OnlyShowGroups={OnlyShowGro ups}
 - Documentation: https://adeffx-api.comscore.com/vCE/v2.0/help#v2.0_CE_GetKeyMetrics

Version 3

- 1. <u>Get Client Campaigns</u>- This endpoint returns a full list of all Client/Campaign configurations available for reporting that are associated to a study or dataset.
 - GET https://adeffx-api.comscore.com/api/v3/clients/{clientId}/campaigns/datasets
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Datasets
- <u>Post Key Metrics-</u>This endpoint allows you to submit a reporting request for an available client/campaign configuration to retrieve the audience summary data from the Key Metrics Report.
 - POST https:// adeffx
 - api.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/KeyMetrics
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Post Keymetrics
- 3. <u>Get Job Status</u>- This endpoint allows you to retrieve the job status for the reporting request, once completed you can get the results of the job to see the data.
 - GET https:// adeffxapi.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/status
- Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Status by ID
 <u>Get Results by Job ID-</u> This endpoint allows you to pull data from a specific request from the queue using the job id.
 - GET https:// adeffx-

api.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/result

• Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Result by ID

OR

- 1. <u>Get Studies</u>- Gets all studies within a specific project that a user can see.
 - o GET https://adeffx-api.comscore.com/api/v3/clients/{clientId}/projects/{projectId}/studies
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get%20Studies
- Post Key Metrics By Study-Posts a reporting request to the queue for the Key Metrics report type using a Study.
 - POST https:// adeffx-api.comscore.com/ clients/{clientId}/jobs/reporting/studies/{studyId}/KeyMetrics
 - Documentation: http://adeffxapi.comscore.com/api/v3/help/#Post%20Keymetrics%20by%20Study
- ** Repeat steps 3 & 4 above for getting the job status and results

Frequency

Version 1

- <u>Get Frequency:</u> This endpoint returns the frequency data for a specific study.
 - GET https://user:password@adeffxapi.comscore.com/vCE/1.0/Study/{StudyId}/Report/Frequency.{Format}
 - Documentation: https://adeffx-api.comscore.com/vCE/v1.0/help#v1.0_CE_Frequency

Version 2

0

- <u>Get Frequency</u>: This endpoint returns Frequency data for the specified combination of Campaigns and Clients IDs.
 - POST https://user:password@adeffx-api.comscore.com/vCE/ vCE/v2.0/Report/GetFrequency.{Format}?
 PopulationId={PopulationId}&StartDate={StartDate}&EndDate={EndDate}&ClientCampai gns={ClientCampaigns}&GroupId={GroupId}
 - Documentation: https://adeffx-api.comscore.com/vCE/v2.0/help#v2.0_CE_GetFrequency

Version 3

- 1. <u>Post Frequency-</u>This endpoint allows you to submit a reporting request for an available client/campaign configuration to retrieve the frequency data from the Key Metrics Report.
 - POST https:// adeffx
 - api.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/Frequency
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Post Frequency
- 2. <u>Get Job Status</u>- This endpoint allows you to retrieve the job status for the reporting request, once completed you can get the results of the job to see the data.
 - GET https:// adeffxapi.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/status
 - o Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Status by ID
- 3. <u>Get Results by Job ID-</u> This endpoint allows you to pull data from a specific request from the queue using the job id.
 - GET https:// adeffx
 - api.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/result
 - o Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Result by ID

OR

- 1. <u>Post Frequency by Study-</u> <u>Posts a reporting request to the queue for the Frequency report type</u> <u>using a Study.</u>
 - POST https:// adeffx-api.comscore.com/vCE/v3.0/ clients/{clientId}/jobs/reporting/studies/{studyId}/Frequency
 - Documentation: http://adeffxapi.comscore.com/api/v3/help/#Post%20Frequency%20by%20Study

** Repeat steps 2 & 3 for getting the job status and results

Local Market

US Only

Version 1

o <u>Get Local Market:</u> This endpoint returns the local market data for a specific study.

- GET https://user:password@adeffxapi.comscore.com/vCE/1.0/Study/{StudyId}/Report/LocalMarket.{Format}
- $\circ \quad Documentation: https://adeffx-api.comscore.com/vCE/v1.0/help#v1.0_CE_LocalMarket$

Version 2

- <u>Get Local Market</u>: This endpoint returns local market data for the specified combination of Campaigns and Clients IDs.
 - POST https://user:password@adeffx-api.comscore.com/ vCE/v2.0/Report/GetLocalMarket.{Format}?
 StartDate={StartDate}&EndDate={EndDate}&ClientCampaigns={ClientCampaigns}&Grou pId={GroupId}
 - Documentation: https://adeffxapi.comscore.com/vCE/v2.0/help#v2.0_CE_GetLocalMarket

Version 3

- 1. <u>Post Local Market-</u>This endpoint allows you to submit a reporting request for an available client/campaign configuration to retrieve the Local Market data.
 - POST https:// adeffx
 - api.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/LocalMarket
 - o Documentation: http://adeffx-api.comscore.com/api/v3/help/#Post LocalMarket
- 2. <u>Get Job Status</u>- This endpoint allows you to retrieve the job status for the reporting request, once completed you can get the results of the job to see the data.
 - GET https://adeffx
 - api.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/status
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Status by ID
- Get Results by Job ID- This endpoint allows you to pull data from a specific request from the queue using the job id.
 - GET https:// adeffx
 - api.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/result
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Result by ID

OR

- 1. <u>Post Local Market by Study-</u> Posts a reporting request to the queue for the Frequency report type using a Study.
 - POST https:// adeffx-api.comscore.com/vCE/v3.0/ clients/{clientld}/jobs/reporting/studies/{studyld}/LocalMarket
 - Documentation: http://adeffxapi.comscore.com/api/v3/help/#Post%20LocalMarket%20by%20Study

** Repeat steps 2 & 3 for getting the job status and results

Geographic Market

Version 1

- o <u>Get Geographic Market:</u> This endpoint returns the geographic market data for a specific study.
 - GET https://user:password@adeffxapi.comscore.com/vCE/1.0/Study/{StudyId}/Report/GeographicMarket.{Format}
 - Documentation: https://adeffxapi.comscore.com/vCE/v1.0/help#v1.0_CE_GeographicMarket

Version 2

- <u>Get Geographic Market:</u> This endpoint returns local market data for the specified combination of Campaigns and Clients IDs.
 - POST https://user:password@adeffx-api.comscore.com/ vCE/v2.0/Report/GetGeoMarket.{Format}?
 StartDate={StartDate}&EndDate={EndDate}&ClientCampaigns={ClientCampaigns}&GroupId={GroupId}
 - o Documentation: https://adeffx-api.comscore.com/vCE/v2.0/help#v2.0_CE_GetGeoMarket

Version 3

- 1. <u>Post Geographic Market-</u>This endpoint allows you to submit a reporting request for an available client/campaign configuration to retrieve the Geographic Market data.
 - POST https:// adeffxapi.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/GeoMarket
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Post GeoMarket
- 2. <u>Get Job Status</u>- This endpoint allows you to retrieve the job status for the reporting request, once completed you can get the results of the job to see the data.
 - GET https:// adeffxapi.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/status
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Status by ID
- 3. <u>Get Results by Job ID-</u> This endpoint allows you to pull data from a specific request from the queue using the job id.
 - GET https://adeffxapi.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/result
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Result by ID

Demographic

Version 1

- o <u>Get Demographics</u>: This endpoint returns the demographic data for a specific study.
 - GET https://user:password@adeffxapi.comscore.com/vCE/1.0/Study/{StudyId}/Report/Demographic.{Format}
 - Documentation: https://adeffx-api.comscore.com/vCE/v1.0/help#v1.0_CE_Demographic

Version 2

- <u>Get Demographics</u>: This endpoint returns demographic data for the specified combination of Campaigns and Clients IDs.
 - POST https://user:password@adeffx-api.comscore.com/ vCE/v2.0/Report/GetDemographic.{Format}?
 PopulationId={PopulationId}&StartDate={StartDate}&EndDate={EndDate}&ClientCampai gns={ClientCampaigns}&ViewByType={ViewByType}
 - Documentation : https://adeffxapi.comscore.com/vCE/v2.0/help#v2.0_CE_GetDemographic

Version 3

- 1. <u>Post Demographics-</u> This endpoint allows you to submit a reporting request for an available client/campaign configuration to retrieve the demographic data from the Key Metrics Report.
 - POST https:// adeffxapi.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/Demographic
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Post Demographic

- 2. <u>Get Job Status</u>- This endpoint allows you to retrieve the job status for the reporting request, once completed you can get the results of the job to see the data.
 - GET https:// adeffxapi.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/status
 - Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Status by ID
- 3. <u>Get Results by Job ID-</u> This endpoint allows you to pull data from a specific request from the queue using the job id.
 - GET https:// adeffxapi.comscore.com/vCE/v3.0/clients/{clientId}/jobs/reporting/{jobId}/result
 - o Documentation: http://adeffx-api.comscore.com/api/v3/help/#Get Result by ID

OR

- 1. <u>Post Local Market by Study-</u> Posts a reporting request to the queue for the Frequency report type using a Study.
 - POST https:// adeffx-api.comscore.com/vCE/v3.0/ clients/{clientld}/jobs/reporting/studies/{studyld}/Demographic
 - Documentation: http://adeffxapi.comscore.com/api/v3/help/#Post%20Demographic%20by%20Study

** Repeat steps 2 & 3 for getting the job status and results

Other 1.0 API Calls

The following API calls from 1.0 can all now be called using the Key Metrics endpoint in version 3:

- Creative Detail- in Key Metrics add AllCreatives in ViewbyType input
- Placement Detail- in Key Metrics add AllPlacements in ViewbyType input
- Flighting- in Key Metrics add Daily in TimePeriod input
- Impression Scorecard, Reach Opportunity, and Target Efficiency- all metrics are available in Key Metrics and can have ViewbyType adjusted to the following dimensions:
 - Total, Publisher, CreativeFormat, CreativeSize, CreativeType, PlacementStrategies, CreativeStrategies, AllPlacements, AllCreatives, AllPlacementDetails, AllCreativeDetails.

API Features in Version 1-3

API Features	1.0	2.0	3.0
Uses REST API	\checkmark	\checkmark	\checkmark
JSON Response	\checkmark	\checkmark	\checkmark
1.0 and 2.0 connector	×	\checkmark	\checkmark
Same API calls for different countries	×	×	\checkmark
Sharing data through API endpoint	×	×	\checkmark
Study Creation and wizard changes through API	×	×	\checkmark
GET data, POST data request, PUT changes, and DELETE data.	Only Get	X Only Get	V
Data for start/end dates different than study	×	\checkmark	\checkmark
Report process queueing	×	×	\checkmark
Permission users via the API	×	X	\checkmark
PUT/POST/DELETE placement/creative/strategy mappings	×	×	\checkmark
Fewer Time-outs and Errors	×	×	\checkmark
Submitting batch requests	X	X	\checkmark
	• •	•••	•
Click to enter footnote			

Reporting Terms

API and vCE Terms

- **Datasets:** A client and campaign id combination that has been selected for reporting and lives outside of studies. This report structure was introduced in the version 3 API as a way to retrieve campaign reporting via the API without having to go into the UI and create a study. Typically used for "virtual studies" that aren't available within the AdEffx UI.
- **Projects:** A shell that is used to hold multiple or single studies that defines the client and campaign id mappings, dimension (site, placement, creative) mappings, strategy assignments and the campaign dates. The project can also be used to define project goals, a product category, and an Advertiser name. Each new project is assigned a project id, typically 5 numbers that can be used to locate it within the UI or within various API calls. EX: 52069
- **Studies:** A study must be created within a project in order to process reporting that can be referenced in the UI and via the API. A study is where you would define the date range of the reports, the primary and secondary target, and the geographic location of the study. Please see the metadata section for demographic options and countries available for reporting. Each new study is assigned a study id, typically 5 numbers that can be used to locate it within the UI or within various API calls. Ex: 54199
 - *NOTE:* Studies are limited to a 92 day date range.
- **Campaigns (c3):** The c3 parameter is located within the comScore AdEffx Tag and represents the campaign id, order id, site alias id, or any other campaign identifier that is specific to the ad server that is being used to serve the creative. The campaign id is very important in order to distinguish each campaign and map for reporting.
- **Placements (c5):** A placement, ad slot, or slice of inventory that represents a specific area or areas on a site that the creatives display on. The placement is captured via the c5 parameter in the comScore AdEffx tag and is specific to the Ad Server that the creative is being served through.
- Creatives (c4): The c4 parameter is located within the comScore Adeffx Tag and represents the creative id or ad id. The creative id is assigned through the Ad Server that the ad is trafficked and served through.
- **Strategies:** Also referred to as a group, but is a collection of placement or creative id's that are bucketed to represent a specific cut of data for measurement outside of the creative and placement formats. Some examples of strategies are located in the appendix.
- Queues: Within the version 3 API there is a processing and reporting queue for each client to manage jobs and reporting requests to eliminate errors and give clients the flexibility of managing and prioritizing their requests for campaign data. Every 6 seconds comScore will check the queue to see if there are any reporting requests and will pull in these requests for processing and add it to the queue. If there is nothing in the queue it goes straight to processing and then will move to completed or erred status.
- **Jobs:** A job is assigned a unique id for each processing and reporting request that is submitted. A user is able to use this job id to check on the status of the job and to retrieve the data once completed.

- Client id (c2): The client id is a numeric id that is assigned by comScore and represents a client or account. This value is located within the comScore tag and is hardcoded within the tag when it's sent for trafficking through the client Ad Server.
- **Children**: This is the term for ALL Children and will read true if it's viewable to the user to retrieve data and false if it's not viewable to that user in the following scenarios:
 - Access to all campaigns under a Client id
 - Access to all studies for a project
 - Access to all groups (publishers and strategies) in a study
- **Read:** Read access is set on a study level and allows users to view the reporting data. This does not allow you to make changes to the reporting details.
- Write: Write access gives you the ability to make projects, studies, and datasets as well as adding and adjusting project, study and campaign settings.
- **Groups/Group ID:** Represent a specific grouping of placement or creative id's which include: Publishers, Placement Strategies, or Creative Strategies. vCE allows a max of 1,000 groupings per campaign or study. Each group will have a numeric id assigned to it, which can be used for accessing data.
 - Group ID's can be used to pull data reporting in the following reports: Frequency, Geo Market, Local Market
- View by Type: Type for viewing the report; this option can be selected in various reports to see data for all of your dimensions.
 - Possible values are: Total, Publisher, Creative Format, Creative Size, Creative Type, Placement Strategies, Creative Strategies, All Placements, All Creatives, All PlacementDetails, All CreativeDetails.
 - You can use View By Type input in the following reports: Key Metrics, Demographics, and Behavioral Targets.
- **Population ID** (int): Numeric representation of the country from where impressions were collected, e.g. 840
- Start Date (string): Start date for the report; the Format (string) is MM-dd-yyyy
- End Date (string): End date for the report; the Format (string) is MM-dd-yyyy
- Status: The status for a given Campaign and its mapping status. Typically you will only see a campaign receiving data when it's had the Ad Server Reports set up to be emailed to adreports@comscore.com and does not have any impact on mappings made through the API. The various status messages are the following:
 - Receiving Data
 - Status Number= 2
 - Used to signify if a campaign has Ad Server mappings that have mapped to the placement and creative id's
 - No Data
 - Status Number= 0

- Used to signify when a campaign id does not have ad server mappings, so you will not see any placement names, creative names or site name mappings in the returned data
- **Demographic ID:** Numeric representation of the Demographic Name, i.e. 101=males 18-20
- Demographic Name: Demographic category e.g. Male Age
- Demographic Member ID: Numeric representation of the Demographic Member name. e.g. 987
- Demographic Member Name: Demographic sub-category e.g. Male 25-34
 - Custom member types are used to define a study's primary or secondary targets, e.g. Males 18-24, Males 25-34. Non-Custom member types are used for more detailed demographic reporting, e.g. Males 18+, Males 25-34. Demographic Members are also country specific.
- Is Edit Allowed: Designates if a study has completed or not and is locked for editing. If "Is Edit Allowed" equals false, then the user may not make modifications to the project for the study to rerun since it's already ended. This includes changing the study dates, making mappings, or adding campaign id's to the project details to affect the study. If "Is Edit Allowed" equals true, the user can make changes to the study or dataset to have it reprocess with the changes.
- Only Show Groups: This input allows you to filter data to the top level details in the report for a Publisher. So instead of returning the publisher and all of its placement details with the View By Type= Publisher, you can add the "Only Show Groups=true" to see only publisher data. This is an optional input to the API call.
- **Response Media Type:** An optional input that allows you to define the response type, which will default to 'application/json'. The media type must match your accept header type.

FAQ's

What are the differences we should be aware of when calling vCE 1.0 vs. 2.0 studies?

Here are some of the key differences when calling 1.0 vs 2.0 methodology studies:

Key Metrics Report:

- Flexible dates are not available: the start date and end date need to match with the study dates
- Target inputs/changes are not available: the endpoint returns the primary target only for 1.0, so it does not consider the target parameter passed by the user
- All Placement Details /All Creative Details are not available for time period daily: we have detail data only for time period "None"
- Non supported metrics: in v1.0 we don't support some metrics, for these metrics the endpoint returns -1

Frequency Report:

• Different frequency ranges: for studies v2.0 the endpoint returns 1-2, 3-4, 5-6,7-8, 9-14, 15+ and single frequency bands if the study start date is after 4/1/15: 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16+. For v1.0 it returns 1-2, 3-4, 5-6, 7-8, 9+

Permissions:

Client Campaign permission: For studies in v1.0 the client and campaign id permissions are not considered, so a user that doesn't have access to the study will not be able get report data, even if he/she has full access to the campaign id in the Campaign Performance Report.

What time zone is the API set to? When is the best time of day to call vCE data?

The API utilizes the same time zone as the UI, GMT. The best time to call the API is typically before or after business hours (EST).

Where can I get a list of the demographic targets that are available for my campaign?

Under the metadata section of the Help page, there is an API call for GET Demographic Member IDs. In order to see the available demographic targets, you will need to add the start date of the campaign and the population id. This is because targets change and vary by country, so we must have these two required inputs to lookup the applicable targets to pass back in the response.

Does a Dataset have a unique id like a study id that I can use for pulling reporting?

No, Datasets do not have a unique id assigned to it. When it's submitted for processing and has completed, you can then go to submit a reporting request for that client/campaign combination and with that you'll receive a job id.

Are there any times of the day when the API is not usable?

No, the API should be available to all clients regardless of the time of day. If the API is not responding, you can use the Get Health Endpoint to see if the API is down. Contact your Client Services representative if you continue to have issues or errors accessing the API.

Can I call multiple studies with one API call?

It depends on what type of information you're looking to access.

If a study is set up in the UI but there's no data in it, does the API call's response look the same as it would if the study wasn't created in the first place?

The API Response will be data: [], if there is no data in it. In v3, if a user tries to create a reporting job by study id, and the study does not exist, you will get a message saying 'Study Does Not Exist'.

How do I get API access to a Project/Study (my own study and/or an agency study)?

Users can now leverage the UI to share through the wizard settings or within the Campaign Performance and Project Performance Reports. Additionally, users can now grant access through the API to projects and studies. See the section on permissioning for more details.

What is a "virtual study"?

A virtual study is another term for dataset or client/campaign configuration. Essentially it is the ability to request a report for a client/campaign combination without it creating a study in the UI. This capability is unique to the version 3 API. Previously in the older API versions, a user was not able to request campaign data unless a study had been created in the UI for it. Now they have the flexibility of creating a report in both places and do not need to have one created in the UI to access the data. The same turnaround times for data still apply.

What is the difference between processing jobs and reporting jobs?

Processing jobs are used to create a 'virtual study' as explained above. It is used to create a dataset for data that has not been processed. Reporting jobs are used to retrieve results from an already processed dataset, I.E., either from an existing study in UI or from a 'virtual study'.

When does data refresh/when is the best time to programmatically set my API calls to pull in updated data?

vCE runs on GMT time zone and we process all reporting changes within 24 hours from the end of the business day. There is no set best time to call the API, however we recommend setting it up during off non-business hours.

Should data pulled from the API match exactly what is in the interface?

Yes, the data in the UI should match to the data pulled from the API as long as they are referencing the same dataset for the same date range, population, and targets. The UI and API pull from the same tables, so the data should always match.

Is there an API for the Ad Validation interface?

No there is not, currently we only support the Audience reporting and will eventually look to adding on Ad Validation reports sometime in 2015.

What is the mapping API? Will it alleviate the need to set up daily performance reports?

The mapping API is the ability to map placement, site and creative names via the API without having to log into the UI or set up daily performance reports. This feature can be used in lieu of the daily performance reports that are set up through ad servers. The mapping API also enables users to map placement and creative custom strategies into groupings of their choice; e.g., Display Ads vs Video Ads.

What is the 1.0 to 2.0 connector? Does this mean that 2.0 methodology is applied to international studies?

There are variances between the metrics and reporting structure in 1.0 and 2.0 studies, aside from the methodology update. The connector enabled users to be able to access data from either a 1.0 or 2.0 study using the same API call. This does not mean that 2.0 methodology was applied to any international studies, unless that country has moved to the 2.0 methodology within the date range that the data was pulled.

If I submit a reporting job for a study with a data through till today, do I need to resubmit the job 2 days later, to get updated data thru?

Yes, when you submit a job it will always have the same data so you'll have to resubmit or update it in order to get new data. The job can be reposted using the repost endpoint; please see the Version 3 API Calls list below for more information.

Version 3 API Calls

Client Campaign Creatives

Description: All API calls related to pulling creative details.

API Call	String	Description
Get Campaign Creative	clients/{clientId}/campaigns/{campaignId}/creative	Gets all creative for a
		campaign. Example
Post Campaign Creative	clients/{clientId}/campaigns/{campaignId}/creative	Add creative details
		(name, size). Example
Get Campaign Creative	clients/{clientId}/campaigns/{campaignId}/creatives/{creativeId}	See details for a
		creative id. Example
Put Campaign Creative	clients/{clientId}/campaigns/{campaignId}/creatives/{creativeId}	Update a creative
		details. Example

Client Campaign Placements

Description: All API calls related to pulling placement details.

API Call	String	Description
Get Campaign Placement	clients/{clientId}/campaigns/{campaignId}/placements	Gets all placements for
		a campaign. Example
Post Campaign Placement	clients/{clientId}/campaigns/{campaignId}/placements	Add placement details
		(name, site). Example
Put Campaign Placement	clients/{clientId}/campaigns/{campaignId}/placements/{place	Update a placements
	mentId}	details. Example
Get Campaign Placement	clients/{clientId}/campaigns/{campaignId}/placements/{place	See details for a
	mentId}	placement id. Example

Client Campaigns

Description: All API calls related to pulling campaign level details for reporting.

API Call	String	Description
Get Campaigns	clients/{clientId}/campaigns/from/{from}/to/{t	Returns all campaigns for a client.
	o}	Example
Get Datasets	clients/{clientId}/campaigns/datasets	Returns all Client/Campaign configurations available for reporting. Example

Get Datasets after a date	clients/{clientId}/campaigns/startDate/{startD	Returns all Client/Campaign
	ate}/datasets	configurations available for reporting
		from a start date. Example
Get Datasets between dates	clients/{clientId}/campaigns/startDate/{startD	Returns all Client/Campaign
	ate}/endDate/{endDate}/datasets	configurations available between a
		date range. Example
Get Datasets by Campaign	clients/{clientId}/campaigns/{campaignId}/da	Returns all datasets available with a
	tasets	specific campaign id. Example
Get Datasets by Campaign	clients/{clientId}/campaigns/{campaignId}/sta	Returns all datasets with a campaign
after a date	rtDate/{startDate}/datasets	id from a start date. Example
Get Datasets by Campaign	clients/{clientId}/campaigns/{campaignId}/sta	Returns all datasets with a campaign
between dates	rtDate/{startDate}/endDate/{endDate}/datase	id between dates specified. Example
	ts	
Get Datasets until a date	clients/{clientId}/campaigns/endDate/{endDa	Returns all client/campaigns available
	te}/datasets	for reporting before an end date.
		Example
Get Datasets by Campaign	clients/{clientId}/campaigns/{campaignId}/en	Returns a campaign that has datasets
until a date	dDate/{endDate}/datasets	available until an end date. Example

Client Campaign Users

Description: All API calls related to viewing and permissioning user level access to campaigns.

API Call	String	Description
Get Users by Campaign	clients/{clientId}/campaigns/{campaignId}/users	Gets all users with access
		to a campaign. Example
Get User access to Campaign	clients/{clientId}/campaigns/{campaignId}/users/{	Gets the user access
	userId}	levels to a campaign id.
		Example
Grant User access to Campaign	clients/{clientId}/campaigns/{campaignId}/users/{	Grant a user access to a
	userId}	campaign id. Example
Remove User access to Campaign	clients/{clientId}/campaigns/{campaignId}/users/{	Remove a user's access
	userId}	to a campaign id. Example

Client Jobs Processing

Description: All API calls related to submitting processing jobs for new campaigns and datasets (outside of studies).

API Call	String	Description
Submit Processing Job	clients/{clientId}/jobs/processing	Submits a processing
		request to the queue.
		Example
Get Processing Jobs	clients/{clientId}/jobs/processing	Returns a list of queued jobs
		to be processed. Example
Get Processing Job	clients/{clientId}/jobs/processing/{jobId}	Returns a specific job or
		processing request from the
		queue by id. Example
Update Processing Job	clients/{clientId}/jobs/processing/{jobId}	Update a processing request
		in the queue by job id.
		Example

Delete Processing job	clients/{clientId}/jobs/processing/{jobId}	Deletes a processing
		request from the queue by
		id. Example

Client Jobs Reporting

Description: All API calls related to submitting reporting jobs for data from existing studies or datasets (client/campaign configurations) created via the API. It is highly recommended that you add the "responsetypemedia" within the input to ensure that your results are returned in a timely manner and reduces time-outs for large responses.

API Call	String	Description
Post Keymetrics	clients/{clientId}/jobs/reporting/KeyMetrics	Submits a report request for Key Metrics using campaign id or study id. Example
Post Frequency	clients/{clientId}/jobs/reporting/Frequency	Submits a report request for Frequency breaks. Example
Post LocalMarket	clients/{clientId}/jobs/reporting/LocalMarket	Submits a report request for Local Market in US only. Example
Post GeoMarket	clients/{clientId}/jobs/reporting/GeoMarket	Submits a report request for Geographic Market. Example
Post Demographic	clients/{clientId}/jobs/reporting/Demographic	Submits a report request for Demographic data. Example
Post Behavioral Segment	clients/{clientId}/jobs/reporting/BehavioralSegment	Submits a report request for Behavioral Segment data. Example
Post Keymetrics by Study	clients/{clientId}/jobs/reporting/studies/{studyId}/KeyM etrics	Submits a report request for Key Metrics using study id. Example
Post Frequency by Study	clients/{clientId}/jobs/reporting/studies/{studyId}/ Frequency	Submits a report request for Frequency breaks. Example
Post LocalMarket by Study	clients/{clientId}/jobs/reporting/studies/{studyId}/Local Market	Submits a report request for Local Market in US only. Example
Post GeoMarket by Study	clients/{clientId}/jobs/reporting/studies/{studyId}/Geo Market	Submits a report request for Geographic Market.
Post Demographic by Study	clients/{clientId}/jobs/reporting/studies/{studyId}/Dem ographic	Submits a report request for Demographic data. Example
Post Behavioral Segment by	clients/{clientId}/jobs/reporting/studies/{studyId}/Beha	Submits a report request for
Study	vioralSegment	Behavioral Segment data. Example
Re-Post by Job ID	clients/{clientId}/jobs/reporting/{jobId}/repost	Delete and re-post a reporting job that might have erred previously. Example
Get Reporting	clients/{clientId}/jobs/reporting	Returns a list of queued requests to be reported. Example

Get Reporting by ID	clients/{clientId}/jobs/reporting/{jobId}	Returns a specific request from the queue by job id. Example
Delete Reporting by ID	clients/{clientId}/jobs/reporting/{jobId}	Removes a reporting request from the queue by id. Example
Put Reporting (Edit)	clients/{clientId}/jobs/reporting/{jobId}	Updates a specific reporting request in the queue by id. Example
Get Status by ID	clients/{clientId}/jobs/reporting/{jobId}/status	Returns the status of a reporting request from the queue by id. Example
Get Result by ID	clients/{clientId}/jobs/reporting/{jobId}/result	Returns the completed results with data using the job id submitted. Example

Client Project

Description: All API calls related to creating, updating, or deleting a new project.

API Call	String	Description
Post Project	clients/{clientId}/projects	Creates a new project
		available in the UI and via
		the API. Example
Get Projects	clients/{clientId}/projects	Retrieves a list of all projects
		that are viewable to that
		user. Example
Delete Project	clients/{clientId}/projects/{projectId}	Deletes a project so it will no
		longer be available via the UI
		or API. Example
Put Project	clients/{clientId}/projects/{projectId}	Updates an existing project
		name, start date, end date,
		and other details. Example
Get Project	clients/{clientId}/projects/{projectId}	This returns all
		characteristics of a project
		and it's corresponding
		studies. Including campaign
		ids, placements, creative,
		site and strategy details.
		Example

Client Project Campaigns

Description: All API calls related to mapping a campaign id, removing a campaign id, or receiving a list of campaign id's mapped to a project.

API Call	String	Description
Get Project Campaigns	clients/{clientId}/projects/{projectId}/campaigns	This endpoint returns all campaign id's mapped to a specific project. It also shows if a campaign has mappings (status) or not. Example

Post Project Campaign	clients/{clientId}/projects/{projectId}/campaigns	Adds a new campaign id to a project. Example
Get Project Campaign	clients/{clientId}/projects/{projectId}/campaigns/{camp aignId}	Gets the campaign status of a mapped campaign to a project. Example
Delete Project Campaign	clients/{clientId}/projects/{projectId}/campaigns/{camp aignId}	Deletes a campaign id from a project mapping so it will not be part of reporting. Example

Client Project Creatives

Description: Returns the list of creatives for a project

API Call	String	Description
Get Project Creatives	clients/{clientId}/projects/{projectId}/creatives	This endpoint returns all creative details that are associated to a project.

Client Project Placements

Description: Returns the list of placements for a project

API Call	String	Description
Get Project Placements	clients/{clientId}/projects/{projectId}/placements	This endpoint returns all placement details that are associated to a project. Example

Client Project Studies

Description: All API calls related to creating, modifying, deleting and getting a list of studies with details that are associated to a project. This will return both 1.0 methodology and 2.0 methodology studies.

API Call	String	Description
Unlock Study	clients/{clientId}/projects/{projectId}/studies/{studyId}/ Unlock	This action unlocks a study that has already ended so that it can reprocess with the project or study definition changes. Example
Post Study	clients/{clientId}/projects/{projectId}/studies	Creates a new study and adds it to an existing project. A project must be created first to add a study. Example
Get Studies	clients/{clientId}/projects/{projectId}/studies	Gets a list of all studies that belong to a project. Details include the study name, dates, targets, and geo location. Example
Delete Study	clients/{clientId}/projects/{projectId}/studies/{studyId}	This endpoint deletes a study from a project so that it

		no longer receives reporting. Example
Put Study	clients/{clientId}/projects/{projectId}/studies/{studyId}	This endpoint will modify an existing study, including the name, dates, and if editing is allowed. Example
Get Study	clients/{clientId}/projects/{projectId}/studies/{studyId}	This endpoint will get the details of an individual study by id. Example
Get Studies after a Date	clients/{clientId}/projects/{projectId}/studies/startDate/ {startDate}	Returns a list of studies that started on or after a specific date. Example
Get Studies until a Date	clients/{clientId}/projects/{projectId}/studies/endDate/{ endDate}	Returns a list of studies that ended on or before a specific date. Example
Get Studies between Dates	clients/{clientId}/projects/{projectId}/studies/startDate/ {startDate}/endDate/{endDate}	Returns a list of studies that ran between two dates. Example

Clients

Description: Returns a list of all client ids that a user has access to and if they have access to all studies.

API Call	String	Description
Get Clients	clients	This endpoint returns all
		clients that the user has
		access to, including shared
		studies from other clients.
		Example

Client Strategies

Description: These API calls allow users to retrieve, modify, and delete strategies. Additionally, it allows users to see which placements and creative are unassigned and not mapped to a strategy yet so they can be updated.

API Call	String	Description
Get Strategies	clients/{clientId}/strategies	Returns a list of all strategies
		created for a client id, across
		campaigns. Example
Get Strategy	clients/{clientId}/strategies/{strategyName}	Returns a specific strategy
		with all id's that are mapped
		to it and the last modification
		date that changes have been
		made. Example
Put Strategy	clients/{clientId}/strategies/{strategyName}	Update a given strategy
		name. Example
Delete Strategy	clients/{clientId}/strategies/{strategyName}	Deletes a strategy and all
		related mappings. Example
Post Strategy Campaign	clients/{clientId}/strategies/{strategyName}/campaign	Maps a placement to a
Placement	s/{campaignId}/placements/{placementId}	strategy. Example

Delete Strategy Campaign Placement	clients/{clientId}/strategies/{strategyName}/campaign s/{campaignId}/placements/{placementId}	Deletes a placement id from a strategy. Example
Post Strategy Campaign	clients/{clientId}/strategies/{strategyName}/campaign	Maps a creative to a
Creative	s/{campaignId}/creatives/{creativeId}	strategy. Example
Delete Strategy Campaign	clients/{clientId}/strategies/{strategyName}/campaign	Deletes a creative id from a
Creative	s/{campaignId}/creatives/{creativeId}	strategy. Example
Get Strategy Campaigns	clients/{clientId}/strategies/{strategyName}/campaign	Gets all campaign ids that
	s/	are associated to a strategy.
		Example
Get Placement Strategies	clients/{clientId}/strategies/placements	Returns all placement
		strategies that have been
		created for a client. Example
Get Creative Strategies	clients/{clientId}/strategies/creatives	Returns all creative
		strategies that have been
		created for a client. Example
Get Strategy Placements	clients/{clientId}/strategies/{strategyName}/placement	Gets all placements for a
	S	given strategy. Example
Get Strategy Creatives	clients/{clientId}/strategies/{strategyName}/creatives	Gets all creative for a given
		strategy. Example
Get Strategy Campaign	clients/{clientId}/strategies/{strategyName}/campaign	Returns all placement ids
Placements	s/{campaignId}/placements	that are associated to one
		campaign id and belong to a
		specified strategy. Example
Get Unassigned Placements	clients/{clientId}/strategies/placements/unassigned	Gets all placement ids
		across all campaigns that
		have not been assigned to a
		strategy. Example
Get Unassigned Campaign	clients/{clientId}/strategies/campaigns/{campaignId}/p	Gets all placement ids from
Placements	lacements/unassigned	a single campaign and that
		have not been assigned to a
		strategy. Example
Get Unassigned Creatives	clients/{clientId}/strategies/creatives/unassigned	Gets all creative ids across
		all campaigns that have not
		Every le
		Example
Get Unassigned Campaign	clients/{clientid}/strategies/campaigns/{campaignid}/c	Gets all creative los from a
Creatives	realives/unassigned	single campaign and that
		stratogy Example
Get Strategy Campaign	clients//clientId\/strategies//strategyName\/campaign	Gets all creative ide that are
Creatives	c//campaign/d//creatives	Sets all cleative lus triat are
Cicalives	or tournpaigning/oreatives	across all campaigns
		Example
Get Campaign Strategies	clients/{clientId}/strategies/campaigns//campaignId}	Gets all strategies for a
Cor Campaign Strategies	one no to the number of a contraction of the second s	campaign Example

Client User Groups

Description: Returns a list of all the user groups that have been created for a client. Details the list of users that belong to each group.

API Call	String	Description
Get Client User Groups	clients/{clientId}/userGroups	This endpoint returns all user
		groups that belong to a client
		and can be used for
		permissioning data to.
		Example

Client Users

Description: All API calls related to granting, modifying or removing permissions to individual users that belong to a client.

API Call	String	Description
Get Users	clients/{clientId}/users	Gets all users associated to
		a client id to see who has
		read or write access to data.
		Example
Post User	clients/{clientId}/users	Grants permission to a user
		to a client, including read or
		write access and full or
		partial access to campaigns.
		Example
Get User	clients/{clientId}/users/{userId}	Gets access levels of an
		individual user. Example
Put User	clients/{clientId}/users/{userId}	Updates a user access level
		to data. Example
Delete User	clients/{clientId}/users/{userId}	Delete a user completely
		from a client so they can no
		longer access campaign
		data. Example

Health

Description: This API call will verify if the API is down or not for usage.

API Call	String	Description
Get Health	Health	This API call will return an
		"ok" message when
		everything is running
		properly. Example

Metadata

Description: These API calls will return all metadata details that are needed when submitting API calls.

API Call	String	Description
Get Input Types	metadata/inputTypes	Returns a list of the reports
		available. Example

Get Project Goals	metadata/projectGoals	Gets a list of the Project
		Goals that are available to
		assign to a project. For a list
		of the Goals, please see the
		appendix. Example
Get Advertisers	metadata/advertisers/search/{query}	Retrieve all list of Advertisers
		that have been used in
		project set up. This is an
		optional field. Example
Get Advertisers w/ Limits	metadata/advertisers/search/{query}/rowLimit/{limit}	Retrieves all Advertisers with
		a row limit to be used in
		project set up. Example
Get Advertiser	metadata/advertisers/{advertiserId}	Retrieves an Advertiser by
		an Advertiser ID to be used
		in project set up. Example
Get Products	metadata/advertiserProducts/search/{query}	Retrieves a list of products
		that have been used in past
		project set up. This is an
		optional field. Example
Get Product with Limit	metadata/advertiserProducts/search/{query}/rowLimit/	Retrieves all Products with a
	{limit}	row limit to be used in
		project set up. Example
Get Product	metadata/advertiserProducts/{advertiserProductId}	Retrieves a Product by a
		Product ID to be used in
		project set up. Example
Get Product Categories	metadata/productCategories	Retrieves a list of Product
		Categories to be used in
		project set up. This is an
		optional field. Example
Get Demographic Members	metadata/demographicMembers/clients/{clientId}/pop	Returns a list of all
	ulationId/{populationId}/startDate/{startDate}	demographic choices and
		id's to be used for setting up
		studies. The results will vary
		based on the population and
		start date, due to different
		options and methodologies.
		Example
Get Country List	metadata/countries	Returns a list of available
		countries and their country
		(population) id to be used in
		setting up studies. A study or
		data set can only have one
		population id assigned.
		Example

Project Permissioning

Description: These API calls should be used to give existing users, new users, and groups permission on the project level so that they can access all or some studies beneath it.

API Call	String	Description

Cat all waara with Draigat	and a stall and a stall live and	Deturne all veens that have
Get all users with Project	projects/{projectId}/users	Returns all users that have
Permission		permission to each study within
		a project and if they have
		read/write access to the study.
		Example
Get project permission for	projects/{projectId}/users/{userId}	Gets a specific users permission
Lleer		details for each study within a
0361		project Example
		project. Example
Remove all permission for a	projects/{projectId}/users/{userId}	Removes all permissions for a
user		specific user to a project and all
		of its studies. Example
Grant project permission by	projects/{projectId}/users/{userId}/writeaccess/{wri	Gives a user access to a project
user	teAccess}	to be able to make edits to the
		project and grant access to
		other users Example
Lindate project permission	projects/{projectId}/users/{userId}/writeAccess/{wri	Undates a user settings to a
by user	toAccess/(notricted/(restricted)	project and if they have write
by user	leAccess/resurced/{resurced}	project and if they have write
		access to make edits to the
Get all user groups with	projects/{projectid}/userGroups	Gets all user groups with
project permission		permission for each study of the
		project. Example
Get project permission for	projects/{projectId}/userGroups/{userGroupId}	Gets permissioning for a
user group		specific user group in each
		study of the project. Example
Remove all permission for a	projects/{projectId}/userGroups/{userGroupId}	Removes all permission for a
user group		specific user group in a project.
3		Example
Grant project permission by	projects/{projectId}/userGroups/{userGroupId}/writ	Grants permission for a specific
	eaccess//writeAccess}	user group in a project. Example
Lindata project permission	projecte/(project/d)/userCroups/(userCroup)d)/writ	Undetee permission for a
	projects/{projectid}/dserGroups/{dserGroupid}/with	
by user group	eAccess/{writeAccess}/restricted/{restricted}	specific user group in a project.
		Example
Grant project permission by	projects/{projectId}/email/{email}	Grants permission for a specific
Email invite		Email invite in a project.
		Example
Remove project permission	projects/{projectId}/email/{email}	Removes all permission for a
for an Email invite		specific Email invite in a project.
		Example
Get project permission for an	projects/{projectId}/email/{email}	Gets permissioning for a
Email invite	projecto/(projectio)/critaii/(critaii)	specific Email invite in each
		specific Entail Invite III each
		study of the project. Example
Update project permission	projects/{projectId}/email/{email}/restricted/{restrict	Updates permission for a
by Email invite	ed}	specific Email invite in a project.
		Example
Get all email invites for a	projects/{projectId}/email	Gets a list with all Email invites
project		for a specific project. Example

Study Permissioning

Description: These API calls should be used to give existing users, new users, and group's permission so that they can access one or multiple studies.

API Call	String	Description
Get all users with study	studies/{studyId}/users	Returns all users that have
Permission		permission to each study and if
		they have read/write access to
		the study. Example
Get all user groups with	studies/{studyId}/userGroups	Gets all user groups that have
study permission		permission to each study and if
		they have read/write access to
Cot study parmission for		Coto o oppositio uporo
Get study permission for	studies/{studyid}/dsets/{usetid}	permission details for a study
usei		Example
Remove all permission for a	studies/{studyId}/users/{userId}	Removes all permissions for a
user		specific user to a study.
		Example
Grant study permission by	studies/{studyId}/users/{userId}	Gives a user access to a study.
user		Example
Get study permission for	studies/{studyId}/userGroups/{userGroupId}	Gets a specific user groups
user group		permission details for a study.
		Example
Remove all permission for	studies/{studyId}/userGroups/{userGroupId}	Removes all permissions for a
user group		specific user group to a study.
Creat study permission by	otudioo/(otuduld)/ucorCroupo/(ucorCroupld)	Example
Grant study permission by	studies/{studyid}/userGroups/{userGroupid}	including new publishers
user group		access to a study Example
Remove group permission	studies/{studyld}/aroups/{aroupld}/users/{userId}	Removes user permission for a
for user		specific publisher in a study
		Example
Grant study permission by	studies/{studyId}/groups/{groupId}/users/{userId}	Gives a user access to a
user with cuts		publisher in a study Example
Remove group permission	studies/{studyId}/groups/{groupId}/userGroups/{use	Removes user group
for user group	rGroupId}	permission for a specific
		publisher in a study. Example
Grant study permission by	studies/{studyId}/groups/{groupId}/userGroups/{use	Gives a user group access to a
user group with cuts	rGroupId}	publisher in a study Example
Get Group List	studies/{studyId}/groups	Gets the list of publishers for a
		study Example
Grant study permission by	studies/{studyId}/email/{email}	Gives an email invitee access
Email Invite		to a study. Example
for an Empiliaryite	stuaies/{stuayia}/emaii/{emaii}	Removes all permissions for a
IOI AN EMAILINVILE		specific email invitee to a
Get study permission for an	studies/{study/d}/email/{email}	Gets specific email invitee
Email invite		permission details for a study
		Example

Remove study permission for an Email invite with cuts	studies/{studyId}/groups/{groupId}/email/{email}	Removes all permission for an email invitee to a publisher in a study Example
Grant study permission by Email invite with cuts	studies/{studyId}/groups/{groupId}/email/{email}	Gives an email invitee access to a publisher in a study Example
Get all Email invites for a study	studies/{studyId}/email	Returns all email invitees that have permission to a study and if they have read/write access to the study Example

APPENDIX

PC Metrics

Gross Terms:

- **Gross Impressions:** All Worldwide Tagged Impressions observed in the campaign during the reporting period; excluding spiders and bots from the IAB list, invalid browsers, and internal traffic. This reflects impression counts in IAB-compliant ad servers and browsers.
- **PC Impressions:** The number of Gross impressions served to a PC device only; excluding mobile and tablet.
- % PC Impressions: The % of Gross Impressions served to a PC device only, excluding mobile and tablet. % PC Impressions= PC Impressions/Gross Impressions
- **PC Human Impressions:** The number of PC impressions served to Humans and free of outlier activity. Outlier activities are flagged based on specific patterns that represent a signature of non-human generated traffic. These patterns are based on observations within the comScore census network, comScore AdEffx tagged impressions, and through the panel.
- % PC Human Impressions: The % of PC Impressions that are delivered to human* traffic, which excludes all outlier activity. % PC Human Imps= PC Human Impressions/PC Impressions
- In-Geo PC Impressions: The number of PC impressions served within the targeted country, excluding mobile and tablet.
- % In-Geo PC Impressions: The % of PC Impressions served in the targeted country, excluding mobile and tablet. % In-Geo PC Impressions= In-Geo PC Impressions/PC Impressions
- **In-Geo PC NHT:** Number of PC impressions served in the targeted country and is observed website traffic not generated intentionally by a human for the purposes of typical consumption.
- % In-Geo PC NHT: The % of PC impressions served in the targeted country and is observed website traffic not generated intentionally by a human for the purposes of typical consumption. % Non Human Imps= (In-Geo PC Impressions – In-Geo PC Human Impressions) / In-Geo PC Impressions
- **In-Geo PC Human Impressions:** The number of PC impressions served to Humans within the targeted country, excluding mobile, tablet, and outlier activity.
- **In-Geo PC UVs**: The number of PC Unique Viewers (i.e., de-duplicated) served within the targeted country, excluding mobile and tablet.
- **In-Geo PC Average Frequency**: The average number of PC impressions served in the targeted country to unique viewers in the campaign during the reporting period.
- **Target Efficiency**: An index that measures how well the campaign reached the target group as compared to the incidence of that target group on the Internet during the reporting period. Also referred to as Composition Index UV. 100 * (In-Target In-Geo PC UV's in Campaign / In-Geo PC UV's on Internet) / (In-Target In-Geo UV's on Internet)
- % Population Reach: Among the Total Census Population for the targeted country, the percentage who were reached by the campaign during the reporting period. For countries other than the United States, Canada, and Spain, this metric is available for demographic groups based on age and gender. % Population Reach = In-Geo PC Unique Views / Total Census Population
- Human GRP: Gross Rating Points (GRP) is based on the In-Geo PC Human impressions delivered to the Total Census Population for the targeted country. GRP= 100 * % Population Reach * In-Geo PC Average Frequency for the reporting period

- In-Target Impressions: The number of In-Geo PC Human Impressions that are served within your selected demo target.
- % In-Target Impressions: The % of In-Geo PC Impressions that are served to your selected demographic target. % In-Target Impressions= In-Target Impressions/In-Geo PC Human Impressions
- In-Target UVs: The number of In-Geo PC Unique Viewers that are served to your selected demo target.
- % In-Target UVs: The % of In-Geo PC Unique Viewers that are served to your selected demographic target. % In-Target UVs= In-Target UVs/In-Geo PC UVs
- TRP: Target Rating Points (TRP) is based on the In-Geo PC Human Impressions delivered to the Total Census Population in your selected demo target. For countries other than the United States, Canada, and Spain, this metric is available only for demographic groups based on age and gender. TRP= 100 * % Pop Reach for the Target Group * In-Target Average Frequency for the reporting period
- % Composition Impressions: % of Impressions that were delivered to that demographic group or target group. % Comp Imps Cell = in-Target Imps for that cell/Total Imps for that Cell
- % Composition UVs: % of Unique Viewers who were in that demographic group or target group.
 % comp UVs = In-Target UVs for that cell/Total UVs for that Cell

Validated Terms

- Validated Imps: The number of In-Geo PC Human Impressions that were determined as being at least 50% in-view for at least 1+ second and not blocked. For ads delivered in cross-domain iframes, viewability is measured for Firefox, Internet Explorer, and Chrome and projected for Safari.
- % Validated Imps: The % of In-Geo PC Human Impressions that are validated and free of blocks out of your validated impression universe.
- Validated UVs: The number of In-Geo PC Unique Views that were determined as being at least 50% in-view for at least 1+ second and not blocked. For ads delivered in cross-domain iframes, viewability is measured for Firefox, Internet Explorer, and Chrome and projected for Safari.
- Validated Average Frequency: The average number of validated impressions served to unique viewers in the campaign during the reporting period.
- Validated GRP: The Validated Gross Rating Points (vGRP) is based on the validated impressions delivered to the Total Census Population for the selected country.
- Validated In-Target Imps: The number of validated impressions that are served within your selected demo target.
- % Validated In-Target Imps: The % of validated Impressions that are served in your selected demo target out of your validated impression universe.
- Validated In-Target UVs: The number of validated unique views that are served within your selected demo target.
- % Validated In-Target UVs: The % of validated Unique Views that are served in your selected demo target.
- Validated TRP: The Validated Target Rating Points (vTRP) is based on the validated impressions delivered to the Total Census Population for the selected demo target and country. For countries other than the United States, Canada, and Spain, this metric is available only for demographic groups based on age and gender.

- % Validated In-Target Population Reach: Among the Total Census Population for the targeted country and served to your selected demo target, the percentage of Validated In-Target UVs who were reached by the campaign during the reporting period. For countries other than the United States, Canada, and Spain, this metric is available for demographic groups based on age and gender.
- Validated In-Target Average Frequency: The average number of validated impressions that are served in-target to unique viewers in the campaign during the reporting period.
- Validated Imp Universe: The number of PC Human Impressions free of blocks for which viewability can be determined and served within your targeted country, I.e., all Javascript-tagged impressions. For ads delivered in cross-domain iframes, viewability is measured for Firefox, Internet Explorer, and Chrome and projected for Safari.
- **% Validated Population Reach:** Among the Total Census Population for the targeted country, the percentage of validated Unique Views who were reached by the campaign during the reporting period. For countries other than the United States, Canada, and Spain, this metric is available for demographic groups based on age and gender.

Project Goals

Project goals are optional inputs to add to your project to keep track of the campaign goal.

Project Goal ID	Project Goal Name	Goal Definition
1	Online Trial	Campaign focused on getting people to sign up for an online
		trial such as signing up for a free test month of an online
		service.
2	Online Site Action	Campaign focused on getting people to take some sort of site
		action such as configuring a vehicle or requesting a quote.
3	Online New Product Sale	Campaign focused on the sale of a newly launched online
		product such as a new Netflix direct to TV offering
4	Online Existing Product Sale	Campaign focused on the sale of an existing online product
		such as signing up for Netflix service
5	Online CRM Data Acquisition	Campaign focused on acquiring customer data (zip codes,
		emails, etc.) for the purposes of remarketing such as getting
		people to join a recipe club
6	Offline Trial	Campaign focused on trial of an offline product such as giving
		away samples of a new cereal
7	Offline New Product Sale	Campaign focused on the sale of a newly launched offline
		product such as a new car model launch
8	Offline Existing Product Sale	Campaign focused on the sale of an existing offline product
		such as getting people to buy an existing car
9	Corporate Image Campaign	Campaign focused on conveying a favorable corporate/brand
		image (e.g. Toyota makes trustworthy cars or Glaxo saying
		they keep you healthy) often seen addressing an image
		problem in light of a recall, legislative action, an industry
		associate issue or corporate goodwill - these do not promote
		a specific product and are not common

Optional Input